

# U.S. Department of Housing and Urban Development

451 Seventh Street, SW Washington, DC 20410 www.hud.gov

espanol.hud.gov

# **Environmental Review for Activity/Project that is Categorically Excluded Subject to Section 58.5**

Pursuant to 24 CFR 58.35(a)

# **Project Information**

Project Name: JST COVID-19 Emergency Housing

Responsible Entity: Jamestown S'Klallam Tribe

**Grant Recipient** (if different than Responsible Entity): NA

State/Local Identifier: NA

**Preparer:** Robert Knapp, JST Environmental Planning Manger

Certifying Officer Name and Title: W. Ron Allen, Tribal Chair/CEO

**Grant Recipient** (if different than Responsible Entity): NA

Consultant (if applicable): NA

**Direct Comments to:** Robert Knapp, rknapp@jamestowntribe.org

Project Location: 290 Zaccardo Road, Sequim, WA 98382. Legal Description: Lots 1 and 2 of Mottis Short Plat recorded October 5, 2017 In Volume 35 of Short Plats, Page 46, under Auditor's File No. 2017-1355736, being a Portion of the Northeast Quarter of the Southeast Quarter of Section 12, Township 29 North, Range 3 West, W.M. Clallam County.

Note: Lot 1 and Lot 2 combined are the project area and the property to be acquired. To our knowledge, Clallam County has only issued one address assigned to these two parcels.



#### **Description of the Proposed Project** [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

Jamestown S'Klallam Tribe will use awarded HUD ICDBG-ARP funds to purchase property that is located at 290 Zaccardo Rd., Sequim, WA. The property is near the Tribal Government Administration building and the Social and Community Services Department and Housing Program. The property already has in place infrastructure for 7 RV hookups. JST will best utilize the site by placing two Park Model Modular-Tiny Homes the Tribe has already purchased for the purpose of providing temporary housing to support out-of-area healthcare workers. The other 4 RV spaces will be available for those with their own RV. The existing housing structure (1,110 estimated square footage) will be rehabilitated to be used as an Emergency Center to provide a Wi-Fi hotspot and offices space for Frontline Medical Workers, and additional housing as needed. Rehabilitation is expected to include: update electrical, modify existing laundry room, replace roof, gutters, flooring, and update the interior. The project will not cause an increase in development density (same number of sites) or change in use -residence is currently used to support the RV park and will continue to do so. The rehab will not result in ground disturbance.

#### **Level of Environmental Review Determination:**

Categorically Excluded per 24 CFR 58.35(a), and subject to laws and authorities at §58.5: and 24 CFR 58.35(a)(1)

## **Funding Information**

<b>Grant Number</b>	HUD Program	Funding Amount
22RP5306970	ICDBG-ARP	\$1,035,000.00

#### **Estimated Total HUD Funded Amount:**

\$1,035,000

**Estimated Total Project Cost** (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$1,035,000 plus \$300,000.00 (cost of two park model RVs) in additional non-HUD funding.

# Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6 Follow Hyperlinks to worksheets	Are formal compliance steps or mitigation required?	Compliance determinations
--	---	---------------------------

STATUTES, EXECUTIVE OF & 58.6	RDERS, AND	REGULATIONS LISTED AT 24 CFR 50.4
Airport Hazards  24 CFR Part 51 Subpart D  Worksheet	Yes No	Project site is outside of all Airport Runway Clear Zones and Accident Potential Zones. There are no FAA-designated airports within 3,000 feet or DOD military airfields within 2-½ miles of the subject property as determined by NEPA Assist maps. The project is in compliance with 24 CFR Part 51 Subpart D
Coastal Barrier Resources  Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]  Worksheet	Yes No	There are no Coastal Barrier Resource Areas in Washington, Oregon, Alaska, or Idaho. Therefore, the Act does not apply. The project is in compliance with Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]  Worksheet	Yes No	The project site is outside the 100-year floodplain, Zone A or V, on the draft digital FIRM developed by FEMA. Therefore, this project complies with the Flood Disaster Protection Act. FEMA map #5300210545D, effective 12/05/1989. The project is in compliance with Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a].
STATUTES, EXECUTIVE OF & 58.5	RDERS, AND	REGULATIONS LISTED AT 24 CFR 50.4
Clean Air  Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93  Worksheet	Yes No	The project area is located within an "attainment" area according to the National Ambient Air Quality Standards Map. Therefore, this project complies with the Clean Air Act. The project is in compliance with Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes No	WA Dept. Of Ecology has concluded that it is unnecessary for the U.S. Department of Housing and Urban Development to continue to send project information in order to receive Ecology's concurrence that the

Worksheet		funding phase of the project is consistent with Washington's CZMP. The project is in compliance with Coastal Zone Management Act, sections 307(c) & (d)
Contamination and Toxic Substances  24 CFR Part 50.3(i) & 58.5(i)(2)  Worksheet	Yes No	Contaminated soil was found onsite away from the RV sites and associated residence. All known contamination above the WA State Cleanup level was removed and properly disposed of. Proactively asphalt grindings which can contain and leach toxic substances, were also removed and properly disposed of. Environmental Professional completed and supervised all work and provided a final remediation report including final test results demonstrating remaining soils in the cleanup areas are below cleanup levels for known contaminates, therefore the <i>project is in compliance with 24 CFR Part</i> 50.3(i) & 58.5(i)(2).
Endangered Species  Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402  Worksheet	Yes No	The proposed project is an acquisition of developed residential lot and existing structure. No land use changes will occur, so the project does not affect federally protected, threatened, or endangered species and habitats. The project is in compliance with Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402.
Explosive and Flammable Hazards  24 CFR Part 51 Subpart C  Worksheet	Yes No	The Acceptable Separation Distance Assessment Tool calculated acceptable distances all less than the distance between the project site and closest above ground fuel storage. The <i>project is in compliance with</i> 24 CFR Part 50.3(i) & 58.5(i)(2).
Farmlands Protection  Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658  Worksheet	Yes No	An AD 1006 form was filled out and sent to NRCS for completion. The total site assessment points were less than 160 and therefore mitigation is not required. The project is in compliance with Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658.
Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes No	Draft FIRM maps show that the subject property is not within a FEMA-designated Special Flood Hazard Area. The <i>project is in</i>

Worksheet		compliance with Executive Order 11988, particularly section 2(a); 24 CFR Part 55.
Historic Preservation  National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800  Worksheet	Yes No	DAHP was sent an EZ 1 and EZ 2 form. The response included the opinion that the property is not eligible for listing in the National Register of Historic Places and no historic properties will be affected by the current project. All Tribes listed in the TDAT were sent notices. The Jamestown THPO provided input and oversite to the environmental review and provided the only Tribal response under this section. The project is in compliance with National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800.
Noise Abatement and Control  Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B Worksheet	Yes No	NEPAssist tool shows the project site is more than 1,000ft from a major roadway, 15 miles of military or civil airfields, and 3,000ft from a railroad. The project is in compliance with Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B.
Sole Source Aquifers  Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149  Worksheet	Yes No	This project is not located within a U.S. EPA-designated sole source aquifer watershed area as shown in EPA ArcGIS Sole Source Aquifers map. The project is in compliance with 3Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149.
Wetlands Protection  Executive Order 11990, particularly sections 2 and 5  Worksheet	Yes No	There are no mapped wetlands within the project site and the project does not involve new construction or expansion of existing buildings. Therefore, the project complies with EO 11990. The <i>project is in compliance with Executive Order 11990, particularly sections 2 and 5.</i>
Wild and Scenic Rivers  Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)  Worksheet	Yes No	There are no designated Wild and Scenic Rivers in Clallam County, WA. Wild and Scenic Rivers Classification Table. The project is in compliance with Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c).
ENVIRONMENTAL JUSTIC	<u>E</u>	

<b>Environmental Justice</b>	Yes No	No adverse environmental impacts will
Executive Order 12898  Worksheet		result from the project activity. The project will provide Frontline Medical workers with housing that meets the tribe's housing quality standards. The project is in compliance with Executive Order 12898

**Virtual Site Inspection** (Date and completed by): February 7, 2023- Tribal staff met virtually with Brian Sturdivant (HUD- Field Environmental Officer) and reviewed proposed project description, environmental conditions, level of review using web maps and other resources.

#### **Field Inspection** (Date and completed by):

- February 8, 2023- Initial site inspection with realtors: Robert Knapp (Env. Planning Manager) and Ann Jagger (Housing Program Manager)
- April 4, 2023- Phase I Env. Site Assessment: Robert Knapp, Jenna Ziogas (Tribal Response Program Lead), Ann Jagger, ESA & Associates.
- May 2, 2023- Phase II Env. Site Assessment: Jenna Ziogas, Allie Taylor (Tribal Historic Preservation Officer), and ESA & Associates,
- June 6 -7, 2023- Remediation/Site Clean-up: Jenna Ziogas and ESA & Associates.

#### **Summary of Findings and Conclusions:**

Overall finding: The project is compliance with all of the law and authorities based on the mitigation and conditions below. The project remains CEST but does not convert to Exempt see determination below. See Appendix A for all completed worksheets and supporting maps.

Summary of finding: After extensive evaluation and performing the required and recommended studies, analysis, calculations, and consultations as outlined in the HUD environmental review worksheets (attached below), the RE concluded that mitigation was required for Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2). Soil contamination mitigation is completed. **Approval of the Environmental Review is conditioned on providing safe drinking water supply to occupants**. See additional conditions below. As mitigated and conditioned, the project complies with all other laws and authorities without mitigation.

<u>Mitigation Summary</u>: The required Phase I Environmental Site Assessment (<u>Appendix B</u>) performed by an appropriate certified and experienced environmental professional (Washington State licensed geologist) determined that Recognized Environmental Conditions (RECs) on the property required additional investigation.

A Phase II Environmental Site Assessment was planned and implemented by the Environmental Professional (Sampling and Analysis Plan- Appendix D). The Phase II ESA report (Appendix C) indicated that mitigation was required for Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2). A Sampling and Analysis Plan (SAP- Appendix F) was developed by the Environmental Professional.

With permission of the landowner, an environmental site cleanup was completed. The cleanup was performed under the supervision of the Environmental Professional, using properly trained personnel, and following the SAP. Approximately 19 cubic yards of benzene impacted soils were removed and transported off site to Lewis County Landfill in Washing State. Approximately 10 tons of asphalt grindings were removed and transported to a recycling facility in Tumwater, Washington.

Sampling points of compliance were achieved by taking discrete sidewall and base samples from the final limits of the remedial excavation. The post clean up sampling result found no contamination that required additional actions. An Environmental Site Assessment Phase III – Remediation Report (<u>Appendix E</u>) stated that no further action is necessary.

Water samples were taken as a precaution from both wells on the property and in one of the wells, lead was detected above Washington State's DOH action level. Water will require treatment and/or filtering prior to human consumption until the property is connected to a new water source.

#### **Conditions**:

This environmental review and determination are also conditioned on the following:

Well (W-2) is not safe for human consumption. Appropriate treatment, filtration, or alternate safe water supply must be provided to residents prior to use for human consumption. No HUD associated occupants shall reside on the property prior to these changes.

At the earliest possible time, the following recommendations from the Environmental Professional should be completed:

"The concentration for total lead in well (W-2) on the subject property is well above the Washington State's DOH action level of 15  $\mu$ g/l. According to the new Lead and Copper Rule established by the U.S. Environmental Protection Agency (EPA), if a sample taken from a home has a result over 15 ppb of lead, the water system must notify occupants of the home within three days, so that steps to reduce lead exposure can be taken immediately. Notification of tap sample results under 15 ppb will occur within 30 days. If there is a systemwide action level exceedance, water systems will notify all customers within 24 hours and provide educational materials within 60 days. Water systems will also notify homeowners and building owners about opportunities to replace lead service lines, including information about financial assistance programs, if available, to help pay for replacing the customer-owned side of the line. The well water in (W-2) may also require treatment and/or filtering prior to human consumption. ESA Associates recommends further sampling of both wells prior to acquisition."

Use or Habitation of the residence is conditioned on completion of asbestos and lead testing and any required abatement of the residence after the landowner has permanently vacated the premises and prior to re-occupancy, renovation, or reuse of the residence and associated structures.

Note: Relocation of individuals displaced by this action are subject to HUD relocation rules and the Universal Relocation Act. Link for additional resources: Real Estate Acquisition and Relocation - HUD Exchange

These conditions should not delay or stop the purchase of the property by the Tribe or implementation of the placement of Park model RVs and frontline workers in RVs.

Additional Note: While not strictly part of the environmental review it is important to note that significant amounts of fill are placed on subject property in areas away from the existing development. This fill-material was determined to include organic matter and is not structural or engineered fill. Any future development of the areas that contain fill will require geotechnical review to ensure the suitability of the fill materials to support the intended development.

## **Mitigation Measures and Conditions [40 CFR 1505.2(c)]**

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Following the completion of Phase I and ESA Phase II Environmental Site Assessments, the Environmental Professional developed and implemented a mitigation/remediation plan.  Water samples found total lead levels above state standards and mitigation (treatment, filtration, or substitute water supply are conditions of this ERR).  All known soil contaminants above WA State Cleanup (MTCA) standards were removed and properly disposed of. Also proactively removed and properly disposed of asphalt grindings. Post removal sampling was conducted. (See
	worksheet below and associated report summaries. See also Sampling & Analysis Plan.)

#### **Determination:**

This categorically excluded activity/project converts to Exempt, per 58.34(a)(12) because there are
no circumstances which require compliance with any of the federal laws and authorities cited at
§58.5. Funds may be committed and drawn down after certification of this part for this (now)
EXEMPT project; OR
This categorically excluded activity/project cannot convert to Exempt because there are circumstances which require compliance with one or more federal laws and authorities cited at §58.5. Complete consultation/mitigation protocol requirements, publish NOI/RROF and obtain
"Authority to Use Grant Funds" (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR
This project is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Preparer Signature: Robert Knapp	Date: <u>June 27, 2023</u>
Name/Title/Organization: Robert Knapp/Environmenta S'Klallam Tribe	l Planning Manager/Jamestown
Responsible Entity Agency Official Signature:	
W. Ron alla	Date: <u>June 27, 2023</u>
Name/Title: W. Ron Allen	

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

# Appendix A: Completed HUD ERR Worksheets (including WA **State Specific Worksheets.**

Airport Hazards (CEST and EA)

General policy	Legislation	Regulation
It is HUD's policy to apply standards to		24 CFR Part 51 Subpart D
prevent incompatible development		
around civil airports and military		
airfields.		
	References	
https://www.hudexchange.info/environmental-review/airport-hazards		

ŀ	https://www.hudexchange.info/environmental-review/airport-hazards
1.	To ensure compatible land use development, you must determine your site's proximity to civil and military airports. Is your project within 15,000 feet of a military airport or 2,500 feet of a civilian airport?  ☑ No → Based on the response, the review is in compliance with this section. Continue to
	the Worksheet Summary below. Provide a map showing that the site is not within the applicable distances to a military or civilian airport.
	☐ Yes → Continue to Question 2.
2.	Is your project located within a Runway Potential Zone/Clear Zone (RPZ/CZ) or Accident Potential Zone (APZ)?
	☐ Yes, project is in an APZ → Continue to Question 3.
	$\square$ Yes, project is an RPZ/CZ $ o$ Project cannot proceed at this location.
	$\square$ No, project is not within an APZ or RPZ/CZ
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within either zone.
3.	Is the project in conformance with DOD guidelines for APZ?

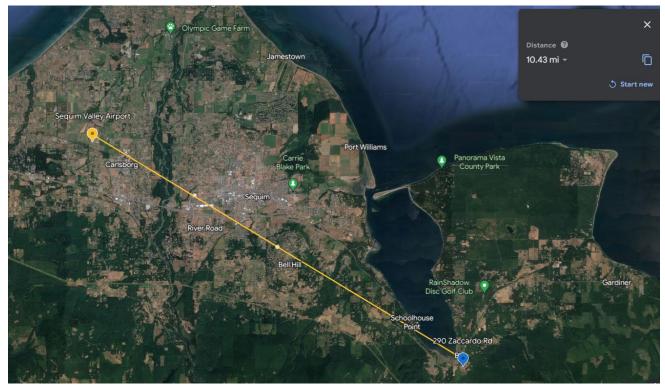
 $\hfill\square$  Yes, project is consistent with DOD guidelines without further action.

**Explain how you determined that the project is consistent:** 

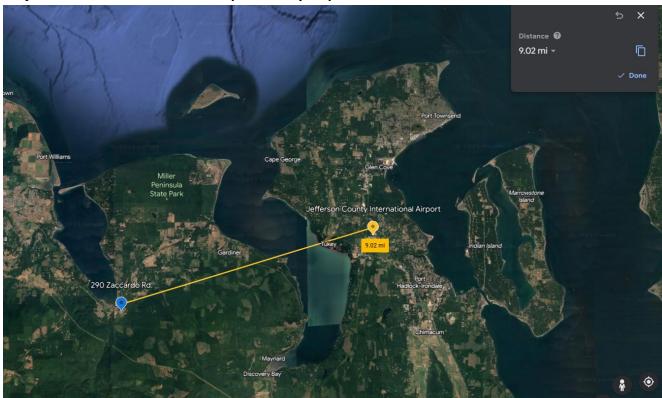
There is no military or civilian airport within 15,000ft of the project. Therefore, the project is in compliance.

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.
□ No, the project cannot be brought into conformance with DOD guidelines and has no been approved. → Project cannot proceed at this location.
☐ Project is not consistent with DOD guidelines, but it has been approved by Certifyin Officer or HUD Approving Official.
Explain approval process:
If mitigation measures have been or will be taken, explain in detail the propose measures that must be implemented to mitigate for the impact or effect, including th timeline for implementation.
→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting this determination.
Worksheet Summary Compliance Determination Provide a clear description of your determination and a synopsis of the information that it was based on, such as:  • Map panel numbers and dates • Names of all consulted parties and relevant consultation dates NEPAssist 02/28/2023 • Names of plans or reports and relevant page numbers • Any additional requirements specific to your region
Are formal compliance steps or mitigation required?  □ Yes
⊠ No

Project site is not within 15,000 feet of a military airport or 2,500 feet of a civilian airport



Project site is 10.43 miles from Sequim Valley Airport



**Project site is 9.02 miles from Jefferson County International Airport.** 

#### Coastal Barrier Resources (CEST and EA)

General requirements	Legislation	Regulation		
HUD financial assistance may not	Coastal Barrier Resources Act			
be used for most activities in units	(CBRA) of 1982, as amended			
of the Coastal Barrier Resources	by the Coastal Barrier			
System (CBRS). See 16 USC 3504 for	Improvement Act of 1990 (16			
limitations on federal expenditures	USC 3501)			
affecting the CBRS.				
References				
https://www.hudexchange.info/environmental-review/coastal-barrier-resources				

#### Projects located in the following states must complete this form.

Alabama	Georgia	Massachusetts	New Jersey	Puerto Rico	Virgin Islands
Connecticu t	Louisiana	Michigan	New York	Rhode Island	Virginia
Delaware	Maine	Minnesota	North Carolina	South Carolina	Wisconsin
Florida	Maryland	Mississippi	Ohio	Texas	

#### 1. Is the project located in a CBRS Unit?

Federal assistance for most activities may not be used at this location. You must either choose an alternate site or cancel the project. In very rare cases, federal monies can be spent within CBRS units for certain exempted activities (e.g., a nature trail), after consultation with the Fish and Wildlife Service (FWS) (see <a href="https://doi.org/10.150/j.cs/16.15

 $\square$  Yes  $\rightarrow$  Continue to Question 2.

#### 2. Indicate your selected course of action.

- ☐ After consultation with the FWS the project was given approval to continue
  - → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map and documentation of a FWS approval.
- ☐ Project was not given approval

  Project cannot proceed at this location.

#### **Worksheet Summary**

## **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

Not Required in Washington State	
Are formal compliance steps or mitigation required?	
☐ Yes	
⊠ No	

#### Flood Insurance (CEST and EA)

General requirements	Legislation	Regulation		
Certain types of federal financial assistance may	Flood Disaster	24 CFR 50.4(b)(1)		
not be used in floodplains unless the community	Protection Act of	and 24 CFR		
participates in National Flood Insurance Program	1973 as amended	58.6(a) and (b);		
and flood insurance is both obtained and	(42 USC 4001-4128)	24 CFR 55.1(b).		
maintained.				
Reference				
https://www.hudexchange.info/environmental-review/flood-insurance				

1.	Does this project involve mortgage insurance, refinance, acquisition, repairs, construction or rehabilitation of a structure, mobile home, or insurable personal property?  □ No. → This project does not require flood insurance or is excepted from flood insurance → Continue to the Worksheet Summary.
2.	Provide a FEMA/FIRM map showing the site.  The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Mag Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs). For projects in areas not mapped by FEMA, use the best available information to

(FIRMs). For projects in areas not mapped by FEMA, use the best available information to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site. Provide FEMA/FIRM floodplain zone designation, panel number, and date within your documentation.

Is the structure, part of the structure, or insurable property located in a FEMA-designated Special Flood Hazard Area?

$\boxtimes$	No -	→ Co	ntinue	to the	Works	heet Si	ummar	y.
	Yes	$\rightarrow cc$	ontinue	e to Qu	estion	<i>3</i> .		

3. Is the community participating in the National Flood Insurance Program *or* has less than one year passed since FEMA notification of Special Flood Hazards?

☐ Yes, the community is participating in the National Flood Insurance Program.
For loans, loan insurance or loan guarantees, flood insurance coverage must be continued
for the term of the loan. For grants and other non-loan forms of financial assistance, flood
insurance coverage must be continued for the life of the building irrespective of the
transfer of ownership. The amount of coverage must equal the total project cost or the
maximum coverage limit of the National Flood Insurance Program, whichever is less
Provide a copy of the flood insurance policy declaration or a paid receipt for the current
annual flood insurance premium and a copy of the application for flood insurance.

- → Continue to the Worksheet Summary.
- ☐ Yes, less than one year has passed since FEMA notification of Special Flood Hazards. If less than one year has passed since notification of Special Flood Hazards, no flood Insurance is required.
  - → Continue to the Worksheet Summary.
- □ No. The community is not participating, or its participation has been suspended.
  Federal assistance may not be used at this location. Cancel the project at this location.

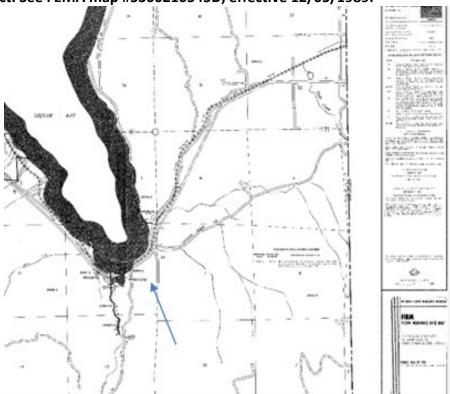
#### **Worksheet Summary**

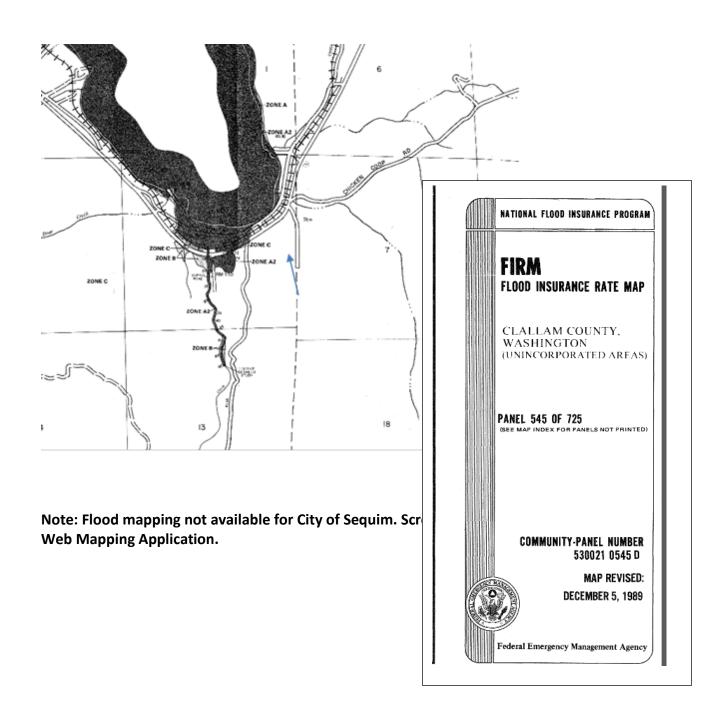
#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates Map# 5300210545D 12/05/1989
- Names of all consulted parties and relevant consultation dates Robert Knapp
- Names of plans or reports and relevant page numbers None
- Any additional requirements specific to your region **None**

This project is located outside the 100-year floodplain, Zone A or V, on the draft digital FIRM being developed by FEMA. Therefore, this project is in compliance with the Flood Disaster Protection Act. See FEMA map #5300210545D, effective 12/05/1989.







# Are formal compliance steps or mitigation required?

 $\square$  Yes

 $\boxtimes$  No

# Air Quality (CEST and EA)

General Requirements	Legislation	Regulation
The Clean Air Act is administered by the	Clean Air Act (42 USC	40 CFR Parts 6, 51
U.S. Environmental Protection Agency	7401 et seq.) as	and 93
(EPA), which sets national standards on	amended particularly	
ambient pollutants. In addition, the Clean	Section 176(c) and (d)	
Air Act is administered by States, which	(42 USC 7506(c) and (d))	
must develop State Implementation Plans		
(SIPs) to regulate their state air quality.		
Projects funded by HUD must demonstrate		
that they conform to the appropriate SIP.		
Re	ference	
https://www.hudexchange.info/environmer	ntal-review/air-quality	

# Sco

	Reference
https:	//www.hudexchange.info/environmental-review/air-quality
Scope	of Work
1.	Does your project include new construction or conversion of land use facilitating the development of public, commercial, or industrial facilities OR five or more dwelling units?
	⊠ Yes
	→ Continue to Question 2.
	□ No
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.
Air Qua	ality Attainment Status of Project's County or Air Quality Management District
2.	Is your project's air quality management district or county in non-attainment or maintenance status for any criteria pollutants?
	Follow the link below to determine compliance status of project county or air quality management district:
	http://www.epa.gov/oaqps001/greenbk/
	⋈ No, project's county or air quality management district is in attainment status for all criteria pollutants
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.
	$\square$ Yes, project's management district or county is in non-attainment or maintenance status for one or more criteria pollutants.

#### Describe the findings:

→ Continue to Question 3.

3. Determine the estimated emissions levels of your project for each of those criteria pollutants that are in non-attainment or maintenance status on your project area. Will your project exceed any of the de minimis or threshold emissions levels of non-attainment and maintenance level pollutants or exceed the screening levels established by the state or air quality management district?

□ No, the project will not exceed de minimis or threshold emissions levels or screening levels

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Explain how you determined that the project would not exceed de minimis or threshold emissions.

- ☐ Yes, the project exceeds *de minimis* emissions levels or screening levels.
  - → Continue to Question 4. Explain how you determined that the project would not exceed de minimis or threshold emissions in the Worksheet Summary.
- 4. For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

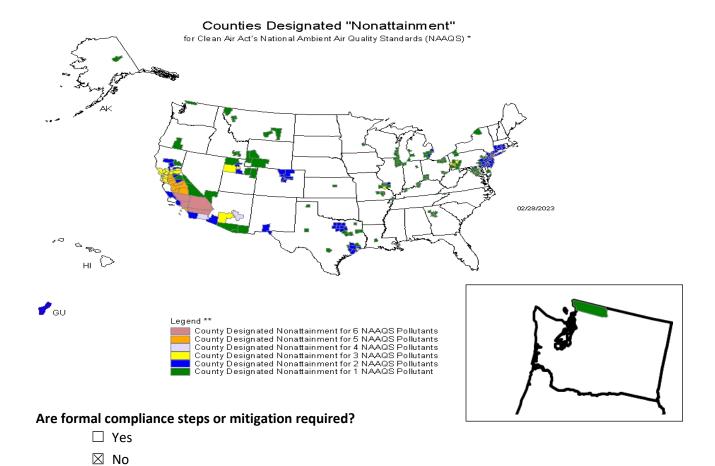
#### **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers The National Ambient Air Quality
   Standards "Counties Designated 'Nonattainment' Map" 02/28/2023
- Any additional requirements specific to your region

The project area is in attainment with the National Ambient Air Quality Standards.



Coastal Zone Management Act (CEST and EA)

General requirements	Legislation	Regulation		
Federal assistance to applicant	Coastal Zone Management	15 CFR Part 930		
agencies for activities affecting	Act (16 USC 1451-1464),			
any coastal use or resource is	particularly section 307(c) and			
granted only when such	(d) (16 USC 1456(c) and (d))			
activities are consistent with				
federally approved State Coastal				
Zone Management Act Plans.				
References				
https://www.onecpd.info/environmental-review/coastal-zone-management				

Projects located in the following states must complete this form.

 $\square$  Yes, with mitigation.  $\rightarrow$  Continue to Question 4.

Program?

Alabama	Florida	Louisiana	Mississippi	Ohio	Texas
Alaska	Georgia	Maine	New Hampshire	Oregon	Virgin Islands
American Samona	Guam	Maryland	New Jersey	Pennsylvania	Virginia
California	Hawaii	Massachusetts	New York	Puerto Rico	Washington
Connecticut	Illinois	Michigan	North Carolina	Rhode Island	Wisconsin
Delaware	Indiana	Minnesota	Northern Mariana Islands	South Carolina	

1.	Is the project located in, or does it affect, a Coastal Zone as defined in your state Coastal Management Plan?
	☐ Yes → Continue to Question 2.
	⋈ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing that the site is not within a Coastal Zone.
2.	Does this project include activities that are subject to state review?
	☐ Yes → Continue to Question 3.
	$\square$ No $\Rightarrow$ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination.
3.	Has this project been determined to be consistent with the State Coastal Management

☐ Yes, without mitigation. → Based on the response, the review is section. Continue to the Worksheet Summary below. Provide documents of the worksheet Summary below. Provide documents of the worksheet Summary below.	•
$\square$ No, project must be canceled.	
Project cannot proceed at this location.	
<u> </u>	
4. Explain in detail the proposed measures that must be implemen impact or effect, including the timeline for implementation.	ted to mitigate for the
<ul> <li>Continue to the Worksheet Summary below. Provide consultation (including the State Coastal Manageme consistency) and any other documentation used to make</li> </ul>	ent Program letter of
Worksheet Summary Compliance Determination Provide a clear description of your determination and a synopsis of the i based on, such as:	nformation that it was
Map panel numbers and dates: NA	
<ul> <li>Names of all consulted parties and relevant consultation dates: F below.</li> </ul>	IUD has provided quote
<ul> <li>Names of plans or reports and relevant page numbers: NA</li> </ul>	
<ul> <li>Any additional requirements specific to your region: NA</li> </ul>	
"Ecology has concluded that it is unnecessary for U.S. Department of Housing and Urban Development (HUD) to continue to send project information in order to receive Ecology's concurrence that the funding phase of the project is consistent with Washington's CZMP. Therefore, we are writing to inform you that HUD no longer needs to require applicants to send Ecology letters seeking our concurrence on projects for which HUD plans to release federal funding."	
Are formal compliance steps or mitigation required?             Yes	

⊠ No

Contamination and Toxic Substances (Multifamily and Non-Residential Properties)

	General requirements	Legislation	Regulations			
	It is HUD policy that all properties that are being		24 CFR 58.5(i)(2)			
	proposed for use in HUD programs be free of		24 CFR 50.3(i)			
	hazardous materials, contamination, toxic					
(	chemicals and gases, and radioactive substances,					
,	where a hazard could affect the health and safety					
(	of the occupants or conflict with the intended					
1	utilization of the property.					
	Reference					
	https://www.hudexchange.info/programs/environmental-review/site-contamination					

tr	os://www.hudexchange.info/programs/environmental-review/site-contamination
1.	How was site contamination evaluated? 1 Select all that apply.
	□ ASTM Phase I ESA
	□ ASTM Phase II ESA
	⋈ Remediation or clean-up plan
	☐ ASTM Vapor Encroachment Screening
	$\square$ None of the above
	→ Provide documentation and reports and include an explanation of how site
	contamination was evaluated in the Worksheet Summary.
	Continue to Question 2.
_	
2.	• • •
	could affect the health and safety of project occupants or conflict with the intended
	use of the property? (Were any recognized environmental conditions or RECs
	identified in a Phase I ESA and confirmed in a Phase II ESA?)
	□ No
	Explain:
	$\rightarrow$ Based on the response, the review is in compliance with this section.
	Continue to the Worksheet Summary below.
	∀es.
	→ Describe the findings, including any recognized environmental conditions
	(RECs), in Worksheet Summary below. Continue to Question 3.

## 3. Mitigation

Document the mitigation needed according to the requirements of the appropriate federal, state, tribal, or local oversight agency. If the adverse environmental effects cannot be mitigated, then HUD assistance may not be used for the project at this site.

# Can adverse environmental impacts be mitigated? □ Adverse environmental impacts cannot feasibly be mitigated → Project cannot proceed at this location. ☑ Yes, adverse environmental impacts can be eliminated through mitigation. → Provide all mitigation requirements² and documents. Continue to Question 4.

4. Describe how compliance was achieved. Include any of the following that apply: State Voluntary Clean-up Program, a No Further Action letter, use of engineering controls<sup>3</sup>, or use of institutional controls<sup>4</sup>.

The site remediation was accomplished by removing the target analyte (benzene) from a burn pile by excavating the impacted soil and transporting it to a licensed landfill. Sampling points of compliance were achieved by taking discrete sidewall and base samples from the final limits of the remedial excavation. The Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA) Method A cleanup level for benzene was used to achieve site cleanup. The site will be entered into Ecology's ERTS and assigned a site ID. After an initial Investigation (II), we anticipate a NFA memo to be filed, and the site removed from Ecology's database.

# If a remediation plan or clean-up program was necessary, which standard does it follow?

$\boxtimes$	Complete removal
$\rightarrow$	Continue to the Worksheet Summary.
	Risk-based corrective action (RBCA)
$\rightarrow$	Continue to the Worksheet Summary

#### **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

Excerpts from *Phase 1 Environmental Site Assessment Mottis Property 290 Zaccardo Road Sequim, WA 98382* conducted on April 21,2023 by ESA Associates, Inc.

"Our 2023 Phase I ESA of the Mottis Property did reveal current Recognized Environmental Concerns (RECs) associated with the subject property. There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property....

In our opinion, significant data gaps were encountered during this assessment (note: a "data gap" is defined in the E1527-21 Standard as "a lack or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information."). The data gaps are as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records; 2) the current owner's answers to our questions regarding the past operations at the property did not match our site reconnaissance observations and historical aerial reviews; 3) the subject property has received large volumes of undocumented fill material over many years; and 4) the former owner was not available for an interview about past historical activities at the subject property. Mottis Property Phase I ESA 2023 Page 3 of 33 ESA Associates, Inc. These data gaps create significant breaches in our historical interpretation of past activities at the subject property that may have resulted in the release of hazardous substances or petroleum products. Further investigation or corrective action is needed in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use. We recommend a Phase II ESA on the subject property to determine whether the fill material could affect the health and safety of occupants or conflict with the intended utilization of the property. We also recommend exploring the northern side of the home for a possible underground heating oil storage tank."

# Excerpts from Phase 2 Environmental Site Assessment Mottis Property 290 Zaccardo Road Sequim, WA 98382 conducted on May 26, 2023 by ESA Associates, Inc.

"Eleven areas of concern were explored during our Phase II ESA. Based on the chemical analytical results, benzene, is present in the soil at concentrations above the MTCA Method A cleanup level in the burn pit located in the western portion of the subject property. An area 10 feet by 10 feet in plan dimensions and reaching a total depth of two feet below ground surface (bgs) requires

remediation. Based on these measurements, ten tons of contaminated soil will require removal and disposal at an appropriate facility.

One additional area of concern was discovered where asphalt grindings have been buried on the southwestern portion of the subject property. Petroleum hydrocarbons and cPAHs were detected beneath a two foot layer of asphalt grindings found just below the surface. Ecology does not regulate asphalt grindings as a solid waste when it is recycled back into new asphalt pavement and roads under specific conditions. If these conditions are not met (such as is the case on the subject property), then asphalt grindings are solid waste and subject to Ecology's solid waste regulations.

Asphalt grindings may pose a risk to the environment because of potential exposure to the carcinogenic compounds contained in the asphalt binder. Also the heavy oil present in the asphalt grindings have the potential to leach into the underlying soils. For this reason, and based on the data we collected from the test pit (MTP-7), we recommend the removal of the asphalt grindings to minimize the potential release of these fine particles into the environment."

**4.5 MTP-5:** Northeastern Side of Residence (Former Potential UST) The area of TP-5 was identified by ESA Associates as a potential location of a former UST on the northeastern side of the residence. ESA Associates used a track mounted excavator to excavate the soil down to 6 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-5) was selected from the test pit at four feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons screen by Ecology's Method NWTPH-HCID.

**4.6 MTP-6: Northwestern Side of Residence (Former Potential UST)** The area of MTP-6 was identified by ESA Associates as a potential location of a former UST on the northwestern side of the residence. ESA Associates used a track mounted excavator to excavate the soil down to 6 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-6) was selected from the test pit at three feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons quantified as diesel and Phase II ESA Mottis Property Page 12 of 25 ESA Associates, Inc. 2023 heavy oil since the target analytes were petroleum hydrocarbons potentially released from a heating oil tank.

Are formal compliance steps or mitigation required?					
⊠ Y	es:				
	No				

Excerpts from Phase III ESA: Remediation Report Mottis Property 290 Zaccardo Road Sequim, WA 98382 conducted on June 6, 2023 by ESA Associates, Inc.

#### 1.1 MTP-4 Burn Pit

ESA Associates remediated the area designated MTP-4 where the land owner had burned household garbage on the western portion of the subject property. Soil impacted by the VOC, benzene, was brought above ground and temporarily stockpiled at the edge of the excavation. The final limits of the remedial excavation measure 10 feet by 10 feet in plan dimensions and reached a total depth of three feet below ground surface (bgs). Groundwater was not encountered. Approximately 10 cubic yards of benzene impacted soil was removed from the remedial excavation and transported to a licensed landfill in Lewis County.

The confirmation soil samples collected during the remedial activities of area MTP-4 were analyzed for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX). Chemical analytical results of the soil samples collected from the remedial excavation indicated that BTEX was non-detect in all five soil samples analyzed from the remedial excavation.

#### 1.2 MTP-7 Buried Asphalt

ESA Associates directed the removal of buried asphalt identified in MTP-7 on the western portion of the subject property. The asphalt was covered by one foot of clean soil. The asphalt was encountered from one foot bgs to two feet bgs. The asphalt was brought above ground and temporarily stockpiled at the edge of the excavation. The final limits of the excavation measured 13 feet by 14 feet in plan dimensions and reached a total depth of three feet bgs. Groundwater was not encountered. Approximately 10 tons of asphalt grindings were removed from the area of MTP-7 and disposed of it at a recycling facility in Tumwater, Washington.

The confirmation soil samples collected beneath the layer of asphalt were analyzed for petroleum hydrocarbons quantified as diesel and heavy oil and cPAHs. Chemical analytical results of the soil samples collected from the excavation indicated that petroleum hydrocarbons quantified as diesel and heavy oil and cPAHs were non-detect in all five soil samples analyzed from the sidewalls and base of the excavation

#### 1.3 Water Sampling

The on-site water wells (W-1 and W-2) were sampled on June 7, 2023. The water samples were analyzed for the following contaminants: Total petroleum hydrocarbons, VOCs, SVOCs, MTCA-5 metals, and cPAHs.

Chemical analytical results for total metals in well (W-2) contained concentrations of arsenic (1.54  $\mu$ g/l), chromium (2.93  $\mu$ g/l), cadmium (0.254  $\mu$ g/l), and lead (122  $\mu$ g/l). The concentrations of arsenic, chromium, and cadmium are well below the MTCA Method A cleanup levels of 5  $\mu$ g/l, 2,400  $\mu$ g/l, and 5  $\mu$ g/l, respectively, and below the DOH MCLs of 10  $\mu$ g/l, 100  $\mu$ g/l, and 5  $\mu$ g/l, respectively. Mercury was not detected above the laboratory detection limits. The concentration for total lead in well W-2 is well above the Washington State's DOH action level of 15  $\mu$ g/l. The dissolved concentration for lead in water sample W-2 was 6.91  $\mu$ g/l, which is well below the applicable MCTA Method A cleanup level of 15  $\mu$ g/l.

For that reason, the well water will require treatment and/or filtering prior to human consumption. No other action is necessary for well (W-2) on the subject property.

See Appendix E: Phase III – Environmental Site Assessment – Remediation Report for full report.

Endangered Species Act (CEST and EA)

General requirements	ESA Legislation	Regulations				
Section 7 of the Endangered Species Act (ESA)	The Endangered	50 CFR Part				
mandates that federal agencies ensure that	Species Act of 1973	402				
actions that they authorize, fund, or carry out	(16 U.S.C. 1531 et					
shall not jeopardize the continued existence of	seq.); particularly					
federally listed plants and animals or result in	section 7 (16 USC					
the adverse modification or destruction of	1536).					
designated critical habitat. Where their actions						
may affect resources protected by the ESA,						
agencies must consult with the Fish and Wildlife						
Service and/or the National Marine Fisheries						
Service ("FWS" and "NMFS" or "the Services").						
References						
https://www.hudexchange.info/environmental-review/endangered-species						

Does the project involve any activities that have the potential to affect species or habitats?

 No, the project will have No Effect due to the nature of the activities involved in the project.
 → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

 No, the project will have No Effect based on a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office.

 Explain your determination:

 → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.
 □ Yes, the activities involved in the project have the potential to affect species and/or habitats. → Continue to Question 2.

 $\hfill\square$  No, the project will have No Effect due to the absence of federally listed species and designated critical habitat.

Obtain a list of protected species from the Services. This information is available on the FWS

2. Are federally listed species or designated critical habitats present in the action area?

<u>Website</u> or you may contact your <u>local FWS</u> and/or <u>NMFS</u> offices directly.

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation may include letters from the Services, species lists from the Services' websites, surveys or other documents and analysis showing that there are no species in the action area.

	☐ Yes, there are federally listed species or designated critical habitats present in the action area. → Continue to Question 3.
3.	What effects, if any, will your project have on federally listed species or designated critical habitat?
	□ No Effect: Based on the specifics of both the project and any federally listed species in the action area, you have determined that the project will have absolutely no effect on listed species or critical habitat.
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination. Documentation should include a species list and explanation of your conclusion, and may require maps, photographs, and surveys as appropriate.
	<ul> <li>□ May Affect, Not Likely to Adversely Affect: Any effects that the project may have on federally listed species or critical habitats would be beneficial, discountable, or insignificant.</li> <li>→ Continue to Question 4, Informal Consultation.</li> </ul>
	<ul> <li>□ Likely to Adversely Affect: The project may have negative effects on one or more listed species or critical habitat.</li> <li>→ Continue to Question 5, Formal Consultation.</li> </ul>
4.	Informal Consultation is required Section 7 of ESA (16 USC. 1536) mandates consultation to resolve potential impacts to endangered and threatened species and critical habitats. If a HUD-assisted project may affect any federally listed endangered or threatened species or critical habitat, then compliance is required with Section 7. See 50 CFR Part 402 Subpart B Consultation Procedures.
	Did the Service(s) concur with the finding that the project is Not Likely to Adversely Affect?
	<ul> <li>☐ Yes, the Service(s) concurred with the finding.</li> <li>→ Based on the response, the review is in compliance with this section. Continue to Question 6 and provide the following:         <ul> <li>(1) A biological evaluation or equivalent document</li> <li>(2) Concurrence(s) from FWS and/or NMFS</li> <li>(3) Any other documentation of informal consultation</li> </ul> </li> </ul>
	Exception: If finding was made based on procedures provided by a letter of understanding, memorandum of agreement, programmatic agreement, or checklist provided by local HUD office, provide whatever documentation is mandated by that agreement.
	$\square$ No, the Service(s) did not concur with the finding. $\rightarrow$ Continue to Question 5.

5. Formal consultation is required

Section 7 of ESA (16 USC 1536) mandates consultation to resolve potential impacts to federally listed endangered and threatened species and critical habitats. If a HUD assisted project may affect any endangered or threatened species or critical habitat, then compliance is required with Section 7. See 50 CFR Part 402 Subpart B Consultation Procedures.

- → Once consultation is complete, the review is in compliance with this section. Continue to Question 6 and provide the following:
  - (1) A biological assessment, evaluation, or equivalent document
  - (2) Biological opinion(s) issued by FWS and/or NMFS
  - (3) Any other documentation of formal consultation

] No mi	tigation is r	necessary.			
Explain why mitigation will not be made here:					

#### **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

We determine that no endangered species are present on or around the project area. The project activities including the cleanup of the contamination will not affect endangered Species. Also note the project will not cause an increase in density or change in use from what is existing.

The Species Effects Analysis below was taken from a Biological Assessment completed using U.S. Fish and Wildlife iPAC tool.

# 1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
Bull Trout	Salvelinus confluentus	Threatened	No	NE
Dolly Varden	Salvelinus malma	Proposed Similarity of Appearance (Threatened)	Not Applicable	Not Applicable
Golden Paintbrush	Castilleja levisecta	Threatened	No	NE
Marbled Murrelet	Brachyramphus marmoratus	Threatened	No	NE
Monarch Butterfly	Danaus plexippus	Candidate	Yes	NE
Taylor's (=whulge) Checkerspot	Euphydryas editha taylori	Endangered	No	NE
Yellow-billed Cuckoo	Coccyzus americanus	Threatened	No	NE

#### 2 SPECIES EFFECTS ANALYSIS

This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).

These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.

#### 2.1 BULL TROUT

This species has been excluded from analysis in this environmental review document.

#### JUSTIFICATION FOR EXCLUSION

Jamestown S'Klallam tribe has done collected extensive data on fish bearing streams and created comprehensive habitat maps. The closest Bull trout stream is located in a different watershed from the project site and located 6.6 miles away.

#### 2.2 GOLDEN PAINTBRUSH

This species has been excluded from analysis in this environmental review document.

#### JUSTIFICATION FOR EXCLUSION

Due to residential and commercial development, Golden paintbrush has been extirpated from the area.

#### 2.3 MARBLED MURRELET

This species has been excluded from analysis in this environmental review document.

#### JUSTIFICATION FOR EXCLUSION

Marbled Murrelet only comes to land during breeding season and requires old-growth forest for nesting. The property has been cleared and does not contain and old-growth confiers.

#### 2.5 TAYLOR'S (=WHULGE) CHECKERSPOT

This species has been excluded from analysis in this environmental review document.

#### JUSTIFICATION FOR EXCLUSION

The site does not contain any host plants necessary for the life cycle of Taylor's Checkerspot.

#### 2.6 YELLOW-BILLED CUCKOO

This species has been excluded from analysis in this environmental review document.

#### JUSTIFICATION FOR EXCLUSION

The Yellow-billed Cuckoo has never been seen anywhere on the Olympic Peninsula. The species is mostly on the east coast and rarely crosses the Rockies.

# 2.4 Monarch Butterfly

#### 2.4.2 ENVIRONMENTAL BASELINE

The environmental baseline describes the species' health within the action area only at the time of the consultation, and does not include the effects of the action under review. Unlike the species information provided above, the environmental baseline is at the scale of the Action area.

#### 2.4.2.1 SPECIES PRESENCE AND USE

The Monarch Butterflies range is further south than the project site. Monarch Butterflies are not observed in the area.

#### 2.4.2.2 SPECIES CONSERVATION NEEDS WITHIN THE ACTION AREA

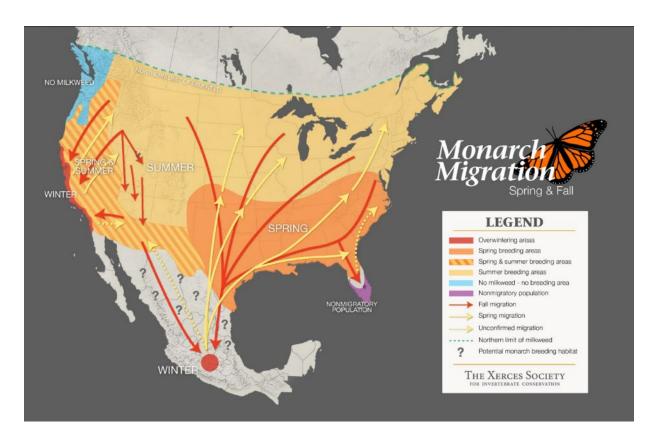
This won't be necessary considering monarch butterflies do not migrate this far north.

#### 2.4.2.3 HABITAT CONDITION (GENERAL)

The habitat condition for monarch butterflies is poor. Their required host plant does not grow in this region.

#### 2.4.2.4 INFLUENCES

As you can see from the linked map, Monarchs to not migrate to or breed on the north Olympic Peninsula.



# Are formal compliance steps or mitigation required?

 $\square$  Yes

⊠ No

Explosive and Flammable Hazards (CEST and EA)

General requirements	Legislation	Regulation		
HUD-assisted projects must meet	N/A	24 CFR Part 51		
Acceptable Separation Distance (ASD)		Subpart C		
requirements to protect them from				
explosive and flammable hazards.				
Reference				
https://www.hudexchange.info/environmental-review/explosive-and-flammable-facilities				

1.	Is the proposed HUD-assisted project itself the development of a hazardous facility (facility that mainly stores, handles or processes flammable or combustible chemical to the facility of the combustible chemical facility of the comb
	such as bulk fuel storage facilities and refineries)?  ☑ No
	→ Continue to Question 2.
	☐ Yes
	Explain:
	→ Go directly to Question 5.
	pes this project include any of the following activities: development, construction habilitation that will increase residential densities, or conversion?
	□ No
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.
	⊠ Yes
	→ Continue to Question 3.

- 3. Within 1 mile of the project site, are there any current *or planned* stationary aboveground storage containers that are covered by 24 CFR 51C? Containers that are <u>NOT</u> covered under the regulation include:
  - Containers 100 gallons or less in capacity, containing common liquid industrial fuels OR
  - Containers of liquified petroleum gas (LPG) or propane with a water volume capacity
    of 1,000 gallons or less that meet the requirements of the 2017 version of National
    Fire Protection Association (NFPA) Code 58.

type of aboveground storage container within the search area that holds one of th flammable or explosive materials listed in Appendix I of 24 CFR part 51 subpart C, answe "yes."
<ul> <li>□ No</li> <li>→ Based on the response, the review is in compliance with this section. Continue t the Worksheet Summary below. Provide all documents used to make you determination.</li> </ul>
<ul><li>✓ Yes</li><li>→ Continue to Question 4.</li></ul>
4. Visit <u>HUD's website</u> to identify the appropriate tank or tanks to assess and to calculat the required separation distance using the <u>electronic arssessment tool</u> . To documen this step in the analysis, please attach the following supporting documents to thi screen:
<ul> <li>Map identifying the tank selected for assessment, and showing the distance from the tank to the proposed HUD-assisted project site; and</li> <li>Electronic assessment tool calculation of the required separation distance.</li> <li>Based on the analysis, is the proposed HUD-assisted project site located at or beyond the required separation distance from all covered tanks?</li> </ul>
<ul> <li>Yes</li> <li>→ Based on the response, the review is in compliance with this section. Continuto to the Worksheet Summary below.</li> </ul>
<ul><li>□ No</li><li>→ Go directly to Question 6.</li></ul>
5. Is the hazardous facility located at an acceptable separation distance from residence and any other facility or area where people may congregate or be present? Please visit

If all containers within the search area fit the above criteria, answer "no." For any other

#### Continue to Question 6.

6.	For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Mitigation measures may include both natural and manmade barriers, modification of the project design, burial or removal of the hazard, or other engineered solutions. Describe selected mitigation measures, including the timeline for
	implementation, and attach an implementation plan. If negative effects cannot be
	mitigated, cancel the project at this location.
	Note that only licensed professional engineers should design and implement blast
	barriers. If a barrier will be used or the project will be modified to compensate for an unacceptable separation distance, provide approval from a licensed professional engineer.

#### **Worksheet Summary**

## **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The Acceptable Separation Distance Assessment Tool showing distances all less than the distance between project site and closest above ground fuel storage.

# **Acceptable Separation Distance Assessment Tool**

Is the container above ground?	Yes: ☑ No: □
Is the container under pressure?	Yes: ☑ No: □
Does the container hold a cryogenic liquified gas?	Yes: ☐ No: ☑
Is the container diked?	Yes: ☐ No: ☐
What is the volume (gal) of the container?	1000
What is the Diked Area Length (ft)?	
What is the Diked Area Width (ft)?	
Calculate Acceptable Separation Distance	
Diked Area (sqft)	
ASD for Blast Over Pressure (ASDBOP)	219.03
ASD for Thermal Radiation for People (ASDPPU)	276.57
ASD for Thermal Radiation for Buildings (ASDBPU)	50.28
ASD for Thermal Radiation for People (ASDPNPD)	
ASD for Thermal Radiation for Buildings (ASDBNPD)	

Screenshot showing distance from project site to closest above ground fuel storage.



Are formal compliance steps or mitigation required?

☐ Yes

⊠ No

Farmlands Protection (CEST and EA)

	- 41 111411410 1 1 0 0 0 0 1 0 1 1 (0 2 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
General requirements	Legislation	Regulation			
The Farmland Protection	Farmland Protection Policy	7 CFR Part 658			
Policy Act (FPPA) discourages	Act of 1981 (7 U.S.C. 4201 et				
federal activities that would	seq.)				
convert farmland to					
nonagricultural purposes.					
Reference					
https://www.hudexchange.info/environmental-review/farmlands-protection					

<u>h</u>	ttps://www.hudexchange.info/environmental-review/farmlands-protection
1.	Does your project include any activities, including new construction, acquisition of undeveloped land or conversion, that could convert agricultural land to a non-agricultural use?
	<ul><li>✓ Yes → Continue to Question 2.</li><li>□ No</li></ul>
	Explain how you determined that agricultural land would not be converted:
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documentation supporting your determination.
2.	Does "important farmland," including prime farmland, unique farmland, or farmland of statewide or local importance regulated under the Farmland Protection Policy Act, occur on the project site?  You may use the links below to determine important farmland occurs on the project site:
	<ul> <li>Utilize USDA Natural Resources Conservation Service's (NRCS) Web Soil Survey <a href="http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm">http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm</a></li> </ul>
	<ul> <li>Check with your city or county's planning department and ask them to document if the project is on land regulated by the FPPA (zoning important farmland as non-agricultural does not exempt it from FPPA requirements)</li> </ul>
	<ul> <li>Contact NRCS at the local USDA service center         <a href="http://offices.sc.egov.usda.gov/locator/app?agency=nrcs">http://offices.sc.egov.usda.gov/locator/app?agency=nrcs</a> or your NRCS state soil scientist <a href="http://soils.usda.gov/contact/state">http://soils.usda.gov/contact/state</a> offices/ for assistance</li> </ul>
	□ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide any documents used to make your determination.

- 3. Consider alternatives to completing the project on important farmland and means of avoiding impacts to important farmland.
  - Complete form AD-1006, "Farmland Conversion Impact Rating" http://www.nrcs.usda.gov/Internet/FSE DOCUMENTS/stelprdb1045394.pdf and contact the state soil scientist before sending it to the local NRCS District Conservationist.
    - (NOTE: for corridor type projects, use instead form **NRCS-CPA-106**, "Farmland Conversion Impact Rating for Corridor Type Projects: <a href="http://www.nrcs.usda.gov/Internet/FSE">http://www.nrcs.usda.gov/Internet/FSE</a> DOCUMENTS/stelprdb1045395.pdf.)
  - Work with NRCS to minimize the impact of the project on the protected farmland. When you have finished with your analysis, return a copy of form AD-1006 (or form NRCS-CPA-106 if applicable) to the USDA-NRCS State Soil Scientist or his/her designee informing them of your determination.

<b>Document</b> y	vour	conc	lusion
	,		

☐ Project w	ill proceed with mitigation.	
Explain in	detail the proposed measures that must be implemented to mitigate for t	he
impact or	effect, including the timeline for implementation.	

- → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.
- ☑ Project will proceed without mitigation.

**Explain why mitigation will not be made here:** 

Total site assessment points in the AD-1006 Farmland Conversion Impacting Rating sheet for the proposed site are below 160 and is therefore in compliance with the Farmland Protection Act.

Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide form AD-1006 and all other documents used to make your determination.

### **Worksheet Summary**

### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

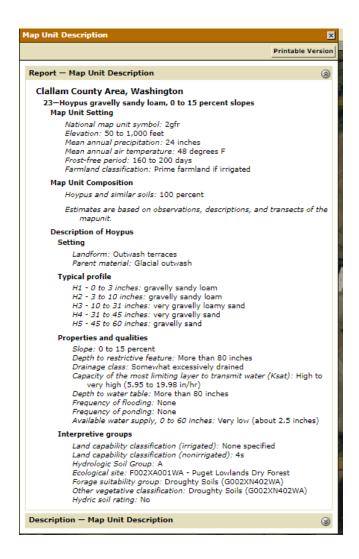
The project is in compliance with this section based on the results of the USDA Farmland Impact Rating Form. Project site rated 67 well below the 160 point mark that would have required mitigation. NRCS staff provided the ranking information. See also soils maps and information below.

U.S. Department of Agriculture FARMLAND CONVERSION IMPACT RATING							
PART I (To be completed by Federal Agency)  Date Of Land Evaluation							
Name of Project 290 Zaccardo Road Federal Agency Involv		gency Involved					
Proposed Land Use Frontline Medical	Worker Housing		nd State Clalla		, Washingt	ton	
PART II (To be completed by NRCS)		Date Rec	uest Received /12/20232	Ву	Person C Josep	ompleting For	m:
Does the site contain Prime, Unique, Statewick	le or Local Important Farmland		ES NO	Acres Irrigated Average Farm 9		Farm Size	
(If no, the FPPA does not apply - do not comp	lete additional parts of this for	n)		3,486 33			
Major Crop(s)	Farmable Land In Govt.	Jurisdiction		Amount of Farmland As Defined in FPPA			PA
Veg Melons Spuds	Acres: 17,197 % 2	.15		Acres: 222,55% 27.85			
Name of Land Evaluation System Used Grass Legume	Name of State or Local S	Site Assessi NA	ment System	Date Land I	Evaluation Re	eturned by NF	RCS
PART III (To be completed by Federal Agence	y)					Site Rating	
A. Total Acres To Be Converted Directly				Site A	Site B	Site C	Site D
B. Total Acres To Be Converted Indirectly				0			
C. Total Acres In Site				8.89		-	
PART IV (To be completed by NRCS) Land	Evaluation Information			8.89			
A. Total Acres Prime And Unique Farmland	Lyaluation information			0.00			
B. Total Acres Statewide Important or Local In	needent Formland			8.89			
C. Percentage Of Farmland in County Or Local	•						
D. Percentage Of Farmland in Govt. Jurisdicti		ive Value		F7.00			
PART V (To be completed by NRCS) Land E		THE VEIGE		57.33	-		
Relative Value of Farmland To Be Con	verted (Scale of 0 to 100 Point	s)		16			
PART VI (To be completed by Federal Agent (Criteria are explained in 7 CFR 658.5 b. For C		CPA-106)	Maximum Points	Site A	Site B	Site C	Site D
Area In Non-urban Use			(15)	14			
Perimeter In Non-urban Use			(10)	10			
Percent Of Site Being Farmed			(20)	0			
Protection Provided By State and Local Ge	overnment		(20)	0			
Distance From Urban Built-up Area			(15)	15			
Distance To Urban Support Services			(15)	0			
<ol><li>Size Of Present Farm Unit Compared To A</li></ol>	verage		(10)	0			
Creation Of Non-farmable Farmland			(10)	10			
Availability Of Farm Support Services			(5)	2			
10. On-Farm Investments			(20)	0			
11. Effects Of Conversion On Farm Support S			,	0			
12. Compatibility With Existing Agricultural Us	e		(10)	0			
TOTAL SITE ASSESSMENT POINTS			160	51	0	0	0
PART VII (To be completed by Federal Ag	ency)			40			
Relative Value Of Farmland (From Part V)		100	16	0	0	0	
Total Site Assessment (From Part VI above or local site assessment) 160			51	0	0	0	
TOTAL POINTS (Total of above 2 lines)			260	67 Was A Loca	O Site Acces	0 sment Used?	0
	Date Of Selection 4/12/23			YE		NO V	
Reason For Selection:	or Cito A ora halani 4	CO ==!	to the area	a this alt	le le -	an milion a	e e ditto
Total Site Assessment Points for Site A are below 160 points therefore this site is in compliance with Farmland Protection Act and other sites do not need to be considered.							
Name of Federal agency representative completing this form: Jenna Ziogas - Environmental Program Sp. Date: 4/11/23							
(See Instructions on reverse side)							1006 (03-02)



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
23	Hoypus gravelly sandy loam, 0 to 15 percent slopes	8.3	100.0%
Totals for Area of Interest		8.3	100.0%



## Are formal compliance steps or mitigation required?

☐ Yes

⊠ No

Floodplain Management (CEST and EA)

General Requirements	Legislation	Regulation		
Executive Order 11988,	Executive Order 11988	24 CFR 55		
Floodplain Management,				
requires Federal activities to				
avoid impacts to floodplains				
and to avoid direct and				
indirect support of floodplain				
development to the extent				
practicable.				
Reference				
https://www.hudexchange.info/environmental-review/floodplain-management				

	Provide the applicable citation at 24 CFR 55.12(c) here. If project is exempt under 55.12(c)(7) or (8), provide supporting documentation.
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.
	$\boxtimes$ No $\rightarrow$ Continue to Question 2.
2.	Provide a FEMA/FIRM or ABFE map showing the site.  The Federal Emergency Management Agency (FEMA) designates floodplains. The FEMA Map Service Center provides this information in the form of FEMA Flood Insurance Rate Maps (FIRMs) or Advisory Base Flood Elevations (ABFEs). For projects in areas not mapped by FEMA, use the best available information to determine floodplain information. Include documentation, including a discussion of why this is the best available information for the site.
	<ul> <li>Does your project occur in a floodplain?</li> <li>☑ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.</li> </ul>
	□ Yes
	Select the applicable floodplain using the FEMA map or the best available information:  ☐ Floodway → Continue to Question 3, Floodways

5.	500-year Floodplain
	Is this a critical action?
	$\square$ No $ o$ Based on the response, the review is in compliance with this section. Continue
	to the Worksheet Summary below.
	☐ Yes → Continue to Question 6, 8-Step Process
6.	8-Step Process.
	Does the 8-Step Process apply? Select one of the following options:
	☐ 8-Step Process applies.
	Provide a completed 8-Step Process, including the early public notice and the fina notice.
	→ Continue to Question 7, Mitigation
	☐ 5-Step Process is applicable per 55.12(a)(1-3).
	Provide documentation of 5-Step Process.
	Select the applicable citation:
	☐ 55.12(a)(1) HUD actions involving the disposition of HUD-acquired multifamily
	housing projects or "bulk sales" of HUD-acquired one- to four-family properties
	in communities that are in the Regular Program of the National Flood Insurance
	Program (NFIP) and in good standing (i.e., not suspended from program eligibility or placed on probation under 44 CFR 59.24).
	$\Box$ 55.12(a)(2) HUD's actions under the National Housing Act (12 U.S.C. 1701) for
	the purchase or refinancing of existing multifamily housing projects, hospitals
	nursing homes, assisted living facilities, board and care facilities, and
	intermediate care facilities, in communities that are in good standing under the
	NFIP.
	$\Box$ 55.12(a)(3) HUD's or the recipient's actions under any HUD program involving
	the repair, rehabilitation, modernization, weatherization, or improvement of
	existing multifamily housing projects, hospitals, nursing homes, assisted living
	facilities, board and care facilities, intermediate care facilities, and one- to four
	family properties, in communities that are in the Regular Program of the Nationa
	Flood Insurance Program (NFIP) and are in good standing, provided that the
	number of units is not increased more than 20 percent, the action does no
	involve a conversion from nonresidential to residential land use, the action does
	not meet the thresholds for "substantial improvement" under § 55.2(b)(10), and
	the footprint of the structure and paved areas is not significantly increased.
	☐ 55.12(a)(4) HUD's (or the recipient's) actions under any HUD program
	involving the repair, rehabilitation, modernization, weatherization, o
	improvement of existing nonresidential buildings and structures, in communities

that are in the Regular Program of the NFIP and are in good standing, provided

that the action does not meet the thresholds for "substantial improvement" under § 55.2(b)(10) and that the footprint of the structure and paved areas is not significantly increased.

→ Continue to Question 7, Mitigation

☐ 8-Step Process is inapplicable per 55.12(b)(1-4).
Select the applicable citation:
□ 55.12(b)(1) HUD's mortgage insurance actions and other financial assistance for the purchasing, mortgaging or refinancing of existing one- to four-family properties in communities that are in the Regular Program of the National Flood Insurance Program (NFIP) and in good standing (i.e., not suspended from
program eligibility or placed on probation under 44 CFR 59.24), where the actior is not a critical action and the property is not located in a floodway or coastal high hazard area.
55.12(b)(2) Financial assistance for minor repairs or improvements on one-to- four-family properties that do not meet the thresholds for "substantia improvement" under § 55.2(b)(10)
<ul> <li>55.12(b)(3) HUD actions involving the disposition of individual HUD-acquired one- to four-family properties.</li> </ul>
55.12(b)(4) HUD guarantees under the Loan Guarantee Recovery Fund Program (24 CFR part 573) of loans that refinance existing loans and mortgages, where any new construction or rehabilitation financed by the existing loan or mortgage has been completed prior to the filing of an application under the program, and the refinancing will not allow further construction or rehabilitation, nor result in any physical impacts or changes except for routine maintenance.
$\Box$ 55.12(b)(5) The approval of financial assistance to lease an existing structure
located within the floodplain, but only if—
(i) The structure is located outside the floodway or Coastal High Hazard Area, and is in a community that is in the Regular Program of the NFIP and in good standing (i.e., not suspended from program eligibility or
placed on probation under 44 CFR 59.24);
(ii) The project is not a critical action; and
(iii) The entire structure is or will be fully insured or insured to the
maximum under the NFIP for at least the term of the lease.

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

# 7. Mitigation

For the project to be brought into compliance with this section, all adverse impacts must be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.

Which of the following mitigation/minimization measures have been identified for this project in the 8-Step or 5-Step Process? Select all that apply.

	Permeable surfaces
	Natural landscape enhancements that maintain or restore natural
hydrology	
	Planting or restoring native plant species
	Bioswales
	Evapotranspiration
	Stormwater capture and reuse
	Green or vegetative roofs with drainage provisions
☐ Natu	iral Resources Conservation Service conservation easements or similar
easem	ents
	Floodproofing of structures
☐ Eleva	ting structures including freeboarding above the required base flood
elevati	ons
	Other

→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.

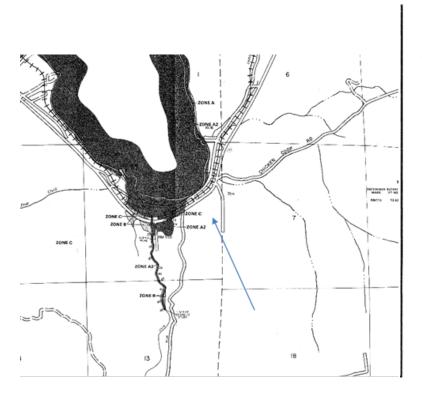
## **Worksheet Summary**

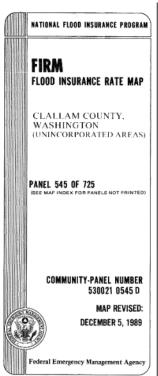
### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

This project is located outside the 100-year floodplain, Zone A or V, on the draft digital FIRM being developed by FEMA. See FEMA map #5300210545D, effective 12/05/1989. Therefore, this project is in compliance with the Flood Disaster Protection Act.





# Are formal compliance steps or mitigation required?

☐ Yes

⊠ No

### Historic Preservation for Washington State 24 CFR Part 58

General requirements	Legislation	Regulation
Protect sites, buildings, and objects with	National Historic	36 CFR Part 800
national, state or local historic, cultural and/or	Preservation Act, 16 U.S.C.	24 CFR Part 58.5(a)
archeological significance. Identify effects of	470(f), section 106	
project on properties		

1.	Does the project include new construction; demolition; the acquisition of undeveloped land; or
	any activity that requires ground disturbance (defined as one cubic foot of disturbed soil)?

□No: PROCEED to #2. □ Yes: PROCEED to #3

2. Does the project include repair, rehabilitation or conversion of existing properties; involve a structure that is MORE than 45 years old, is not in a historic district and has no ground disturbing activities?

□No:	STOP here.	The Section 106 Historic Preservation review is complete.	
Rec	ord your det	ermination that there is no potential to cause effect, including the age of the exis	sting
bui	lding and info	ormation from the National Register to show that the activity is not in a historic	
dist	crict, on the S	tatutory Worksheet or Environmental Assessment.	

**Yes:** PROCEED to #3

# 3. Consult with SHPO or THPO and any tribes or groups that may have an interest in the project to determine if the project is eligible for the National Historic Register.

- You must define and consider the Area of Potential Effect (APE). The APE is the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties. The APE is influenced by the scale and nature of an undertaking. (36 CFR Part 800.16).
- Determine if there are tribes or groups that have an interest in the historic aspects of the project and invite them to participate in the consultation. For ground disturbing activities, you must make a reasonable and good faith effort to identify Indian tribes that may have an interest. HUD's website lists interested tribes by county: <a href="https://egis.hud.gov/tdat/">https://egis.hud.gov/tdat/</a> It is suggested that you go to the Tribal website or contact the SHPO to make sure contact information is current.
- Consult the State Historic Preservation Officer (SHPO), or if the project is on certain tribal lands, the Tribal Historic Preservation Officer (THPO), with details of the project and project site and your determination if it is eligible for the National Historic Register. SHPO or THPO has 30 days from receipt of a well-documented request of review of your determination. We recommend sending the letter with a return receipt form to document the contact. If they do not respond within the timeframe, or provide a description of additional information needed, you may proceed with the next step of the process based on your finding or consult with the Advisory Council on Historic Preservation (ACHP).

State Historic Preservation Officer contacts: <a href="http://www.nps.gov/nr/shpolist.htm">http://www.nps.gov/nr/shpolist.htm</a> Tribal Historic Preservation Officers contacts: <a href="http://www.nathpo.org/map.html">http://www.nathpo.org/map.html</a>

Proceed as appropriate based on the Finding:

**No Historic Properties Affected:** STOP here. The Section 106 Historic Preservation review is complete.

Attach SHPO/THPO concurrence, copies of letters to and from other interested parties and the tribes, and your response to the ERR. If SHPO/THPO did not respond within 30 days, your dated letter documents compliance. Record your determination of no historic properties affected on the Statutory Worksheet or Environmental Assessment.

No Adverse Effect on Historic Property: STOP here. The Section 106 Historic Preservation review is complete. Categorically Excluded projects (24 CFR Part 58.35(a)) CANNOT convert to exempt with this determination.

Attach SHPO/THPO concurrence, copies of letters to and from other interested parties and the tribes, and your response to the ERR. Record your determination of no adverse affect on historic properties on the Statutory Worksheet or Environmental Assessment.

Adverse Effect on Historic Property Resolve Adverse Effects per 800.6 in consultation with SHPO/THPO, the ACHP if participating, and any consulting parties. The loan or grant may not be approved until adverse effects are resolved according to 800.6 or you have complied with 36 CFR Part 800. Categorically Excluded projects (24 CFR Part 58.35(a)) CANNOT convert to exempt with this determination.

Make sure that the resolution is fully documented in your ERR with all SHPO/THPO correspondence, copies of letters to and from other interested parties and the tribes, surveys, MOAs etc.

# **Historic Preservation for Washington State**

**24 CFR Part 58** 

General requirements	Legislation	Regulation
Protect sites, buildings, and objects	National Historic Preservation Act,	36 CFR Part 800
with national, state or local historic,	16 U.S.C. 470(f), section 106	24 CFR Part 58.5(a)
cultural and/or archeological		
significance. Identify effects of		
project on properties.		

Per 36 CFR 800.4 and 36 CFR 800.5, the lead federal agency must consult with the Washington State Historic Preservation Officer (SHPO) and Department of Archaeology and Historic Preservation (DAHP) for each step of the Section 106 process. The U.S. Department of Housing and Urban Development has legally delegated their authority to you, and therefore, you must consult with DAHP. Consultation with DAHP consists of letterhead-to-letterhead exchange of each step, which are as follows:

Step 1: Initiate consultation by defining the undertaking. Please provide documentation of your
legal delegation from HUD to consult with SHPO and DAHP at this time.
Step 2: Definition of the Area of Potential Effects (APE)
Step 3: Survey and Methodology
Step 4: Determination of Eligibility
Step 5: Assessment of Adverse Effects
Step 6: Resolution of Adverse Effects



April 21, 2023

Robert Knapp Jamestown S'Klallam Tribe

In future correspondence please refer to: Project Tracking Code: 2023-04-02415

Property: Zaccardo

Re: NOT Eligible for National Register

Dear Robert,

Thank you for contacting the Washington State Historic Preservation Officer (SHPO) and Department of Archaeology and Historic Preservation (DAHP) regarding the above referenced proposal. Your communication on this action has been reviewed on behalf of the SHPO under provisions of Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800. Our review is based upon documentation provided in your submittal.

First, it is our opinion that Property ID: 3034, Blyn Hall at 290 Zaccardo Rd, Sequim, Washington, 98382 is not eligible for listing in the National Register of Historic Places. It is also our opinion that no historic properties will be affected by the current project as proposed. As a result of our concurrence, further contact with DAHP on this proposal is not necessary.

However, if new information about affected resources becomes available and/or the project scope of work changes significantly, please resume consultation as our assessment may be revised. Also, if any archaeological resources are uncovered during construction, please halt work immediately in the area of discovery and contact the appropriate Native American Tribes and DAHP for further consultation.

Thank you for the opportunity to review and comment. If you have any questions, please feel free to contact me.

Sincerely,

Maddie Levesque Architectural Historian (360) 819-7203

Maddie.Levesque@dahp.wa.gov

9

in the consultation. HUD's website lists interested tribes by county: <a href="https://egis.hud.gov/tdat/">https://egis.hud.gov/tdat/</a>. It is suggested that you go to the Tribal website, or you may contact DAHP, to inquire about up to date contact information, but DAHP cannot consult with Tribes on your behalf.

# **Example of Letter sent to interested Tribes...**

ATNN: Lisa Martinez, Chairwoman Hoh Tribe 2426 Lower Hoh Road PO Box 2196 Forks, WA 98331 April 24, 2023

### Re: IHBDG APR Project 290 Zaccardo Rd. Sequim WA. 98382 HUD Program

Dear Chairwoman, Lisa Martinez,

The Jamestown S'Klallam Tribe (JST) is considering funding the project listed above with federal funds from the U.S. Department of Housing and Urban Development (HUD). Under HUD regulation 24 CFR 58.4, the JST has assumed HUD's environmental review responsibilities for the project, including tribal consultation related to historic properties. Historic properties include archeological sites, burial grounds, sacred landscapes or features, ceremonial areas, traditional cultural places and landscapes, plant and animal communities, and buildings and structures with significant tribal association.

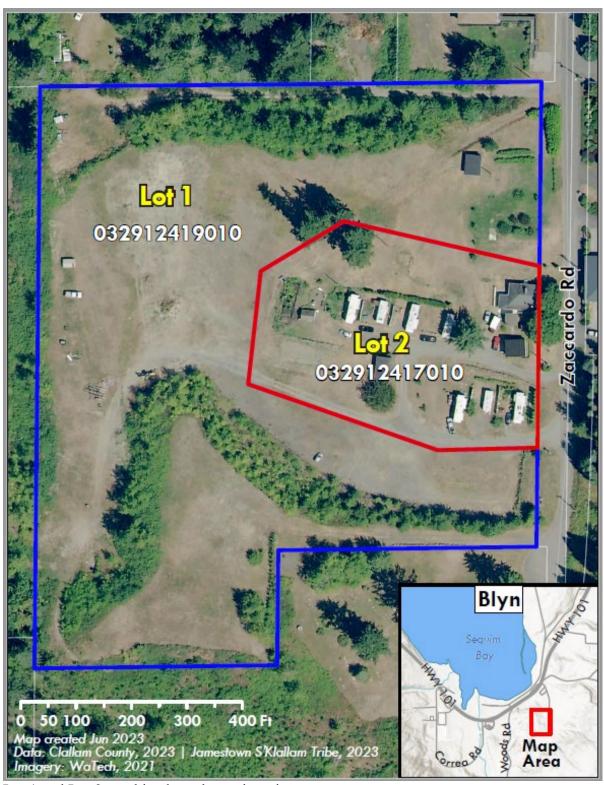
The JST will conduct a review of this project to comply with Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR Part 800. We would like to invite you to be a consulting party in this review to help identify historic properties in the project area that may have religious and cultural significance to your tribe, and if such properties exist, to help assess how the project might affect them. If the project might have an adverse effect, we would like to discuss possible ways to avoid, minimize or mitigate potential adverse effects.

Enclosed is a map that shows the project area and an additional area of potential effects. The project consists of the seven existing RV sites, to support front-line healthcare working housing needs using Cares Act-Housing and Urban Development grant funding. The project activities will include placement of two new park models RVs. The tribe will use existing electricity, sewer and water.

To meet project timeframes, if you would like to be a consulting party on this project, can you please let us know of your interest within 30 days? If you have any initial concerns with impacts of the project on religious or cultural properties, can you please note them in your response?

If you do not wish to consult on this project, can you please inform us? If you do wish to consult, can you please include in your reply the name and contact information for the tribe's principal representative in the consultation? Thank you very much. We value your assistance and look forward to consulting further if there are historic properties of religious and cultural significance to your tribe that may be affected by this project.

Ann Jagger Housing Manager Jamestown S'Klallam Tribe 1033 Old Blyn Hwy Sequim WA. 98382 360-681-3411 ajagger@jamestowntribe.org



Lot 1 and Lot 2 combined are the project site.

Other than the Jamestown THPO, no other Tribes provided comment on the project during the development of the ERR.

### Noise (CEST Level Reviews)

General requirements	Legislation	Regulation	
General requirements	Legisiation	Regulation	
HUD's noise regulations protect	Noise Control Act of 1972	Title 24 CFR 51	
residential properties from		Subpart B	
excessive noise exposure. HUD	General Services Administration		
encourages mitigation as	Federal Management Circular		
appropriate.	75-2: "Compatible Land Uses at		
	Federal Airfields"		
References			
https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-			
control			

# 1. What activities does your project involve? Check all that apply: ☐ New construction for residential use NOTE: HUD assistance to new construction projects is generally prohibited if they are located in an Unacceptable zone, and HUD discourages assistance for new construction projects in Normally Unacceptable zones. See 24 CFR 51.101(a)(3) for further details. → Continue to Question 4. □ Rehabilitation of an existing residential property NOTE: For modernization projects in all noise zones, HUD encourages mitigation to reduce levels to acceptable compliance standards. See 24 CFR 51 Subpart B for further details. → Continue to Question 2. ☐ A research demonstration project which does not result in new construction or reconstruction, interstate, land sales registration, or any timely emergency assistance under disaster assistance provisions or appropriations which are provided to save lives, protect property, protect public health and safety, remove debris and wreckage, or assistance that has the effect of restoring facilities substantially as they existed prior to the disaster → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. ☐ None of the above

→ Based on the response, the review is in compliance with this section. Continue

to the Worksheet Summary below.

2.	Do you have standardized noise attenuation measures that apply to all modernization and/or minor rehabilitation projects, such as the use of double glazed windows or extra insulation?
	☐ Yes
	Indicate the type of measures that will apply (check all that apply):  ☐ Improved building envelope components (better windows and doors, strengthened sheathing, insulation, sealed gaps, etc.)  ☐ Redesigned building envelope (more durable or substantial materials, increased air gap, resilient channels, staggered wall studs, etc.)  ☐ Other
	Explain:
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below and provide any supporting documentation.
	<ul><li>No</li><li>→ Continue to Question 3.</li></ul>
3.	Complete the Preliminary Screening to identify potential noise generators in the vicinity (1000' from a major road, 3000' from a railroad, or 15 miles from an airport). Describe findings of the Preliminary Screening:
	See worksheet Summary.
	→ Continue to Question 6.
4.	Complete the Preliminary Screening to identify potential noise generators in the vicinity (1000' from a major road, 3000' from a railroad, or 15 miles from an airport). Indicate the findings of the Preliminary Screening below:
	☐ There are no noise generators found within the threshold distances above.
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map showing the location of the project relative to any noise generators.

	$\square$ Noise generators were found within the threshold distances.
	→ Continue to Question 5.
5.	Complete the Noise Assessment Guidelines to quantify the noise exposure. Indicate
	the findings of the Noise Assessment below:
	☐ Acceptable: (65 decibels or less; the ceiling may be shifted to 70 decibels in circumstances described in §24 CFR 51.105(a))
	Indicate noise level here:
	→ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide noise analysis, including noise level and data used to complete the analysis.
	☐ Normally Unacceptable: (Above 65 decibels but not exceeding 75 decibels; the floor may be shifted to 70 decibels in circumstances described in 24 CFR 51.105(a))
	Indicate noise level here:
	maleate noise level here.
	Is the project in a largely undeveloped area <sup>1</sup> ?
	□ No
	→Your project requires completion of an Environmental Assessment (EA) pursuant to 51.104(b)(1)(i). Elevate this review to an EA-level review.
	Provide noise analysis, including noise level and data used to complete the analysis.
	Continue to Question 6.
	☐ Yes
	→Your project requires completion of an Environmental Impact Statement (EIS) pursuant to 51.104(b)(1)(i). Elevate this review to an EIS-level review. Provide noise analysis, including noise level and data used to complete the analysis.
	Continue to Question 6.  Unacceptable: (Above 75 decibels)

# Indicate noise level here: Your project requires completion of an Environmental Impact Statement (EIS) pursuant to 51.104(b)(1)(i). You may either complete an EIS or provide a waiver signed by the appropriate authority. Indicate your choice: ☐ Convert to an EIS → Provide noise analysis, including noise level and data used to complete the analysis. Continue to Question 6. ☐ Provide waiver → Provide an Environmental Impact Statement waiver from the Certifying Officer or the Assistant Secretary for Community Planning and Development per 24 CFR 51.104(b)(2) and noise analysis, including noise level and data used to complete the analysis. Continue to Question 6. 6. HUD strongly encourages mitigation be used to eliminate adverse noise impacts. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation. This information will be automatically included in the Mitigation summary for the environmental review. ☐ Mitigation as follows will be implemented: → Provide drawings, specifications, and other materials as needed to describe

☒ No mitigation is necessary.Explain why mitigation will not be made here:

the project's noise mitigation measures. Continue to the Worksheet Summary.

Noise attributed to the airplanes will not extend beyond the boundaries of the airport. Annual operations do not exceed thresholds.

# → Continue to the Worksheet Summary.

# **Worksheet Summary**

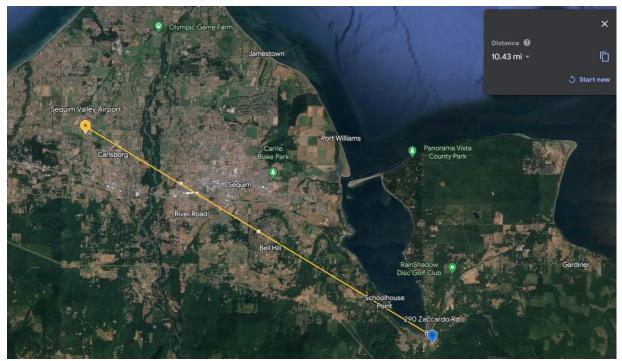
# **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region



Project site is more than 1000ft from a major road.

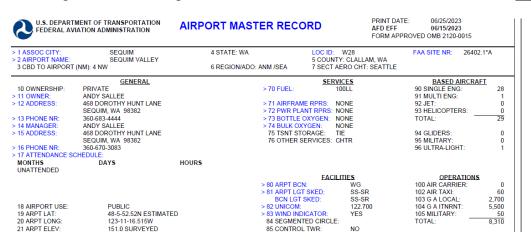


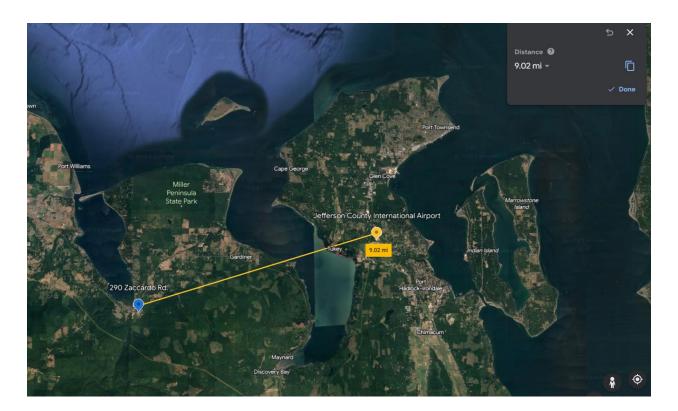
Project site is less than 15 miles from an airport. However, annual operations do not exceed thresholds.

### **Sequim Valley Airport**

Determine if the annual number of operations for air carriers #100, air taxis #102, military #105, and general aviation #103 plus #104 exceeds thresholds.

Annual air carrier operations Is this 9000 or more Yes No X Annual air taxi operations 60 Is this 18,000 or more Yes No Annual military operations **50** Is this 18,000 or more Yes No X Annual general aviation operations - 8,200 Is this 72000 or more Yes No





Project site is less than 15 miles from an airport. However, annual operations do not exceed thresholds.

# **Jefferson County International Airport**

Determine if the annual number of operations for air carriers #100, air taxis #102, military #105, and general aviation #103 plus #104 exceeds thresholds.

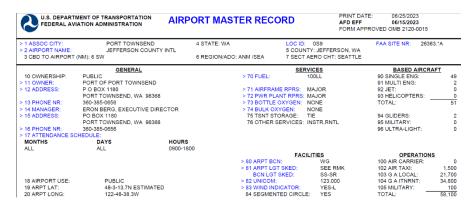
Annual air carrier operations -0Annual air taxi operations -1,500Annual military operations -100Annual general aviation operations -56,500 Is this 9000 or more Yes\_ Is this 18,000 or more Yes\_ Is this 18,000 or more Yes\_ Is this 72000 or more Yes\_

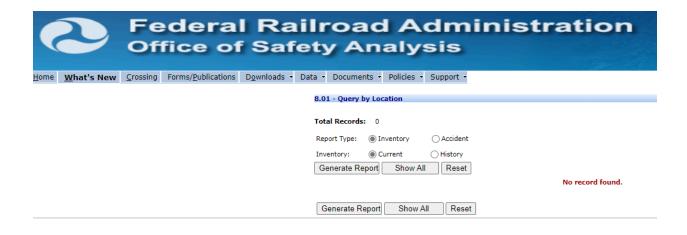
 Yes
 No
 X

 Yes
 No
 X

 Yes
 No
 X

 Yes
 No
 X





Are formal	compl	iance stens	or mitigation	required?
Ale ioiiiai	compi	nance steps	o or minugation	requireus

☐ Yes

⊠ No

Sole Source Aquifers (CEST and EA)

General requirements	Legislation	Regulation	
The Safe Drinking Water Act of 1974	Safe Drinking Water Act	40 CFR Part 149	
protects drinking water systems which	of 1974 (42 U.S.C. 201,		
are the sole or principal drinking	300f et seq., and 21		
water source for an area and which, if	U.S.C. 349)		
contaminated, would create a			
significant hazard to public health.			
Reference			
https://www.hudexchange.info/environmental-review/sole-source-aquifers			

n	ittps://www	.nudexchange.info/environmental-review/sole-source-aquifers
1.	building(s)?	project consist solely of acquisition, leasing, or rehabilitation of an existing  Based on the response, the review is in compliance with this section. Continue to the
	,	Worksheet Summary below.  Continue to Question 2.
2.		ect located on a sole source aquifer (SSA) <sup>1</sup> ?
	V a	Based on the response, the review is in compliance with this section. Continue to the Vorksheet Summary below. Provide documentation used to make your determination, such is a map of your project (or jurisdiction, if appropriate) in relation to the nearest SSA and its ource area.
	□ Yes →	Continue to Question 3.
3.	agreement Contact you above to de	region have a memorandum of understanding (MOU) or other working with EPA for HUD projects impacting a sole source aquifer? ur Field or Regional Environmental Officer or visit the HUD webpage at the link etermine if an MOU or agreement exists in your area. Provide the MOU or agreement as part of your supporting documentation. Continue to Question 4.
	□ No →	Continue to Question 5.
4.	-	MOU or working agreement exclude your project from further review?  Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination and document where your project fits within the MOU or agreement.
	$\square$ No $\rightarrow$	Continue to Question 5.

5. Will the proposed project contaminate the aquifer and create a significant hazard to public health?

Consult with your Regional EPA Office. Your consultation request should include detailed information about your proposed project and its relationship to the aquifer and associated streamflow source area. EPA will also want to know about water, storm water and waste water at the proposed project. Follow your MOU or working agreement or contact your Regional EPA office for specific information you may need to provide. EPA may request additional information if impacts to the aquifer are questionable after this information is submitted for review.

- □ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide your correspondence with the EPA and all documents used to make your determination.
- ☐ Yes → Work with EPA to develop mitigation measures. If mitigation measures are approved, attach correspondence with EPA and include the mitigation measures in your environmental review documents and project contracts. If EPA determines that the project continues to pose a significant risk to the aquifer, federal financial assistance must be denied. Continue to Question 6.
- 6. In order to continue with the project, any threat must be mitigated, and all mitigation must be approved by the EPA. Explain in detail the proposed measures that can be implemented to mitigate for the impact or effect, including the timeline for implementation.
  - → Continue to the Worksheet Summary below. Provide documentation of the consultation (including the Managing Agency's concurrence) and any other documentation used to make your determination.

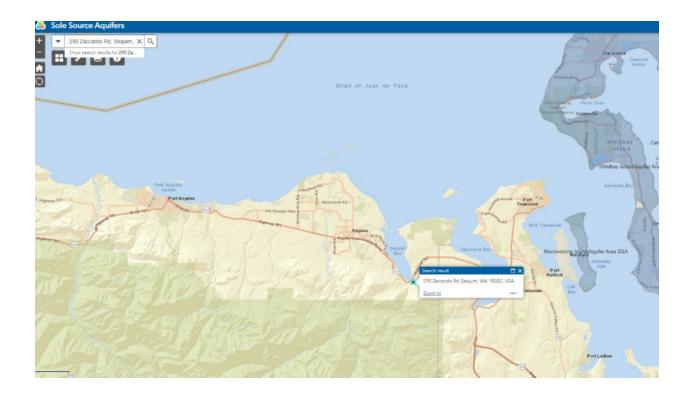
#### **Worksheet Summary**

### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

The project is in compliance with this section as project consist solely of acquisition, leasing, or rehabilitation of an existing building(s) and according to EPA ArcGIS Map Sole Source Aquifers (arcgis.com), there are no sole source aquifers in the project area.



# Are formal compliance steps or mitigation required?

☐ Yes

⊠ No

# Wetlands (CEST and EA)

Wedands (GDS) and Enj				
General requirements	Legislation	Regulation		
Executive Order 11990 discourages that direct or	Executive Order	24 CFR 55.20 can		
indirect support of new construction impacting	11990	be used for		
wetlands wherever there is a practicable		general guidance		
alternative. The Fish and Wildlife Service's National		regarding the 8		
Wetlands Inventory can be used as a primary		Step Process.		
screening tool, but observed or known wetlands				
not indicated on NWI maps must also be				
processed. Off-site impacts that result in draining,				
impounding, or destroying wetlands must also be				
processed.				
References				
https://www.hudexchange.info/environmental-review/wetlands-protection				

1. Does this project involve new construction as defined in Executive Order 11990, expansion of a building's footprint, or ground disturbance?

The term "new construction" shall include draining, dredging, channelizing, filling, diking, impounding, and related activities and any structures or facilities begun or authorized after the effective date of the Order.

- □ No → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.
- $\boxtimes$  Yes  $\rightarrow$  Continue to Question 2.

# 2. Will the new construction or other ground disturbance impact an on- or off-site wetland?

The term "wetlands" means those areas that are inundated by surface or ground water with a frequency sufficient to support, and under normal circumstances does or would support, a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. Wetlands under E.O. 11990 include isolated and non-jurisdictional wetlands.

- No, a wetland will not be impacted in terms of E.O. 11990's definition of new construction.
  - → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide a map or any other relevant documentation to explain your determination.

Yes, there is a wetland that be impacted in terms of E.O. 11990's definition of
new construction.

→ You must determine that there are no practicable alternatives to wetlands development by completing the 8-Step Process.

Provide a completed 8-Step Process as well as all documents used to make your determination, including a map. Be sure to include the early public notice and the final notice with your documentation.

Continue to Question 3.

3.	be mitigated. Explain in detail the exact measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.
	Which of the following militarian estima have been provided by taking Calent all that
	Which of the following mitigation actions have been or will be taken? Select all that apply:
	Which of the following mitigation actions have been or will be taken? Select all that apply:  ☐ Permeable surfaces
	apply:
	apply:  Permeable surfaces
	apply:  ☐ Permeable surfaces ☐ Natural landscape enhancements that maintain or restore natural hydrology
	apply:  ☐ Permeable surfaces ☐ Natural landscape enhancements that maintain or restore natural hydrology through infiltration
	apply:  ☐ Permeable surfaces ☐ Natural landscape enhancements that maintain or restore natural hydrology through infiltration ☐ Native plant species
	apply:  ☐ Permeable surfaces ☐ Natural landscape enhancements that maintain or restore natural hydrology through infiltration ☐ Native plant species ☐ Bioswales
	apply:  Permeable surfaces  Natural landscape enhancements that maintain or restore natural hydrology through infiltration  Native plant species Bioswales Evapotranspiration

### **Worksheet Summary**

### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

☐ Compensatory mitigation

The project site is proposed for a property that has a long history of modification of the site topography (up to 10 feet of fill is located on some portions of the property) and possibly modification of the hydrology. The National Wetland Mapper (see screen capture below) site shows two branches of "riverine" starting upgradient of the site and connecting on the south-central portion of the property. These polygons do not reflect conditions on the ground or any conditions over the last many decades. The second screen capture below consists of datasets from Clallam County that show a small drainage flowing north past the property across Zaccardo Road from the project site. This matches site observations. There are no wetlands or riparian areas on or near the site. The project is in compliance with this section.





Are formal compliance steps or mitigation required?

 $\square$  Yes

⊠ No

## Wild and Scenic Rivers (CEST and EA)

General requirements	Legislation	Regulation	
The Wild and Scenic Rivers Act	The Wild and Scenic Rivers	36 CFR Part 297	
provides federal protection for	Act (16 U.S.C. 1271-1287),		
certain free-flowing, wild, scenic	particularly section 7(b) and		
and recreational rivers designated	(c) (16 U.S.C. 1278(b) and (c))		
as components or potential			
components of the National Wild			
and Scenic Rivers System (NWSRS)			
from the effects of construction or			
development.			
References			
https://www.hudexchange.info/environmental-review/wild-and-scenic-rivers			

### 1. Is your project within proximity of a NWSRS river as defined below?

**Wild & Scenic Rivers:** These rivers or river segments have been designated by Congress or by states (with the concurrence of the Secretary of the Interior) as wild, scenic, or recreational

<u>Study Rivers:</u> These rivers or river segments are being studied as a potential component of the Wild & Scenic River system.

<u>Nationwide Rivers Inventory (NRI):</u> The National Park Service has compiled and maintains the NRI, a register of river segments that potentially qualify as national wild, scenic, or recreational river areas

X	N	0
---	---	---

- → Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below. Provide documentation used to make your determination, such as a map identifying the project site and its surrounding area or a list of rivers in your region in the Screen Summary at the conclusion of this screen.
- → Continue to Question 2.

## 2. Could the project do any of the following?

- Have a direct and adverse effect within Wild and Scenic River Boundaries,
- Invade the area or unreasonably diminish the river outside Wild and Scenic River Boundaries, or
- Have an adverse effect on the natural, cultural, and/or recreational values of a NRI segment.

Consultation with the appropriate federal/state/local/tribal Managing Agency(s) is required, pursuant to Section 7 of the Act, to determine if the proposed project may have an adverse effect on a Wild & Scenic River or a Study River and, if so, to determine the appropriate avoidance or mitigation measures.

<u>Note</u>: Concurrence may be assumed if the Managing Agency does not respond within 30 days; however, you are still obligated to avoid or mitigate adverse effects on the rivers identified in the NWSRS

No. the Managing Agency has concurred that the proposed project will not alter.

directly, or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.  → Based on the response, the review is in compliance with this section. Continue to the Workshe Summary below. Provide documentation of the consultation (including the Managing Agency)
<ul> <li>concurrence) and any other documentation used to make your determination.</li> <li>Yes, the Managing Agency was consulted and the proposed project may alter, directl or indirectly, any of the characteristics that qualifies or potentially qualifies the river for inclusion in the NWSRS.</li> <li>→ Continue to Question 3.</li> </ul>
For the project to be brought into compliance with this section, all adverse impacts mube mitigated. Explain in detail the proposed measures that must be implemented mitigate for the impact or effect, including the timeline for implementation.

→ Continue to the Worksheet Summary below. Provide documentation of the consultation (including the Managing Agency's concurrence) and any other documentation used to make your determination.

## **Worksheet Summary**

3.

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates

- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

There are no designated wild, scenic, or recreation rivers within the project area.

## **NPS Inventory of rivers:**

http://www.rivers.gov/mapping-gis.php



Are formal compliance steps or mitigation required?

☐ Yes

 $\boxtimes$  No

Environmental Justice (CEST and EA)

Percentiles.

General requirements	Legislation	Regulation	
Determine if the project creates	Executive Order 12898		
adverse environmental impacts			
upon a low-income or minority			
community. If it does, engage			
the community in meaningful			
participation about mitigating			
the impacts or move the			
project.			
References			
https://www.hudexchange.info/environmental-review/environmental-justice			

HUD strongly encourages starting the Environmental Justice analysis only after all other laws and authorities, including Environmental Assessment factors if necessary, have been completed.

1.	Were any adverse environmental impacts identified in any other compliance review portion of this project's total environmental review?  ☑ Yes → Continue to Question 2.
	$\square$ No $\Rightarrow$ Based on the response, the review is in compliance with this section. Continue to the Worksheet Summary below.
2.	Were these adverse environmental impacts disproportionately high for low-income and/or minority communities?  Yes
	<b>Explain:</b> No low-income or minority community will experience adverse environmental impacts. The project is organized by the Jamestown S'Klallam Tribe and will take place just outside of the Tribe's reservation land.
	According to EPA's Environmental Justice Screening and Mapping Tool (Version 2.11), the

project site is in the "Less than 50 percentile" category of National Low-Income



→ Continue to Question 3. Provide any supporting documentation.

] No
Explain:

- → Continue to the Worksheet Summary and provide any supporting documentation.
- 3. All adverse impacts should be mitigated. Explain in detail the proposed measures that must be implemented to mitigate for the impact or effect, including the timeline for implementation.
  - ✓ Mitigation as follows will be implemented:

The site remediation was accomplished by removing the target analyte (benzene) from a burn pile by excavating the impacted soil and transporting it to a licensed landfill. Sampling points of compliance were achieved by taking discrete sidewall and base samples from the final limits of the remedial excavation. The Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA) Method A cleanup level for benzene was used to achieve site cleanup. The site will be entered into Ecology's ERTS and assigned a site ID. After an initial Investigation (II), we anticipate a NFA memo to be filed, and the site removed from Ecology's database.

Water samples were taken as a precaution from both wells on the property and in one of the wells, lead was detected above Washington State's DOH action level. Water will require treatment and/or filtering prior to human consumption until the property is connected to a new water source.

□ No	mitigation i	s necessary.		
Explain why mitigation will not be made he		here:		

→ Continue to Question 4.

4. Describe how the affected low-income or minority community was engaged or meaningfully involved in the decision on what mitigation actions, if any, will be taken.

The Environmental Review and Environmental Site Assessment reports will be made available for a ten-day public comment period.

→ Continue to the Worksheet Summary and provide any supporting documentation.

## **Worksheet Summary**

#### **Compliance Determination**

Provide a clear description of your determination and a synopsis of the information that it was based on, such as:

- Map panel numbers and dates
- Names of all consulted parties and relevant consultation dates
- Names of plans or reports and relevant page numbers
- Any additional requirements specific to your region

## Are formal compliance steps or mitigation required?

$\boxtimes$	Yes
	No

The site remediation was accomplished by removing the target analyte (benzene) from a burn pile by excavating the impacted soil and transporting it to a licensed landfill. Sampling points of compliance were achieved by taking discrete sidewall and base samples from the final limits of the remedial excavation. The Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA) Method A cleanup level for benzene was used to achieve site cleanup. The site will be entered into Ecology's ERTS and assigned a site ID. After an initial Investigation (II), we anticipate a NFA memo to be filed, and the site removed from Ecology's database.

Water samples were taken as a precaution from both wells on the property and in one of the wells, lead was detected above Washington State's DOH action level. Water will require treatment and/or filtering prior to human consumption until the property is connected to a new water source.

# **Appendix B- Phase I - Environmental Site Assessment**

Phase I Environmental Site Assessment Mottis Property 290 Zaccardo Road Sequim, WA 98382

Prepared for: Jamestown S'Klallam Tribe

1033 Old Blyn Highway Sequim, WA 98382

Prepared by: ESA Associates, Inc.

722 Prohaska Road

Friday Harbor, WA 98250 Phone: (425) 870-8481

# **TABLE OF CONTENTS**

1.0	SUM	[MARY	1
2.0	INT	RODUCTION	4
2	.1	Purpose	4
		Limiting Conditions and Methodology Used	
		Non-Scope Considerations	
		Data Gaps	
3.0		E DESCRIPTION	
3	.1	Location and Legal Descriptions	6
		50-Year Chain-Of-Title and Assessor's Records Review	
3	.4	Environmental Liens	7
3	.5	Physical Setting	7
3		Historical Topographic Maps	
3	.7	Well Data	9
4.0	REC	ORDS REVIEW	10
		Federal Environmental Record Sources	
4			11
	4.1.	,	11
	4.1.2	(CERCLA) List	
	4.1.	,	
	4.1.4	• • • • • • • • • • • • • • • • • • • •	
	4.1.		
4		State Environmental Records Reviews (Washington State Department of Ecology)	
7	4.2.		
	4.2.2		
	4.2.3		
	4.2.4		
	4.2.		
	4.2.0		
	4.2.	7 Orphan List Review	17
	4.2.8	8 Washington Allsites	17
4		Historical Use Information	
	4.3.	Polk City Directories, EDR Digital Archive, and Cole Information	18
	4.3.2	2 Sanborn Fire Insurance Maps	18
	4.3.3	1	
	4.3.4	4 Clallam County Fire Department District 3	19
	4.3.	<b>y</b> 1 '	
	4.3.0	6 Aerial Photograph Review	19

5.0	SITE RECONNAISSANCE AND INTERVIEWS	22
5.1	Mottis Property Site Reconnaissance	22
5.2		
5.3		
5.4	Hazardous Substances in Connection with Identified Uses	26
5.5	Hazardous Substance Containers and Unidentified Substance Containers	26
5.6	Storage Tanks	26
5.7	Indications of Polychlorinated Biphenyls (PCBs)	27
5.8	Indications of Solid Waste Disposal	27
5.9	Indications of Fill Material	27
5.1	0 Radon	28
5.1	1 Asbestos and Lead Paint	28
5.1	2 Radioactive Substances	28
6.0	FINDINGS AND CONCLUSIONS	29
6.1	On-site	29
6.2	Off-site	31
7.0	RECOMMENDATIONS	31
8.0	LIMITATIONS	31
9.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	33

## **FIGURES**

**Figure 1:** Site Location Map **Figure 2:** Site Diagram

## SITE RECONNAISSANCE PHOTOGRAPHS

## **APPENDICES**

Appendix A: Clallam County Assessor's Records and Environmental Lien Research

**Appendix B**: EDR Historical Topographic Maps **Appendix C**: EDR Radius Map with GeoCheck

Appendix D: EDR Polk City DirectoryAppendix E: EDR Sanborn ResearchAppendix F: Historical Aerial Photographs

Appendix G: Qualifications of Environmental Professional

Appendix H: Application for Authorization to Use

711-007-195 Page iii of iii

## 1.0 SUMMARY

At the request of Jamestown S'Klallam Tribe, ESA Associates, Inc. (ESA Associates) has completed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Practice E 1527 for the Jamestown S'Klallam Tribal property located at 290 Zaccardo Road in Sequim, Washington. The site is known as the Mottis Property and consists of nine Clallam County parcels as follows: 0329124190100000, 0329124170105001, 0329124170105002, 0329124170105003, 0329124170105004, 032912417010000, 0329124170105005, 0329124170105006, 0329124170105007. The subject property collectively covers approximately 8 acres.

The following report is a summary of work performed using the guidelines set forth in American Society for Testing and Materials (ASTM) Standard E-1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.* This Phase I ESA also incorporates procedures as prescribed in the new ASTM 1527-21 Standard. This report shall satisfy the requirements for conducting "all appropriate inquiry" under Section 101 (35) (B) (i) (I) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Small Business Liability Relief and Brownfields Revitalization Act. Furthermore, this assessment is intended to provide insight into the likelihood of contamination of soil and groundwater on the property that will satisfy the U.S. Department of Housing and Urban Development (HUD) requirements for an environmental assessment of the property in accordance with HUD 24 CFR 58.5(i)(2) and 50.3(i).

This report was prepared by a qualified *Environmental Professional* with ESA Associates as set forth in 40 CFR §312.10(b). The qualifications of the Environmental Professional are presented in Section 9.0 of this report. ESA Associates believes that Jamestown S'Klallam Tribe can rely on the findings, conclusions, and opinions of the Environmental Professional.

The subject property consists of a 1916 three bedroom, wood framed home with a asphalt tab roof. It covers 906 square feet. The home has a loft that covers 540 square feet. There is a porch that covers 176 square feet, and a deck that covers 180 square feet. There is a detached garage that covers 400 square feet, and a small carport. There are seven RV parking lots and they each have an RV occupying the space.

The home is hooked up to a 130 foot well (original well), and the RVs are hooked up to a 160 foot well that was drilled about ten years ago. The home and RVs are hooked up to the same septic system, which has three tanks. The home is currently heated with electric forced air and a woodstove; however, the Clallam County Assessor has the home heated with forced air oil.

Our 2023 Phase I ESA of the Mottis Property did reveal current Recognized Environmental Concerns (RECs) associated with the subject property. There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property.

Our city directory review indicated that Mr. Mottis ran a "Blyn Back Hoe Service from the property in 2000, and "Greg's Excavating & Hauling, Inc." from 2005 to 2010. These years correspond directly with the aerial photographic review of large amounts of fill material coming onto the subject property. During our interview with Mr. Mottis, he stated that he was retired, and he did not wish share his former occupation. Mr. Mottis disclosed that Jamestown S'Klallam Tribe brought at least 50 truckloads of fill material onto his property about ten years ago. This amount of soil (1,000 cubic yards) does not reflect the total amount of imported fill material onto the subject property.

In our opinion, significant data gaps were encountered during this assessment (note: a "data gap" is defined in the E1527-21 Standard as "a lack or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information."). The data gaps are as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records; 2) the current owner's answers to our questions regarding the past operations at the property did not match our site reconnaissance observations and historical aerial reviews; 3) the subject property has received large volumes of undocumented fill material over many years; and 4) the former owner was not available for an interview about past historical activities at the subject property.

These data gaps create significant breaches in our historical interpretation of past activities at the subject property that may have resulted in the release of hazardous substances or petroleum products.

Further investigation or corrective action is needed in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use. We recommend a Phase II ESA on the subject property to determine whether the fill material could affect the health and safety of occupants or conflict with the intended utilization of the property. We also recommend exploring the northern side of the home for a possible underground heating oil storage tank.

In reference to off-site RECS, we did identify off-site RECs within the ASTM radius search. Our review of these off-site RECs found that these sites are either down gradient from the subject property parcels, cleaned up with "No Further Action" determinations and/or are permanently closed. Therefore, these sites do not pose a threat to the subject property parcels.

## 2.0 INTRODUCTION

The following report is a summary of work performed using the guidelines set forth in American ASTM Standard E-1527-13/21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. This report shall satisfy the requirements for conducting "all appropriate inquiry" under Section 101 (35) (B) (i) (I) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Small Business Liability Relief and Brownfields Revitalization Act. This report is subject to the limitations presented below in Section 8.0 of this report.

ESA Associates understands HUD policy requires "all properties that are being proposed for use in HUD programs be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property." Therefore, site contamination hazards have been analyzed in this assessment using current techniques by qualified professionals.

## 2.1 Purpose

ESA Associates understands that the Jamestown S'Klallam Tribe has requested a Phase I ESA to satisfy the HUD requirements set forth above for the subject property known as the Mottis Property located at 290 Zaccardo Road in Sequim, Washington. The primary purpose of this Phase I ESA is to identify RECs associated with the subject property. Furthermore, the purpose of a Phase I ESA is to identify site historical practices or activities that may have resulted in soil and/or groundwater contamination at the subject property. During a Phase I ESA, available information about a site and the surrounding areas is gathered to determine if the subject site is likely to pose little or no threat to human health and the environment or may pose a threat and therefore require further investigation. In addition to AAI, the purpose of this Phase I ESA is to document compliance with 24 CFR 58.5(i)(2) or 50.3(i).

## 2.2 Limiting Conditions and Methodology Used

The environmental site assessment followed the methodology set forth in ASTM Standard E-1527-13. As per the ASTM Standard, Section 12, our scope of services included: a records review, site reconnaissance, interviews, and a written report. This Phase I ESA also incorporates procedures as prescribed in the new ASTME1527-21 Standard. The findings and conclusion in this report states whether any further investigation or corrective action is needed in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use.

## 2.3 Non-Scope Considerations

Our scope of work did not include an asbestos and lead-based paint review. The Tribe is not proposing to use this home for HUD related housing, however, should they choose to do so in the future, asbestos and lead-based paint testing should be conducted prior to occupancy.

#### 2.4 Data Gaps

In our opinion, significant data gaps were encountered during this assessment (note: a "data gap" is defined in the E1527-21 Standard as "a lack or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information."). The data gaps are as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records; 2) the current owner's answers to our questions regarding the past operations at the property did not match our site reconnaissance observations and historical aerial reviews; 3) the subject property has received large volumes of undocumented fill material over many years; and 4) the former owner was not available for an interview about past historical activities at the subject property.

These data gaps create significant breaches in our historical interpretation of past activities at the subject property that may have resulted in the release of hazardous substances or petroleum products.

## 3.0 SITE DESCRIPTION

The following information provides a brief description of the subject property. Figure 1 presents a site location map, Figure 2 presents site findings. Additional site description information was obtained during the site visit and through interviews.

## 3.1 Location and Legal Descriptions

The subject property is located at 290 Zaccardo Road in Clallam County, on the Olympic Peninsula, in Blyn, Washington State. The subject property consists of nine tax parcels and is collectively known as the Mottis Property. The tax parcels are as follows: 0329124190100000, 0329124170105001, 0329124170105002, 0329124170105003, 0329124170105004, 329124170101000, 0329124170105005, 0329124170105006, 0329124170105007. Each parcel is legally described in the attached assessor report (Appendix A).

0329124190100000: LOT 1 MOTTIS SP V35 P46 0329124170105001: LOT 1 MOTTIS BSP V1 P24 0329124170105002: LOT 2 MOTTIS BSP V1 P24 0329124170105003: LOT 3 MOTTIS BSP V1 P24

0329124170105003: LOT 4 MOTTIS BSP V1 P24

0329124170101000: MOTTIS BSP V1 P24 FKA LOT 2 SP V35 P46

0329124170105005: LOT 5 MOTTIS BSP V1 P24 0329124170105006: LOT 6 MOTTIS BSP V1 P24

0329124170105007: LOT 7 INCLDS REC AREA MOTTIS BSP V1 P24

#### 3.2 50-Year Chain-Of-Title and Assessor's Records Review

ESA Associates did not receive a 50-Year Chain-Of-Title for the subject property. ESA Associates relied on the Clallam County Assessor's records for a review of title history and property ownership. (Appendix A).

ESA Associates did not receive a 50-Year Chain-Of-Title for the subject property. ESA Associates relied on the Clallam County Assessor's records for a review of title history and property ownership. Eight of the parcels were a part of a quit claim deed on July 28, 2014, but there were no names associated with the deed. Parcel 0329124170105007 may have been included in this quit claim deed, but it was not recorded on the assessor's page. There was no sales history for Parcel 0329124170105007. Gregory Mottis was named as the current owner of all nine parcels.

#### 3.4 Environmental Liens

An environmental lien search was conducted via the Clallam County Assessor's Records for the subject property on April 12, 2023. The environmental lien search for the nine parcel numbers reviewed through the Clallam County Assessor indicated that no environmental liens are known to be present against the subject property. Furthermore, there were no other activities or use limitations (AULs) reported against the subject property. Appendix A contains a copy of Clallam County Assessor's Environmental Lien Research.

## 3.5 Physical Setting

The area of study for this Phase I ESA is to the south of the town of Blyn. Benjamin Dean founded Blyn when he moved his home, store, and fish cannery to the head of Sequim Bay in 1881. Later he built a split-wood shingle mill. Blyn had a saloon, pool hall, shoe repair shop, general store, a two-story hotel, and a lunch room. When the railroad came in 1914, a station was built, and the town flourished. In the 1930s, Highway 101 was built right through the middle of the town. The Chicago Milwaukee railroad was removed in the 1980s and then converted to riding/walking trails. The only building that remains of the old town of Blyn is the general store, which currently houses the Jamestown S'Klallam Tribe's art gallery. The town of Blyn is currently made up of the Jamestown S'Klallam Tribal buildings and offices.

The subject property is located north of the Olympic Mountain range and southeast of Sequim Bay. The original contours of the site are 143 feet above mean sea level (AMSL), with moderate slopes to the southeast and southwest. The regional ground water flow is to the north northwest toward Sequim Bay. Well depths in the area range from 118 to -9 feet below ground surface (bgs). The surrounding area is utilized as either small farms or single family residences. There is a church to the north of the subject property and a cemetery to the south of the subject property.

The subject property consists of a 1916 three bedroom, wood framed home with a asphalt tab roof. It covers 906 square feet. The home has a loft that covers 540 square feet. There is a porch that covers 176 square feet, and a deck that covers 180 square feet. There is a detached garage that covers 400 square feet, and a small carport. There are seven RV parking lots and they each have an RV occupying the space.

The home is hooked up to a 130 foot well (original well), and the RVs are hooked up to a 160 foot well that was drilled about ten years ago. The home and RVs are hooked up to the same septic system, which has three tanks. The home is currently heated with electric forced air and a woodstove; however, the Clallam County Assessor has the home heated with forced air oil.

The soils in the vicinity of the subject property are mapped as Hoypus gravelly sandy loam. These soils have a hydrologic group of Class A and exhibit high infiltration rates. The soil was formed in glacial outwash and is described as somewhat excessively drained sand and gravel. The native vegetation this soil supports is mostly conifers and shrubs.

There are also Clallam soils in the area of the subject property. Clallam soils are a gravelly sandy loam in hydrologic group C, which are soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. They are moderately well drained and have slow infiltration rates.

## 3.6 Historical Topographic Maps

ESA Associates' review of historic topographic maps indicates that the topography in the vicinity has not been altered for the years reviewed (1937, 1939/1940, 1953/1956, 1973, 1979, 1985/1990, 2014, 2017, and 2020). Appendix B contains a copy of the historic topographic maps reviewed. Please refer to Figures 1 and 2 for property locations.

In 1937, about two thirds of the eastern side of map is unmapped, as such the subject property is unmapped. The town of Blyn is labeled on the map, where there are a few structures along unpaved roads and a railroad. This area appears to be cleared of forested land. The railroad appears to follow closely along the coast and through Blyn. US Highway 101, which is paved, follows a similar route to the railroad. Sequim Bay takes up a large portion of the map, with Sequim Bay State Park on a point across the bay from the subject property.

In 1939/1940, the subject property appears to have two structures, just west of what appears to be a paved road on the subject property's eastern border. About three quarters of the subject property has been cleared of trees, while a small sliver of forested land remains on the subject property's western border. There is a fire tower roughly a mile southeast of the subject property, located on a moderate slope in cleared land.

In 1953/1956, the subject property only has one structure and appears to have mostly grown back in with forested land. There is a cemetery on a southern adjacent property. There is a church on a northern adjacent property. Blyn Lookout and a relay station are about a mile southeast of the subject property, where there was a fire tower before. South of the subject property, there is national forest.

In 1973, there is a new structure on the subject property, just north of the other structure. The surrounding area appears the same. On its western side, a third of the map is unmapped.

**In 1979,** the subject property is unmapped, as is two thirds of the eastern portion of this map. The western portion of this map appears the same.

In 1985/1990, the subject property has two additional structures. There is a quarry on a western adjacent property. The surrounding area appears mostly the same.

In 2014, the subject property and surrounding area do not have structures denoted. The Dungeness National Wildlife Refuge is about a mile northwest of the subject property. There appears to be a stream on the southern end of the subject property. Some trees have been cleared near the eastern border of the subject property.

In 2017, the subject property and surrounding area do not have structures denoted. The subject property appears to have been cleared of trees.

In 2020, the subject property and surrounding area do not have structures denoted. The subject property and surrounding area appear the same.

#### 3.7 Well Data

The DOE database shows no drinking water wells on the subject properties. According to our interviews and site reconnaissance, there are two wells on the subject property. The original well for the 1916 home is located to the south of the home in a wellhouse. The well is reportedly 130 feet deep. The second well was reportedly drilled about ten years ago as authorized by Mr. Mottis. The well is 160 feet deep and is housed in large wellhouse that contains a 2,000 holding tank. This well services the RVs on the subject property.

## 4.0 RECORDS REVIEW

The following agencies, companies, and individuals were contacted for information regarding the subject property. Information obtained from these sources is presented below:

- Clallam County Health Department, Public Records, April 15, 2023
- Clallam County Fire District #3, Caity Karapostoles, April 12, 2023
- Environmental Data Resources (EDR) Aerial Photographs, April 6, 2023
- Aerial Review Google Earth, April 15, 2023
- Environmental Data Resources (EDR) Radius Map Report, April 5, 2023
- Environmental Data Resources (EDR) City Directory, April 8, 2023
- Environmental Data Resources (EDR) Sanborn Map Report, April 5, 2023
- Environmental Data Resources (EDR) Topographic Map Report, April 5, 2023
- Clallam County Assessor's Records, Environmental Lien Review, April 12, 2023
- Current Property Owner, Mr. Greg Mottis, April 4, 2023
- Previous Property Owner, Unable to find as of April 21, 2023
- Site Visit, April 4, 2023

#### 4.1 Federal Environmental Record Sources

The following information was obtained from regulatory-agency listings and contacted agencies and/or individuals. Listed search distances are those specified in the ASTM standard.

As part of a government database search completed by EDR, the following federal database records were searched as required by ASTM: CERCLIS, ERNS, NPL, and RCRIS. Appendix C contains a copy of the complete EDR report. Database dates also are identified in the EDR report. The following summaries contain information from the EDR search.

# 4.1.1 Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list is a database printout of sites that have come to the Environmental Protection Agency's (EPA) attention as a site with the potential to or having had releases of hazardous substances being addressed under the Superfund program. CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL). Also included are sites which are in the screening and assessment phase for possible inclusion on the NPL.

As of February 25, 1995, the CERCLIS database no longer includes sites which the EPA has assessed and designated "No Further Remedial Action Planned" (NFRAP). A NFRAP decision does not necessarily mean that there is no hazard associated with a given site; it means only that based upon available information, the location is not judged to be a potential NPL site.

No CERCLIS listed facilities were identified for the subject property or within 0.5 miles of the subject property.

#### 4.1.2 Federal National Priorities List (NPL)

The NPL list is a compilation of CERCLIS properties with the highest priority for cleanup pursuant to EPA's Hazard Ranking System.

No NPL sites were identified for the subject property or within 1.0 mile of the subject property.

## 4.1.3 Federal Resource Conservation and Recovery Act (RCRA) List

The RCRA list identifies facilities that have obtained identification numbers from the EPA, which designate these businesses as generators, transporters, or storers/disposers of hazardous waste. Obtaining an identification number does not mean that any hazardous materials have been improperly handled at any of these facilities. (NOTE: Other lists, such as the Washington Department of Ecology's Leaking Underground Storage Tank List, identify hazardous waste problems.)

No RCRA Treatment, Storage and Disposal (TSD) facilities were identified on the subject property or within 1.0 miles of the subject property.

## 4.1.4 Federal Emergency Response Notification System (ERNS) List

The EDR list identifies those sites that are listed under the EPA's emergency response notification systems list of reported CERCLA hazardous substance releases or spills in quantities greater than the reportable quantity. This list is maintained by the National Response Center. Notification requirements for such releases or spills are codified in Chapter 40 of the Code of Federal Regulations (CFR) parts 302 and 355.

No ERNS list sites were identified for the subject property or within 0.25 miles of the subject property.

#### 4.1.5 FINDS

The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

Four FINDS list sites were identified within 0.50 miles of the subject property. These sites are covered under the Brownfields sites in Section 4.2.6 and will not be duplicated in this section. The name of these sites are as follows:

Meyer II at 294 Woods Road, Valaskey-AKA Dickey Birds located at 271020 Highway 101 and 43 Sophus Road, Sophus Road, and Meyer is located at 20 Sophus Road, and Sophus Road at 180 Sophus Road.

## 4.2 State Environmental Records Reviews (Washington State Department of Ecology)

As part of a government database search completed by EDR, the following state database records were searched as required by ASTM: leaking underground storage tank (LUST), underground storage tank register (UST), confirmed and suspected contaminated sites (C&SCS), and solid waste faculties (SWF). Appendix C contains a copy of the complete EDR report. Database dates are also identified in the EDR report. The following summaries contain information from the EDR search.

## 4.2.1 Confirmed and Suspected Contaminated Sites Report (C&SCS)

DOE's C&SCS Report **did not indicate** the subject property was a known or suspected contaminated site.

One C&SCS-listed property was identified within one mile of the subject property.

Sequim RV Park is located at 282 Old Blyn Highway. This site is 0.557 miles to the west northwest of the subject property, at a lower elevation. The site was contaminated with benzene, non-halogenated organics, lead, diesel, gasoline, and other petroleum products. The soils were remediated for benzene, but are still above the cleanup level. The soils were remediated to be below cleanup level for lead and non-halogenated organics. The groundwater was remediated to be below cleanup level for diesel, gasoline, and other petroleum products. The soil was also contaminated by gasoline, but was remediated to be below cleanup level. Final cleanup report was submitted to Ecology on April 25, 2022. It is also listed under ICR and ALLSITES. This site is down gradient from the subject property.

## 4.2.2 Leaking Underground Storage Tanks (LUST) List

A review of DOE's Toxic Cleanup Program LUST List indicated that there **were no** leaking underground storage tanks reported to DOE for the subject (Note: Sites determined to be "No

Further Action" after review of the final cleanup report by DOE staff will not appear on the Leaking Underground Storage Tank List).

No LUST sites were identified within 0.5 miles of the subject property.

## 4.2.3 Registered Underground Storage Tank (UST) List

A copy of DOE's UST list was reviewed. Underground storage tanks (USTs) are not listed for the subject property.

No UST sites were identified within 0.5 miles of the subject property.

## 4.2.4 State Landfill and/or Solid Waste Disposal Site Lists (SWF)

DOE's SWF List **did not** indicate that state landfills and/or solid waste disposal sites were identified for the subject property.

One SWF/LF site was listed within 0.25 miles of the subject property.

Recycle NW, LLC DBA as Ecycle Northwest. This site is located at 272693 Highway 101, 0.147 miles west northwest of the subject property. It was a private material recovery facility. It is now closed. This site is down gradient from the subject property. It is also listed under ALLSITES.

#### 4.2.5 Mines Master Index File

The mines master index file contains all mine identification numbers for mines active or opened since 1971. The data also includes violation information. The source of this database is the Department of Labor, Mine Safety and Health Administration.

The subject property is not listed as a mines site. One mines sites was listed within 1.0 miles of the subject property.

Puget Sound Surfacers Inc. is located 0.221 miles west northwest of the subject property at a lower elevation. This site is permanently abandoned.

## 4.2.6 U.S. Brownfields

The brownfields properties included in this listing are addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields.

Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

#### Five Brownfields sites were discovered within a 0.5-mile radius:

Meyer II at 294 Woods Road is located at 294 Woods Road 0.324 miles west southwest and at a lower elevation. An environmental consultant performed an initial site reconnaissance and found several areas on the property where unknown substances had been dumped. The houses were old and sampled for lead and asbestos. Asbestos was found in the flooring of one of the houses. The intact asbestos was left and covered with carpeting. The areas where dumping had occurred were excavated and tested for hazardous substances. No hazardous materials were found. The excavated material was hauled to the landfill and the grounds were graded and graveled.

#### Meyer is located at 183 Sophus Road, 0.358 miles west southwest and at a lower elevation.

The previous owners lived in a mobile home and used the property for automobile repair, parting-out and auto storage. There was considerable trash burned, buried and above ground on the property when the Jamestown S'Klallam Tribe purchased it. Two tax parcels with mainly woodland with native soils and vegetation. Residence was a single-wide mobile home. In 2006 a previous single-wide mobile burned down. Property is bordered by Sophus Road on the west,

Jamestown S'Klallam Tribal property on the north, a steep hill on the east and private property on the south. Previous owners lived in the mobile home and did automobile repair, parting-out and storage on the property.

Valaskey-AKA Dickey Birds is located at 271020 Highway 101 and 43 Sophus Road, 0.346 miles west and at a lower elevation. The Jamestown S'Klallam Tribe purchased the Valaskey property in 2002 to redevelop it into a Country Store and Deli. In December 2004, Pacific Northern Environmental PNE of Longview, WA removed three underground storage tanks (USTs) from the property. Before any redevelopment of the property could begin, petroleum contaminated soil and groundwater from the leaking USTs had to be cleaned up and the groundwater monitored for a year. That work was done by Insight Geologic of Olympic, WA. On 2/16/2007. The Tribe was issued a "No Further Action Determination" from the Washington State Department of Ecology for the cleanup. This site is down gradient from the subject property.

Sophus Road is located at 180 Sophus Road, 0.382 miles west southwest and at a lower elevation. One of the parcels (Henriksen) had several burn piles on it. These were all sampled and one of the piles contained benzene above MTCA levels. Approximately 22 cubic yards of the burn pile soil was remediated using aeration and nutrient enhancement. The pile was resampled and the benzene was reduced to below MTCA cleanup levels. One of the properties (Severn) had previously contained a settler's cabin. That was tested and removed.

**Sophus Road and Meyer is located at 20 Sophus Road, 0.372 miles west and at a lower elevation.** These six properties were previously assessed individually and, where appropriate, they were cleaned up. A Phase I ESA was conducted on all six properties as part of the Tribe's fee-to-trust application to the BIA. Five of the properties have been left in open space, the sixth (Severn) was redeveloped as the parking lot for the Tribe's Fire Station in Blyn. Former Use: Previously some of these parcels were part of a working farm and grazing operation. Two of the properties had residences which were demolished. The properties were part of the 2004 Jimmycomelately Creek and Restoration project.

Our review of these properties determined that these listed properties do not pose a threat to the subject property.

## 4.2.7 Orphan List Review

Sites listed in the EDR report as orphan sites are sites that could not be properly mapped due to poor geocoding information. No orphan sites were listed for the subject property.

One orphan site was listed within 0.5 miles of the subject property:

Midway Metals at 258010 Highway 101. The site is listed under the SEMs program. This site is too far away from the subject property to have any impact on the subject property.

## 4.2.8 Washington Allsites

The Allsites list is a general listing of facilities and sites that are of interest to DOE. An Allsites listing does not necessarily indicate a contaminated site or confirmed threat to either human health or the environment. The following sites are on the Allsites list because they are part of the program known as the Emergency Planning and Community Right-to-Know Act (EPCRA) of 19143. This Act was created to help communities plan for chemical emergencies. It also requires industries to report on the storage, use and releases of hazardous substances to federal, state, and local governments. EPCRA requires state and local governments, and Indian Tribes to use this information to prepare their community for potential risks.

No Allsites properties were listed for the subject property. Four sites were listed within 0.5 miles of the subject property.

Recycle NW, LLC DBA as Ecycle Northwest. This site is located at 272693 Highway 101, 0.147 miles west northwest of the subject property. It was a private material recovery facility listed under Ecology's WATQUAL Program. It is now closed.

Clallam CNTY PW BLYN PIT is located on Highway 101 and Woods Road 0.160 miles west northwest and at a lower elevation. It was listed in 1995 under Ecology's WATQUAL program.

US 101 Chicken Coop Zaccardo Realign is located 0.219 miles north and at a lower elevation. It was listed in 2017 under Ecology's WATQUAL program.

Jimmycomelately Estuary Mitigation site is located 0.422 miles west and at a lower elevation. It was listed in 2005 under Ecology's AQUATICS program.

## 4.3 Historical Use Information

The following information was obtained from reviewed sources of historical information and interviews.

## 4.3.1 Polk City Directories, EDR Digital Archive, and Cole Information

Polk City reverse telephone directories were discovered for this portion of Clallam County (per our EDR Report). The roads near the subject site and the surrounding areas were reviewed to determine general land use in the area. The years searched were from 1968 to 2020.

The subject property, with the address of 290 Zaccardo Rd, has the Blyn Backhoe Service and Gregory J Mottis listed in 2000. In 2005 and 2010, the subject property is listed under Greg's Excavating and Hauling Inc. and Gregory J Mottis. In 2014, the subject property is listed under Richard Hauf. In 2020, the subject property is listed under Nathan B Frederick. In 2020, the subject property is listed under Deborah Apple, Marcha Maurice, Rena Smith, and Gregory Mottis. Jamestown Skalallam Tribe is listed in 2010, 2014, 2017, and 2020. The Little Brown Church of Blyn is listed in 1995, 2000, 2014, 2017, and 2020. The area is listed as residential. Appendix D contains a copy of the EDR Polk City directory search.

## 4.3.2 Sanborn Fire Insurance Maps

No Sanborn Fire Insurance maps were discovered for the subject property or surrounding areas (per EDR Report) during our July 2022 review. Appendix E contains a copy of the EDR Sanborn search results.

#### 4.3.3 Kroll Maps

Kroll maps were not discovered for the subject property or surrounding areas.

## 4.3.4 Clallam County Fire Department District 3

On April 11 2023, we submitted a public records request (PRR) with the Clallam County Fire Department, District 3 regarding the site history and past calls to the subject property. We also interviewed an administrative assistant, Caity Karapostoles, about any calls to the subject property. According to their records, no USTs, fires, calls regarding accidents, or hazardous materials spills for the subject property have been filed to date.

## 4.3.5 Clallam County Health Department, Public Records

We reviewed each parcel with a document search of public records on Clallam County's website. According to their records on April 15, 2023, no USTs, hazardous materials spills, or complaints for the subject properties have been filed to date.

## 4.3.6 Aerial Photograph Review

A review of historical aerial photography may indicate past activities at a property that may not be documented by other means, or observed during a property visit. The effectiveness of this technique depends on the scale and quality of the photographs and the available coverage. Aerials were provided in our EDR Report for the years (1939, 1951, 1954, 1976, 1980, 1990, 1994, Google Earth Image 2005, 2006, 2009, 2013, 2017). Appendix F contains a copy of the aerial photographs. The following is a tabulation of the aerial photographs reviewed:

Date	Scale	Color
1939	1" = 500'	No
1951	1" = 500'	No
1954	1" = 500'	No
1976	1" = 500'	No
1980	1" = 500'	No
1990	1" = 500'	No
1994	1" = 500'	No
Google Earth Image 2005	1" = 500'	Yes
2006	1" = 500'	Yes
2009	1" = 500'	Yes
2013	1" = 500'	Yes
2017	1" = 500'	Yes

Results of our aerial photography review are presented below:

- 1939 Visibility is poor. The subject property appears to have been cleared of trees, although the adjacent property west of the subject property remains forested. On a northern adjacent property, there is a structure backed by forested land. Due to the poor visibility, it is unclear the use of the subject property. To the east across a road, land appears to be cleared of trees and looks to be pastureland. To the north of the subject property are paved roads and then Sequim Bay.
- 1951 Visibility is poor. There appears to be a rectangular structure near the center of the subject property. Trees have grown back in on the western third of the subject property. There is development along the water to the north of the subject property. Trees are starting to grow in to the northeast of the subject property.
- **1954** Visibility is poor. The subject property and surrounding areas are largely the same as in the previous aerial photograph.
- 1976 Visibility is poor. More trees have grown in on the subject property, so that only a section of the subject property on its eastern half is cleared. Some trees have been cleared on a western adjacent property, and also in a couple small areas to the west and northwest of the subject property. To the northeast of the subject property, land has grown back in with trees.
- 1980 There appear to be two small structures near the road on the eastern border of the subject property, and one larger structure near the center of the subject property. The rectangular structure is no longer depicted. There is activity to the west of the subject property in a gravel pit.
- 1990 The larger structure near the center of the subject property is no longer depicted. The western half of the subject property is still forested. There are small structures near the center of the subject property. Some trees have been cleared near the northern border of the subject property. Trees to the southwest of the subject property have been cleared. The gravel pit is still active.
- 1994 The eastern half of this photograph is not depicted, including most of the subject property. The gravel pit on a western adjacent property has been expanded up to the western border of the subject property.

Google Earth Image 2005 Although the visibility is poor, this is the first visual evidence available of excavating on the subject property. Trees have been nearly completely cleared on the subject property. There is a rectangular structure near the center of the subject property, as well as a few other small structures between the rectangular building and the road. Across the street to the east of the subject property, there is what appears to be a single family residence.

**2006** It appears that there is fill material deposited on the southern half of the subject property, as well as near its northern border. The subject property appears to be under continued excavation. The gravel pit on the western adjacent property is still in use.

**2009** There are dirt roads on the subject property, cutting to its western border. In the northwestern corner of the subject property, there are two what appear to be vehicles in a cleared area at the bottom of a mild slope. There are a few structures and vehicles on the subject property. To the east across the road, more houses have been built.

2013 Some trees have grown in around the subject property, but it remains mostly cleared. There are a number of new structures near the center of the subject property, which, through the site reconnaissance, proved to be RVs. There is what appears to be a shed south of the parked RVs. The rectangular structure near the center of the subject property is no longer denoted. There is a well house in the northeast corner of the subject property. Trees have been cleared, but are growing in somewhat, on a southwestern adjacent property.

2017 Shrubs are growing in on the excavated area in the northwest section of the subject property. There continue to be RVs and vehicles parked on the subject property. Trees have been cleared along the southwestern border of the subject property. Trees have been cleared and are growing in on a southern adjacent property.

**Note:** Aerial photographs only provide information on indications of land use and no significant conclusions can be drawn from the photographs alone.

## 5.0 SITE RECONNAISSANCE AND INTERVIEWS

ESA Associates' assessment included personal on-site and telephone interviews, and a property visit. This section summarizes the findings from the site visit, and interviews. Please refer to Figure 2 of this report for a site diagram and associated on-site findings.

On April 4, 2023, an ESA Associates Washington State registered geologist conducted a property visit. The purpose of the property visit was to look for obvious visual indications of historical or current operations that may have resulted in possible soil and/or groundwater contamination. The site visit included a visual review of the property for indications of activities such as waste storage and disposal, storm drainage, underground storage tanks (USTs), above ground storage tanks (ASTs), and hazardous-material storage or use areas. Observed conditions are described below.

## **5.1** Mottis Property Site Reconnaissance

An ESA Associates' registered geologist visited the site on April 4, 2023. We entered the subject property via the gravel driveway at the east end of the property along Zaccardo Road. The home is a 1916 single story, wood framed structure with a tab asphalt roof. The home is on a post and pier foundation with a basement dug in the underlying bedrock. We met with the homeowner, Mr. Greg Mottis, and the Jamestown S'Klallam Housing Manager, Ms. Anne Jagger, and walked the property as Mr. Mottis pointed out different features on the subject property. Mr. Mottis stated that he bought the property in 1988.

We first walked by the area west of the home where the RVs are parked. There were seven filled RV spaces at the time of our site visit. Mr. Mottis explained that the RVs each have their own tax parcel, and he generally has seven separate RV parking stations. Mr. Mottis stated that he only allows people over 50 to rent a pace on his property. The renters own their RVs and are responsible for caring for their lot. The RVs are hooked up to a septic system that is shared with the home. The RVs are also hooked up to the main well that Mr. Mottis drilled about 10 years ago. The well is 160 feet deep. Mr. Mottis also pointed out the original well for the home that is in a well house to the south of the current home. This well is 130 feet deep according to Mr. Mottis.

We walked further through the grounds of the subject property and were joined by additional Jamestown S'Klallam Tribal staff, Mr. Robert Knapp, the Environmental Planning Manager and Ms. Jenna Ziogas, the Environmental Program Specialist. We all continued walking to the western portion of the subject property. There was evidence of recent excavations in this area of the property. Mr. Mottis stated that he did not know of any recent digging, and he thought the disturbed soils were always in the condition we were observing. In our opinion, the disturbed soils resembled filled test pits. There was a pile of soil in the central portion of the western half of the subject property. Mr. Mottis stated that he had the soil dumped there from a project, but he could not recall from where or from whom. In front of this pile, there was evidence of burned debris. Mr. Mottis stated that he burned things in this area. He said that he burned lots of things, but mostly garbage. The remnants in the burn pile reflected burned garbage. Mr. Mottis stated that the western portion f the subject property used to have lots of boats and cars from the previous property owner, and that he had them removed over time.

We then walked over to the northern border of the subject property. We observed a steep drop off onto the adjacent property to the north. The drop off did not appear to be naturally occurring based on the root level of the trees on the adjacent property. The drop off is at least ten feet. We asked Mr. Mottis about this drop off, and he stated that he dug this area out many years ago. Our observations did not align with this information. In our opinion, the drop off appears to be the result of fill material being brought in and raising the ground level on the subject property. Mr. Mottis did affirm that this area received several loads of fill material from the Jamestown S'Klallam Tribe about ten years ago. Mr. Mottis stated that about 50 truckloads of soil came onto the property and filled a depression on the western half of his property. Mr. Mottis was not sure where the soil came from, but that it was a project from the Jamestown S'Klallam Tribe. Mr. Mottis pointed out that he used heavy equipment on his property to move dirt around. Mr. Mottis pointed to the southeastern portion of the property and said that he took material off of a ridge there and spread it out on the western portion of the property.

We walked back to the central portion of the subject property and asked Mr. Mottis if the gravel we were observing in this location was a road. He replied that he did not know what is was from and he said that it was just gravel. The gravel looked like a base to something like a home and there was the remnants of a road leading to the area of gravel. Note: Our aerial review later confirmed that a home was located on the gravel base from 1980 to 2010. We also confirmed that a road did come off of Zaccardo Road and end at this home.

We continued to walk in a easterly fashion past the RVs that are parked on their lots. There are currently seven RVs on the subject property. The lots are well kept, and we did not observe any obvious solid waste or storage of hazardous materials or petroleum products. Mr. Mottis showed us the two garages on the subject property. One is located to the south of the RVs, and the other is located to the east of the RVs and south of the home. The garage located to the south of the RVs is a two bay wood shed and contains a ride on lawn mower and one plastic 5-gallon container of gasoline to fuel the lawn mower. The other garage is closer to the home and has a cement floor and some work tools on benches and a few lawn tools. There are no cars in the garages. There is no staining on the floors of the garages.

Mr. Mottis allowed us into the home, and we made the following observations: The flooring has been recently replaced with a wood laminate. There is a small amount of vinyl sheeting that appears to be part of the original flooring in the washroom. The home is heated with a wood stove. There are three bedrooms and one bathroom. The bedrooms have popcorn ceiling textures that may or may not have asbestos containing materials in them. The ceiling textures are in good condition and do not show signs of degradation. The basement of the home has been dug into the native bedrock. There is evidence of a cement platform that may have been used to secure the heating oil furnace. The home is on a post and pier foundation.

## 5.2 Interview with Current Property Owner: Mr. Greg Mottis

We interviewed Mr. Mottis, the current property owner, during our site reconnaissance on April 4, 2023. While much of our discussion is recorded in the previous section, this section covers specific questions not asked during our walk through of the subject property. Mr. Mottis stated that he bought the home from a woman (name he could not recall) in 1988. At the time he bought the property, he said it was filled with old boats, wood, and "all sorts of crap" that he had to dispose of. Mr. Mottis pointed out that the materials were mostly stored on the western portion of the property. Mr. Mottis stated that he did not find anything buried on the property, but rather most of the debris was on the surface.

Mr. Mottis stated that when he bought the property, there was a huge depression on the western portion of the property. Mr. Mottis said that he filled in this depression over time. He recalled that the Jamestown S'Klallam Tribe brought in about 50 truckloads of dirt about ten years ago. He did not recall where the dirt came from, but he did recall that it was Mr. John Kertis of Jamestown Excavating that organized the soil coming to his property.

Mr. Mottis stated that he is retired and that he has always been retired at this property. Mr. Mottis did not wish to share his previous occupation. He said the RV park that he established on the subject property was his source of income. Mr. Mottis stated that he was not aware of any underground storage tanks on the property and that the home was not heated with oil, but rather a wood stove and electric forced air. Mr. Mottis recalled that when he bought the property, the home had asbestos siding, and he removed that and took it to the local landfill. He also said he replaced the roof recently. Mr. Mottis stated that the two wells on the property were between 130 and 160 feet deep and that the water was of excellent quality.

Mr. Mottis stated that he did change his own oil for his cars and that he took the used motor oil to the marina for disposal. Mr. Mottis stated that he has never used or stored hazardous materials on the property. Mr. Mottis does not use pesticides on the property. Mr. Mottis stated that he has never buried anything on the subject property.

## 5.3 Physical Setting Analysis

The subject property is located north of the Olympic Mountain range and southeast of Sequim Bay. The original contours of the site are 143 feet above mean sea level (AMSL), with moderate slopes to the southeast and southwest. The regional ground water flow is to the north northwest toward Sequim Bay. Well depths in the area range from 118 to -9 feet bgs. The surrounding area is occupied by small farms, a church, and single family residences.

The subject property consists of a 1916 three bedroom, wood framed home with a asphalt tab roof. It covers 906 square feet. The home has a loft that covers 540 square feet. There is a porch that covers 176 square feet, and a deck that covers 180 square feet. There is a detached garage that covers 400 square feet, and a small carport. There are seven RV parking lots and they each have an RV occupying the space.

There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have used the most

conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property.

A formal asbestos and lead paint survey was not performed during this assessment. The home was built in 1916. Our observations during the site reconnaissance indicated that the vinyl flooring and popcorn ceiling within the home may likely contain asbestos. It is also likely that the paint interior and exteriors contain lead based paint.

There are two wells on the subject property and one septic field. The septic is shared by RVs stationed on the subject property, and the single family residence. There are three septic tanks associated with the septic system and the drain field is to the west of the home. There was evidence of a heating oil furnace on the subject property potentially in the basement, but a heating oil tank was not physically found. The Clallam County Assessor has the home heated with forced air oil.

The soils in the vicinity of the subject property are mapped as Hoypus gravelly sandy loam. These soils have a hydrologic group of Class A and exhibit high infiltration rates. The soil was formed in glacial outwash and is described as somewhat excessively drained sand and gravel. The native vegetation this soil supports is mostly conifers and shrubs. There are also Clallam soils in the area of the subject property. Clallam soils are a gravelly sandy loam in hydrologic group C, which are soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. They are moderately well drained and have slow infiltration rates.

#### 5.4 Hazardous Substances in Connection with Identified Uses

In general hazardous substances in connection with identified uses were not observed during the site visit. One gasoline 5-gallon container was observed in the wood shed.

#### 5.5 Hazardous Substance Containers and Unidentified Substance Containers

Hazardous substance containers and unidentified substance containers were not identified during our site visit.

## 5.6 Storage Tanks

No USTs or ASTs were observed on the subject property during our site visit. However, the Clallam County Assessor has the home listed as being heated with forced air oil. Our site

reconnaissance observations of the basement indicate that an oil furnace may have been located at the northern end of the basement.

### 5.7 Indications of Polychlorinated Biphenyls (PCBs)

No liquid-filled transformers were noted on the property.

### 5.8 Indications of Solid Waste Disposal

As indicated in Section 5.0, we did not observe obvious indications of improper disposal of solid waste on the subject property. There is a small burn pit that reportedly has been used to burn garbage. The area is 10 feet by 10 feet next to a small stockpile of soil on the western portion of the subject property.

#### 5.9 Indications of Fill Material

As indicated in Section 5.0, we did observe imported fill material on the subject property. Based on our site reconnaissance observations and historical aerial review, we estimate at least 10,000 cubic yards of imported fill material has been received at the subject property. Most of the fill material is evident on the western portion of the subject property. The current property owner stated that he has received fill material on the subject property to fill in a depression and that he estimated about 50 truckloads of soil was brought in. Mr. Mottis stated that the Jamestown S'Klallam Tribe brought this soil to his property from one of their projects.

Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions and based on field observations is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet and based on field observations measures from one foot to three feet thick. We have used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material.

Our city directory review indicated that Mr. Mottis ran a "Blyn Back Hoe Service" from the property in 2000, and "Greg's Excavating & Hauling, Inc." from 2005 to 2010. These years correspond directly with the aerial photographic review of large amounts of fill material coming onto the subject property.

#### 5.10 Radon

Regarding the potential for radon, the United States Geological Survey (USGS) and the attached EDR report have identified this portion of Clallam County as having a "Low Geologic Radon Potential" (<2pCi/liter). The federal EPA Radon zone for this area is 3. Four sites were sampled in this area. Samples were not collected from the home located on the subject property during this assessment.

#### 5.11 Asbestos and Lead Paint

A formal asbestos and lead paint survey was not performed during this assessment. The home was built in 1916. Our observations during the site reconnaissance indicated that the vinyl flooring and popcorn ceiling within the home may likely contain asbestos. It is also likely that the paint interior and exteriors contain lead based paint.

#### **5.12** Radioactive Substances

ESA Associates' research during this assessment did not reveal any properties around or on the subject properties that contained or were suspected of containing radioactive substances.

### 6.0 FINDINGS AND CONCLUSIONS

The following conclusions are based on ESA Associates' knowledge of the subject properties from our site observations and information gathered during our review. These conclusions are subject to the limitations presented at the end of this report, and may change if additional information becomes available. The findings and conclusion in this report states whether any further investigation or corrective action is needed in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use.

ESA Associates performed a Phase I ESA for the Mottis Property located at 290 Zaccardo Road in Sequim, Washington, in conformance with the scope and limitations of ASTM Practice E 1527-13/21. Site contamination hazards have been analyzed in this assessment using current techniques by qualified professionals. Any exceptions to, or deletions from, this practice are described in Section 2.2 of this report.

#### 6.1 On-site

The subject property consists of a 1916 three bedroom, wood framed home with a asphalt tab roof. The home covers 906 square feet. The home has a loft that covers 540 square feet. There is a porch that covers 176 square feet, and a deck that covers 180 square feet. There is a detached garage that covers 400 square feet, and a small carport. There are seven RV parking lots and they each have an RV occupying the space.

The home is hooked up to a 130 foot well (original well), and the RVs are hooked up to a 160 foot well that was drilled about ten years ago. The home and RVs are hooked up to the same septic system, which has three tanks. The home is currently heated with electric forced air and a woodstove; however, the Clallam County Assessor has the home heated with forced air oil.

Our 2023 Phase I ESA of the Mottis Property did reveal current RECs associated with the subject property. There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have

used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property.

Our city directory review indicated that Mr. Mottis ran a "Blyn Back Hoe Service from the property in 2000 and "Greg's Excavating & Hauling, Inc." from 2005 to 2010. These years correspond directly with the aerial photographic review of large amounts of fill material coming onto the subject property. During our interview with Mr. Mottis, he stated that he was retired, and he did not wish share his former occupation. Mr. Mottis disclosed that Jamestown S'Klallam Tribe brought at least 50 truckloads of fill material onto his property about ten years ago. This amount of soil (1,000 cubic yards) does not reflect the total amount of imported fill material onto the subject property.

A formal asbestos and lead paint survey was not performed during this assessment. The home was built in 1916. Our observations during the site reconnaissance indicated that the vinyl flooring and popcorn ceiling within the home may likely contain asbestos. It is also likely that the paint interior and exteriors contain lead based paint.

In our opinion, significant data gaps were encountered during this assessment. The data gaps are as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records; 2) the current owner's answers to our questions regarding the past operations at the property did not match our site reconnaissance observations and historical aerial reviews; 3) the subject property has received large volumes of undocumented fill material over many years; and 4) the former owner was not available for an interview about past historical activities at the subject property.

These data gaps create significant breaches in our historical interpretation of past activities at the subject property that may have resulted in the release of hazardous substances or petroleum products.

#### 6.2 Off-site

In reference to off-site RECS, we did identify off-site RECs within the ASTM radius search. Our review of these off-site RECs found that these sites are either down gradient from the subject property parcels, cleaned up with "No Further Action" determinations and/or are permanently closed. Therefore, these sites do not pose a threat to the subject property parcels.

### 7.0 RECOMMENDATIONS

This summary and our report are subject to the limitations presented below in Section 8.0 of this report. ESA Associates believes that the Jamestown S'Klallam Tribe can rely on the findings, conclusions, and opinions of the Environmental professional.

ESA Associates' work was performed in accordance with our authorized proposal (711-007-195), dated March 29, 2023. This summary and our report are subject to the limitations presented below in Section 8.0 of this report.

Further investigation or corrective action is needed in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use. We recommend a Phase II ESA on the subject property to determine whether the fill material could affect the health and safety of occupants or conflict with the intended utilization of the property. We also recommend exploring the northern side of the home for a possible heating oil underground storage tank.

#### 8.0 LIMITATIONS

Phase I Environmental Site Assessments are non-comprehensive by nature and are unlikely to identify all environmental problems or eliminate all risk. The attached report is a qualitative assessment. ESA Associates offers a range of investigative and engineering services to suit the needs of our clients, including more quantitative investigations. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help to better understand and manage site risks. Since such detailed services involve greater expense, we ask our clients to participate in identifying the level of service, which will provide them with an acceptable level of risk. Please contact the signatories of this report if you would like to discuss this issue of risk further.

The scope of work on this project was presented in our identified proposal and subsequently approved by our client. Please be aware our scope of work was limited to those items specifically identified in the proposal. Other activities not specifically included in the presented scope of work (in the proposal, correspondence, or this report) are excluded and should not be considered to be a part of our scope of services.

ESA Associates performed this environmental assessment in accordance with the guidelines set forth in the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment (Designation E-1527-13/21).

Land use, site conditions (both on-site and off-site) and other factors will change over time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings and opinions can be considered valid only as of the date of the site visit. This report should not be relied upon after 180 days from the date of its issuance (ASTM Standard E-1527, Section 4.6).

The property owner is solely responsible for notifying all governmental agencies, and the public at large, of the existence, release, treatment or disposal of any hazardous materials observed at the project site. ESA Associates assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the project site, or from the discovery of such hazardous materials.

Any party other than Jamestown S'Klallam Tribe who would like to use this report shall notify ESA Associates of such intended use by executing the "Application for Authorization to Use" contained in this document. Based on the intended use of the report, ESA Associates may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by Jamestown S'Klallam Tribe or anyone else will release ESA Associates from any liability resulting from the use of this report by any unauthorized party. No warranty, either express, or implied is made.

### 9.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

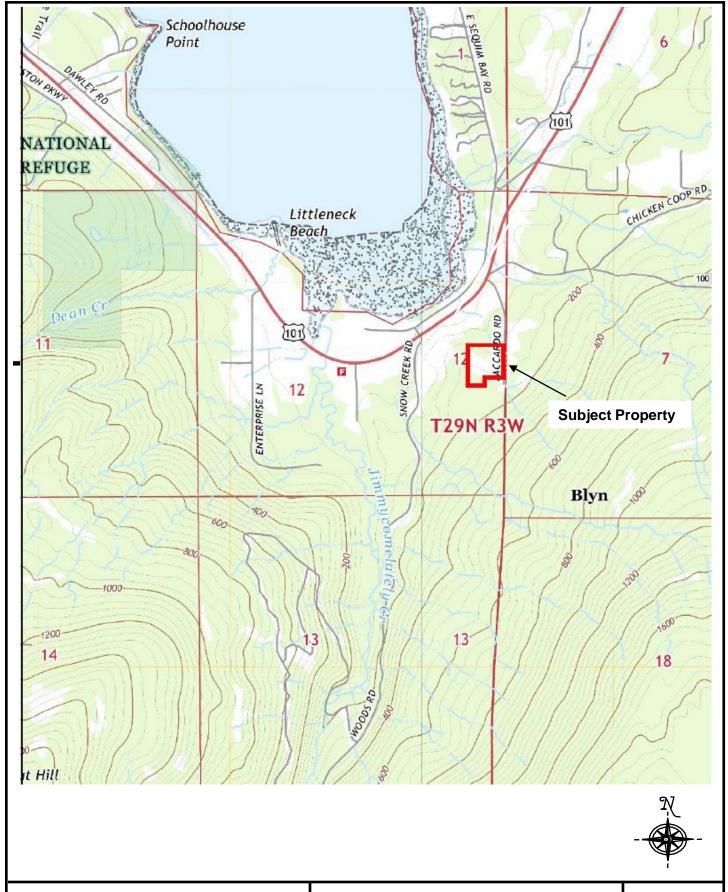
I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312, and I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312. Qualifications of the environmental professional who conducted this environmental site assessment are included in Appendix G.

Respectfully Submitted, **ESA ASSOCIATES, Inc.** 

Kristen Burgess

Kristen L Burgess, Registered Geologist, No. 1322

## **FIGURES**



# ESA Associates, Inc.

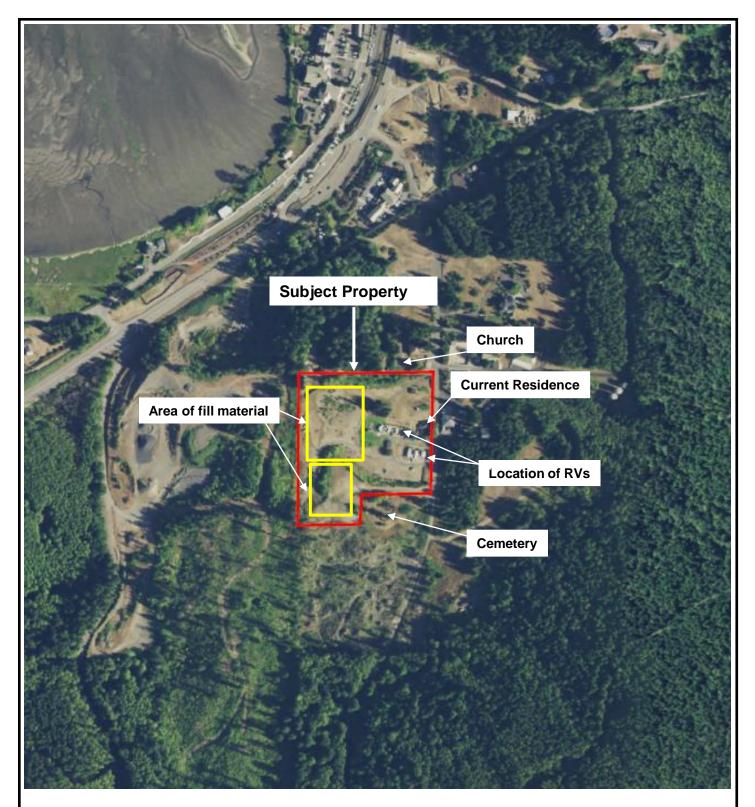
PROJECT NO. 711-007-195 April 4, 2023

## **Site Vicinity Map**

Mottis Property 290 Zaccardo Road Sequim, WA 98382

### Figure

1





ESA Associates, Inc.

PROJECT NO. 711-007-195 April 4, 2023

### **Site Diagram**

Mottis Property 290 Zaccardo Road Sequim, WA 98382 Figure

2

## SITE PHOTOGRAPHS



1911 home of subject property



View of mobile home park on subject property



Driveway going onto subject property



View of imported soil on subject property

ESA Associates, Inc.

PROJECT NO. 711-007-195 April 4, 2023

**Site Visit Photographs** 

Mottis Property 290 Zaccardo Road Sequim, WA 98382 РНОТО

1

## **APPENDICES**

## APPENDIX A

## **Clallam County Assessor Review**

### **Clallam County Assessor & Treasurer**

### Property Search Results > 84975 GREGORY J MOTTIS for Year 2022 - 2023

### **Property**

	_	_	_		-	
Α	r	r	n	ш	n	П

Property ID: 84975 Legal Description: LOT 1 MOTTIS SP V35 P46

Geographic ID: 0329124190100000 Agent Code:

Type: Real

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 91

Open Space:NDFLNHistoric Property:NRemodel Property:N

Multi-Family Redevelopment: N

Township: Section:

Range:

Location

Address: ZACCARDO RD Mapsco:

SEQUIM, WA 98382

Neighborhood: Blynn Res Map ID: C11

Neighborhood CD: 1151000

Owner

Name: GREGORY J MOTTIS Owner ID: 42191

Mailing Address: 290 ZACCARDO RD % Ownership: 100.0000000000%

SEQUIM, WA 98382-7660

Exemptions:

#### **Pay Tax Due**

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						
2023	55598	\$645.48	\$645.38	\$0.00	\$0.00	\$1290.86	\$0.00
▶ State	ement Details						
2022	55831	\$764.60	\$764.03	\$0.00	\$0.00	\$1528.63	\$0.00
▶ State	ement Details						
2021	56147	\$505.98	\$505.87	\$0.00	\$0.00	\$1011.85	\$0.00
▶ State	ement Details						
2020	56537	\$564.61	\$564.49	\$0.00	\$0.00	\$1129.10	\$0.00
▶ State	ement Details						
2019	57021	\$387.22	\$387.13	\$0.00	\$0.00	\$774.35	\$0.00

#### Values

(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$0	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$165,000	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

(=) Market Value: \$165,000 (-) Productivity Loss: \$0 (=) Subtotal: \$165,000 (+) Senior Appraised Value: \$0 (+) Non-Senior Appraised Value: \$165,000 (=) Total Appraised Value: \$165,000 \$0 (-) Senior Exemption Loss: (-) Exemption Loss: \$0

**Taxing Jurisdiction** 

(=) Taxable Value:

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$165,000

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$165,000	\$165,000	\$137.80
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$165,000	\$165,000	\$257.68
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$165,000	\$165,000	\$128.92
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$165,000	\$165,000	\$3.39
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$165,000	\$165,000	\$0.25
TAX REFUND	TAX REFUND FUND COUNTY	0.000000000	\$165,000	\$165,000	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$165,000	\$165,000	\$1.53
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$165,000	\$165,000	\$18.61
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.000000000	\$165,000	\$165,000	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$165,000	\$165,000	\$135.50
LIB	LIBRARY COUNTY	0.3094960582	\$165,000	\$165,000	\$51.07
SD #323 CP	SD 323 CP	0.4549724454	\$165,000	\$165,000	\$75.07
SD 323 GEN	SD 323 M & O	0.9029956565	\$165,000	\$165,000	\$148.99
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$165,000	\$165,000	\$61.07
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$165,000	\$165,000	\$186.76
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$165,000	\$165,000	\$55.19
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$165,000	\$165,000	\$3.12
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$1,264.95
				Taxes w/o Exemptions:	\$1,264.95

\$165,000

### Improvement / Building

### Sketch

No sketches available for this property.

### **Property Image**

#### Land

#	Туре	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	9120	9120	1.0000	43560.00	0.00	0.00	\$75,000	\$0
2	9120	9120	6.0000	261360.00	0.00	0.00	\$90,000	\$0

### **Roll Value History**

Year	Improvements	<b>Land Market</b>	<b>Current Use</b>	<b>Total Appraised</b>	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$0	\$165,000	\$0	\$165,000	\$165,000
2021	\$0	\$165,000	\$0	\$165,000	\$165,000
2020	\$0	\$107,500	\$0	\$107,500	\$107,500
2019	\$0	\$107,500	\$0	\$107,500	\$107,500
2018	\$0	\$75,749	\$0	\$75,749	\$75,749

### **Deed and Sales History**

#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number
1	07/28/2014	QUIT CLAIM	QUIT CLAIM DEED						0	2014-1310554

### **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

### **Clallam County Assessor & Treasurer**

### Property Search Results > 85041 GREGORY J MOTTIS for Year 2022 - 2023

### **Property**

			Account
Description: MOTTIS BSP V1 P24 FKA LOT 2 SF V35 P46	Legal Description:	85041	Property ID:
Code:	Agent Code:	0329124170101000	Geographic ID:
		Real	Type:
Use Code 11	Land Use Code	0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R	Tax Area:
N	DFL	N	Open Space:
del Property: N	Remodel Property:	N	Historic Property:
		N	Multi-Family Redevelopment:
n:	Section:		Township:
			Range:
			Location
co:	Mapsco:	290 ZACCARDO RD SEQUIM, WA 98382	Address:
D: C11	Map ID:	Blynn Res	Neighborhood:
		1151000	Neighborhood CD:
			Owner
r ID: 42191	Owner ID:	GREGORY J MOTTIS	Name:
nership: 100.000000000%	% Ownership:	290 ZACCARDO RD SEQUIM, WA 98382-7660	Mailing Address:
otions:	Exemptions:		
D: C11  er ID: 42191 nership: 100.000000000%	Map ID:  Owner ID: % Ownership:	SEQUIM, WA 98382 Blynn Res 1151000  GREGORY J MOTTIS 290 ZACCARDO RD	Location Address: Neighborhood: Neighborhood CD: Owner Name:

### Pay Tax Due

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: NOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						
2023	55648	\$21.13	\$0.00	\$0.00	\$0.00	\$21.13	\$0.00
▶ State	ement Details						
2022	55880	\$25.13	\$0.00	\$0.00	\$0.00	\$25.13	\$0.00
▶ State	ement Details						
2021	56197	\$1.63	\$0.00	\$0.00	\$0.00	\$1.63	\$0.00
▶ State	ement Details						
2020	56591	\$1.63	\$0.00	\$0.00	\$0.00	\$1.63	\$0.00

#### **Values**

(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$0	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$0	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

-----

(=) Market Value:	=	\$0
(–) Productivity Loss:	_	\$0
(=) Subtotal:	=	\$0
(+) Senior Appraised Value:	+	\$0
(+) Non-Senior Appraised Value:	+	\$0
(=) Total Appraised Value:	=	\$0
(=) Total Appraised Value: (–) Senior Exemption Loss:	= -	\$0 \$0
. ,	= - -	•
(–) Senior Exemption Loss:	= - -	\$0

### **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$0

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$0	\$0	\$0.00
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$0	\$0	\$0.00
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$0	\$0	\$0.00
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$0	\$0	\$0.00
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$0	\$0	\$0.00
TAX REFUND	TAX REFUND FUND COUNTY	0.000000000	\$0	\$0	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$0	\$0	\$0.00
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$0	\$0	\$0.00
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.000000000	\$0	\$0	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$0	\$0	\$0.00
LIB	LIBRARY COUNTY	0.3094960582	\$0	\$0	\$0.00
SD #323 CP	SD 323 CP	0.4549724454	\$0	\$0	\$0.00
SD 323 GEN	SD 323 M & O	0.9029956565	\$0	\$0	\$0.00
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$0	\$0	\$0.00
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$0	\$0	\$0.00
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$0	\$0	\$0.00
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$0	\$0	\$0.00
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$0.00
				Taxes w/o Exemptions:	\$0.00

### Improvement / Building

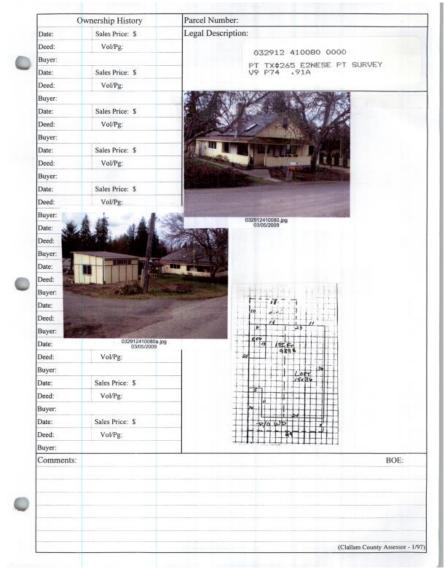
### Sketch

No sketches available for this property.

### **Property Image**























#### Land

#	Туре	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	1100	1100	0.0000	0.00	0.00	0.00	\$0	\$0

### **Roll Value History**

Year	Improvements	Land Market	<b>Current Use</b>	Total Appraised	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$0	\$0	\$0	\$0	\$0
2021	\$0	\$0	\$0	\$0	\$0
2020	\$0	\$0	\$0	\$0	\$0
2019	\$0	\$0	\$0	\$0	\$0

### **Deed and Sales History**

	#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number
1	L	07/28/2014	QUIT CLAIM	QUIT CLAIM DEED						0	2014-1310554

### **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

Exemptions:

### **Clallam County Assessor & Treasurer**

### Property Search Results > 85042 GREGORY J MOTTIS for Year 2022 - 2023

### **Property**

Α	r	r	0	ш	n	t
$\overline{}$	u	┖	v	ч		

Property ID: 85042 Legal Description: LOT 1 MOTTIS BSP V1 P24

Geographic ID: 0329124170105001 Agent Code:

Type: Real

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 75

Open Space:NDFLNHistoric Property:NRemodel Property:N

Multi-Family Redevelopment: N

Township: Section:

Range:

Location

Address: ZACCARDO RD Mapsco:

SEQUIM, WA 98382

Neighborhood: Blynn Res Map ID: C11

Neighborhood CD: 1151000

Owner

Name: GREGORY J MOTTIS Owner ID: 42191

Mailing Address: 290 ZACCARDO RD % Ownership: 100.0000000000%

SEQUIM, WA 98382-7660

### Pay Tax Due

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						
2023	55649	\$64.58	\$64.50	\$0.00	\$0.00	\$129.08	\$0.00
▶ State	ement Details						
2022	55881	\$76.69	\$76.64	\$0.00	\$0.00	\$153.33	\$0.00
▶ State	ement Details						
2021	56198	\$65.17	\$65.12	\$0.00	\$0.00	\$130.29	\$0.00
▶ State	ement Details						
2020	56592	\$64.48	\$64.44	\$0.00	\$0.00	\$128.92	\$0.00

\$16,835

#### **Values**

(=) Market Value:

(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$8,125	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$8,710	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

https://websrv22.clallam.net/propertyaccess/Property.aspx?cid=0&year=2022&prop\_id=85042

(–) Productivity Loss: \$0 (=) Subtotal: \$16,835 \$0 (+) Senior Appraised Value: (+) Non-Senior Appraised Value: \$16,835 (=) Total Appraised Value: \$16,835 (-) Senior Exemption Loss: \$0 (-) Exemption Loss: \$0 (=) Taxable Value: \$16,835

### **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$16,835

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$16,835	\$16,835	\$14.06
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$16,835	\$16,835	\$26.29
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$16,835	\$16,835	\$13.15
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$16,835	\$16,835	\$0.35
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$16,835	\$16,835	\$0.03
TAX REFUND	TAX REFUND FUND COUNTY	0.000000000	\$16,835	\$16,835	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$16,835	\$16,835	\$0.16
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$16,835	\$16,835	\$1.90
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.000000000	\$16,835	\$16,835	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$16,835	\$16,835	\$13.83
LIB	LIBRARY COUNTY	0.3094960582	\$16,835	\$16,835	\$5.21
SD #323 CP	SD 323 CP	0.4549724454	\$16,835	\$16,835	\$7.66
SD 323 GEN	SD 323 M & O	0.9029956565	\$16,835	\$16,835	\$15.20
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$16,835	\$16,835	\$6.23
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$16,835	\$16,835	\$19.06
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$16,835	\$16,835	\$5.63
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$16,835	\$16,835	\$0.32
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$129.08
				Taxes w/o Exemptions:	\$129.08

### Improvement / Building

Improvement #1:	Commercial	State Code:	75	0.0 sqft	Value:	\$8,125
Туре	Description	Class CD		Sub Class CD	Year Built	Area
OTH	OTHER	*			0	0.0

#### Sketch

No sketches available for this property.

### **Property Image**





### Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	7516	7516	0.0400	1742.40	0.00	0.00	\$8,710	\$0

### **Roll Value History**

Year	Improvements	Land Market	<b>Current Use</b>	Total Appraised	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2021	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2020	\$8,125	\$6,000	\$0	\$14,125	\$14,125
2019	\$6,500	\$6,000	\$0	\$12,500	\$12,500

### **Deed and Sales History**

#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number
---	-----------	------	-------------	---------	---------	--------	------	------------	------------------	----------------

1 07/28/2014 QUIT CLAIM QUIT CLAIM DEED

0 2014-1310554

### **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

### **Clallam County Assessor & Treasurer**

### Property Search Results > 85043 GREGORY J MOTTIS for Year 2022 - 2023

### **Property**

Α	C	r	0	ш	n	t
$\overline{}$	•	┖	v	ч		

Property ID: 85043 Legal Description: LOT 2 MOTTIS BSP V1 P24

Geographic ID: 0329124170105002 Agent Code:

Type: Real

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 75

Open Space:NDFLNHistoric Property:NRemodel Property:N

Multi-Family Redevelopment: N

Township: Section:

Range:

Location

Address: ZACCARDO RD Mapsco:

SEQUIM, WA 98382

Neighborhood: Blynn Res Map ID: C11

Neighborhood CD: 1151000

Owner

Name: GREGORY J MOTTIS Owner ID: 42191

Mailing Address: 290 ZACCARDO RD % Ownership: 100.0000000000%

SEQUIM, WA 98382-7660

Exemptions:

#### **Pay Tax Due**

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						
2023	55650	\$64.58	\$64.50	\$0.00	\$0.00	\$129.08	\$0.00
▶ State	ement Details						
2022	55882	\$76.69	\$76.64	\$0.00	\$0.00	\$153.33	\$0.00
▶ State	ement Details						
2021	56199	\$65.17	\$65.12	\$0.00	\$0.00	\$130.29	\$0.00
▶ Statement Details							
2020	56593	\$64.48	\$64.44	\$0.00	\$0.00	\$128.92	\$0.00

#### **Values**

		4	
(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$8,125	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$8,710	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

(=) Market Value: = \$16,835

(-) Productivity Loss: \$0 (=) Subtotal: \$16,835 \$0 (+) Senior Appraised Value: (+) Non-Senior Appraised Value: \$16,835 (=) Total Appraised Value: \$16,835 (-) Senior Exemption Loss: \$0 (-) Exemption Loss: \$0 (=) Taxable Value: \$16,835

### **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$16,835

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$16,835	\$16,835	\$14.06
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$16,835	\$16,835	\$26.29
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$16,835	\$16,835	\$13.15
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$16,835	\$16,835	\$0.35
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$16,835	\$16,835	\$0.03
TAX REFUND	TAX REFUND FUND COUNTY	0.0000000000	\$16,835	\$16,835	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$16,835	\$16,835	\$0.16
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$16,835	\$16,835	\$1.90
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.0000000000	\$16,835	\$16,835	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$16,835	\$16,835	\$13.83
LIB	LIBRARY COUNTY	0.3094960582	\$16,835	\$16,835	\$5.21
SD #323 CP	SD 323 CP	0.4549724454	\$16,835	\$16,835	\$7.66
SD 323 GEN	SD 323 M & O	0.9029956565	\$16,835	\$16,835	\$15.20
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$16,835	\$16,835	\$6.23
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$16,835	\$16,835	\$19.06
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$16,835	\$16,835	\$5.63
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$16,835	\$16,835	\$0.32
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$129.08
				Taxes w/o Exemptions:	\$129.08

### Improvement / Building

Improvement #1:	Commercial	State Code:	75	0.0 sqft	Value:	\$8,125
Туре	Description	Class CD		Sub Class CD	Year Built	Area
OTH	OTHER	*			0	0.0

#### Sketch

No sketches available for this property.

### **Property Image**





### Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	7516	7516	0.0400	1742.40	0.00	0.00	\$8,710	\$0

### **Roll Value History**

Year	Improvements	Land Market	<b>Current Use</b>	Total Appraised	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2021	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2020	\$8,125	\$6,000	\$0	\$14,125	\$14,125
2019	\$6,500	\$6,000	\$0	\$12,500	\$12,500

### **Deed and Sales History**

#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number	
---	-----------	------	-------------	---------	---------	--------	------	------------	------------------	----------------	--

1 07/28/2014 QUIT CLAIM QUIT CLAIM DEED

0 2014-1310554

### **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

### **Clallam County Assessor & Treasurer**

### Property Search Results > 85044 GREGORY J MOTTIS for Year 2022 - 2023

### **Property**

Α	C	C	0	u	n	t

Property ID: 85044 Legal Description: LOT 3 MOTTIS BSP V1 P24

Geographic ID: 0329124170105003 Agent Code:

Type: Real

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 75

Open Space:NDFLNHistoric Property:NRemodel Property:N

Multi-Family Redevelopment: N

Township: Section:

Range:

Location

Address: ZACCARDO RD Mapsco:

SEQUIM, WA 98382

Neighborhood: Blynn Res Map ID: C11

Neighborhood CD: 1151000

Owner

Name: GREGORY J MOTTIS Owner ID: 42191

Mailing Address: 290 ZACCARDO RD % Ownership: 100.0000000000%

SEQUIM, WA 98382-7660

 ${\bf Exemptions:}$ 

#### **Pay Tax Due**

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						
2023	55651	\$64.58	\$64.50	\$0.00	\$0.00	\$129.08	\$0.00
▶ State	ement Details						
2022	55883	\$76.69	\$76.64	\$0.00	\$0.00	\$153.33	\$0.00
▶ State	ement Details						
2021	56200	\$65.17	\$65.12	\$0.00	\$0.00	\$130.29	\$0.00
▶ State	ement Details						
2020	56594	\$64.48	\$64.44	\$0.00	\$0.00	\$128.92	\$0.00

\$16,835

#### **Values**

(=) Market Value:

(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$8,125	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$8,710	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

https://websrv22.clallam.net/propertyaccess/Property.aspx?cid=0&year=2022&prop\_id=85044

(-) Productivity Loss: \$0 (=) Subtotal: \$16,835 \$0 (+) Senior Appraised Value: (+) Non-Senior Appraised Value: \$16,835 (=) Total Appraised Value: \$16,835 (-) Senior Exemption Loss: \$0 (-) Exemption Loss: \$0 (=) Taxable Value: \$16,835

### **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$16,835

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$16,835	\$16,835	\$14.06
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$16,835	\$16,835	\$26.29
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$16,835	\$16,835	\$13.15
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$16,835	\$16,835	\$0.35
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$16,835	\$16,835	\$0.03
TAX REFUND	TAX REFUND FUND COUNTY	0.000000000	\$16,835	\$16,835	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$16,835	\$16,835	\$0.16
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$16,835	\$16,835	\$1.90
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.000000000	\$16,835	\$16,835	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$16,835	\$16,835	\$13.83
LIB	LIBRARY COUNTY	0.3094960582	\$16,835	\$16,835	\$5.21
SD #323 CP	SD 323 CP	0.4549724454	\$16,835	\$16,835	\$7.66
SD 323 GEN	SD 323 M & O	0.9029956565	\$16,835	\$16,835	\$15.20
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$16,835	\$16,835	\$6.23
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$16,835	\$16,835	\$19.06
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$16,835	\$16,835	\$5.63
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$16,835	\$16,835	\$0.32
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$129.08
				Taxes w/o Exemptions:	\$129.08

### Improvement / Building

Improvement #1:	Commercial	State Code:	75	0.0 sqft	Value:	\$8,125
Туре	Description	Class CD		Sub Class CD	Year Built	Area
OTH	OTHER	*			0	0.0

#### Sketch

No sketches available for this property.

### **Property Image**





### Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	7516	7516	0.0400	1742.40	0.00	0.00	\$8,710	\$0

### **Roll Value History**

Year	Improvements	<b>Land Market</b>	<b>Current Use</b>	<b>Total Appraised</b>	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2021	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2020	\$8,125	\$6,000	\$0	\$14,125	\$14,125
2019	\$6,500	\$6,000	\$0	\$12,500	\$12,500

### **Deed and Sales History**

#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number	١
---	-----------	------	-------------	---------	---------	--------	------	------------	------------------	----------------	---

1 07/28/2014 QUIT CLAIM QUIT CLAIM DEED

0 2014-1310554

## **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

## **Clallam County Assessor & Treasurer**

## Property Search Results > 85045 GREGORY J MOTTIS for Year 2022 - 2023

## **Property**

Α	C	C	0	u	n	t

Property ID: 85045 Legal Description: LOT 4 MOTTIS BSP V1 P24

Geographic ID: 0329124170105004 Agent Code:

Type: Real

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 75

Open Space:NDFLNHistoric Property:NRemodel Property:N

Multi-Family Redevelopment: N

Township: Section:

Range:

Location

Address: ZACCARDO RD Mapsco:

SEQUIM, WA 98382

Neighborhood: Blynn Res Map ID: C11

Neighborhood CD: 1151000

Owner

Name: GREGORY J MOTTIS Owner ID: 42191

Mailing Address: 290 ZACCARDO RD % Ownership: 100.0000000000%

SEQUIM, WA 98382-7660

Exemptions:

#### **Pay Tax Due**

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						·
2023	55652	\$64.58	\$64.50	\$0.00	\$0.00	\$129.08	\$0.00
▶ State	ement Details						
2022	55884	\$76.69	\$76.64	\$0.00	\$0.00	\$153.33	\$0.00
▶ State	ement Details						
2021	56201	\$65.17	\$65.12	\$0.00	\$0.00	\$130.29	\$0.00
▶ State	ement Details						
2020	56595	\$64.48	\$64.44	\$0.00	\$0.00	\$128.92	\$0.00

#### **Values**

/ 1 \ Improve your ent Hemoeite \/elue		ĊΩ	
(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$8,125	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$8,710	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

(=) Market Value: = \$16,835

(-) Productivity Loss: \$0 (=) Subtotal: \$16,835 \$0 (+) Senior Appraised Value: (+) Non-Senior Appraised Value: \$16,835 (=) Total Appraised Value: \$16,835 (-) Senior Exemption Loss: \$0 (-) Exemption Loss: \$0 (=) Taxable Value: \$16,835

## **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$16,835

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$16,835	\$16,835	\$14.06
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$16,835	\$16,835	\$26.29
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$16,835	\$16,835	\$13.15
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$16,835	\$16,835	\$0.35
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$16,835	\$16,835	\$0.03
TAX REFUND	TAX REFUND FUND COUNTY	0.000000000	\$16,835	\$16,835	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$16,835	\$16,835	\$0.16
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$16,835	\$16,835	\$1.90
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.000000000	\$16,835	\$16,835	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$16,835	\$16,835	\$13.83
LIB	LIBRARY COUNTY	0.3094960582	\$16,835	\$16,835	\$5.21
SD #323 CP	SD 323 CP	0.4549724454	\$16,835	\$16,835	\$7.66
SD 323 GEN	SD 323 M & O	0.9029956565	\$16,835	\$16,835	\$15.20
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$16,835	\$16,835	\$6.23
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$16,835	\$16,835	\$19.06
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$16,835	\$16,835	\$5.63
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$16,835	\$16,835	\$0.32
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$129.08
				Taxes w/o Exemptions:	\$129.08

## Improvement / Building

Improvement #1:	Commercial	State Code:	75	0.0 sqft	Value:	\$8,125
Туре	Description	Class CD		Sub Class CD	Year Built	Area
OTH	OTHER	*			0	0.0

#### Sketch

No sketches available for this property.

## **Property Image**





## Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	7516	7516	0.0400	1742.40	0.00	0.00	\$8,710	\$0

## **Roll Value History**

Year	Improvements	Land Market	<b>Current Use</b>	Total Appraised	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2021	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2020	\$8,125	\$6,000	\$0	\$14,125	\$14,125
2019	\$6,500	\$6,000	\$0	\$12,500	\$12,500

## **Deed and Sales History**

#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number	
---	-----------	------	-------------	---------	---------	--------	------	------------	------------------	----------------	--

1 07/28/2014 QUIT CLAIM QUIT CLAIM DEED

0 2014-1310554

## **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

Section:

Exemptions:

## **Clallam County Assessor & Treasurer**

## Property Search Results > 85046 GREGORY J MOTTIS for Year 2022 - 2023

#### **Property**

Α	cc	1		n	٠
$\overline{}$	u	·	u	ш	ι

Property ID: 85046 Legal Description: LOT 5 MOTTIS BSP V1 P24

Geographic ID: 0329124170105005 Agent Code:

Type: Real

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 75

Open Space:NDFLNHistoric Property:NRemodel Property:N

Multi-Family Redevelopment: N
Township:

Range:

Location

Address: ZACCARDO RD Mapsco:

SEQUIM, WA 98382

Neighborhood: Blynn Res Map ID: C11

Neighborhood CD: 1151000

Owner

Name: GREGORY J MOTTIS Owner ID: 42191

Mailing Address: 290 ZACCARDO RD % Ownership: 100.0000000000%

SEQUIM, WA 98382-7660

#### **Pay Tax Due**

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due	
▶ State	ement Details							
2023	55653	\$64.58	\$64.50	\$0.00	\$0.00	\$129.08	\$0.00	
▶ State	Statement Details							
2022	55885	\$76.69	\$76.64	\$0.00	\$0.00	\$153.33	\$0.00	
▶ State	ement Details							
2021	56202	\$65.17	\$65.12	\$0.00	\$0.00	\$130.29	\$0.00	
▶ State	ement Details							
2020	56596	\$64.48	\$64.44	\$0.00	\$0.00	\$128.92	\$0.00	

#### **Values**

(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$8,125	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$8,710	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

(=) Market Value: = \$16,835

(-) Productivity Loss: \$0 (=) Subtotal: \$16,835 \$0 (+) Senior Appraised Value: (+) Non-Senior Appraised Value: \$16,835 (=) Total Appraised Value: \$16,835 (-) Senior Exemption Loss: \$0 (-) Exemption Loss: \$0 (=) Taxable Value: \$16,835

## **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$16,835

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$16,835	\$16,835	\$14.06
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$16,835	\$16,835	\$26.29
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$16,835	\$16,835	\$13.15
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$16,835	\$16,835	\$0.35
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$16,835	\$16,835	\$0.03
TAX REFUND	TAX REFUND FUND COUNTY	0.0000000000	\$16,835	\$16,835	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$16,835	\$16,835	\$0.16
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$16,835	\$16,835	\$1.90
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.0000000000	\$16,835	\$16,835	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$16,835	\$16,835	\$13.83
LIB	LIBRARY COUNTY	0.3094960582	\$16,835	\$16,835	\$5.21
SD #323 CP	SD 323 CP	0.4549724454	\$16,835	\$16,835	\$7.66
SD 323 GEN	SD 323 M & O	0.9029956565	\$16,835	\$16,835	\$15.20
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$16,835	\$16,835	\$6.23
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$16,835	\$16,835	\$19.06
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$16,835	\$16,835	\$5.63
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$16,835	\$16,835	\$0.32
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$129.08
				Taxes w/o Exemptions:	\$129.08

## Improvement / Building

Improvement #1:	Commercial	State Code:	75	0.0 sqft	Value:	\$8,125
Туре	Description	Class CD		Sub Class CD	Year Built	Area
OTH	OTHER	*			0	0.0

#### Sketch

No sketches available for this property.

## **Property Image**





## Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	7516	7516	0.0400	1742.40	0.00	0.00	\$8,710	\$0

## **Roll Value History**

Year	Improvements	Land Market	<b>Current Use</b>	Total Appraised	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2021	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2020	\$8,125	\$6,000	\$0	\$14,125	\$14,125
2019	\$6,500	\$6,000	\$0	\$12,500	\$12,500

## **Deed and Sales History**

#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number	١
---	-----------	------	-------------	---------	---------	--------	------	------------	------------------	----------------	---

1 07/28/2014 QUIT CLAIM QUIT CLAIM DEED

0 2014-1310554

## **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

## **Clallam County Assessor & Treasurer**

## Property Search Results > 85047 GREGORY J MOTTIS for Year 2022 - 2023

## **Property**

Α	C	r	n	ш	n	٠
$\overline{}$	•	┖	v	ч		

Property ID: 85047 Legal Description: LOT 6 MOTTIS BSP V1 P24

Geographic ID: 0329124170105006 Agent Code:

Type: Real

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 75

Open Space: N DFL N Historic Property: N Remodel Property: N

Multi-Family Redevelopment: N

Township: Section:

Range:

Location

Address: ZACCARDO RD Mapsco:

SEQUIM, WA 98382

Neighborhood: Blynn Res Map ID: C11

Neighborhood CD: 1151000

Owner

Name: GREGORY J MOTTIS Owner ID: 42191

Mailing Address: 290 ZACCARDO RD % Ownership: 100.0000000000%

SEQUIM, WA 98382-7660

Exemptions:

#### **Pay Tax Due**

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						
2023	55654	\$64.58	\$64.50	\$0.00	\$0.00	\$129.08	\$0.00
▶ State	ement Details						
2022	55886	\$76.69	\$76.64	\$0.00	\$0.00	\$153.33	\$0.00
▶ State	ement Details						
2021	56203	\$65.17	\$65.12	\$0.00	\$0.00	\$130.29	\$0.00
▶ State	ement Details						
2020	56597	\$64.48	\$64.44	\$0.00	\$0.00	\$128.92	\$0.00

#### **Values**

(+) Improvement Homesite Value:	+	\$0	
(+) Improvement Non-Homesite Value:	+	\$8,125	
(+) Land Homesite Value:	+	\$0	
(+) Land Non-Homesite Value:	+	\$8,710	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

(=) Market Value: = \$16,835

(-) Productivity Loss: \$0 (=) Subtotal: \$16,835 \$0 (+) Senior Appraised Value: (+) Non-Senior Appraised Value: \$16,835 (=) Total Appraised Value: \$16,835 (-) Senior Exemption Loss: \$0 (–) Exemption Loss: \$0 (=) Taxable Value: \$16,835

## **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$16,835

Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

<b>Levy Code</b>	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$16,835	\$16,835	\$14.06
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$16,835	\$16,835	\$26.29
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$16,835	\$16,835	\$13.15
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$16,835	\$16,835	\$0.35
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$16,835	\$16,835	\$0.03
TAX REFUND	TAX REFUND FUND COUNTY	0.0000000000	\$16,835	\$16,835	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$16,835	\$16,835	\$0.16
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$16,835	\$16,835	\$1.90
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.0000000000	\$16,835	\$16,835	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$16,835	\$16,835	\$13.83
LIB	LIBRARY COUNTY	0.3094960582	\$16,835	\$16,835	\$5.21
SD #323 CP	SD 323 CP	0.4549724454	\$16,835	\$16,835	\$7.66
SD 323 GEN	SD 323 M & O	0.9029956565	\$16,835	\$16,835	\$15.20
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$16,835	\$16,835	\$6.23
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$16,835	\$16,835	\$19.06
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$16,835	\$16,835	\$5.63
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$16,835	\$16,835	\$0.32
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$129.08
				Taxes w/o Exemptions:	\$129.08

## Improvement / Building

Improvement #1:	Commercial	State Code:	75	0.0 sqft	Value:	\$8,125
Туре	Description	Class CD		Sub Class CD	Year Built	Area
OTH	OTHER	*			0	0.0

#### Sketch

No sketches available for this property.

## **Property Image**





## Land

#	Type	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	7516	7516	0.0400	1742.40	0.00	0.00	\$8,710	\$0

## **Roll Value History**

Year	Improvements	<b>Land Market</b>	<b>Current Use</b>	<b>Total Appraised</b>	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2021	\$8,125	\$8,710	\$0	\$16,835	\$16,835
2020	\$8,125	\$6,000	\$0	\$14,125	\$14,125
2019	\$6,500	\$6,000	\$0	\$12,500	\$12,500

## **Deed and Sales History**

#	Deed Date	Туре	Description	Grantor	Grantee	Volume	Page	Sale Price	Excise Number	Deed Number	١
---	-----------	------	-------------	---------	---------	--------	------	------------	------------------	----------------	---

1 07/28/2014 QUIT CLAIM QUIT CLAIM DEED

0 2014-1310554

## **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

## **Clallam County Assessor & Treasurer**

## Property Search Results > 85113 GREGORY J MOTTIS for Year 2022 - 2023

## **Property**

Property ID: 85113 Legal Description: LOT 7 INCLDS REC AREA MOTTIS **BSP V1 P24** Geographic ID: 0329124170105007 Agent Code: Type: Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R Land Use Code 11 Open Space: DFL Historic Property: Ν Remodel Property: N Multi-Family Redevelopment: N Township: Section: Range: Location Address: ZACCARDO RD Mapsco: **SEQUIM, WA 98382** Neighborhood: Blynn Res Map ID: C11 1151000 Neighborhood CD: Owner Name: **GREGORY J MOTTIS** Owner ID: 42191

Mailing Address: 290 ZACCARDO RD

SEQUIM, WA 98382-7660

% Ownership:

Exemptions:

100.0000000000%

#### **Pay Tax Due**

There is currently No Amount Due on this property.

#### **Taxes and Assessment Details**

Property Tax Information as of 04/21/2023

Amount Due if Paid on: MOTE: If you plan to submit payment on a future date, make sure you enter the date and click RECALCULATE to obtain the correct total amount due.

Click on "Statement Details" to expand or collapse a tax statement.

Year	Statement ID	First Half Base Amt.	Second Half Base Amt.	Penalty	Interest	Base Paid	Amount Due
▶ State	ement Details						
2023	55708	\$880.81	\$880.76	\$0.00	\$0.00	\$1761.57	\$0.00
▶ State	ement Details						
2022	55941	\$907.14	\$907.09	\$0.00	\$0.00	\$1814.23	\$0.00
▶ State	ement Details						
2021	56261	\$798.25	\$798.15	\$0.00	\$0.00	\$1596.40	\$0.00
▶ State	▶ Statement Details						
2020	56658	\$770.98	\$770.91	\$0.00	\$0.00	\$1541.89	\$0.00

#### **Values**

(+) Improvement Homesite Value:	+	\$149,682	
(+) Improvement Non-Homesite Value:	+	\$0	
(+) Land Homesite Value:	+	\$75,000	
(+) Land Non-Homesite Value:	+	\$5,100	
(+) Curr Use (HS):	+	\$0	\$0
(+) Curr Use (NHS):	+	\$0	\$0

-----

4/21/23, 11:22 AM

(=) Market Value: \$229,782 (-) Productivity Loss: \$0 (=) Subtotal: \$229,782 (+) Senior Appraised Value: \$0 (+) Non-Senior Appraised Value: \$229,782 (=) Total Appraised Value: \$229,782 (-) Senior Exemption Loss: \$0 (-) Exemption Loss: \$0 (=) Taxable Value: \$229,782

## **Taxing Jurisdiction**

Owner: GREGORY J MOTTIS % Ownership: 100.0000000000%

Total Value: \$229,782

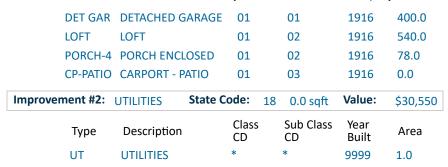
Tax Area: 0202 - 323 PORT ST CNTY RDS FD3 FD3EMS L H2 SQP&R

Levy Code	Description	Levy Rate	Appraised Value	Taxable Value	Estimated Tax
ST SCH2	STATE SCHOOL PT 2	0.8351257725	\$229,782	\$229,782	\$191.90
STATE SCH	STATE SCHOOL PT 1	1.5616945901	\$229,782	\$229,782	\$358.85
CC GENERAL	CLALLAM COUNTY GENERAL	0.7813166963	\$229,782	\$229,782	\$179.53
DEVDISIBLT	DEVELOPMENT DISABILITIES COUNTY	0.0205451203	\$229,782	\$229,782	\$4.72
LND ASSMT	LAND ASSESSMENT COUNTY	0.0015400000	\$229,782	\$229,782	\$0.35
TAX REFUND	TAX REFUND FUND COUNTY	0.000000000	\$229,782	\$229,782	\$0.00
VET RELIEF	VETERAN'S RELIEF COUNTY	0.0092452997	\$229,782	\$229,782	\$2.12
CAPT IMP	CAPITAL IMPROVEMENT PORT DISTRICT	0.1128018920	\$229,782	\$229,782	\$25.92
PRK REC	SEQUIM AQUATIC RECREATION CNTR	0.0000000000	\$229,782	\$229,782	\$0.00
CC RD GEN	CLALLAM COUNTY ROAD GENERAL	0.8212258634	\$229,782	\$229,782	\$188.70
LIB	LIBRARY COUNTY	0.3094960582	\$229,782	\$229,782	\$71.12
SD #323 CP	SD 323 CP	0.4549724454	\$229,782	\$229,782	\$104.54
SD 323 GEN	SD 323 M & O	0.9029956565	\$229,782	\$229,782	\$207.49
FIRE 3 BD	FIRE DIST #3 EMS	0.3701106413	\$229,782	\$229,782	\$85.04
FIRE 3 GEN	FIRE DIST #3 GENERAL	1.1318819308	\$229,782	\$229,782	\$260.09
HOSP 2 GEN	HOSPITAL DIST #2 GENERAL	0.3344986367	\$229,782	\$229,782	\$76.86
CON FUTURE	CONSERVATION FUTURES	0.0188836168	\$229,782	\$229,782	\$4.34
	Total Tax Rate:	7.6663342200			
				Taxes w/Current Exemptions:	\$1,761.57
				Taxes w/o Exemptions:	\$1,761.57

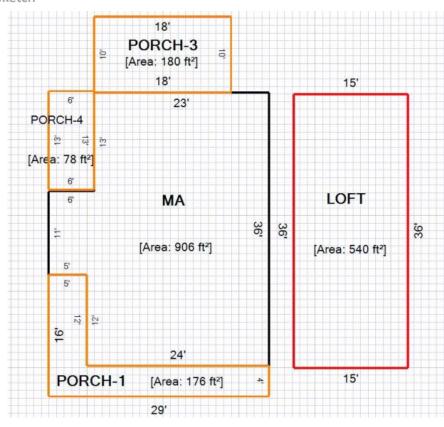
## Improvement / Building

Improvement #1: **State Code:** HOUSE 11 906.0 sqft Value: \$119,132 **Bathroom Count:** 02 - One Bathroom Exterior Wall: 1 - T1-11 Fireplace 1 Story Single: 2 - Fair Foundation: 2 - Post and Pier Heating/Cooling: 7 - Forced Air Oil Kitchen Quality: 2 - Average Number of Bedrooms: Roof Covering: 4 - Composition

Туре	Description	Class CD	Sub Class CD	Year Built	Area
MA	Main	01	02	1916	906.0
PORCH-1	PORCH OPEN	01	02	1916	176.0
PORCH-3	PORCH DECK	01	02	1916	180.0



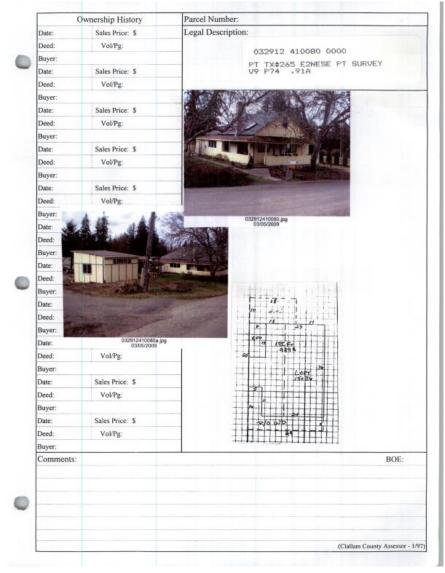
#### Sketch



**Property Image** 

















## Land

#	Туре	Description	Acres	Sqft	Eff Front	Eff Depth	Market Value	Prod. Value
1	1100	1100	0.5100	22215.60	0.00	0.00	\$5,100	\$0
2	1113	1113	1.0000	43560.00	0.00	0.00	\$75,000	\$0

## **Roll Value History**

Year	Improvements	Land Market	<b>Current Use</b>	Total Appraised	Taxable Value
2023	N/A	N/A	N/A	N/A	N/A
2022	\$149,682	\$80,100	\$0	\$229,782	\$229,782
2021	\$119,102	\$80,100	\$0	\$199,202	\$199,202
2020	\$117,927	\$55,150	\$0	\$173,077	\$173,077
2019	\$94,341	\$55,150	\$0	\$149,491	\$149,491

## **Deed and Sales History**

## **Payout Agreement**

No payout information available..

Website version: 9.0.40.29

Database last updated on: 4/21/2023 1:43 AM

© N. Harris Computer Corporation

## APPENDIX B

# **EDR Historical Topographic Maps**

Mottis Property 290 Zaccardo Road Sequim, WA 98382

Inquiry Number: 7300425.4

April 05, 2023

# **EDR Historical Topo Map Report**

with QuadMatch™



## **EDR Historical Topo Map Report**

04/05/23

Site Name: Client Name:

Mottis Property ESA Associates
290 Zaccardo Road 2820 132nd Ave SE
Sequim, WA 98382 Snohomish, WA 98290
EDR Inquiry # 7300425.4 Contact: Kristen Burgess



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by ESA Associates 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 Res	ults:	Coordinates:	Coordinates:		
P.O.#	711-007-195	Latitude:	48.020476 48° 1' 14" North		
Project:	Mottis Property	Longitude: UTM Zone:	-122.995573 -122° 59' 44" West		
-	. ,		Zone 10 North		
		<b>UTM X Meters:</b>	500330.10		
		<b>UTM Y Meters:</b>	5318576.06		
		Elevation:	142.05' above sea level		

#### **Maps Provided:**

2020 1937 2017 2014 1985, 1990 1979 1973 1953, 1956 1939, 1940

## Disclaimer - Copyright and Trademark Notice

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT.

ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk or conditions in, on or at any property.

Copyright 2023 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

#### 2020 Source Sheets



Gardiner 2020 7.5-minute, 24000



Sequim 2020 7.5-minute, 24000



Uncas 2020 7.5-minute, 24000



Mount Zion 2020 7.5-minute, 24000

#### 2017 Source Sheets



Gardiner 2017 7.5-minute, 24000



Sequim 2017 7.5-minute, 24000



Uncas 2017 7.5-minute, 24000



Mount Zion 2017 7.5-minute, 24000

#### 2014 Source Sheets



Gardiner 2014 7.5-minute, 24000



Sequim 2014 7.5-minute, 24000



Uncas 2014 7.5-minute, 24000



Mount Zion 2014 7.5-minute, 24000

## 1985, 1990 Source Sheets



Gardiner 1985 7.5-minute, 24000 Aerial Photo Revised 1981



Uncas 1985 7.5-minute, 24000 Aerial Photo Revised 1981



Sequim 1985 7.5-minute, 24000 Aerial Photo Revised 1981



Mount Zion 1990 7.5-minute, 24000 Aerial Photo Revised 1987

## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

#### 1979 Source Sheets



Sequim 1979 7.5-minute, 24000 Aerial Photo Revised 1976

#### 1973 Source Sheets



Uncas 1973 7.5-minute, 24000 Aerial Photo Revised 1973



Gardiner 1973 7.5-minute, 24000 Aerial Photo Revised 1973

## 1953, 1956 Source Sheets



Gardiner 1953 7.5-minute, 24000 Aerial Photo Revised 1951



Uncas 1953 7.5-minute, 24000 Aerial Photo Revised 1951



Sequim 1956 7.5-minute, 24000 Aerial Photo Revised 1954

## 1939, 1940 Source Sheets



Dungeness 1939 15-minute, 62500 Aerial Photo Revised 1938



Port Townsend 1939 15-minute, 62500 Aerial Photo Revised 1936



Quilcene 1940 15-minute, 62500 Aerial Photo Revised 1936

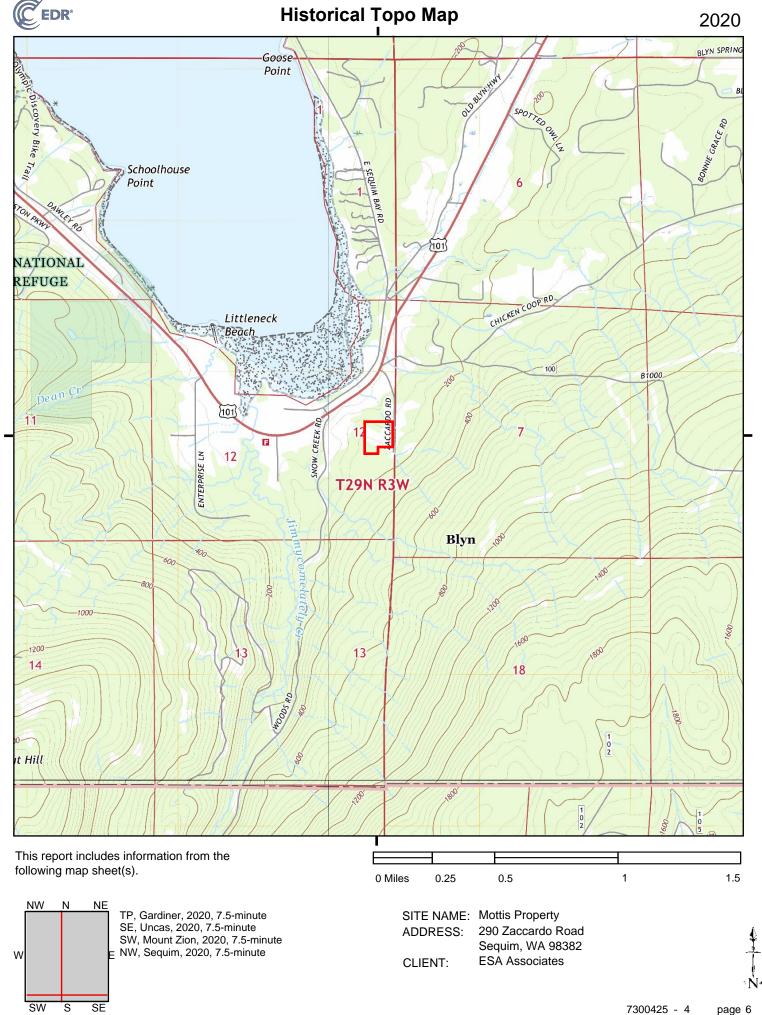
## Topo Sheet Key

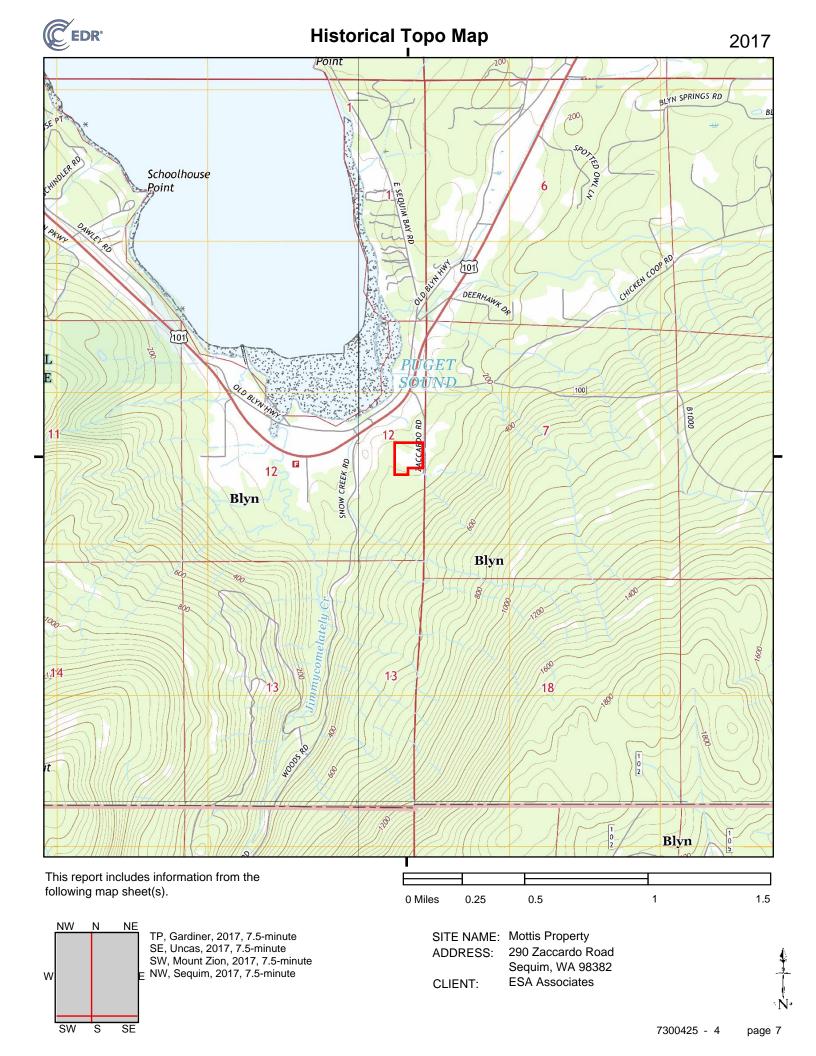
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

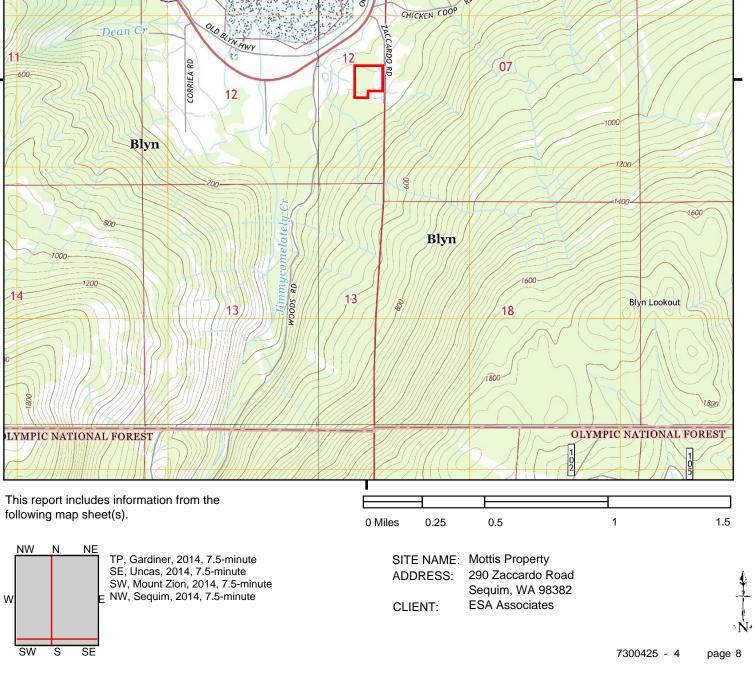
## 1937 Source Sheets

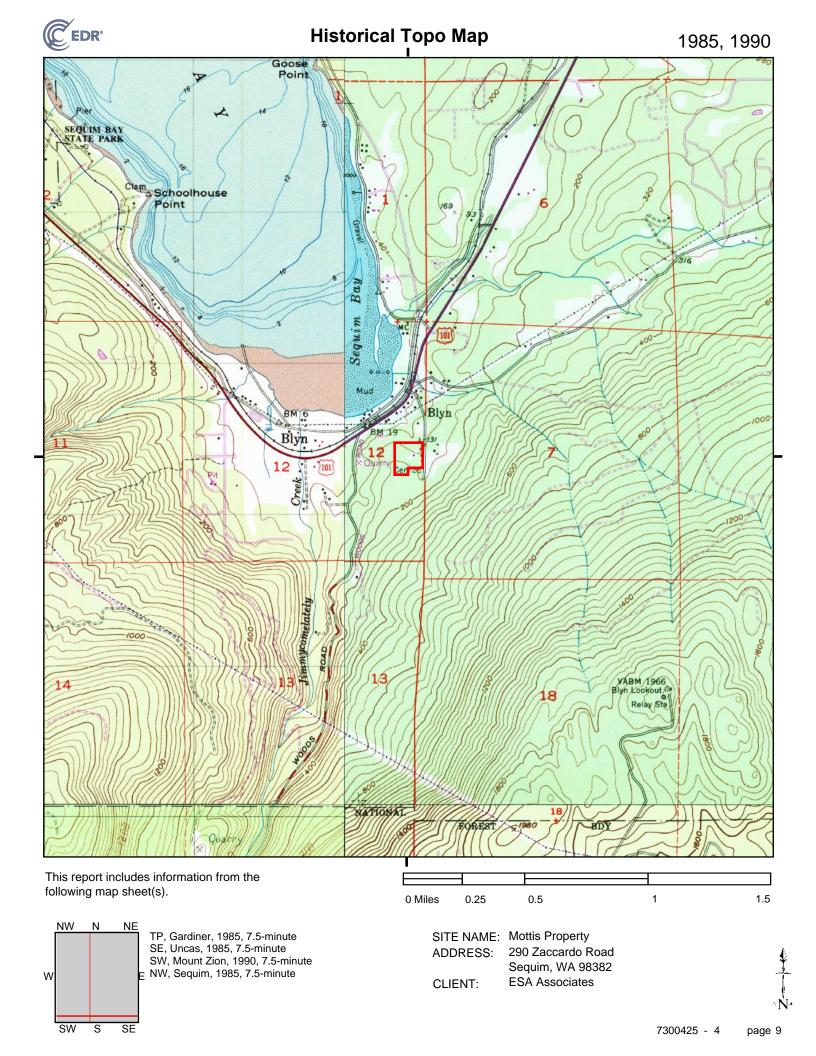


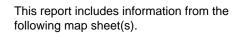
DUNGENESS 1937 15-minute, 50000

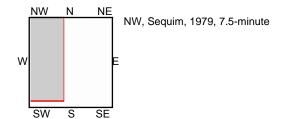


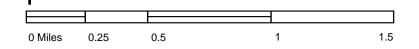










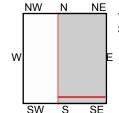


SITE NAME: Mottis Property
ADDRESS: 290 Zaccardo Road

Sequim, WA 98382

CLIENT: ESA Associates



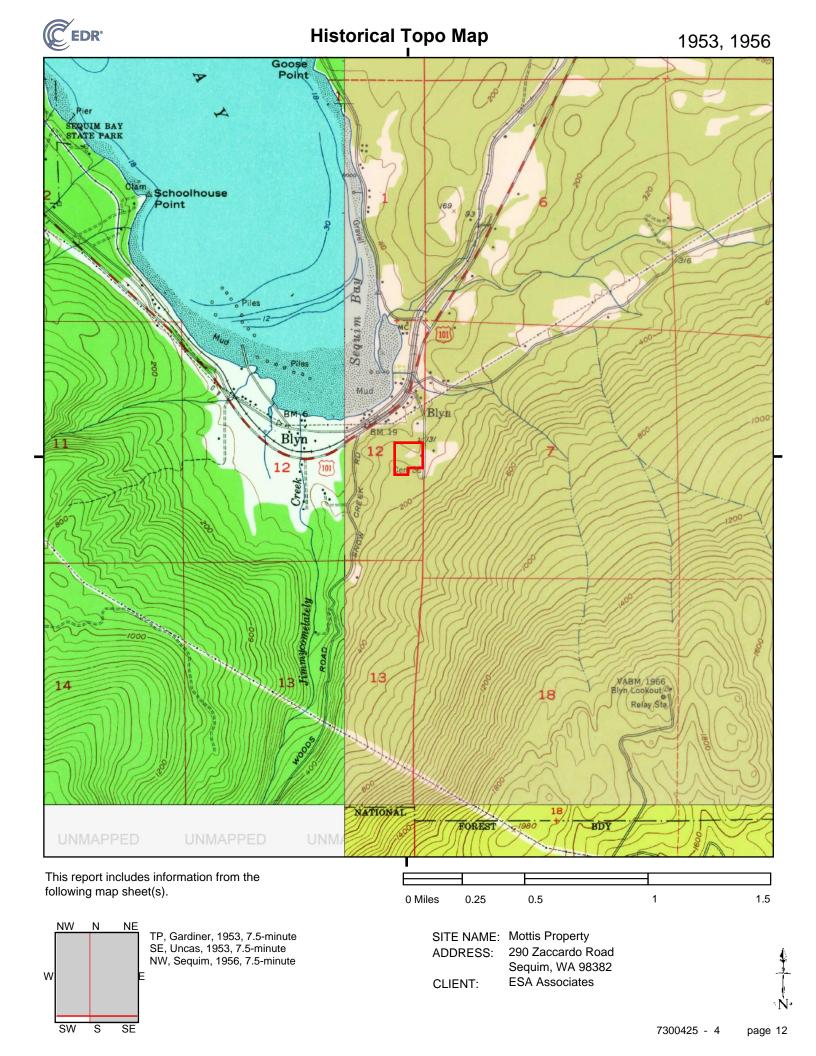


TP, Gardiner, 1973, 7.5-minute SE, Uncas, 1973, 7.5-minute

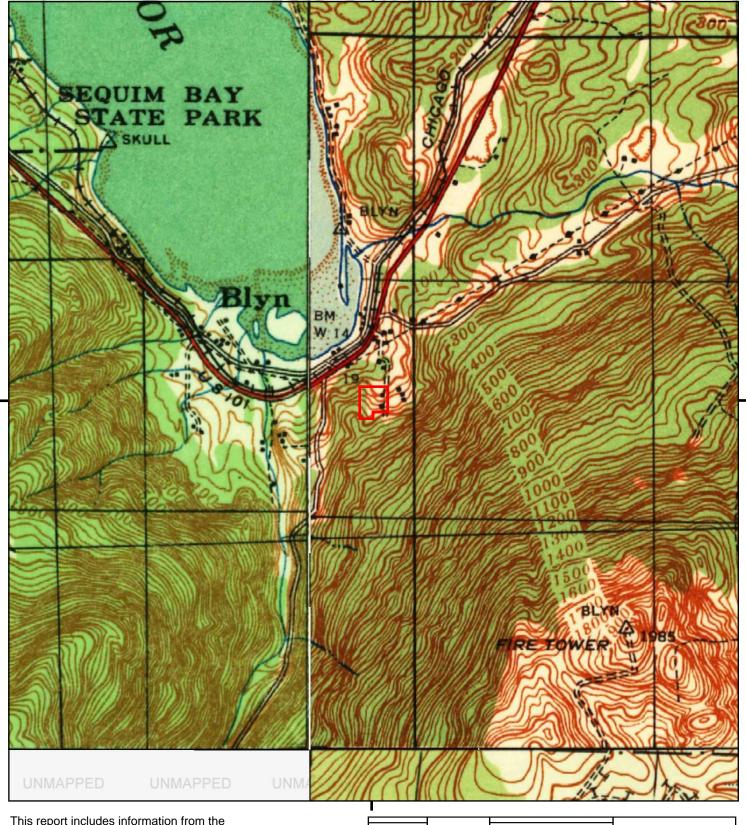
SITE NAME: Mottis Property
ADDRESS: 290 Zaccardo Road

Sequim, WA 98382

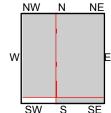
CLIENT: ESA Associates







This report includes information from the following map sheet(s).



TP, Port Townsend, 1939, 15-minute SE, Quilcene, 1940, 15-minute NW, Dungeness, 1939, 15-minute SITE NAME: Mottis Property
ADDRESS: 290 Zaccardo Roa

0.25

0 Miles

290 Zaccardo Road Sequim, WA 98382

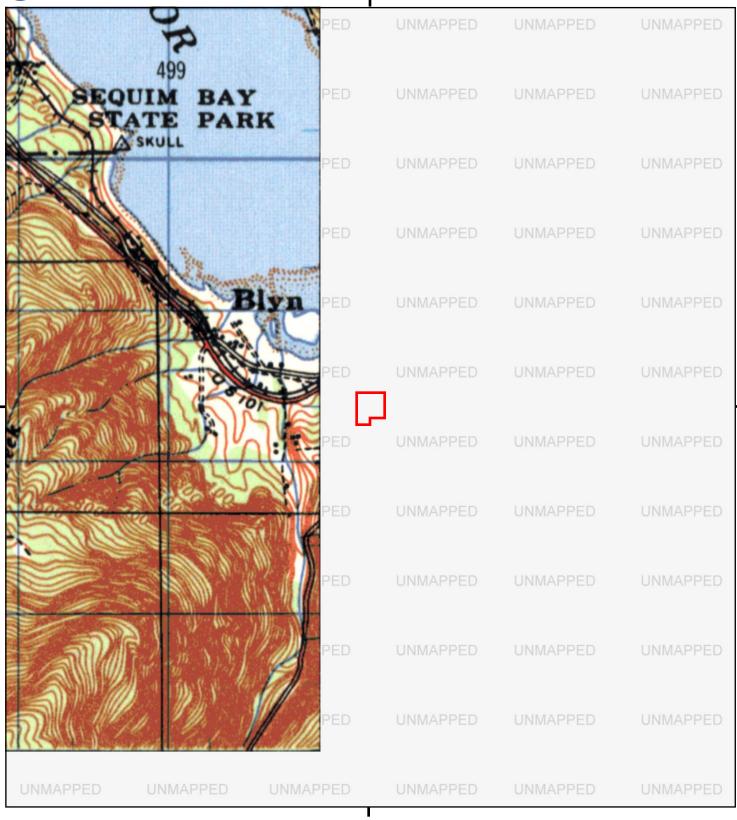
0.5

CLIENT: ESA Associates

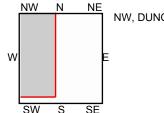


1.5





This report includes information from the following map sheet(s).



NW, DUNGENESS, 1937, 15-minute

0 Miles 0.25 0.5 1 1.5

SITE NAME: Mottis Property
ADDRESS: 290 Zaccardo Road

Sequim, WA 98382

CLIENT: ESA Associates



# APPENDIX C

# **EDR Radius Map with Geocheck**

Mottis Property

290 Zaccardo Road Sequim, WA 98382

Inquiry Number: 7300425.2s

April 05, 2023

# **EDR Summary Radius Map Report**



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

### **TABLE OF CONTENTS**

SECTION	PAGE
Executive Summary	ES1
Overview Map.	<b>2</b>
Detail Map.	<b>.</b> 3
Map Findings Summary.	<b>4</b>
Map Findings.	
Orphan Summary.	104
Government Records Searched/Data Currency Tracking.	GR-1
GEOCHECK ADDENDUM	
Physical Setting Source Addendum	<b>A-1</b>
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map.	A-5
Physical Setting Source Map	A-14
Physical Setting Source Map Findings.	A-16
Physical Setting Source Records Searched	PSGR-1

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

#### **Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA) INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2023 by Environmental Data Resources, LLC. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, LLC, or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

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**

290 ZACCARDO ROAD SEQUIM, WA 98382

#### **COORDINATES**

Latitude (North): 48.0204760 - 48° 1' 13.71" Longitude (West): 122.9955730 - 122° 59' 44.06"

Universal Tranverse Mercator: Zone 10 UTM X (Meters): 500330.1 UTM Y (Meters): 5318357.0

Elevation: 143 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: TF

Source: U.S. Geological Survey

Target Property: NW

Source: U.S. Geological Survey

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

Portions of Photo from: 20150818 Source: USDA

### MAPPED SITES SUMMARY

Target Property Address: 290 ZACCARDO ROAD SEQUIM, WA 98382

Click on Map ID to see full detail.

MAP		1000500	DATABASE ASDONNAM	RELATIVE	DIST (ft. & mi.)
<u>ID</u>	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
A1	E-CYCLE NW	272693 HIGHWAY 101	SEMS	Lower	775, 0.147, WNW
A2	RECYCLE NW, LLC DBA	272693 HWY 101	SWF/LF, ALLSITES	Lower	775, 0.147, WNW
A3	CLALLAM CNTY PW BLYN	HWY 101 & WOODS RD	ALLSITES	Lower	844, 0.160, WNW
4	US 101 CHICKEN COOP		ALLSITES	Lower	1157, 0.219, North
B5	PUGET SOUND SURFACER		US MINES	Lower	1167, 0.221, WSW
B6	PUGET SOUND SURFACER		US MINES	Lower	1167, 0.221, WSW
C7	MEYER II	294 WOODS ROAD	US BROWNFIELDS, FINDS	Lower	1709, 0.324, WSW
D8	VALASKE - AKA DICKEY	271020 HWY 101, 43 S	US BROWNFIELDS, FINDS	Lower	1828, 0.346, West
C9	MEYER	183 SOPHUS ROAD	US BROWNFIELDS	Lower	1892, 0.358, WSW
10	BLYN MT RADIO STA 2M		FUDS	Lower	1925, 0.365, WNW
D11	SOPHUS ROAD AND MEYE	20 SOPHUS ROAD	US BROWNFIELDS, FINDS	Lower	1963, 0.372, West
12	SOPHUS ROAD	180 SOPHUS ROAD	US BROWNFIELDS, FINDS	Lower	2019, 0.382, WSW
13	JIMMYCOMELATELY ESTU		ALLSITES	Lower	2228, 0.422, West
14	SEQUIM RV PARK	282 OLD BLYN HWY	CSCSL, ICR, ALLSITES	Lower	2941, 0.557, WNW

#### TARGET PROPERTY SEARCH RESULTS

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

#### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

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

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

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

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

#### STANDARD ENVIRONMENTAL RECORDS

#### Lists of Federal sites subject to CERCLA removals and CERCLA orders

SEMS: A review of the SEMS list, as provided by EDR, and dated 01/25/2023 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
E-CYCLE NW	272693 HIGHWAY 101	WNW 1/8 - 1/4 (0.147 mi.)	A1	8

#### Lists of state- and tribal hazardous waste facilities

CSCSL: A review of the CSCSL list, as provided by EDR, and dated 01/09/2023 has revealed that there is 1 CSCSL site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SEQUIM RV PARK	282 OLD BLYN HWY	WNW 1/2 - 1 (0.557 mi.)	14	11

Site Status: Cleanup Started Clean Up Siteid: 7714 Facility ID: 6683926 Soil: Remediated-Above Soil: Remediated-Below

Ground Water: Below Cleanup Levels

Contaminant Name: Benzene Contaminant Name: Lead

Contaminant Name: Other Non-Halogenated Organics

Contaminant Name: Petroleum-Diesel Contaminant Name: Petroleum-Gasoline

\*Additional key fields are available in the Map Findings section

#### Lists of state and tribal landfills and solid waste disposal facilities

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

Lower Elevation	Address	Direction / Distance	Map ID	Page
RECYCLE NW, LLC DBA	272693 HWY 101	WNW 1/8 - 1/4 (0.147 mi.)	A2	8
Database: SWE/LE Date of Gove	arnment Version: 11/30/2022			

Year Closed: 2015

Facility Type: Material Recovery Facility (exempt)

Facility ID: 2449 Permit Status: Exempt

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS: A review of the US BROWNFIELDS list, as provided by EDR, and dated 02/23/2022 has revealed that there are 5 US BROWNFIELDS sites within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page	
MEYER II  ACRES property ID: 177123  Cleanup Completion Date: 9/30/2013  Cleanup Completion Date: -	294 WOODS ROAD	WSW 1/4 - 1/2 (0.324 mi.)	<b>C7</b>	9	
VALASKE - AKA DICKEY ACRES property ID: 63041 Cleanup Completion Date: - Cleanup Completion Date: 2/16/2007	271020 HWY 101, 43 S	W 1/4 - 1/2 (0.346 mi.)	D8	9	
MEYER ACRES property ID: 110322 ACRES property ID: 165506 Cleanup Completion Date: - Cleanup Completion Date: 1/18/2010	183 SOPHUS ROAD	WSW 1/4 - 1/2 (0.358 mi.)	C9	9	
SOPHUS ROAD AND MEYE ACRES property ID: 165504 Cleanup Completion Date: -	20 SOPHUS ROAD	W 1/4 - 1/2 (0.372 mi.)	D11	10	
SOPHUS ROAD  ACRES property ID: 165522 Cleanup Completion Date: 3/8/2010 Cleanup Completion Date: -	180 SOPHUS ROAD	WSW 1/4 - 1/2 (0.382 mi.)	12	10	

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

ALLSITES: A review of the ALLSITES list, as provided by EDR, and dated 10/24/2022 has revealed that there are 4 ALLSITES sites within approximately 0.5 miles of the target property.

Lower Elevation Address		Direction / Distance	Map ID	Page
RECYCLE NW, LLC DBA Facility ld: 18991	272693 HWY 101	WNW 1/8 - 1/4 (0.147 mi.)	A2	8
CLALLAM CNTY PW BLYN Facility Id: 16858	HWY 101 & WOODS RD	WNW 1/8 - 1/4 (0.160 mi.)	A3	8
US 101 CHICKEN COOP Facility Id: 24161		N 1/8 - 1/4 (0.219 mi.)	4	8
JIMMYCOMELATELY ESTU Facility ld: 8278465		W 1/4 - 1/2 (0.422 mi.)	13	10

#### Other Ascertainable Records

FUDS: A review of the FUDS list, as provided by EDR, and dated 11/01/2022 has revealed that there is 1 FUDS site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
BLYN MT RADIO STA 2M		WNW 1/4 - 1/2 (0.365 mi.)	10	10

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

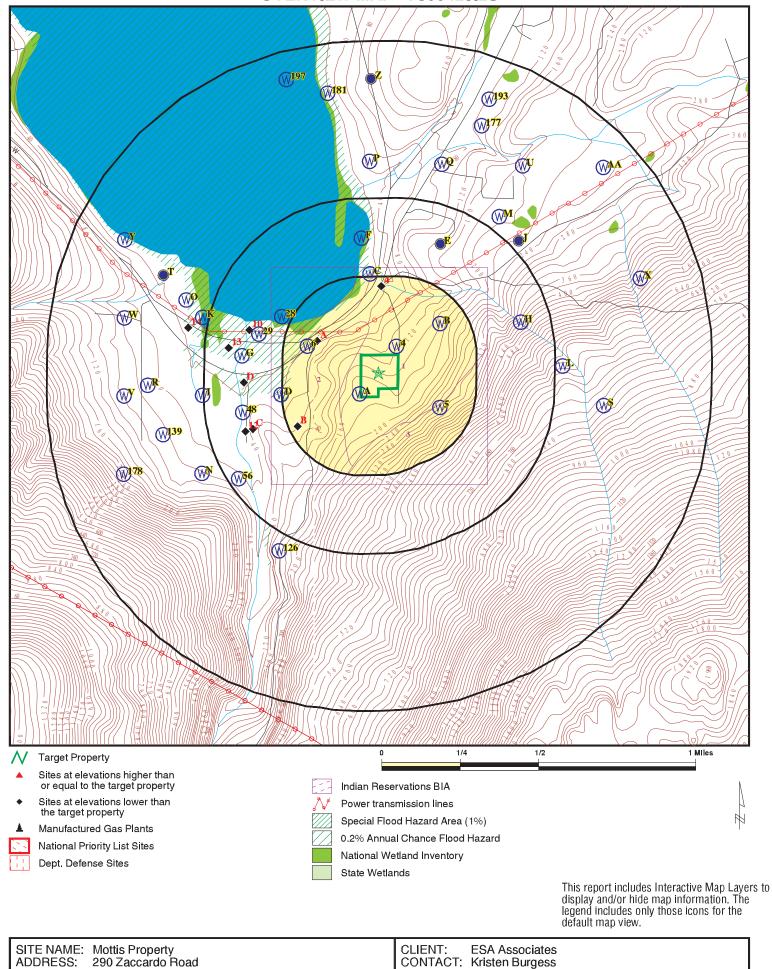
Lower Elevation	Address	Direction / Distance	Map ID	Page
PUGET SOUND SURFACER Database: US MINES, Date of G	Government Version: 11/07/2022	WSW 1/8 - 1/4 (0.221 mi.)	B5	8
Mine ID:: 4502639 PUGET SOUND SURFACER		WSW 1/8 - 1/4 (0.221 mi.)	B6	9
Database: US MINES, Date of G	Sovernment Version: 11/07/2022	,		

Zip Database(s)	98382 SEMS
Site Address	258010 HIGHWAY 101
Site Name	25802939 MIDWAY METALS
City EDR ID	SEQUIM 10258028

ORPHAN SUMMARY

Count: 1 records.

# **OVERVIEW MAP - 7300425.2S**



Sequim WA 98382 48.020476 / 122.995573

LAT/LONG:

April 05, 2023 5:59 pm

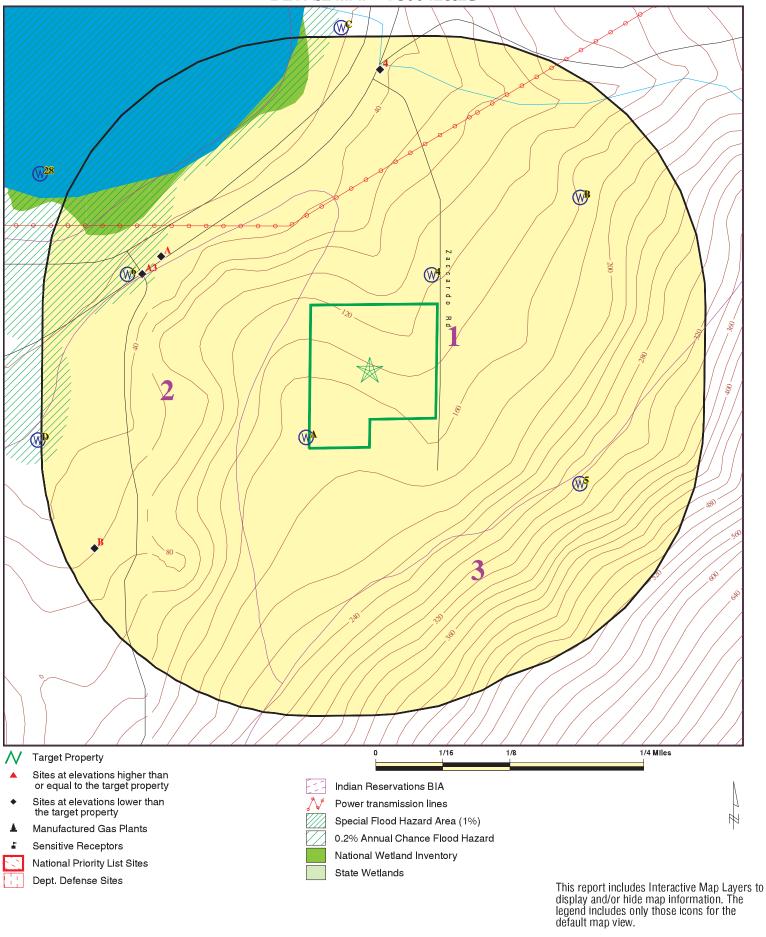
Copyright © 2023 EDR, Inc. © 2015 TomTom Rel. 2015.

7300425.2s

INQUIRY #:

DATE:

# **DETAIL MAP - 7300425.2S**



SITE NAME: Mottis Property
ADDRESS: 290 Zaccardo Road CONTACT: Kristen Burgess
Sequim WA 98382 INQUIRY #: 7300425.2s
LAT/LONG: 48.020476 / 122.995573 DATE: April 05, 2023 6:03 pm

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Lists of Federal NPL (Su	perfund) site	s						
NPL Proposed NPL NPL LIENS	1.000 1.000 1.000		0 0 0	0 0 0	0 0 0	0 0 0	NR NR NR	0 0 0
Lists of Federal Delisted	I NPL sites							
Delisted NPL	1.000		0	0	0	0	NR	0
Lists of Federal sites su CERCLA removals and		ers						
FEDERAL FACILITY SEMS	0.500 0.500		0	0 1	0	NR NR	NR NR	0 1
Lists of Federal CERCL	A sites with N	FRAP						
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA fa undergoing Corrective A								
CORRACTS	1.000		0	0	0	0	NR	0
Lists of Federal RCRA T	SD facilities							
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Lists of Federal RCRA g	enerators							
RCRA-LQG RCRA-SQG RCRA-VSQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional cor engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROLS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
Lists of state- and tribal (Superfund) equivalent								
HSL	1.000		0	0	0	0	NR	0
Lists of state- and tribal hazardous waste facilitie								
CSCSL	1.000		0	0	0	1	NR	1
Lists of state and tribal and solid waste disposa								
SWF/LF	0.500		0	1	0	NR	NR	1

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
Lists of state and tribal	leaking stora	ge tanks						
LUST INDIAN LUST	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Lists of state and tribal	registered sto	orage tanks						
FEMA UST UST AST INDIAN UST	0.250 0.250 0.250 0.250		0 0 0 0	0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0 0
State and tribal institution control / engineering co		es						
INST CONTROL	0.500		0	0	0	NR	NR	0
Lists of state and tribal	voluntary clea	anup sites						
INDIAN VCP VCP ICR PTAP	0.500 0.500 0.500 0.500		0 0 0 0	0 0 0	0 0 0	NR NR NR NR	NR NR NR NR	0 0 0
Lists of state and tribal	brownfield si	tes						
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	NTAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	5	NR	NR	5
Local Lists of Landfill /			O	O	3	IVIX	IVIX	3
Waste Disposal Sites								
SWRCY SWTIRE INDIAN ODI ODI DEBRIS REGION 9 IHS OPEN DUMPS	0.500 0.500 0.500 0.500 0.500 0.500		0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	0 0 0 0 0
Local Lists of Hazardou Contaminated Sites	s waste /							
US HIST CDL ALLSITES CDL HIST CDL CSCSL NFA US CDL	0.001 0.500 0.001 0.001 0.500 0.001		0 0 0 0 0	NR 3 NR NR 0 NR	NR 1 NR NR 0 NR	NR NR NR NR NR	NR NR NR NR NR NR	0 4 0 0 0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency	Release Repo	orts						
HMIRS	0.001		0	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted		
SPILLS SPILLS 90	0.001 0.001		0	NR NR	NR NR	NR NR	NR NR	0 0		
Other Ascertainable Records										
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0		
FUDS	1.000		0	0	1	0	NR	1		
DOD	1.000		0	0	0	0	NR	0		
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0		
US FIN ASSUR EPA WATCH LIST	0.001		0 0	NR NR	NR NR	NR NR	NR NR	0 0		
2020 COR ACTION	0.001 0.250		0	0	NR NR	NR NR	NR NR	0		
TSCA	0.230		0	NR	NR	NR	NR	0		
TRIS	0.001		0	NR	NR	NR	NR	Ö		
SSTS	0.001		Ö	NR	NR	NR	NR	Ö		
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 0	NR	NR	NR	NR	0		
FTTS MLTS	0.001 0.001		0	NR NR	NR NR	NR NR	NR NR	0 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		Õ	NR	NR	NR	NR	Ö		
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	1.000		0	0	0	0	NR	0		
FUSRAP	1.000		0	0	0	0	NR	0		
UMTRA LEAD SMELTERS	0.500 0.001		0 0	0 NR	0 NR	NR NR	NR NR	0 0		
US AIRS	0.001		0	NR	NR	NR	NR	0		
US MINES	0.250		0	2	NR	NR	NR	2		
ABANDONED MINES	0.250		Ő	0	NR	NR	NR	0		
FINDS	0.001		Ō	NR	NR	NR	NR	Ö		
UXO	1.000		0	0	0	0	NR	0		
DOCKET HWC	0.001		0	NR	NR	NR	NR	0		
ECHO	0.001		0	NR	NR	NR	NR	0		
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0		
PFAS NPL	0.250		0	0	NR	NR	NR	0		
PFAS FEDERAL SITES PFAS TSCA	0.250		0 0	0 0	NR NR	NR NR	NR NR	0 0		
PFAS RCRA MANIFEST	0.250 0.250		0	0	NR NR	NR	NR	0		
PFAS ATSDR	0.250		0	0	NR	NR	NR	0		
PFAS WQP	0.250		0	0	NR	NR	NR	0		
PFAS NPDES	0.250		Ő	Ö	NR	NR	NR	Ö		
PFAS ECHO	0.250		Ō	0	NR	NR	NR	Ō		
PFAS ECHO FIRE TRAININ			0	0	NR	NR	NR	0		
PFAS PART 139 AIRPORT	0.250		0	0	NR	NR	NR	0		

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted	
Database	(1411100)	Toporty	- 170	170 171	17 1 172				
AQUEOUS FOAM NRC	0.250		0	0	NR	NR	NR	0	
PFAS	0.250		0	0	NR	NR	NR	0	
AQUEOUS FOAM	0.250		0	0	NR	NR	NR	0	
AIRS	0.001		0	NR	NR	NR	NR	0	
ASBESTOS	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	
Financial Assurance	0.001		0	NR	NR	NR	NR	0	
Inactive Drycleaners	0.250		0	0	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	
PFAS TRIS	0.250		0	0	NR	NR	NR	0	
MINES MRDS	0.001		0	NR	NR	NR	NR	0	
EDR HIGH RISK HISTORICA	L 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	
EDR RECOVERED GOVERNMENT ARCHIVES									
Exclusive Recovered Govt. Archives									
RGA HWS	0.001		0	NR	NR	NR	NR	0	
RGA LF	0.001		Ő	NR	NR	NR	NR	Ö	
RGA LUST	0.001		Ō	NR	NR	NR	NR	0	
- Totals		0	0	7	7	1	0	15	

# NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID MAP FINDINGS

Direction Distance

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

Α1 **E-CYCLE NW** SEMS 1025802937 WAN001020130

WNW 272693 HIGHWAY 101 1/8-1/4 **SEQUIM, WA 98382** 0.147 mi.

775 ft.

Click here for full text details

Relative: Lower

**A2** RECYCLE NW, LLC DBA ECYCLE NORTHWEST SWF/LF S110124128 WNW 272693 HWY 101 **ALLSITES** N/A

1/8-1/4 0.147 mi. 775 ft.

Click here for full text details

Relative: Lower

SWF/LF

Year Closed 2015

**SEQUIM, WA 98382** 

Facility Type Material Recovery Facility (exempt)

Facility ID 2449 Permit Status Exempt

**ALLSITES** 

Facility Id 18991

А3 **CLALLAM CNTY PW BLYN PIT ALLSITES S110038545** 

WNW **HWY 101 & WOODS RD** 1/8-1/4 **BLYN, WA 98382** 

0.160 mi. 844 ft.

Click here for full text details

Relative: Lower

**ALLSITES** 

Facility Id 16858

**US 101 CHICKEN COOP ZACCARDO RD REALIGN ALLSITES S120066371** 

North

1/8-1/4 **BLYN, WA 98382** 

0.219 mi. 1157 ft.

Click here for full text details

Relative: Lower

**ALLSITES** Facility Id 24161

**B5 PUGET SOUND SURFACERS INC US MINES** 1016513467

wsw 1/8-1/4

CLALLAM (County), WA

0.221 mi. 1167 ft.

Click here for full text details Relative:

Lower

**US MINES** 

Mine ID: 4502639

N/A

N/A

N/A

Map ID MAP FINDINGS

Direction Distance

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

B6 PUGET SOUND SURFACERS INC US MINES 1007075373
WSW N/A

WSW 1/8-1/4

/4 GRAYS HARBOR (County), WA

0.221 mi. 1167 ft.

Click here for full text details

Relative: Lower

**US MINES** 

Mine ID: 4502734

C7 MEYER II US BROWNFIELDS 1017782453
WSW 294 WOODS ROAD FINDS N/A

WSW 294 WOODS ROAD 1/4-1/2 SEQUIM, WA 98382

0.324 mi. 1709 ft.

Click here for full text details

Relative: Lower Office for full text details

**US BROWNFIELDS** 

ACRES property ID 177123 Cleanup Completion Date 9/30/2013 Cleanup Completion Date -

FINDS

Registry ID: 110064040933

D8 VALASKE - AKA DICKEY BIRDS US BROWNFIELDS 1016351605

West 271020 HWY 101, 43 SOPHUS RD. 1/4-1/2 SEQUIM, WA 98382

1/4-1/2 SEQUI 0.346 mi.

1828 ft.

Click here for full text details

Relative: Lower

**US BROWNFIELDS** 

ACRES property ID 63041 Cleanup Completion Date -

Cleanup Completion Date 2/16/2007

**FINDS** 

Registry ID: 110039538391

C9 MEYER US BROWNFIELDS 1014851326 WSW 183 SOPHUS ROAD N/A 1/4-1/2 SEQUIM, WA 98382

0.358 mi. 1892 ft.

Click here for full text details

Relative: Lower

**US BROWNFIELDS** 

ACRES property ID 110322 ACRES property ID 165506 Cleanup Completion Date -

Cleanup Completion Date 1/18/2010

**FINDS** 

N/A

MAP FINDINGS Map ID

Direction Distance

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

10 **BLYN MT RADIO STA 2M2 FUDS** 1024901319 N/A

WNW 1/4-1/2 BLYN, WA

0.365 mi.

1925 ft.

Relative:

Lower

Click here for full text details

D11 **SOPHUS ROAD AND MEYER** West **20 SOPHUS ROAD** 

**SEQUIM, WA 98382** 

1/4-1/2 0.372 mi. 1963 ft.

Click here for full text details

Relative: Lower

**US BROWNFIELDS** ACRES property ID 165504 Cleanup Completion Date -

**FINDS** 

Registry ID: 110056364107

12 **SOPHUS ROAD US BROWNFIELDS** 1016457123

wsw **180 SOPHUS ROAD** 1/4-1/2 **SEQUIM, WA 98382** 

0.382 mi. 2019 ft.

Click here for full text details Relative:

Lower

**US BROWNFIELDS** ACRES property ID 165522

Cleanup Completion Date 3/8/2010 Cleanup Completion Date -

**FINDS** 

Registry ID: 110056364125

13 JIMMYCOMELATELY ESTUARY MITIGATION SITE West

1/4-1/2 BLYN, WA

0.422 mi. 2228 ft.

Relative:

Click here for full text details

Lower **ALLSITES** 

Facility Id 8278465

**US BROWNFIELDS** 

**FINDS** 

**FINDS** 

ALLSITES

1016457122

N/A

N/A

S109555585

N/A

Map ID MAP FINDINGS Direction

Distance

Elevation Site Database(s) EPA ID Number

 14
 SEQUIM RV PARK
 CSCSL
 \$105454681

 WNW
 282 OLD BLYN HWY
 ICR
 N/A

 1/2-1
 SEQUIM, WA 98382
 ALLSITES

0.557 mi. 2941 ft.

#### Click here for full text details

Relative: Lower

#### **CSCSL**

Site Status Cleanup Started Clean Up Siteid 7714 Facility ID 6683926 Contaminant Name Benzene

Contaminant Name Lead

Contaminant Name Other Non-Halogenated Organics

Contaminant Name Petroleum-Diesel Contaminant Name Petroleum-Gasoline Contaminant Name Petroleum-Other Ground Water Below Cleanup Levels

Soil Remediated-Above Soil Remediated-Below

#### **ICR**

Contaminants Found at Site 6 Type of Report Ecology Received F Date Ecology Received Report 03/27/02 Date Ecology Received Report 04/25/02 Media Contaminated S

#### **ALLSITES**

Facility Id 6683926

**EDR ID Number** 

WA ALLSTRES   Pacility/Site Interfleating System   Department of Ecology   1221/2022   10/92/2	St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
WA AQUECUS FOAM         Firefighting Foam Incidents         Department of Ecology         09/28/2002         20/06/2002         20/28/2003         30/20/200         30/20/200	WA	AIRS (EMI)	Washington Emissions Data System	Department of Ecology	12/31/2020	07/12/2022	09/28/2022
WA         ASBESTOS         Abbestos Notification Listing         Department of Lobor's Includaries         20/17/2023         02/	WA	ALLSITES	Facility/Site Identification System Listing	Department of Ecology	10/24/2022	10/26/2022	01/17/2023
WA         ASBESTOS         Abbestos Notification Listing         Department of Lobor's Includaries         20/17/2023         02/	WA	AQUEOUS FOAM	Firefighting Foam Incidents	Department of Ecology	09/28/2022	10/05/2022	10/26/2022
WA         RPOWNFIELDS         Brownfields Sites Listing         Department of Ecology         01/09/2022         01/12/2022         01/23/2023           WA         COAL ASH         Coal Ash Disposal Site Listing         Department of Ecology         07/11/2023         07/23/2023           WA         CSCSL         Confirmed and Suspected Contaminated Sites List         Department of Ecology         01/09/2023         01/11/2023         39/29/2023           WA         CSCSL NFA         Confirmed and Contaminated Sites - No Further Action         Department of Ecology         01/09/2023         01/11/2023         39/29/2023           WA         FICAL SANCES         Dyrideanner List         Department of Ecology         11/11/2023         39/29/2023           WA         FIGAL SANCES         Financial Assurance Information Listing         Department of Ecology         11/15/2022         11/22/2022	WA	ASBESTOS		Department of Labor & Industries	02/17/2023	02/17/2023	03/10/2023
WA         RPOWNFIELDS         Brownfields Sites Listing         Department of Ecology         01/09/2022         01/12/2022         01/23/2023           WA         COAL ASH         Coal Ash Disposal Site Listing         Department of Ecology         07/11/2023         07/23/2023           WA         CSCSL         Confirmed and Suspected Contaminated Sites List         Department of Ecology         01/09/2023         01/11/2023         39/29/2023           WA         CSCSL NFA         Confirmed and Contaminated Sites - No Further Action         Department of Ecology         01/09/2023         01/11/2023         39/29/2023           WA         FICAL SANCES         Dyrideanner List         Department of Ecology         11/11/2023         39/29/2023           WA         FIGAL SANCES         Financial Assurance Information Listing         Department of Ecology         11/15/2022         11/22/2022	WA	AST	Aboveground Storage Tank Locations	Department of Ecology	12/14/2015	02/02/2016	05/03/2016
WA         CDL         Clandestine Drug Lab Contaminated Site List         Department of Ecology         11/02/2022         11/02/2022         01/02/2022           WA         COSLA SH         Confirmed and Suspected Contaminated Sites List         Department of Ecology         01/09/2023         01/11/2023         30/29/2023           WA         CSGSL FAA         Confirmed and Contaminated Sites - No Further Action         Department of Ecology         01/09/2023         01/11/2023         30/29/2023           WA         FIRANCIA Assurance 1         Financial Assurance 1 Financial Assurance Information Listing         Department of Ecology         11/17/2022         11/22/2022 <td< td=""><td>WA</td><td>BROWNFIELDS</td><td></td><td>Department of Ecology</td><td>01/09/2023</td><td>01/11/2023</td><td>03/29/2023</td></td<>	WA	BROWNFIELDS		Department of Ecology	01/09/2023	01/11/2023	03/29/2023
WA         COAL ASH         Coal Ash Disposal Site Listing         Epartment of Ecology         07/18/2022         07/20/2022         10/04/2022           WA         CSCSL NFA         Confirmed and Suspected Contaminated Sites List         Department of Ecology         01/03/2023         01/11/2023         03/29/2023           WA         SCSCI, NFA         Confirmed and Contaminated Sites - No Further Action         Department of Ecology         01/06/2022         10/06/2022         10/06/2022         10/08/2023         01/17/2023         03/29/2023           WA         Financial Assurance 1         Financial Assurance Information Listing         Department of Ecology         11/16/2022         11/12/2022         11/23/2022           WA         Financial Assurance 3         Financial Assurance Information Listing         Department of Ecology         11/16/2023         11/12/2027         10/04/2018           WA         HIST CDA         HIST CDA         Elst of Siese Contaminated by Clandestine Drug Labs         Department of Ecology         11/16/2021         11/12/2027         10/04/2018           WA         HIST CDA         HIST CDA         Elst of Siese Contaminated by Clandestine Drug Labs         Department of Ecology         11/20/2022         10/04/2018           WA         HIST CONTROL         Indexpendent Cleanup Reports         Department of Ecology         1	WA	CDL			10/24/2022	11/02/2022	01/23/2023
WA         CSCSI.         Confirmed and Suspected Contaminated Sites List         Department of Ecology         01/09/2023         01/11/2023         03/29/2023           WA         CSCSI.NFA         Confirmed and Contaminated Sites - No Futher Action         Department of Ecology         01/09/2022         10/10/2023         01/10/2023         03/29/2023           WA         DESCRIAL ASSURANCE OF THE ACTION OF TH	WA	COAL ASH		•	07/11/2022	07/20/2022	10/04/2022
WA CSCSL NFA	WA	CSCSL	· ·		01/09/2023	01/11/2023	03/29/2023
DRYOLEANERS   Drycleaner List   Department of Ecology   1006/2002   1006/2002   1202/2002   VA Financial Assurance   Financial Assurance Information Listing   Department of Ecology   11/16/2002   11/2002   20/10/2003   VA Financial Assurance   Financial Assurance Information Listing   Department of Ecology   11/16/2002   11/21/2002   20/10/2003   VA Financial Assurance   Financial Assurance Information Listing   Department of Ecology   11/16/2002   11/21/2002   10/2002   VA Financial Assurance Information Listing   Department of Ecology   11/16/2002   10/2002   10/2002   VA Financial Assurance   VA Financial Ass	WA	CSCSL NFA	·	,		01/11/2023	
WA Financial Assurance 1	WA	DRYCLEANERS	Drycleaner List	•	10/06/2022	10/06/2022	12/22/2022
WA Financial Assurance 2	WA	Financial Assurance 1	•		11/17/2022	11/22/2022	11/29/2022
WA HIST CONTROL   List of Size Contaminated by Clandestine Drug Labs   Department of Health   0,2006, 2007   0,074/2018	WA	Financial Assurance 2	· · · · · · · · · · · · · · · · · · ·	,	11/16/2022	11/21/2022	02/10/2023
WA HIST CDL	WA	Financial Assurance 3	<u> </u>		11/15/2017	11/20/2017	01/04/2018
WA ISL   Hazardous Sites List   Department of Ecology   1201/2020   11/29/2022   1206/20	WA	HIST CDL	· · · · · · · · · · · · · · · · · · ·	,	02/08/2007	06/26/2007	07/19/2007
WA         ICR         Independent Cleanup Reports         Department of Ecology         1201/2002         201/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         01/03/2003         02/03/2003	WA	HSL	,	•			
MACTIVE DRYCLEANERS   Inactive Drycleaners	WA	ICR	Independent Cleanup Reports	•		01/03/2003	01/22/2003
WA INST CONTROL   Institutional Control Site List   Department of Ecology   11/07/2023   03/29/2023   WA UST   Leaking Underground Storage Tanks Site List   Department of Ecology   11/07/2023   01/12/2023   03/29/2023   WA PTAP   P	WA	INACTIVE DRYCLEANERS	·				
WA         LUST         Leaking Underground Storage Tanks Site List         Department of Ecology         11/07/2022         11/08/2023         01/12/2033         03/29/2023           WA         NPDES         Water Quality Permit System Data         Department of Ecology         01/10/2023         12/29/2022         20/29/2023         20/20/2023				,			
WA         NPDES         Water Quality Permit System Data         Department of Ecology         01/10/2023         03/29/2023           WA         PFAS         PFAS Contamination Site Location Listing         Department of Ecology         01/21/2023         03/29/2023         01/21/2023         03/29/2023         01/21/2023         03/29/2023         01/21/2023         03/29/2023         02/20/203         02/20/203	WA						
WA         PFAS         PFAS Contamination Site Location Listing         Department of Ecology         12/29/2022         12/29/2022         20/12/2023         01/21/2023         02/12/20	WA	NPDES					03/29/2023
WA         PTAP         PTAP Site Listing         Department of Ecology         01/31/2023         02/01/2023         02/	WA	PFAS					
WA         RGA HWS         Recovered Government Archive State Hazardous Waste Facilities         Department of Ecology         07/01/2013         12/24/2013           WA         RGA LUST         Recovered Government Archive Solid Waste Facilities List         Department of Ecology         07/01/2013         12/24/2014           WA         SPILLS         Reported Spills         Department of Ecology         11/22/2022         12/10/2022         12/10/2023         22/10/2023           WA         SPILLS 90         SPILLS 90 data from FirstSearch         Department of Ecology         11/22/2022         12/10/2022	WA	PTAP		•			
WA         RGA LF         Recovered Government Archive Solid Waste Facilities List         Department of Ecology         07/01/2013         01/10/2014           WA         RSPILLS         Recovered Government Archive Leaking Underground Storage Tan         Department of Ecology         11/22/2022         12/21/2013         12/24/2013           WA         SPILLS 90         SPILLS90 data from FirstSearch         Environmental Report Tracking System Listing         Department of Ecology         12/05/2022         12/06/2022         12/20/202           WA         SWFLF         Environmental Report Tracking System Listing         Department of Ecology         11/20/202         12/20/202         12/20/2022	WA	RGA HWS	•				
WA         RGA LUST         Recovered Government Archive Leaking Underground Storage Tan         Department of Ecology         07/01/2013         12/24/2013           WA         SPILLS         Reported Spills         Department of Ecology         11/22/2022         12/01/2022         20/10/2023	WA	RGA LF		,			01/10/2014
WA         SPILLS         Reported Spills         Department of Ecology         11/22/2022         21/12/2022         02/10/2033           WA         SPILLS 90         SPILLS 90         SPILLS 6ERTS         Environmental Report Tracking System Listing         Department of Ecology         12/20/5/2022         12/06/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/202         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/2022         12/20/202         12/20/2	WA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan			07/01/2013	12/24/2013
WA         SPILLS 90         SPILLS90 data from FirstSearch         FirstSearch         05/23/2006         01/03/2013         03/06/2013           WA         SPILLS ERTS         Environmental Report Tracking System Listing         Department of Ecology         12/05/2022         12/26/2022         12/22/2022         12/22/2022         12/22/2022         12/22/2022         12/22/2022         12/22/2022         12/22/2022         12/23/2022         12/26/2022         12/23/2022         12/23/2022         12/20/2022         12/23/2022         03/16/2003         04/13/2006         04/13/2006         04/13/2006         04/13/2006         04/13/2006         04/13/2006         04/13/2006         04/13/2006         04/13/2003         04/13/2003         04/13/2003         04/13/2003         04/13/2003         04/13/2003         04/13/2003         04/13/2003         04/13/2003         04/13/2003         04/13/2003	WA	SPILLS			11/22/2022		02/10/2023
WA         SPILLS ERTS         Environmental Report Tracking System Listing         Department of Ecology         12/05/2022         12/06/2022         12/22/2022           WA         SWF/LF         Solid Waste Facility Database         Department of Ecology         11/30/2022         12/27/2022         12/30/2022           WA         SWRCY         Recycling Facility List         Department of Ecology         10/18/2022         10/17/2023         01/17/2023         03/16/2006         04/13/2002         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         09/12/2022         01/12/2022         01/12/2023         01/12/2023         01/12/2023 <td>WA</td> <td>SPILLS 90</td> <td></td> <td></td> <td>05/23/2006</td> <td>01/03/2013</td> <td>03/06/2013</td>	WA	SPILLS 90			05/23/2006	01/03/2013	03/06/2013
WA         SWF/LF         Solid Waste Facility Database         Department of Ecology         11/30/2022         12/27/2022         12/30/2022           WA         SWRCY         Recycling Facility List         Department of Ecology         10/18/2022         10/18/2022         01/17/2023           WA         SWTIRE         Solid Waste Tire Facilities         Department of Ecology         06/01/2022         06/23/2022         09/12/2022           WA         UIC         Underground Injection Wells Listing         Department of Ecology         01/12/2033         01/26/2023         03/08/2023           WA         UST         Underground Storage Tank Database         Department of Ecology         11/07/2022         11/08/2022         01/31/2023           WA         VCP         Voluntary Cleanup Program Sites         Department of Ecology         01/09/2023         01/12/203         03/08/2023           WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         01/09/2023         01/11/2023         03/29/2023           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2017         05/08/2018         07/20/2018           US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022	WA	SPILLS ERTS		Department of Ecology	12/05/2022	12/06/2022	12/22/2022
WA         SWRCY         Recycling Facility List         Department of Ecology         10/18/2022         10/26/2022         01/17/2023           WA         SWTIRE         Solid Waste Tire Facilities         Department of Ecology         11/01/2005         03/16/2006         04/13/2006           WA         SWTIRE 2         Solid Waste Tire Facilities 2         Department of Ecology         06/01/2022         06/23/2022         09/12/2022           WA         UIC         Underground Injection Wells Listing         Department of Ecology         01/12/2023         01/26/2033         03/08/2023           WA         UST         Underground Storage Tank Database         Department of Ecology         01/09/2023         01/11/2023         01/31/2023           WA         VCP         Voluntary Cleanup Program Sites         Department of Ecology         01/09/2023         01/11/2033         03/29/2023           WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         01/09/2023         01/11/2033         03/29/2023           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2021         05/08/2018         07/20/2018           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protectio	WA	SWF/LF	, , ,		11/30/2022	12/27/2022	12/30/2022
WA         SWTIRE         Solid Waste Tire Facilities         Department of Ecology         11/01/2005         03/16/2006         04/13/2006           WA         SWTIRE 2         Solid Waste Tire Facilities 2         Department of Ecology         06/01/2022         06/23/2022         09/12/2022           WA         UIC         Underground Injection Wells Listing         Department of Ecology         01/12/2023         01/26/2023         03/08/2023           WA         UST         Underground Storage Tank Database         Department of Ecology         11/07/2022         11/08/2022         01/13/2023           WA         VCP         Voluntary Cleanup Program Sites         Department of Ecology         01/09/2023         01/11/2023         03/29/2023           WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         12/31/2020         08/11/2021         11/23/2021           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2017         05/08/2018         07/20/2018           US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         03/10/2023           US         AGUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency <td< td=""><td>WA</td><td>SWRCY</td><td></td><td>,</td><td>10/18/2022</td><td>10/26/2022</td><td>01/17/2023</td></td<>	WA	SWRCY		,	10/18/2022	10/26/2022	01/17/2023
WA         SWTIRE 2         Solid Waste Tire Facilities 2         Department of Ecology         06/01/2022         09/12/2022           WA         UIC         Underground Injection Wells Listing         Department of Ecology         01/12/2023         01/26/2023         03/08/2023           WA         UST         Underground Storage Tank Database         Department of Ecology         11/07/2022         11/08/2022         01/31/2023           WA         VCP         Voluntary Cleanup Program Sites         Department of Ecology         01/09/2023         01/11/2023         03/08/2023           WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         12/31/2020         08/11/2021         11/23/2021           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2017         05/08/2018         07/20/2018           US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         12/20/2022         03/10/2023           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/2023         01/05/2023         04/03/2023           US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Ecology <td>WA</td> <td>SWTIRE</td> <td>• •</td> <td></td> <td>11/01/2005</td> <td>03/16/2006</td> <td>04/13/2006</td>	WA	SWTIRE	• •		11/01/2005	03/16/2006	04/13/2006
WA         UIC         Underground Injection Wells Listing         Department of Ecology         01/12/2023         01/26/2023         03/08/2023           WA         UST         Underground Storage Tank Database         Department of Ecology         11/07/2022         11/08/2022         01/31/2023           WA         VCP         Voluntary Cleanup Program Sites         Department of Ecology         01/09/2023         01/11/2023         03/29/2023           WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         12/31/2020         08/11/2021         11/27/20/2018           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2017         05/08/2018         07/20/2018           US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         12/20/2022         03/10/2023           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/2023         01/05/2023         04/03/2023           US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Ecology         12/31/2020         11/30/2021         02/22/2022           US         COAL ASH EPA         Coal Combustion Residues Surface Imp	WA	SWTIRE 2	Solid Waste Tire Facilities 2		06/01/2022	06/23/2022	09/12/2022
WA         UST         Underground Storage Tank Database         Department of Ecology         11/07/2022         11/08/2022         01/31/2023           WA         VCP         Voluntary Cleanup Program Sites         Department of Ecology         01/09/2023         01/11/2023         03/29/2023           WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         12/31/2020         08/11/2021         11/23/2021           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2017         05/08/2018         07/20/2018           US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         12/20/2022         03/10/2023           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/2023         01/05/2023         04/03/2023           US         BRS         Biennial Reporting System         EPA/NTIS         12/31/2021         03/09/2023         03/20/2023           US         COAL ASH EPA         Coal Combustion Residues Surface Impoundments List         Environmental Protection Agency         01/12/2017         03/05/2019         11/10/2019           US         CONSENT         Superfund (CERCLA) Consent Decrees	WA		Underground Injection Wells Listing	,	01/12/2023	01/26/2023	03/08/2023
WA         VCP         Voluntary Cleanup Program Sites         Department of Ecology         01/09/2023         01/11/2023         03/29/2023           WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         12/31/2020         08/11/2021         11/23/2021           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2017         05/08/2018         07/20/2018           US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         12/20/2022         03/10/2023           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/2023         01/05/2023         04/03/2023           US         BRS         Biennial Reporting System         EPA/NTIS         12/31/2021         03/09/2023         03/09/2023         03/20/2032           US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Ecology         12/31/2020         11/30/2021         03/05/2021         03/05/2021         01/12/2017         03/05/2021         01/12/2017         03/05/2021         01/12/2019         01/12/2017         03/05/2021         01/21/2020         01/10/2023         03/06/2023         03/09/2022         0	WA	UST	Underground Storage Tank Database	•	11/07/2022	11/08/2022	01/31/2023
WA         WA MANIFEST         Hazardous Waste Manifest Data         Department of Ecology         12/31/2020         08/11/2021         11/23/2021           US         2020 COR ACTION         2020 Corrective Action Program List         Environmental Protection Agency         09/30/2017         05/08/2018         07/20/2018           US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         12/20/2022         03/10/2023           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/2023         01/05/2023         04/03/2023           US         BRS         Biennial Reporting System         EPA/NTIS         12/31/2021         03/09/2023         03/20/2023           US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Energy         12/31/2020         11/30/2021         02/22/2022           US         COAL ASH EPA         Coal Combustion Residues Surface Impoundments List         Environmental Protection Agency         01/12/2017         03/05/2019         11/11/2019           US         CONSENT         Superfund (CERCLA) Consent Decrees         Department of Justice, Consent Decree Library         09/30/2022         10/21/2022         01/10/2023           US         CORRACTS	WA	VCP	•	Department of Ecology	01/09/2023	01/11/2023	03/29/2023
US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         12/20/2022         03/10/2023           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/2023         04/03/2023           US         BRS         Biennial Reporting System         EPA/NTIS         12/31/2021         03/09/2023         03/20/2023           US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Energy         12/31/2020         11/30/2021         02/22/2022           US         COAL ASH EPA         Coal Combustion Residues Surface Impoundments List         Environmental Protection Agency         01/12/2017         03/05/2019         11/11/2019           US         CONSENT         Superfund (CERCLA) Consent Decrees         Department of Justice, Consent Decree Library         09/30/2022         01/10/2023         03/09/2023           US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/20/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	WA	WA MANIFEST	Hazardous Waste Manifest Data	•	12/31/2020	08/11/2021	11/23/2021
US         ABANDONED MINES         Abandoned Mines         Department of Interior         12/20/2022         12/20/2022         03/10/2023           US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/2023         04/03/2023           US         BRS         Biennial Reporting System         EPA/NTIS         12/31/2021         03/09/2023         03/20/2023           US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Energy         12/31/2020         11/30/2021         02/22/2022           US         COAL ASH EPA         Coal Combustion Residues Surface Impoundments List         Environmental Protection Agency         01/12/2017         03/05/2019         11/11/2019           US         CONSENT         Superfund (CERCLA) Consent Decrees         Department of Justice, Consent Decree Library         09/30/2022         01/10/2023         03/09/2023           US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/20/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US         AQUEOUS FOAM NRC         Aqueous Foam Related Incidents Listing         Environmental Protection Agency         01/02/203         04/03/2023         04/03/2023           US         BRS         Biennial Reporting System         EPA/NTIS         12/31/2021         03/09/2023         03/20/2023           US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Energy         12/31/2020         11/30/2021         02/22/2022           US         COAL ASH EPA         Coal Combustion Residues Surface Impoundments List         Environmental Protection Agency         01/12/2017         03/05/2019         11/11/2019           US         CONSENT         Superfund (CERCLA) Consent Decrees         Department of Justice, Consent Decree Library         09/30/2022         01/10/2023         03/09/2023         03/09/2023           US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/20/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	US	ABANDONED MINES			12/20/2022	12/20/2022	03/10/2023
US         COAL ASH DOE         Steam-Electric Plant Operation Data         Department of Energy         12/31/2020         11/30/2021         02/22/2022           US         COAL ASH EPA         Coal Combustion Residues Surface Impoundments List         Environmental Protection Agency         01/12/2017         03/05/2019         11/31/2020           US         CONSENT         Superfund (CERCLA) Consent Decrees         Department of Justice, Consent Decree Library         09/30/2022         10/21/2022         01/10/2023           US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/20/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	US	AQUEOUS FOAM NRC	Aqueous Foam Related Incidents Listing	Environmental Protection Agency		01/05/2023	04/03/2023
US         COAL ASH EPA         Coal Combustion Residues Surface Impoundments List         Environmental Protection Agency         01/12/2017         03/05/2019         11/11/2019           US         CONSENT         Superfund (CERCLA) Consent Decrees         Department of Justice, Consent Decree Library         09/30/2022         10/21/2022         01/10/2023           US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/09/2023         03/09/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2021	03/09/2023	03/20/2023
US         CONSENT         Superfund (CERCLA) Consent Decrees         Department of Justice, Consent Decree Library         09/30/2022         10/21/2022         01/10/2023           US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/09/2023         03/20/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2020	11/30/2021	02/22/2022
US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/09/2023         03/20/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	US	COAL ASH EPA	•				11/11/2019
US         CORRACTS         Corrective Action Report         EPA         03/06/2023         03/09/2023         03/09/2023         03/20/2023           US         DEBRIS REGION 9         Torres Martinez Reservation Illegal Dump Site Locations         EPA, Region 9         01/12/2009         05/07/2009         09/21/2009	US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	09/30/2022	10/21/2022	01/10/2023
US DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations EPA, Region 9 01/12/2009 05/07/2009 09/21/2009	US	CORRACTS		EPA	03/06/2023	03/09/2023	03/20/2023
LIO DOCKET LINKS	US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US DUCKET HWC Hazardous Waste Compliance Docket Listing Environmental Protection Agency 05/06/2021 05/21/2021 08/11/2021	US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	DOD	Department of Defense Sites	USGS	06/07/2021	07/13/2021	03/09/2022
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	01/25/2023	02/02/2023	02/28/2023
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	01/01/2023	01/04/2023	04/03/2023
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	12/12/2022	12/14/2022	12/19/2022
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	12/20/2022	12/21/2022	03/10/2023
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	10/14/2021	11/05/2021	02/01/2022
US	FINDS	Facility Index System/Facility Registry System	EPA	02/02/2023	02/28/2023	03/24/2023
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	11/01/2022	11/10/2022	02/09/2023
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	11/10/2022	11/10/2022	02/09/2023
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/26/2021	07/27/2021	10/22/2021
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	12/13/2022	12/14/2022	03/10/2023
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	10/19/2022	12/06/2022	03/03/2023
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/20/2022	06/13/2022	08/16/2022
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	11/26/2022	12/06/2022	03/03/2023
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/14/2022	12/06/2022	03/03/2023
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	11/23/2022	12/06/2022	03/03/2023
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	10/14/2022	12/06/2022	03/03/2023
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	11/23/2022	12/06/2022	03/03/2023
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	11/23/2022	12/06/2022	03/03/2023
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/19/2022	12/06/2022	03/03/2023
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/20/2022	06/13/2022	08/16/2022
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	11/23/2022	12/06/2022	03/03/2023
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	10/14/2022	12/06/2022	03/03/2023
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	11/23/2022	12/06/2022	03/03/2023
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	10/14/2022	12/06/2022	03/03/2023
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	11/23/2022	12/06/2022	03/03/2023
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	11/23/2022	12/06/2022	03/03/2023
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
	INDIAN VCP RT	Voluntary Cleanup Priority Listing  Voluntary Cleanup Priority Listing			04/22/2008	05/19/2008
US US	LEAD SMELTER 1	Lead Smelter Sites	EPA, Region 7	03/20/2008 01/25/2023	02/02/2023	02/28/2023
	LEAD SMELTER 1		Environmental Protection Agency	04/05/2023	10/27/2010	
US US	LIENS 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	02/02/2023	12/02/2010 02/28/2023
	LUCIS	CERCLA Lien Information	Environmental Protection Agency		11/08/2022	02/28/2023
US	LUCIO	Land Use Control Information System	Department of the Navy	11/02/2022	1 1/06/2022	01/10/2023

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	MINES MRDS	Mineral Resources Data System	USGS	08/23/2022	11/22/2022	02/28/2023
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	02/27/2023	03/01/2023	03/24/2023
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	10/26/2022	11/22/2022	12/05/2022
US	NPL	National Priority List	EPA	01/25/2023	02/03/2023	02/28/2023
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	11/03/2022	01/04/2023	04/03/2023
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PFAS ATSDR	PFAS Contamination Site Location Listing	Department of Health & Human Services	06/24/2020	03/17/2021	11/08/2022
US	PFAS ECHO	Facilities in Industries that May Be Handling PFAS Listing	Environmental Protection Agency	03/30/2023	03/30/2023	04/03/2023
US	PFAS ECHO FIRE TRAINING	Facilities in Industries that May Be Handling PFAS Listing	Environmental Protection Agency	03/30/2023	03/30/2023	04/03/2023
US	PFAS FEDERAL SITES	Federal Sites PFAS Information	Environmental Protection Agency	02/23/2022	03/31/2022	11/08/2022
US	PFAS NPDES	Clean Water Act Discharge Monitoring Information	Environmental Protection Agency	01/03/2022	03/31/2022	11/08/2022
US	PFAS NPL	Superfund Sites with PFAS Detections Information	Environmental Protection Agency	02/23/2022	07/08/2022	11/08/2022
US	PFAS PART 139 AIRPORT	All Certified Part 139 Airports PFAS Information Listing	Environmental Protection Agency	03/30/2023	03/30/2023	04/03/2023
US	PFAS RCRA MANIFEST	PFAS Transfers Identified In the RCRA Database Listing	Environmental Protection Agency	01/03/2022	03/31/2022	11/08/2022
US	PFAS TRIS	List of PFAS Added to the TRI	Environmental Protection Agency	03/07/2023	03/07/2023	03/24/2023
US	PFAS TSCA	PFAS Manufacture and Imports Information	Environmental Protection Agency	01/03/2022	03/31/2022	11/08/2022
US	PFAS WQP	Ambient Environmental Sampling for PFAS	Environmental Protection Agency	01/03/2022	03/31/2022	11/08/2022
US	PRP	Potentially Responsible Parties	EPA	10/27/2022	11/01/2022	11/15/2022
US	Proposed NPL	Proposed National Priority List Sites	EPA	01/25/2023	02/02/2023	02/28/2023
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/06/2023	03/09/2023	03/20/2023
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/06/2023	03/09/2023	03/20/2023
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/06/2023	03/09/2023	03/20/2023
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/06/2023	03/09/2023	03/20/2023
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	03/06/2023	03/09/2023	03/20/2023
US	RMP	Risk Management Plans	Environmental Protection Agency	04/27/2022	05/04/2022	05/10/2022
US	ROD	Records Of Decision	EPA	01/25/2023	02/02/2023	02/28/2023
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	07/30/2021	02/03/2023	02/10/2023
US	SEMS	Superfund Enterprise Management System	EPA	01/25/2023	02/02/2023	02/28/2023
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	01/25/2023	02/02/2023	02/28/2023
US	SSTS	Section 7 Tracking Systems	EPA	10/17/2022	10/18/2022	01/10/2023
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2021	11/01/2022	02/09/2023
US	TSCA	Toxic Substances Control Act	EPA	12/31/2020	06/14/2022	03/24/2023
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	02/23/2022	03/10/2022	03/10/2022
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	01/06/2023	02/02/2023	02/10/2023
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	10/27/2022	11/16/2022	02/09/2023
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	12/13/2022	12/14/2022	03/10/2023
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	01/06/2023	02/02/2023	02/10/2023

11/16/2022 02/09/2023
1/17/2022 02/10/2023
05/27/2020 08/13/2020
06/08/2011 09/13/2011
0/20/2022 01/10/2023
1/16/2022 02/06/2023
10/29/2021 01/19/2022
07/19/2019 09/10/2019
06/19/2019 09/03/2019
9 1

#### STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

# **GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM**

#### **TARGET PROPERTY ADDRESS**

MOTTIS PROPERTY 290 ZACCARDO ROAD SEQUIM, WA 98382

#### **TARGET PROPERTY COORDINATES**

Latitude (North): 48.020476 - 48° 1' 13.71" Longitude (West): 122.995573 - 122° 59' 44.06"

Universal Tranverse Mercator: Zone 10 UTM X (Meters): 500330.1 UTM Y (Meters): 5318357.0

Elevation: 143 ft. above sea level

#### **USGS TOPOGRAPHIC MAP**

Target Property Map: 14866923 GARDINER, WA

Version Date: 2020

Northwest Map: 14718183 SEQUIM, WA

Version Date: 2020

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.

#### **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

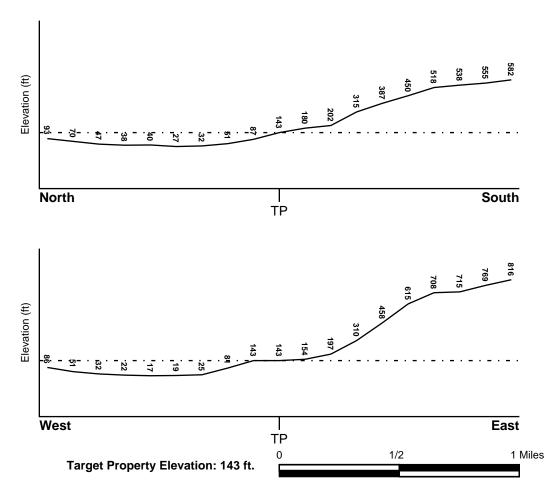
#### **TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NW

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

#### HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

#### **FEMA FLOOD ZONE**

Flood Plain Panel at Target Property FEMA Source Type

5300210545D FEMA Q3 Flood data

Additional Panels in search area: FEMA Source Type

Not Reported

**NATIONAL WETLAND INVENTORY** 

NWI Quad at Target Property Data Coverage

GARDINER YES - refer to the Overview Map and Detail Map

#### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### Site-Specific Hydrogeological Data\*:

Search Radius: 1.25 miles Status: Not found

#### **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

LOCATION GENERAL DIRECTION

MAP ID FROM TP GROUNDWATER FLOW

Not Reported

#### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

#### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

#### **GEOLOGIC AGE IDENTIFICATION**

Era: Cenozoic Category: Volcanic Rocks

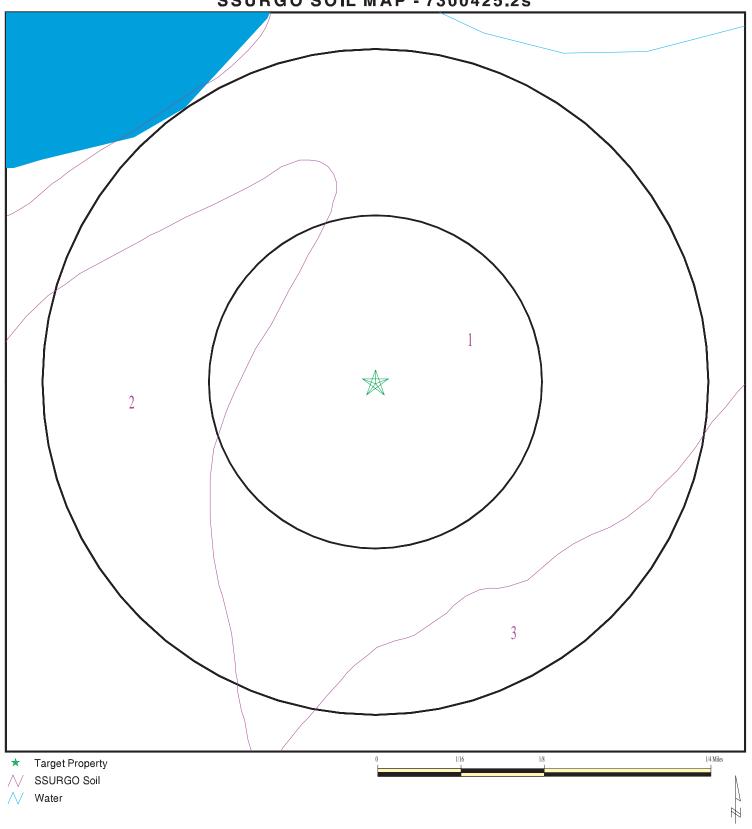
System: Tertiary

Series: Eocene marine pilow basalt

Code: Teb (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# **SSURGO SOIL MAP - 7300425.2s**



SITE NAME: Mottis Property
ADDRESS: 290 Zaccardo Road
Sequim WA 98382
LAT/LONG: 48.020476 / 122.995573

CLIENT: ESA Associates
CONTACT: Kristen Burgess
INQUIRY#: 7300425.2s
DATE: April 05, 2023 6:04 pm

#### 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: Hoypus

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to

excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively 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									
	Bou	ındary		Classif	ication	Saturated hydraulic				
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)			
1	0 inches	3 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.6			
2	3 inches	9 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.6			
3	9 inches	31 inches	very gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.6			

	Soil Layer Information								
	Bou	ındary		Classi	fication	Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group Unified Soil		conductivity micro m/sec	Oon itcaction		
4	31 inches	44 inches	very gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.6		
5	44 inches	59 inches	gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.6		

### Soil Map ID: 2

Soil Component Name: Hoypus

Soil Surface Texture: gravelly sandy loam

Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels. Hydrologic Group:

Soil Drainage Class: Somewhat excessively 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			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity			
1	0 inches	3 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 6.5 Min: 5.6		

				r Information		Saturated	
	Bou	ındary	Soil Texture Class	Classification		_hydraulic	
Layer	Upper	Lower		AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
2	3 inches	9 inches	gravelly sandy loam	Granular materials (35	COARSE-GRAINED SOILS, Sands,	Max: 141 Min: 42	Max: 6.5 Min: 5.6
				pct. or less passing No.	Clean Sands, Well-graded sand.		
				200), Stone	COARSE-GRAINED		
				Fragments,	SOILS, Sands,		
				Gravel and Sand.	Sands with fines, Silty Sand.		
3	9 inches	31 inches	very gravelly	Granular	COARSE-GRAINED	Max: 141	Max: 6.5
J	0 11101103	OT ITIONES	loamy sand	materials (35	SOILS, Sands,	Min: 42	Min: 5.6
			loanly sand	pct. or less	Clean Sands.	IVIIII. 42	WIII 1. 0.0
				passing No.	Well-graded sand.		
				200), Stone	COARSE-GRAINED		
				Fragments,	SOILS, Sands,		
				Gravel and	Sands with fines,		
				Sand.	Silty Sand.		
4	31 inches	44 inches	very gravelly	Granular	COARSE-GRAINED	Max: 141	Max: 6.5
			sand	materials (35	SOILS, Sands,	Min: 42	Min: 5.6
				pct. or less	Clean Sands,		
				passing No.	Well-graded sand.		
				200), Stone	COARSE-GRAINED		
				Fragments,	SOILS, Sands,		
				Gravel and	Sands with fines,		
				Sand.	Silty Sand.		
5	44 inches	59 inches	gravelly sand	Granular	COARSE-GRAINED	Max: 141	Max: 6.5
				materials (35	SOILS, Sands,	Min: 42	Min: 5.6
				pct. or less	Clean Sands,		
				passing No.	Well-graded sand.		
				200), Stone	COARSE-GRAINED		
				Fragments,	SOILS, Sands,		
				Gravel and	Sands with fines,		
				Sand.	Silty Sand.		

# Soil Map ID: 3

Soil Component Name: Clallam

Soil Surface Texture: gravelly sandy loam

Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. Hydrologic Group:

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: > 69 inches

			Soil Layer	r Information				
	Вои	ındary		Classif	fication	Saturated hydraulic		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)	
1	0 inches	9 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 0.42 Min: 0.01	Max: 6.5 Min: 5.1	
2	9 inches	27 inches	very gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 0.42 Min: 0.01	Max: 6.5 Min: 5.1	
3	27 inches	59 inches	very gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Gravels with fines, Silty Gravel	Max: 0.42 Min: 0.01	Max: 6.5 Min: 5.1	

# LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

# FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
6	USGS40001280345	1/8 - 1/4 Mile WNW
C10	USGS40001280275	1/4 - 1/2 Mile North
C27	USGS40001280274	1/4 - 1/2 Mile North
29	USGS40001280351	1/4 - 1/2 Mile WNW
E30	USGS40001280260	1/4 - 1/2 Mile NNE
48	USGS40001280035	1/4 - 1/2 Mile WSW
56	USGS40001280083	1/2 - 1 Mile SW
J90	USGS40001280514	1/2 - 1 Mile NE
M116	USGS40001280489	1/2 - 1 Mile NE
M127	USGS40001280433	1/2 - 1 Mile NE
O128	USGS40001280397	1/2 - 1 Mile WNW
O129	USGS40001280398	1/2 - 1 Mile WNW
O130	USGS40001280346	1/2 - 1 Mile WNW
R140	USGS40001280194	1/2 - 1 Mile West
T144	USGS40001280315	1/2 - 1 Mile WNW
R146	USGS40001280276	1/2 - 1 Mile West
T147	USGS40001280425	1/2 - 1 Mile WNW
T148	USGS40001280424	1/2 - 1 Mile WNW
181	USGS40001280742	1/2 - 1 Mile North
Z186	USGS40001280805	1/2 - 1 Mile North
Z187	USGS40001280806	1/2 - 1 Mile North
193	USGS40001280861	1/2 - 1 Mile NNE
Z198	USGS40001280804	1/2 - 1 Mile North

#### 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.

MAP ID	WELL ID	LOCATION FROM TP
	WA1200000011689	0 - 1/8 Mile SW
A2	WALOG2000865571	0 - 1/8 Mile SW
A3	WALOG2000865558	0 - 1/8 Mile SW
4	WA120000028935	0 - 1/8 Mile NNE
5	WALOG2000231002	1/8 - 1/4 Mile ESE
B7	WALOG2000045549	1/4 - 1/2 Mile NE
B8	WALOG2000049132	1/4 - 1/2 Mile NE
B9	WALOG2000390982	1/4 - 1/2 Mile NE
D11	WALOG2000193934	1/4 - 1/2 Mile WSW
D12	WALOG2000343014	1/4 - 1/2 Mile WSW
D13	WALOG2000376597	1/4 - 1/2 Mile WSW
D14	WALOG2000041114	1/4 - 1/2 Mile WSW
D15	WALOG2000041115	1/4 - 1/2 Mile WSW
D16	WALOG2000043885	1/4 - 1/2 Mile WSW

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

		LOCATION
MAP ID	WELL ID	FROM TP
D17	WALOG2000796084	1/4 - 1/2 Mile WSW
D18	WALOG2000796083	1/4 - 1/2 Mile WSW
D19	WALOG2000796101	1/4 - 1/2 Mile WSW
D20	WALOG2000796085	1/4 - 1/2 Mile WSW
D21	WALOG2000749676	1/4 - 1/2 Mile WSW
D22	WALOG2000416136	1/4 - 1/2 Mile WSW
D23	WALOG2000416135	1/4 - 1/2 Mile WSW
D24	WALOG2000416138	1/4 - 1/2 Mile WSW
D25	WALOG2000416137	1/4 - 1/2 Mile WSW
D26	WA120000017571	1/4 - 1/2 Mile WSW
28	WALOG2000296680	1/4 - 1/2 Mile WNW
F31	WALOG2000620289	1/4 - 1/2 Mile North
F32	WALOG2000620290	1/4 - 1/2 Mile North
F33	WALOG2000042231	1/4 - 1/2 Mile North
F34	WALOG2000620288	1/4 - 1/2 Mile North
F35	WALOG2000770659	1/4 - 1/2 Mile North
F36	WALOG2000620291	1/4 - 1/2 Mile North
G37	WALOG2000040561	1/4 - 1/2 Mile West
G38	WALOG2000042568	1/4 - 1/2 Mile West
G39	WALOG2000039806	1/4 - 1/2 Mile West
G40	WALOG2000038043	1/4 - 1/2 Mile West
G41	WALOG2000038306	1/4 - 1/2 Mile West
G42	WALOG2000044299	1/4 - 1/2 Mile West
G43	WALOG2000044624	1/4 - 1/2 Mile West 1/4 - 1/2 Mile West
G44	WALOG2000047074 WALOG2000042718	
G45		1/4 - 1/2 Mile West 1/4 - 1/2 Mile West
G46	WALOG2000042742	1/4 - 1/2 Mile West
G47 E49	WALOG2000043424 WALOG2000864890	1/4 - 1/2 Mile West 1/4 - 1/2 Mile NNE
E50	WALOG2000604690 WALOG2000269402	1/4 - 1/2 Mile NNE
E51	WALOG2000209402 WALOG2000864891	1/4 - 1/2 Mile NNE
H52	WALOG2000804891 WALOG2000317227	1/4 - 1/2 Mile ENE
H53	WALOG2000317227 WALOG2000467660	1/4 - 1/2 Mile ENE
H54	WALOG2000407000 WALOG2000038632	1/4 - 1/2 Mile ENE
H55	WALOG200003032 WALOG2000042974	1/4 - 1/2 Mile ENE
157	WALOG2000380669	1/2 - 1 Mile West
158	WALOG2000380565	1/2 - 1 Mile West
159	WALOG2000380564	1/2 - 1 Mile West
160	WALOG2000795429	1/2 - 1 Mile West
161	WALOG2000796099	1/2 - 1 Mile West
162	WALOG2000796098	1/2 - 1 Mile West
163	WALOG2000796082	1/2 - 1 Mile West
164	WALOG2000380563	1/2 - 1 Mile West
165	WALOG2000380558	1/2 - 1 Mile West
166	WALOG2000380557	1/2 - 1 Mile West
167	WALOG2000106036	1/2 - 1 Mile West
168	WALOG2000380559	1/2 - 1 Mile West
169	WALOG2000380562	1/2 - 1 Mile West
170	WALOG2000380561	1/2 - 1 Mile West
l71	WALOG2000380560	1/2 - 1 Mile West
172	WALOG2000846686	1/2 - 1 Mile West
173	WALOG2000846687	1/2 - 1 Mile West

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

	MELLID	LOCATION
MAP ID	WELL ID	FROM TP
174	WALOG2000846684	1/2 - 1 Mile West
l75	WALOG2000846685	1/2 - 1 Mile West
176	WALOG2000846688	1/2 - 1 Mile West
177	WALOG2000846691	1/2 - 1 Mile West
178	WALOG2000846690	1/2 - 1 Mile West
179	WALOG2000846689	1/2 - 1 Mile West
180	WALOG2000846692	1/2 - 1 Mile West
I81	WALOG2000846677	1/2 - 1 Mile West
182	WALOG2000846678	1/2 - 1 Mile West
183	WALOG2000846675	1/2 - 1 Mile West
184	WALOG2000846676	1/2 - 1 Mile West
185	WALOG2000846679	1/2 - 1 Mile West
186	WALOG2000846682	1/2 - 1 Mile West
187	WALOG2000846683	1/2 - 1 Mile West
188	WALOG2000846680	1/2 - 1 Mile West
189	WALOG2000846681	1/2 - 1 Mile West
K91	WALOG2000378860	1/2 - 1 Mile WNW
K92	WALOG2000378859	1/2 - 1 Mile WNW
K93	WALOG2000378861	1/2 - 1 Mile WNW
K94	WALOG2000378862	1/2 - 1 Mile WNW
K95	WALOG2000378863	1/2 - 1 Mile WNW
K96	WALOG2000378858	1/2 - 1 Mile WNW
K97	WALOG2000042071	1/2 - 1 Mile WNW
K98	WALOG2000045294	1/2 - 1 Mile WNW
K99	WALOG2000378855	1/2 - 1 Mile WNW
K100	WALOG2000378857	1/2 - 1 Mile WNW
K101	WALOG2000378856	1/2 - 1 Mile WNW
K102	WALOG2000378864	1/2 - 1 Mile WNW
K103	WALOG2000378871	1/2 - 1 Mile WNW
K104	WALOG2000378870	1/2 - 1 Mile WNW
K105	WALOG2000378873	1/2 - 1 Mile WNW
K106	WALOG2000378872	1/2 - 1 Mile WNW
K107	WALOG2000378869	1/2 - 1 Mile WNW
K108	WALOG2000378866	1/2 - 1 Mile WNW
K109	WALOG2000378865	1/2 - 1 Mile WNW
K110	WALOG2000378868	1/2 - 1 Mile WNW
K110	WALOG2000378867	1/2 - 1 Mile WNW
L112	WALOG2000076007 WALOG2000038667	1/2 - 1 Mile East
L113	WALOG2000045338	1/2 - 1 Mile East
L114	WALOG2000043330 WALOG2000038979	1/2 - 1 Mile East
K115	WA1200000030373 WA1200000032342	1/2 - 1 Mile Last
J117	WA1200000032342 WALOG2000044921	1/2 - 1 Mile WWW
J118	WALOG2000044921 WALOG2000045459	1/2 - 1 Mile NE
J119	WALOG2000043439 WALOG2000042918	1/2 - 1 Mile NE
J120	WALOG2000042910 WALOG2000040329	1/2 - 1 Mile NE
J120 J121	WALOG2000617709	1/2 - 1 Mile NE
J121 J122	WALOG2000617709 WALOG2000439122	1/2 - 1 Mile NE
N123	WALOG2000439122 WALOG2000041268	1/2 - 1 Mile WSW
N123 N124	WALOG2000041266 WALOG2000041799	1/2 - 1 Mile WSW
N125	WALOG2000041799 WALOG2000040751	1/2 - 1 Mile WSW
126	WALOG2000040751 WALOG2000640144	1/2 - 1 Mile VVSVV
P131	WALOG2000640144 WALOG2000318167	1/2 - 1 Mile SSVV
1-191	WALOG2000310101	1/2 - I WIIIE NOILI

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

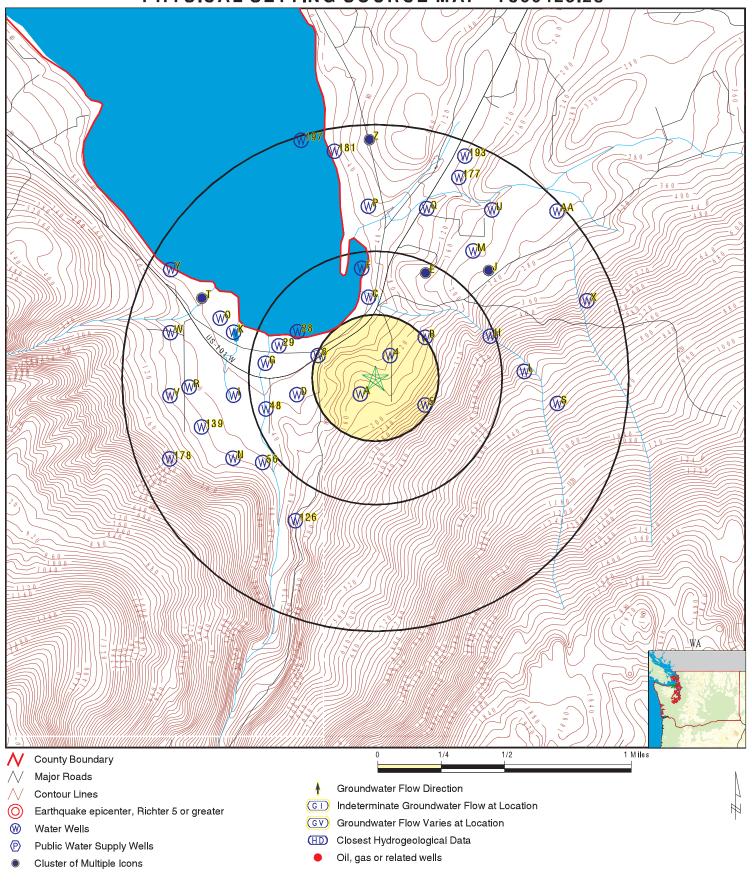
		LOCATION
MAP ID	WELL ID	FROM TP
P132	WALOG2000047296	1/2 - 1 Mile North
P133	WALOG2000038851	1/2 - 1 Mile North
P134	WALOG2000318169	1/2 - 1 Mile North
P135	WALOG2000689411	1/2 - 1 Mile North
Q136	WALOG2000363278	1/2 - 1 Mile NNE
Q137	WALOG2000324611	1/2 - 1 Mile NNE
Q138	WALOG2000366285	1/2 - 1 Mile NNE
139	WALOG2000044608	1/2 - 1 Mile WSW
S141	WALOG2000296446	1/2 - 1 Mile East
S142	WALOG2000349600	1/2 - 1 Mile East
S143	WALOG2000296444	1/2 - 1 Mile East
T145	WALOG2000039722	1/2 - 1 Mile WNW
U149	WALOG2000716497	1/2 - 1 Mile NE
U150	WALOG2000038603	1/2 - 1 Mile NE
V151 V152	WALOG2000047553 WALOG2000230645	1/2 - 1 Mile West 1/2 - 1 Mile West
V152 V153	WALOG2000230645 WALOG2000039517	1/2 - 1 Mile West
V153 V154	WALOG2000039317 WALOG2000043149	1/2 - 1 Mile West
V154 V155	WALOG2000043149 WALOG2000230646	1/2 - 1 Mile West
V156	WALOG2000230646 WALOG2000534253	1/2 - 1 Mile West
V150 V157	WALOG2000534253 WALOG2000534254	1/2 - 1 Mile West
V157 V158	WALOG2000334254 WALOG2000872549	1/2 - 1 Mile West
V159	WALOG2000872549 WALOG2000230980	1/2 - 1 Mile West
V160	WALOG2000230900 WALOG2000230977	1/2 - 1 Mile West
V161	WALOG2000230977 WALOG2000230978	1/2 - 1 Mile West
V162	WALOG2000230978 WALOG2000230979	1/2 - 1 Mile West
W163	WALOG2000230373 WALOG2000784651	1/2 - 1 Mile West
W164	WALOG2000784652	1/2 - 1 Mile WNW
W165	WALOG2000784653	1/2 - 1 Mile WNW
W166	WALOG2000704000	1/2 - 1 Mile WNW
W167	WALOG2000784649	1/2 - 1 Mile WNW
W168	WALOG2000784650	1/2 - 1 Mile WNW
W169	WALOG2000784654	1/2 - 1 Mile WNW
W170	WALOG2000805069	1/2 - 1 Mile WNW
W171	WALOG2000805070	1/2 - 1 Mile WNW
W172	WALOG2000805071	1/2 - 1 Mile WNW
W173	WALOG2000805066	1/2 - 1 Mile WNW
W174	WALOG2000805067	1/2 - 1 Mile WNW
W175	WALOG2000805068	1/2 - 1 Mile WNW
W176	WA120000033108	1/2 - 1 Mile WNW
177	WALOG2000042377	1/2 - 1 Mile NNE
178	WALOG2000042587	1/2 - 1 Mile WSW
X179	WALOG2000803032	1/2 - 1 Mile ENE
X180	WALOG2000770877	1/2 - 1 Mile ENE
Y182	WALOG2000291769	1/2 - 1 Mile WNW
Y183	WALOG2000291751	1/2 - 1 Mile WNW
Y184	WALOG2000204945	1/2 - 1 Mile WNW
Y185	WALOG2000547766	1/2 - 1 Mile WNW
Z188	WALOG2000326843	1/2 - 1 Mile North
Z189	WALOG2000042858	1/2 - 1 Mile North
Z190	WALOG2000042196	1/2 - 1 Mile North
Z191	WALOG2000602488	1/2 - 1 Mile North

# **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

## STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
Z192	WALOG2000601571	1/2 - 1 Mile North
AA194	WALOG2000048731	1/2 - 1 Mile NE
AA195	WALOG2000038570	1/2 - 1 Mile NE
AA196	WALOG2000286607	1/2 - 1 Mile NE
197	WALOG2000038527	1/2 - 1 Mile NNW

## PHYSICAL SETTING SOURCE MAP - 7300425.2s



SITE NAME: Mottis Property
ADDRESS: 290 Zaccardo Road
Sequim WA 98382
LAT/LONG: 48.020476 / 122.995573

CLIENT: ESA Associates
CONTACT: Kristen Burgess
INQUIRY#: 7300425.2s
DATE: April 05, 2023 6:04 pm

Map ID Direction Distance Elevation		Database	EDR ID Number
A1 SW 0 - 1/8 Mile Higher	Click here for full text details	WA WELLS	WA1200000011689
A2 SW 0 - 1/8 Mile Higher	Click here for full text details	WA WELLS	WALOG2000865571
A3 SW 0 - 1/8 Mile Higher	Click here for full text details	WA WELLS	WALOG2000865558
4 NNE 0 - 1/8 Mile Lower	Click here for full text details	WA WELLS	WA1200000028935
5 ESE 1/8 - 1/4 Mile Higher	Click here for full text details	WA WELLS	WALOG2000231002
6 WNW 1/8 - 1/4 Mile Lower	Click here for full text details	FED USGS	USGS40001280345
B7 NE 1/4 - 1/2 Mile Higher	Click here for full text details	WA WELLS	WALOG2000045549
B8 NE 1/4 - 1/2 Mile Higher	Click here for full text details	WA WELLS	WALOG2000049132

Map ID Direction		
Distance Elevation	Database	EDR ID Number
B9 NE Click here for full text details 1/4 - 1/2 Mile Higher	WA WELLS	WALOG2000390982
C10 North Click here for full text details 1/4 - 1/2 Mile Lower	FED USGS	USGS40001280275
D11 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000193934
D12 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000343014
D13 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000376597
D14 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000041114
D15 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000041115
D16 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000043885
D17 WSW 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000796084

Map ID Direction Distance	Databasa	EDD ID Norshau
D18 WSW Click here for full text details 1/4 - 1/2 Mile Lower	Database WA WELLS	EDR ID Number WALOG2000796083
D19 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000796101
D20 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000796085
D21 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000749676
D22 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000416136
D23 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000416135
D24 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000416138
D25 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000416137
D26 WSW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WA1200000017571

Map ID Direction Distance		
Elevation	Database	EDR ID Number
C27 North Click here for full text details 1/4 - 1/2 Mile Lower	FED USGS	USGS40001280274
28 WNW Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000296680
29 WNW <u>Click here for full text details</u> 1/4 - 1/2 Mile Lower	FED USGS	USGS40001280351
E30 NNE Click here for full text details 1/4 - 1/2 Mile Higher	FED USGS	USGS40001280260
F31 North Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000620289
F32 North 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000620290
F33 North Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000042231
F34 North Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000620288
F35 North Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000770659

Map ID Direction Distance		
Elevation	Database	EDR ID Number
F36 North Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000620291
G37 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000040561
G38 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000042568
G39 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000039806
G40 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000038043
G41 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000038306
G42 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000044299
G43 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000044624
G44 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000047074

Map ID Direction Distance Elevation	Database	EDR ID Number
G45 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000042718
G46 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000042742
G47 West Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000043424
48 WSW Click here for full text details 1/4 - 1/2 Mile Lower	FED USGS	USGS40001280035
E49 NNE Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000864890
E50 NNE Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000269402
E51 NNE Click here for full text details 1/4 - 1/2 Mile Lower	WA WELLS	WALOG2000864891
H52 ENE Click here for full text details 1/4 - 1/2 Mile Higher	WA WELLS	WALOG2000317227
H53 ENE Click here for full text details 1/4 - 1/2 Mile Higher	WA WELLS	WALOG2000467660

Map ID Direction Distance Elevation		Database	EDR ID Number
H54 ENE 1/4 - 1/2 Mile Higher	Click here for full text details	WA WELLS	WALOG2000038632
H55 ENE 1/4 - 1/2 Mile Higher	Click here for full text details	WA WELLS	WALOG2000042974
56 SW 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280083
I57 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380669
I58 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380565
I59 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380564
I60 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000795429
l61 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000796099
I62 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000796098

Map ID Direction Distance Elevation		Database	EDR ID Number
I63 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000796082
I64 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380563
I65 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380558
I66 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380557
I67 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000106036
I68 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380559
I69 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380562
I70 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380561
I71 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000380560

Map ID Direction Distance Elevation		Database	EDR ID Number
I72 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846686
I73 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846687
I74 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846684
I75 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846685
I76 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846688
I77 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846691
I78 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846690
I79 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846689
I80 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846692

Map ID Direction Distance Elevation		Database	EDR ID Number
I81 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846677
I82 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846678
I83 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846675
I84 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846676
I85 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846679
I86 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846682
I87 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846683
I88 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846680
I89 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000846681

Map ID Direction Distance Elevation		Database	EDR ID Number
J90 NE 1/2 - 1 Mile Higher	Click here for full text details	FED USGS	USGS40001280514
K91 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378860
K92 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378859
K93 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378861
K94 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378862
K95 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378863
K96 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378858
K97 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000042071
K98 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000045294

Map ID Direction Distance Elevation		Database	EDR ID Number
K99 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378855
K100 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378857
K101 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378856
K102 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378864
K103 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378871
K104 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378870
K105 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378873
K106 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378872
K107 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378869

Map ID Direction Distance Elevation		Database	EDR ID Number
K108 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378866
K109 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378865
K110 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378868
K111 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000378867
L112 East 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000038667
L113 East 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000045338
L114 East 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000038979
K115 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WA120000032342
M116 NE 1/2 - 1 Mile Higher	Click here for full text details	FED USGS	USGS40001280489

Map ID Direction Distance Elevation		Database	EDR ID Number
J117 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000044921
J118 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000045459
J119 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000042918
J120 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000040329
J121 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000617709
J122 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000439122
N123 WSW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000041268
N124 WSW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000041799
N125 WSW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000040751

Map ID Direction Distance Elevation		Database	EDR ID Number
126 SSW 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000640144
M127 NE 1/2 - 1 Mile Higher	Click here for full text details	FED USGS	USGS40001280433
O128 WNW 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280397
O129 WNW 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280398
O130 WNW 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280346
P131 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000318167
P132 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000047296
P133 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000038851
P134 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000318169

Map ID Direction Distance Elevation		Database	EDR ID Number
P135 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000689411
Q136 NNE 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000363278
Q137 NNE 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000324611
Q138 NNE 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000366285
139 WSW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000044608
R140 West 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280194
S141 East 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000296446
S142 East 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000349600
S143 East 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000296444

Map ID Direction Distance Elevation		Database	EDR ID Number
T144 WNW 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280315
T145 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000039722
R146 West 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280276
T147 WNW 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280425
T148 WNW 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280424
U149 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000716497
U150 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000038603
V151 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000047553
V152 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000230645

Map ID Direction Distance		Databasa	EDD ID Niverk on
V153 West 1/2 - 1 Mile Lower	Click here for full text details	Database WA WELLS	EDR ID Number WALOG2000039517
V154 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000043149
V155 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000230646
V156 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000534253
V157 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000534254
V158 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000872549
V159 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000230980
V160 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000230977
V161 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000230978

Map ID Direction Distance Elevation		Database	EDR ID Number
V162 West 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000230979
W163 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000784651
W164 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000784652
W165 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000784653
W166 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000039678
W167 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000784649
W168 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000784650
W169 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000784654
W170 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000805069

Map ID Direction Distance Elevation		Database	EDR ID Number
W171 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000805070
W172 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000805071
W173 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000805066
W174 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000805067
W175 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000805068
W176 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WA1200000033108
177 NNE 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000042377
178 WSW 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000042587
X179 ENE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000803032

Map ID Direction Distance Elevation		Database	EDR ID Number
X180 ENE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000770877
181 North 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280742
Y182 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000291769
Y183 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000291751
Y184 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000204945
Y185 WNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000547766
Z186 North 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280805
Z187 North 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280806
Z188 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000326843

Map ID Direction Distance Elevation		Database	EDR ID Number
Z189 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000042858
Z190 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000042196
Z191 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000602488
Z192 North 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000601571
193 NNE 1/2 - 1 Mile Lower	Click here for full text details	FED USGS	USGS40001280861
AA194 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000048731
AA195 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000038570
AA196 NE 1/2 - 1 Mile Higher	Click here for full text details	WA WELLS	WALOG2000286607
197 NNW 1/2 - 1 Mile Lower	Click here for full text details	WA WELLS	WALOG2000038527

Map ID Direction Distance Elevation

Elevation Database EDR ID Number

Z198 North 1/2 - 1 Mile Lower

**Click here for full text details** 

FED USGS USGS40001280804

## AREA RADON INFORMATION

Federal EPA Radon Zone for CLALLAM County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

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

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 98382

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.050 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.500 pCi/L	100%	0%	0%

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

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, 2010 and 2015 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory Source: Department of Ecology Telephone: 360-407-6121

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation 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 Wells

Source: Department of Health Telephone: 360-236-3148 Group A and B well locations.

Water Well Listing

Source: Public Utility District Telephone: 206-779-7656

A listing of water well locations in Kitsap County.

**Ecology Well Logs** 

Source: Department of Ecology Telephone: 360-407-7294

Point geodatabase with a record for each Ecology well report. Points are located by quarter quarter section centroid. Points contain all well report types including water wells, resource protection wells, and decommissioned wells.

#### OTHER STATE DATABASE INFORMATION

Oil and Gas Well Listing

Source: Department of Natural Resources

Telephone: 360-902-1450

Locations that represent oil and gas test well sites in Washington State from 1890 to present.

#### RADON

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at

private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### 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

#### STREET AND ADDRESS INFORMATION

© 2015 TomTom North America, Inc. All rights reserved. This material is proprietary and the subject of copyright protection and other intellectual property rights owned by or licensed to Tele Atlas North America, Inc. The use of this material is subject to the terms of a license agreement. You will be held liable for any unauthorized copying or disclosure of this material.

# APPENDIX D

# **EDR Polk Reverse City Directory**

**Mottis Property** 

290 Zaccardo Road Sequim, WA 98382

Inquiry Number: 7300425.5

April 08, 2023

# **The EDR-City Directory Image Report**



### **TABLE OF CONTENTS**

## **SECTION**

**Executive Summary** 

**Findings** 

**City Directory Images** 

Thank you for your business.

Please contact EDR at 1-800-352-0050 with any questions or comments.

#### **Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES. LLC OR ITS SUBSIDIARIES. AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT. INCIDENTAL. INDIRECT. SPECIAL. CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property.

Copyright 2023 by Environmental Data Resources, LLC. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, LLC, or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

## **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 business directory data at approximately five year intervals.

#### **RECORD SOURCES**

The EDR City Directory Report accesses a variety of business directory sources, including Haines, InfoUSA, Polk, Cole, Bresser, and Stewart. Listings marked as EDR Digital Archive access Cole and InfoUSA records. The various directory sources enhance and complement each other to provide a more thorough and accurate report.

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer.

### **RESEARCH SUMMARY**

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	Target Street	Cross Street	<u>Source</u>
2020	$\overline{\checkmark}$		EDR Digital Archive
2017	$\overline{\checkmark}$		Cole Information
2014	$\overline{\checkmark}$		Cole Information
2010	$\overline{\checkmark}$		Cole Information
2005	$\overline{\checkmark}$		Cole Information
2000	$\overline{\checkmark}$		Cole Information
1995	$\overline{\checkmark}$		Cole Information
1992	$\overline{\checkmark}$		Cole Information
1986			Polk's City Directory
1981			Polk's City Directory
1976			Polk's City Directory
1971			Polk's City Directory
1968			Polk's City Directory

## **FINDINGS**

## TARGET PROPERTY STREET

290 Zaccardo Road Sequim, WA 98382

<u>Year</u>	<u>CD Image</u>	<u>Source</u>			
ZACCARDO RD					
2020	pg A1	EDR Digital Archive			
2017	pg A2	Cole Information			
2014	pg A3	Cole Information			
2010	pg A4	Cole Information			
2005	pg A5	Cole Information			
2000	pg A6	Cole Information			
1995	pg A7	Cole Information			
1992	pg A8	Cole Information			
1986	-	Polk's City Directory	Street not listed in Source		
1981	-	Polk's City Directory	Street not listed in Source		
1976	-	Polk's City Directory	Street not listed in Source		
1971	-	Polk's City Directory	Street not listed in Source		
1968	-	Polk's City Directory	Street not listed in Source		

7300425-5 Page 2

## **FINDINGS**

## **CROSS STREETS**

No Cross Streets Identified

7300425-5 Page 3



Target Street Cross Street Source

→ EDR Digital Archive

120	Jessica Oldfield
220	LITTLE BROWN CHURCH OF BLYN
	William Bliss
233	JAMESTOWN S'KLALLAM TRIBE
238	Margie Pound
	Neil Pound
263	Fredrick Stark
	John Stark
	Susan Stark
290	Deborah Apple
	Gregory Mottis
	Marsha Maurice
	Rena Smith

Target Street Cross Street Source

✓ - Cole Information

	ZACCARDO RD	2017
120 142 152 193 238 263 290 383	OLDFIELD, JESSICA LITTLE BROWN CHURCH OF BLYN JAMESTOWN SKLALLAM TRIBE ALLEN, MERLNE M POUND, ROBERT E STARK, JOHN FREDERICK, NATHAN B MONSON, JEREMY	-

	ZACCARDO RD	2014
33 51 70 142 152 193 238 263 290 383 387	OCCUPANT UNKNOWN, CLAIRMORE, DALE A OCCUPANT UNKNOWN, LITTLE BROWN CHURCH OF BLYN JAMESTOWN SKLALLAM TRIBE ALLEN, MERLNE M POUND, ROBERT E STARK, JOHN HAUF, RICHARD MONSON, JEREMY OCCUPANT UNKNOWN,	ZVIT

Target Street Cross Street Source

✓ - Cole Information

	ZACCARDO RD	2010
120	NOWAK, MARLENE	
193	ALLEN, WILLIAM R	
233	JAMESTOWN SKLALLAM TRIBE	
238	POUND, NEIL E	
263	STARK, JOHN	
290	GREGS EXCAVATING & HAULING	
	MOTTIS, GREGORY J	
383	RILEY, ROBERT J	
387	CAVENDER, STEPHEN J	

	ZACCANDO ND	2003
33 120 193 238 263 290	FAULK, MAYME L LAMP, GERALD F ALLEN, WILLIAM R POUND, NEIL E STARK, JOHN GREGS EXCAVATING & HAULING INC MOTTIS, GREGORY J	

33	FAULK, MAYME	
82	LAUBNER, WILLIAM	
120	LAMP, GERALD F	
142	LITTLE BROWN CHURCH OF BLYN	
152	KARLS, LORI L	
193	ALLEN, W M	
233	WEIDENHEIMER, TOBY	
238	POUND, NEIL E	
263	SLACK, SHERRI	
290	BLYN BACKHOE SERVICE	
	MOTTIS, GREGORY J	
383	RILEY, ROBERT J	

	ZACCARDO RD	1995
33 51 82 120 142 233 238 263 387	FAULK, MAYME FAULK, MICKEY LANGWORTHY, P LAMP, GERALD F LITTLE BROWN CHURCH OF BLYN GESDAHL, CHUCK POUND, M KERR, LANA LARSON, RICHARD	

	ZACCARDO RD	1992
102 105 109 112 120 128 141 154 169	BROWNFIELD, TONY FAULK, MAYME FAULK, MICKEY STRINGER, ED LAMP, GERALD F FELL, ROGER GESDAHL, CHUCK REICHNER, BRENDA SHERTZER, LARRY	

## APPENDIX E

# **EDR Sanborn Map**

Mottis Property 290 Zaccardo Road Sequim, WA 98382

Inquiry Number: 7300425.3

April 05, 2023

# **Certified Sanborn® Map Report**



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

## **Certified Sanborn® Map Report**

04/05/23

Site Name: Client Name:

Mottis Property ESA Associates
290 Zaccardo Road 2820 132nd Ave SE
Sequim, WA 98382 Snohomish, WA 98290
EDR Inquiry # 7300425.3 Contact: Kristen Burgess



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by ESA Associates 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 # 80CC-4DAD-865A

**PO #** 711-007-195

Project Mottis Property

#### **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 #: 80CC-4DAD-865A

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

✓ Library of Congress

University Publications of America

▼ EDR Private Collection

The Sanborn Library LLC Since 1866™

#### **Limited Permission To Make Copies**

ESA Associates (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.

#### **Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk or conditions in, on or at any property.

Copyright 2023 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.

page 2

## APPENDIX F

## **EDR Historical Aerials**

## **Mottis Property**

290 Zaccardo Road Sequim, WA 98382

Inquiry Number: 7300425.8

April 06, 2023

# The EDR Aerial Photo Decade Package



## **EDR Aerial Photo Decade Package**

04/06/23

Site Name: Client Name:

Mottis Property ESA Associates
290 Zaccardo Road 2820 132nd Ave SE
Sequim, WA 98382 Snohomish, WA 98290
EDR Inquiry # 7300425.8 Contact: Kristen Burgess



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
2017	1"=500'	Flight Year: 2017	USDA/NAIP
2013	1"=500'	Flight Year: 2013	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: January 01, 1994	USGS/DOQQ
1990	1"=500'	Acquisition Date: January 01, 1990	USGS/DOQQ
1980	1"=500'	Flight Date: July 29, 1980	USDA
1976	1"=500'	Flight Date: July 01, 1976	USGS
1954	1"=500'	Flight Date: June 24, 1954	USGS
1951	1"=500'	Flight Date: September 01, 1951	USGS
1939	1"=500'	Flight Date: September 25, 1939	USGS

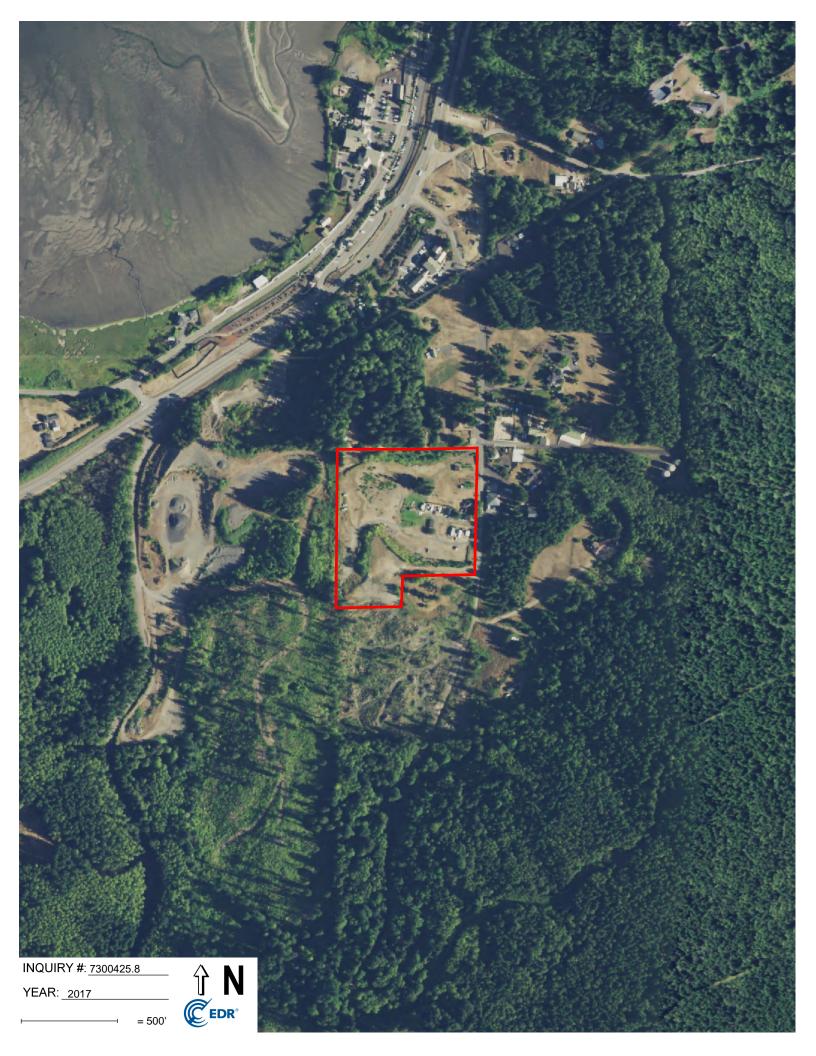
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

#### **Disclaimer - Copyright and Trademark Notice**

This Report contains certain information obtained from a variety of public and other sources reasonably available to Environmental Data Resources, LLC. It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. This Report is provided on an "AS IS", "AS AVAILABLE" basis. NO WARRANTY EXPRESS OR IMPLIED IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. ENVIRONMENTAL DATA RESOURCES, LLC AND ITS SUBSIDIARIES, AFFILIATES AND THIRD PARTY SUPPLIERS DISCLAIM ALL WARRANTIES, OF ANY KIND OR NATURE, EXPRESS OR IMPLIED, ARISING OUT OF OR RELATED TO THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT, INCLUDING WITHOUT LIMITATION, ANY WARRANTIES REGARDING ACCURACY, QUALITY, CORRECTNESS, COMPLETENESS, COMPREHENSIVENESS, SUITABILITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, NON-INFRINGEMENT, MISAPPROPRIATION, OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL ENVIRONMENTAL DATA RESOURCES, LLC OR ITS SUBSIDIARIES, AFFILIATES OR THIRD PARTY SUPPLIERS BE LIABLE TO ANYONE FOR ANY DIRECT, INCIDENTAL, INDIRECT, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, LOSS OF USE, OR LOSS OF DATA), ARISING OUT OF OR IN ANY WAY CONNECTED WITH THIS REPORT OR ANY OF THE DATA AND INFORMATION PROVIDED IN THIS REPORT. Any analyses, estimates, ratings, environmental risk levels, or risk codes provided in this Report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only an assessment performed by a qualified environmental professional can provide findings, opinions or conclusions regarding the environmental risk or conditions in, on or at any property

Copyright 2023 by Environmental Data Resources, Inc. All rights reserved. Reproduction in any media or format, in whole or in part, of any report or map of Environmental Data Resources, Inc., or its affiliates, is prohibited without prior written permission.

EDR and its logos (including Sanborn and Sanborn Map) are trademarks of Environmental Data Resources, LLC or its affiliates. All other trademarks used herein are the property of their respective owners.



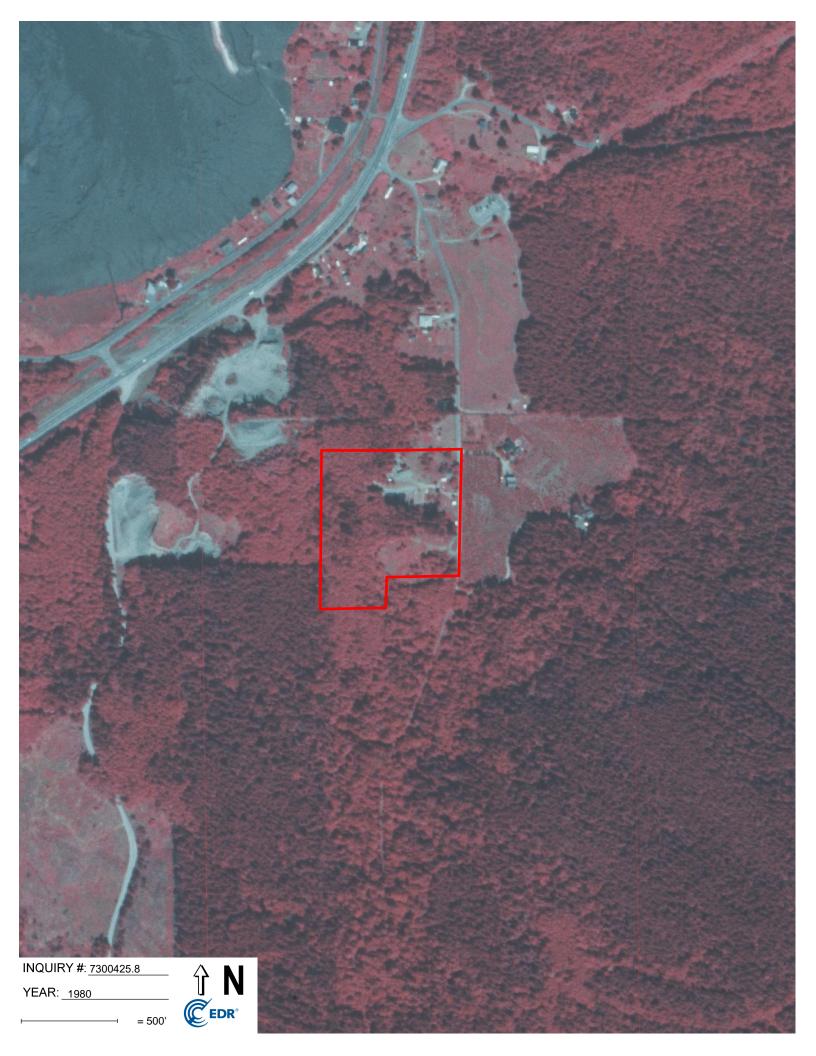








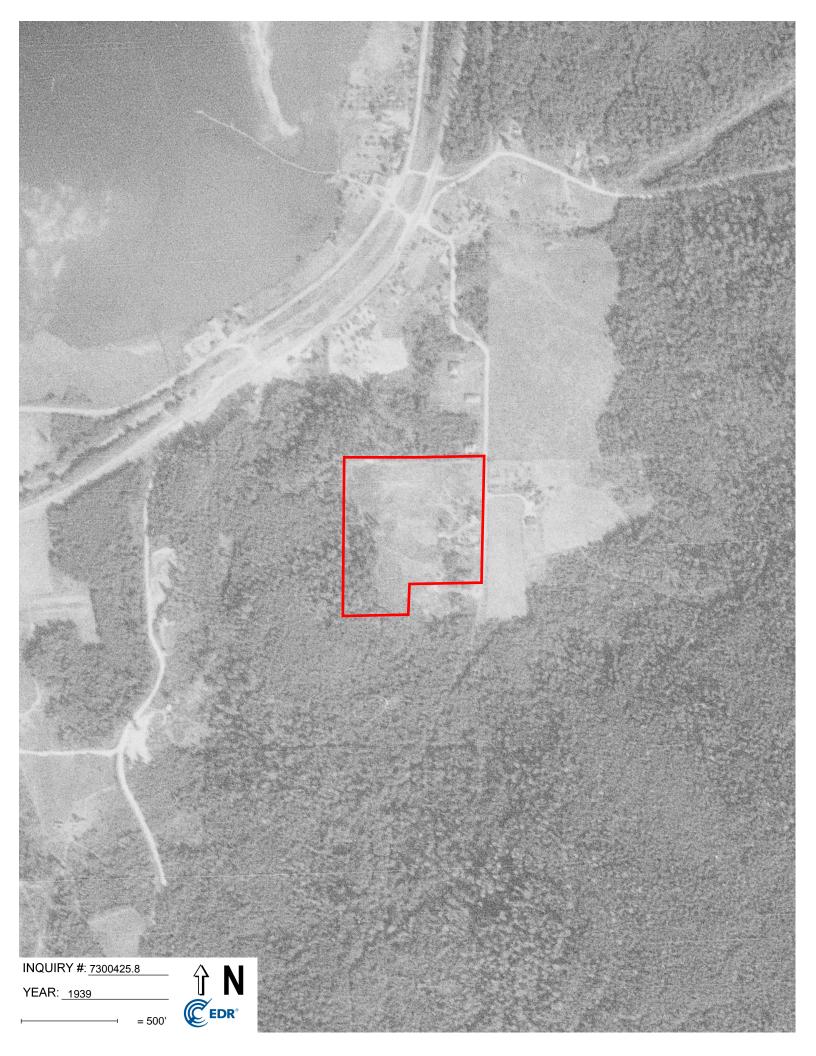












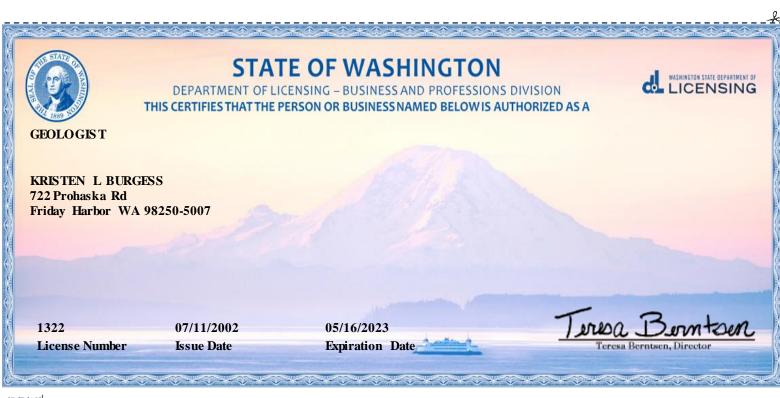
## **APPENDIX G**

# **Qualifications of Environmental Professional**



Kristen L Burgess 722 Prohaska Rd Friday Harbor WA 98250-5007





# APPENDIX H

# **Application for Authorization to Use**

## APPLICATION FOR AUTHORIZATION TO USE

## Phase I Environmental Site Assessment Mottis Property 290 Zaccardo Road Sequim, WA 98382

ESA ASSOCIATES' PROJECT NUMBER: 711-007-195

**April 21, 2023** 

TO:	ESA Associates, Inc. 722 Prohaska Road Friday Harbor, Washington 982	250
FROM	1:	
	cantere the use(s) contemplated]	hereby applies for permission to:
	e purpose(s) of: ere why you wish to do what is contemplated	l as set forth above]
Inc. is strictly Associmay v	the copyright owner and that una y prohibited without the express iates' client. Applicant understan	the above identified report prepared by ESA Associates authorized use or copying of the above identified report is written permission of ESA Associates, Inc. and ESA and that ESA Associates and/or ESA Associates' client ole discretion, or grant such permission upon such term
Dated	:	Applicant
		by
		its

# Appendix C- Phase II - Environmental Site Assessment

Phase II ESA Mottis Property 290 Zaccardo Road Sequim, Washington 98382

Prepared for: Jamestown S'Klallam Tribes

1033 Old Blyn Highway

Blyn, WA 98283

Prepared by: ESA Associates, Inc.

722 Prohaska Road

Friday Harbor, WA 98250

Phone: (425) 870-8481 Fax: (425) 377-9240

May 26, 2023

Report Date: May 26, 2023 Site Work: May 2, 2023

Location: Parcels 032912417010, 032912419010

## TABLE OF CONTENTS

SEC'	ΓΙΟΝ		<b>PAGE</b>
1.0	SUM	IARY	1
2.0	BACF	GROUND	5
3.0	OBJE	CTIVE AND SCOPE OF SERVICES	7
4.0	SUBS	JRFACE INVESTIGATION	9
	4.1	MTP-1: Northwestern Fill Material	10
	4.2	MTP-2: Eastern Extent of Fill Material	10
	4.3	MTP-3: Center of Western Fill Material	11
	4.4	MTP-4: Burn Pile	
	4.5	MTP-5: Northeastern Side of Residence (Former Potential UST)	
	4.6	MTP-6: Northwestern Side of Residence (Former Potential UST)	
	4.7	MTP-7: Asphalt Grindings Southwestern Portion of Subject Property	
	4.8	MTP-8: Top Soil, Plastics, and Buried Logs Southwestern Portion of Subject Property	
	4.9	MTP-9: Fill Material Southwestern Portion of Subject Property	
	4.10	MTP-10: Fill Material Southwestern Portion of Subject Property	
	4.11	MTP-11: Fill Material Southwestern Portion of Subject Property	13
5.0	LABO	RATORY ANALYSIS OF SOIL	13
	5.1	Soil Sample Collection	
	5.2	Chemical Soil Analysis	13
6.0	SUBS	URFACE FINDINGS AND ANALYTICAL RESULTS	14
	6.1	Subsurface Soil Sampling	
	6.2	Subsurface Soil Analytical Results	
		6.2.1 Total Petroleum Hydrocarbons by Ecology Method NWHCID and NWTPH-	
		6.2.2 Semi-Volatile Organic Compounds and cPAHs by EPA Method 8270	
		6.2.3 Volatile Organic Compounds by EPA Method 8260	16
		6.2.4 MTCA-5 Metals by EPA Method 7471 and 6020	16
7.0	CONG	LUSIONS	18
	7.1	Test Pit MTP-1: Northwestern Fill Material	18
	7.2	Test Pit MTP-2: Eastern Extent of Fill Material	18
	7.3	Test Pit MTP-3: Center of Western Fill Material	18
	7.4	Test Pit MTP-4: Burn Pile	19
	7.5	Test Pit MTP-5: North Eastern Side of Residence (Former Potential UST)	19
	7.6	Test Pit MTP-6: North Western Side of Residence (Former Potential UST)	
	7.7	Test Pit MTP-7: Asphalt Grindings Southwestern Portion of Subject Property	
	7.8	Test Pit MTP-8: Top Soil, Plastics, and Buried Logs Southwestern Portion of Subject Pro-	
	7.9	Test Pit MTP-9: Fill Material Southwestern Portion of Subject Property	
	7.10	Test Pit MTP-10: Fill Material Southwestern Portion of Subject Property	
	7.11	Test Pit MTP-11: Fill Material Southwestern Portion of Subject Property	21
8.0	RECO	MMENDATIONS	22
9.0	QUAI	IFICATIONS OF ENVIRONMENTAL PROFESSIONALS	23
10.0	LIMI'	ATIONS	24
PAGE	INTEN	FIONALLY LEFT BLANK	1
	,		<del></del>

### **SITE PHOTOGRAPHS**

### **TABLES**

- 1 Summary of Soil Analytical Results
- 2 Summary of VOCs Analytical Results
- 3 Summary of SVOCs TEQ Analytical Results
- 4 Summary of Soil Metals Analytical Results

### **FIGURES**

- 1 Site Vicinity Map
- 2 Site Diagram: Sample Locations for the Test Pits

#### **APPENDICES**

- A Field Methods and Procedures
- B Chemical Analytical Reports
- C Test Pit Logs
- $D-\quad Qualifications \ of \ Environmental \ Professional$
- E Application for Authorization to Use

#### 1.0 SUMMARY

At the request of the Jamestown S'Klallam Tribe, ESA Associates, Inc. (ESA Associates) has completed a Phase II Environmental Site Assessment (ESA) for the property located at 290 Zaccardo Road, Blyn, Washington. The site is known as the Mottis Property and consists of Clallam County tax parcels (032912417010 and 032912419010). The Mottis property consists of a 1916 home with detached garage and seven RV parking spaces.

The following report is a summary of work performed using the guidelines set forth in American Society for Testing and Materials (ASTM) Standard E-1903-11, Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process. This report shall satisfy the requirements for conducting "all appropriate inquiry" under Section 101 (35) (B) (i) (I) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Small Business Liability Relief and Brownfields Revitalization Act. This report was prepared by a qualified Environmental Professional with ESA Associates as set forth in 40 CFR §312.10(b).

A Phase I ESA was conducted by ESA Associates in April 2023 for the Mottis property. Our Phase I ESA of the Mottis Property did reveal current Recognized Environmental Concerns (RECs) associated with the subject property. Further investigation or corrective action was recommended in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use for the following reasons:

There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. We also discovered that the 1916 residence on the subject property was once heated with heating oil. There was no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records. The oil heating source may have been an underground storage tank (UST) or an above ground storage tank (AST). Our historical review and site observations did not reveal an AST, therefore, further exploration around the perimeter of the home was recommended to determine whether a UST was located near the home and required removal or a UST was located near the home and has been removed.

Phase II ESA Mottis Property ESA Associates, Inc. 2023 ESA associates mobilized to the subject property on May 2, 2023 to direct the excavation of 11 test pits in areas of concern noted above. All soil samples were analyzed for one or more of the following: petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), carcinogenic Poly Aromatic Hydrocarbons (cPAHs), and Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA)-5 metals.

Chemical analytical results indicated that one area of concern (MTP-4) of the eleven areas of concern contained the **VOC** (**benzene**) in the soil at a concentration above the MTCA Method A cleanup level. The area contained other VOCs (acetone, toluene, ethylbenzene, and styrene) at concentrations below the respective MTCA Method A cleanup levels. This area also contained SVOCs (naphthalene, phenanthrene, and bis (2-ethylhexyl) phalate) at concentrations below the respective MTCA Method A/B cleanup levels. cPAHs were not detected in this area at concentrations above the laboratory detection limits. Petroleum hydrocarbons quantified as heavy oil were detected in the area MTP-4 at a concentration of 512 milligrams per kilogram (mg/kg), which is below the MTCA Method A cleanup level of 2,000 mg/kg. The concentrations of the MTCA-5 metals from area MTP-4 were consistent with the natural Washington State background levels for these metals.

The area of concern (MTP-7) was excavated in the southwestern portion of the subject property where two feet of asphalt grindings were buried. The soil sample from (MTP-7) contained petroleum hydrocarbons quantified as heavy oil at a concentration of 1,160 mg/kg, which is below the MTCA Method A cleanup level of 2,000 mg/kg. This soil sample also contained cPAHs, benz(a)anthracene and benzo(a)pyrene) at concentrations below the MTCA Method A cleanup level. VOCs were not detected in this area at concentrations above the laboratory detection limits. The concentrations of the MTCA-5 metals from area MTP-7 were consistent with the natural Washington State background levels for these metals.

The area of concern (MTP-8) was excavated in the southwestern portion of the subject property where top soil with plastics and buried logs were discovered. The soil sample from (MTP-8) contained the SVOC (chrysene) at a concentration below the MTCA Method A cleanup level. Petroleum hydrocarbons were not detected in this soil sample at concentrations above the laboratory detection limits. VOCs were not detected in this area at concentrations above the laboratory detection limits. The concentrations of the MTCA-5 metals from area MTP-8 were consistent with the natural Washington State background levels for these metals.

Phase II ESA Mottis Property ESA Associates, Inc. 2023 The remaining eight areas of concern (MTP-1, MTP-2, MTP-3, MTP-5, MTP-6, MTP-9, MTP-10, and MTP-11) did not contain petroleum hydrocarbons, VOCs, or SVOCs above the respective laboratory detection limits. The concentrations of the MTCA-5 metals from these areas were consistent with the natural Washington State background levels for these metals.

#### **Conclusions and Recommendations**

Eleven areas of concern were explored during our Phase II ESA. Based on the chemical analytical results, benzene, is present in the soil at concentrations above the MTCA Method A cleanup level in the burn pit located in the western portion of the subject property. An area 10 feet by 10 feet in plan dimensions and reaching a total depth of two feet below ground surface (bgs) requires remediation. Based on these measurements, ten tons of contaminated soil will require removal and disposal at an appropriate facility.

One additional area of concern was discovered where asphalt grindings have been buried on the southwestern portion of the subject property. Petroleum hydrocarbons and cPAHs were detected beneath a two foot layer of asphalt grindings found just below the surface. Ecology does not regulate asphalt grindings as a solid waste when it is recycled back into new asphalt pavement and roads under specific conditions. If these conditions are not met (such as is the case on the subject property), then asphalt grindings are solid waste and subject to Ecology's solid waste regulations. Asphalt grindings may pose a risk to the environment because of potential exposure to the carcinogenic compounds contained in the asphalt binder. Also the heavy oil present in the asphalt grindings have the potential to leach into the underlying soils. For this reason, and based on the data we collected from the test pit (MTP-7), we recommend the removal of the asphalt grindings to minimize the potential release of these fine particles into the environment.

It is estimated (at a minimum) that approximately 10 tons of asphalt grindings are present at the subject property. The lateral extent of the asphalt grindings is not known at this time as delineation of discovered buried waste was not a part of this project's scope of work. ESA Associates recommends delineating the extent of the buried asphalt grindings prior to removal activities.

Phase II ESA Mottis Property ESA Associates, Inc. 2023 The Phase II ESA determined that fill material is present across the western and southwestern portions of the subject property to a maximum depth of 10 feet bgs. The fill material contains varying materials such as plastics, asphalt grindings, logs, and imported top soil. Native, very dense silts exist beneath the fill material. In our opinion, given the undocumented placement of fill material, these soils would not be suitable as structural fill material on which structures can be built. We estimate that approximately 1500 truckloads of fill material have been disposed of at the subject property. We cannot guarantee that other unknown materials are not buried within the fill material in areas we did not place test pits.

ESA Associates did not collect groundwater samples during this assessment since groundwater was not encountered in the 11 test pits. Based on the large volumes of fill material on the subject property, it is our opinion that collecting baseline water samples from the two wells on the subject property would be prudent prior to acquisition of the subject property. Chemical analysis of the drinking water samples should be analyzed for petroleum hydrocarbons, cPAHs, SVOCs, VOCs, and metals.

# 2.0 BACKGROUND

Historical aerial photographs, reverse city directories, Clallam County records, interviews, and historical topographic maps of the subject property indicted that the subject property consists of a 1916 three bedroom, wood framed home with a asphalt tab roof. It covers 906 square feet. The home has a loft that covers 540 square feet. There is a porch that covers 176 square feet, and a deck that covers 180 square feet. There is a detached garage that covers 400 square feet, and a small carport. There are seven RV parking lots and they each have an RV occupying the space.

The home is hooked up to a 130 foot well (original well), and the RVs are hooked up to a 160 foot well that was drilled about ten years ago. The home and RVs are hooked up to the same septic system, which has three tanks. The home is currently heated with electric forced air and a woodstove; however, the Clallam County Assessor has the home heated with forced air oil.

Our 2023 Phase I ESA of the Mottis Property did reveal current RECs associated with the subject property. There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property.

Our city directory review indicated that Mr. Mottis ran a "Blyn Back Hoe Service from the property in 2000, and "Greg's Excavating & Hauling, Inc." from 2005 to 2010. These years correspond directly with the aerial photographic review of large amounts of fill material coming onto the subject property. During our interview with Mr. Mottis, he stated that he was retired, and he did not wish share his former occupation. Mr. Mottis disclosed that Jamestown S'Klallam Tribe brought at least 50 truckloads of fill material onto his property about ten years ago. This amount of soil (1,000 cubic yards) does not reflect the total amount of imported fill material onto the subject property.

In our opinion, significant data gaps were encountered during this assessment (note: a "data gap" is defined in the E1527-21 Standard as "a lack or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information."). The data gaps are as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records; 2) the current owner's answers to our questions regarding the past operations at the property did not match our site reconnaissance observations and historical aerial reviews; 3) the subject property has received large volumes of undocumented fill material over many years; and 4) the former owner was not available for an interview about past historical activities at the subject property.

These data gaps create significant breaches in our historical interpretation of past activities at the subject property that may have resulted in the release of hazardous substances or petroleum products.

Further investigation or corrective action was recommended in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use. We recommended a Phase II ESA on the subject property to determine whether the fill material could affect the health and safety of occupants or conflict with the intended utilization of the property. We also recommended exploring the northern side of the home for a possible underground heating oil storage tank.

# 3.0 OBJECTIVE AND SCOPE OF SERVICES

ESA Associates excavated eleven test pits and collected 13 soil samples from the test pits in accordance with our authorized proposal dated April 26, 2023. ESA Associate's primary objective was to explore the areas of concern identified in our April 2023 Phase I ESA.

We performed this Phase II ESA at the property located at 290 Zaccardo Road, Blyn, Washington in conformance with the scope and limitations of ASTM Practice E 1903-11 and for the following objectives: 1) provide valid data of known and documented quality to characterize possible sources of contamination in areas of identified concern; 2) document threats or potential threats that the site may pose to human health or the environment; 3) ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use; and 4) provide documentation for the Jamestown S'Klallam Tribe to assist in determining whether the Mottis property is suitable for acquisition.

The conceptual model considers each area where target analytes are likely present associated with the historical practices at the subject property (fill material and former heating oil tank) that are to be investigated. The target analytes likely to be present in the fill material are petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and MTCA-5 metals. The target analytes likely to be present near any former Underground Storage Tank (USTs) at the north end (next to a former furnace located in the basement) of the current residence are petroleum hydrocarbons quantified as diesel.

The conceptual site model takes into consideration the potential distributions of contaminants with respect to the properties, behaviors and fate and transport characteristics of the contaminant in a setting such as that being assessed. A sampling plan was designed to provide for the collection of potentially contaminated environmental media, if they occur, at locations and depths where the highest concentrations are likely to occur. This conceptual site model and sampling plan were developed in general accordance with ASTM Practice E 1903-11. These methodologies are described as representing good commercial and customary practice for conducting a Phase II ESA of a property for the purpose of evaluating Recognized Environmental Conditions (RECs).

In light of the environmental behavior, fate, and transport characteristics of the particular target analytes and all reasonably ascertainable information about their presence or likely presence, the following tasks were executed under this scope of services to accomplish our objectives:

- 1) Provided a Washington State licensed geologist to observe the excavation activities and collect the appropriate number of soil and groundwater samples.
- 2) Observed and documented soil sampling activities for each test pit. This included field screening soils for the presence of volatile organic compounds with a photoionization detector (PID) reading in parts per million by volume and testing for petroleum hydrocarbon sheens for each soil horizon.
- 3) Documented any obvious indications of soil or groundwater contamination (as indicated by free product, stained soils, odors, or "oily" sheen).
- 4) Collected 13 soil samples and documented the field screening results from eleven test pits.
- 5) Submitted the selected soil samples for one or more of the following: petroleum hydrocarbons (by Ecology Methods NWHCID and NWTPH-D extended), SVOCs (by EPA Method 8270), VOCs by EPA Method 8260; cPAHs by EPA Method 8270 SIM, MTCA-5 metals in soil (by EPA Methods 6020 and 7471).
- 6) Prepared a draft and final report.

# 4.0 SUBSURFACE INVESTIGATION

ESA Associates mobilized to the site on May 2, 2023 to excavate 11 test pits in the vicinity of the areas of concern outlined in our Phase I ESA report. ESA Associates utilized a track mounted excavator and operator provided by RED, Inc. to excavate the test pits as directed by an ESA Associates' geologist. ESA Associates screened the soil in each test pit, characterized the subsurface soil, and inspected the soil for any obvious signs solid waste disposal or fill material. All excavated soil from each test pit was placed back within the respective test pit upon completion of sampling.

The subsurface sampling program consisted of discrete soil samples collected from a stainless steel shovel or plastic tubing as dictated by the corresponding analysis to be performed on the selected soil sample from each test pit. All field sampling and decontamination procedures, sample preparation and shipping, and overall field procedures were performed in general accordance with protocol established by the EPA and Ecology. All soil classification was performed using the ASTM D2487 Soil Classification Method, "Soil Survey Standard Test Method, Unified Soil Classification System: Field Method". Field procedures pertaining to the soil sampling and decontamination protocol are presented in Appendix A.

The locations of the test pits were selected to represent the areas of concern based on aerial review, site observations, historical knowledge, and interviews. All test pits were generally placed as discussed in the proposal and Sampling and Analysis Plan (SAP) prepared by ESA Associates for the subject property. Soil samples were collected directly from the test pit sidewalls or base using a stainless steel shovel. Soil samples were screened for the presence of VOCs using a PID. The PID was a Thermo Environmental Model 580B OVM with a 10.5 ev lamp. The instrument was calibrated to 100 parts per million by volume (ppmv) with an isobutylene gas standard. The PID measures VOCs in the air in ppmv. The ESA Associates geologist documented the condition of the soil and visually inspected it for staining (sheen) or discoloration. The vapor reading and sheen tests were noted on the field logs.

Soil samples were collected in areas of obvious soil staining or high PID readings. All soil horizons were screened regardless of visible indications of contamination. Soil samples were collected on a continuous basis from grade to the depth of the test pit. The soil sample that exhibited the highest potential for containing affected soil was selected for chemical analysis. Soil samples were collected and field screened from surface to the final depth of each test pit.

Based on field screening results, the ash/soil sample exhibiting the greatest degree of contaminants was selected from the test pits to be analyzed for the following contaminants: petroleum hydrocarbons screening by Ecology's hydrocarbon screening Method NWTPH-HCID and NWTPH-Dx, VOCs by EPA Method 8260, SVOCs by EPA Method 8270, and MTCA-5 Metals by EPA Method by 6000 and 7000 series.

Based on field screening results, at least one soil sample was submitted from eleven test pits for chemical analysis. The depth from which the soil sample was collected is recorded on the field logs. The samples were retained in appropriate containers (per analytical requirements), sealed with teflon-lined lids and stored on ice until delivered under chain-of-custody documentation for laboratory analyses. Site exploration methods are included in Appendix A. Chemical Analytical reports and Chain-of Custody reports are included in Appendix B. Field Logs are included in Appendix C. The site vicinity map is presented on Figure 1. The sampling locations of each test pit are presented on Figure 2.

#### 4.1 MTP-1: Northwestern Fill Material

The area of MTP-1 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-1) was selected from the test pit at two feet bgs to be analyzed for the following contaminants. Petroleum hydrocarbons, VOCs, SVOCs, and MTCA-5 metals.

# 4.2 MTP-2: Eastern Extent of Fill Material

The area of MTP-2 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-2) was selected from the test pit at two feet bgs to be analyzed for the following contaminants. Petroleum hydrocarbons, VOCs, SVOCs, and MTCA-5 metals.

#### 4.3 MTP-3: Center of Western Fill Material

The area of MTP-3 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 11 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-3) was selected from the test pit at one foot bgs to be analyzed for the following contaminants. Petroleum hydrocarbons, VOCs, SVOCs, and MTCA-5 metals.

#### 4.4 MTP-4: Burn Pile

The area of TP-4 was identified by ESA Associates as an area where a large burn pile was located in the western portion of the subject property. ESA Associates used a track mounted excavator to excavate the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-4-1) was selected from the test pit at one foot bgs to be analyzed for the following contaminants: Petroleum hydrocarbon screening by Ecology's NWTHP-HCID, petroleum hydrocarbons quantified as heavy oil by Ecology's NWTPH-Dx, VOCs, SVOCs, cPAHs, and MTCA-5 metals. An additional soil sample (MTP-4-2) was collected and analyzed for VOCs to determine the vertical extent of VOC contamination in the area of the burn pile. This soil sample was collected from two feet bgs. An additional soil sample (MTP-4-3) was collected from three feet bgs and archived for additional analysis if it was determined to be necessary for further vertical delineation.

# 4.5 MTP-5: Northeastern Side of Residence (Former Potential UST)

The area of TP-5 was identified by ESA Associates as a potential location of a former UST on the northeastern side of the residence. ESA Associates used a track mounted excavator to excavate the soil down to 6 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-5) was selected from the test pit at four feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons screen by Ecology's Method NWTPH-HCID.

# 4.6 MTP-6: Northwestern Side of Residence (Former Potential UST)

The area of MTP-6 was identified by ESA Associates as a potential location of a former UST on the northwestern side of the residence. ESA Associates used a track mounted excavator to excavate the soil down to 6 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-6) was selected from the test pit at three feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons quantified as diesel and

heavy oil since the target analytes were petroleum hydrocarbons potentially released from a heating oil tank.

# 4.7 MTP-7: Asphalt Grindings Southwestern Portion of Subject Property

The area of MTP-7 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 11 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-7) was selected from the test pit at two feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons quantified as heavy oil, cPAHs, SVOCs, VOCs, and MTCA-5 metals.

# 4.8 MTP-8: Top Soil, Plastics, and Buried Logs Southwestern Portion of Subject Property

The area of MTP-8 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-8) was selected from the test pit at two feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons, VOCs, SVOCs, and MTCA-5 metals.

# 4.9 MTP-9: Fill Material Southwestern Portion of Subject Property

The area of MTP-9 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 5 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-9) was selected from the test pit at two feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons, VOCs, SVOCs, and MTCA-5 metals.

#### 4.10 MTP-10: Fill Material Southwestern Portion of Subject Property

The area of MTP-10 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 11 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-10) was selected from the test pit at one foot bgs to be analyzed for the following contaminants: Petroleum hydrocarbons, VOCs, SVOCs, and MTCA-5 metals.

# 4.11 MTP-11: Fill Material Southwestern Portion of Subject Property

The area of MTP-11 was identified by ESA Associates as an historic area for disposing of fill material. ESA Associates used a track mounted excavator to excavate the soil down to 5 feet bgs. Groundwater was not encountered in this test pit. Based on field screening results, a soil sample (MTP-11) was selected from the test pit at two feet bgs to be analyzed for the following contaminants: Petroleum hydrocarbons, VOCs, SVOCs, and MTCA-5 metals.

# 5.0 LABORATORY ANALYSIS OF SOIL

The samples were submitted to Fremont Analytical of Seattle, Washington, an Ecology-certified laboratory, for analysis in accordance with applicable Ecology and EPA Methods. The chemical testing plan was designed to detect the contaminants suspected to be present in the samples collected. This testing plan included tests which provide quality assurance (QA) and techniques that provide quality control (QC) over the chemical analysis. QA/QC included generally accepted procedures for sample collection, storage, tracking, and documentation. All sampling equipment was washed and rinsed prior to the collection of the samples. All samples were labeled with a sample number, date, time, and sampler name, and stored in an ice chest containing frozen "blue ice" under appropriate chain-of-custody documentation. Detailed information regarding the field sampling protocol and decontamination procedures is presented in Appendix A.

# 5.1 Soil Sample Collection

The soil sample that exhibited the highest potential for containing affected soil was selected for testing (i.e., elevated field screening readings or historic knowledge of depth of contamination). If groundwater was encountered during the subsurface investigation activities, soil samples were collected from the soil/groundwater interface. Copies of the laboratory analysis reports and Chain-of-Custody documentation are presented in Appendix B.

# 5.2 Chemical Soil Analysis

The soil samples (MTP-1, MTP-2, MTP-3, MTP-4-1, MTP-4-2, MTP-5, MTP-6, MTP-7, MTP-8, MTP-9, MTP-10, and MTP-11) collected from the 11 test pits, were analyzed for one or more of the following: petroleum hydrocarbons (by Ecology Method NWTPH-HCID); VOCs (by EPA Method 8260); SVOCs (by EPA Method 8270); petroleum hydrocarbons quantified as diesel extended (by Ecology Method NWTPH-D ext); cPAHs by EPA Method 8270 SIM; and MTCA-5 metals (by EPA Methods 6020 and 7471).

# 6.0 SUBSURFACE FINDINGS AND ANALYTICAL RESULTS

The subject property is located north of the Olympic Mountain range and southeast of Sequim Bay. The original contours of the site are 143 feet above mean sea level (AMSL), with moderate slopes to the southeast and southwest. The regional ground water flow is to the north northwest toward Sequim Bay. Well depths in the area range from 118 to 9 feet below ground surface (bgs). The surrounding area is utilized as either small farms or single family residences. There is a church to the north of the subject property and a cemetery to the southeast of the subject property.

The soils in the vicinity of the subject property are mapped as Hoypus gravelly sandy loam. These soils have a hydrologic group of Class A and exhibit high infiltration rates. The soil was formed in glacial outwash and is described as somewhat excessively drained sand and gravel. The native vegetation this soil supports is mostly conifers and shrubs.

There are also Clallam soils in the area of the subject property. Clallam soils are a gravelly sandy loam in hydrologic group C, which are soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. They are moderately well drained and have slow infiltration rates.

# 6.1 Subsurface Soil Sampling

In general, the site surface soils did vary greatly throughout the test pits. However, in general, the soils on the subject property consisted of 10 feet of brown silty sand with occasional gravel (fill material) underlain by a grey sandy silt (native soil). Groundwater was not encountered in the test pits to the final depth of the deepest test pits at 11 feet bgs.

# **6.2** Subsurface Soil Analytical Results

The soil sample that exhibited the highest potential for containing affected soil was selected for chemical analysis. Twelve soil samples were submitted for chemical analysis. One additional soil sample (TP-4-3) was archived. The samples were submitted to Fremont Analytical on May 3, 2023. Analytical results from the test pits are presented on Tables 1 through 4. Chemical analytical reports and the laboratory Quality Assurance/Quality Control (QA/QC) are presented in Appendix B.

# 6.2.1 Total Petroleum Hydrocarbons by Ecology Method NWHCID and NWTPH-D

Analytical results indicated total petroleum hydrocarbons were not detected above the laboratory detection limits in the soil samples (MTP-1, MTP-2, MTP-3, MTP-5, MTP-6, MTP-8, MTP-9, MTP-10, and MTP-11). Analytical results indicated total petroleum hydrocarbons quantified as heavy oil in soil sample MTP-4-1 at a concentration of 512 milligrams per kilogram (mg/kg), and in soil sample MTP-7 at a concentration of 1,160 mg/kg. Both concentrations are below the MTCA Method A cleanup level of 2,000 mg/kg.

# 6.2.2 Semi-Volatile Organic Compounds and cPAHs by EPA Method 8270

Analytical results indicated SVOCs were either not detected above the laboratory detection limits or detected below the MTCA cleanup levels in all soil samples (MTP-1, MTP-2, MTP-3, MTP-4-1, MTP-5, MTP-6, MTP-7, MTP-8, MTP-9, MTP-10, and MTP-11) submitted for this analysis.

Chemical analytical results from the soil sample (MTP-7) contained cPAHs as follows: Benzo(a)anthracene at 52.5 micrograms per kilogram ( $\mu$ g/kg) and benzo(a)pyrene at 62.10 kg. The total equivalency concentration for the two cPAHs is 67.35  $\mu$ g/kg, which is below the MCTA Method A cleanup level of 137  $\mu$ g/kg.

The SVOC bis(2-ethylhexyl)phthalate was detected in soil sample (MTP-4-1) at a concentration of 1,760  $\mu$ g/kg, which is well below the MTCA Method B cleanup level of 1,600,000  $\mu$ g/kg. Naphthalene was detected at a concentration of 61.2  $\mu$ g/kg and Phenanthrene at a concentration of 57.1  $\mu$ g/kg. Naphthalene has a MTCA Method A cleanup level of 5,000  $\mu$ g/kg. Phenanthrene does not have a MTCA cleanup level established, however, there is a maximum soil contaminant concentration level (MSCCs) of 469,000  $\mu$ g/kg established by the EPA. These concentrations are below their respective MTCA or MSCCs levels.

The SVOC, chrysene, was detected in soil sample (MTP-8) at a concentration of 56.4  $\mu$ g/kg, The total equivalency concentration for the cPAH is 0.564  $\mu$ g/kg, which is below the MTCA Method A cleanup level of 137  $\mu$ g/kg.

All other SVOCs were not detected at concentrations above the laboratory detection limits.

# 6.2.3 Volatile Organic Compounds by EPA Method 8260

Analytical results indicated VOCs were not detected above the laboratory detection limits in the soil samples (MTP-1, MTP-2, MTP-3, MTP-5, MTP-6, MTP-7, MTP-8, MTP-9, MTP-10, and MTP-11).

Analytical results for soil sample MTP-4-1 submitted from test pit MTP-4 indicated that the VOC, benzene, was detected (0.106 mg/kg) above the MTCA Method A cleanup level of 0.03 mg/kg. Toluene was detected in this sample at a concentration of 0.102 mg/kg, which is far below the MTCA Method A cleanup level of 7 mg/kg. Ethylbenzene was detected in this sample at a concentration of 0.0523 mg/kg, which is far below the MTCA Method A cleanup level of 6 mg/kg. Styrene was detected in this soil sample at a concentration of 0.696 mg/kg. There is no cleanup level for styrene. Acetone was detected in this soil sample at a concentration of 0.253 mg/kg, which is far below the MTCA Method B cleanup level of 72,000 mg/kg.

#### 6.2.4 MTCA-5 Metals by EPA Method 7471 and 6020

Chemical analytical results for soil sample from MTP-1 contained concentrations of arsenic (1.46 mg/kg), cadmium (0.0402 mg/kg), chromium (16.2 mg/kg), and lead (1.44 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Chemical analytical results for soil sample from MTP-2 contained concentrations of arsenic (1.56 mg/kg), cadmium (0.0540 mg/kg), chromium (22.7 mg/kg), and lead (3.41 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Chemical analytical results for soil sample from MTP-3 contained concentrations of arsenic (1.42 mg/kg), cadmium (0.0374 mg/kg), chromium (27.9 mg/kg), and lead (non-detect, well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Chemical analytical results for soil sample from MTP-4-1 contained concentrations of arsenic (1.73 mg/kg), cadmium (0.202 mg/kg), chromium (18.7 mg/kg), and lead (5.90 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Page 16 of 25 Phase II ESA Mottis Property

Chemical analytical results for soil sample from MTP-7 contained concentrations of arsenic (2.27 mg/kg), cadmium (0.170 mg/kg), chromium (19.5 mg/kg), and lead (3.92 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Chemical analytical results for soil sample from MTP-8 contained concentrations of arsenic (2.46 mg/kg), cadmium (0.178 mg/kg), chromium (21.9 mg/kg), and lead (5.58 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Chemical analytical results for soil sample from MTP-9 contained concentrations of arsenic (1.66 mg/kg), cadmium (0.0296 mg/kg), chromium (35.8 mg/kg), and lead (2.62 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Chemical analytical results for soil sample from MTP-10 contained concentrations of arsenic (1.63 mg/kg), cadmium (0.0402 mg/kg), chromium (16.2 mg/kg), and lead (1.44 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Chemical analytical results for soil sample from MTP-11 contained concentrations of arsenic (6.41 mg/kg), cadmium (0.0809 mg/kg), chromium (27.2 mg/kg), and lead (4.89 mg/kg), well below the MTCA Method A cleanup level of 20 mg/kg, 2 mg/kg, 2,000 mg/kg, and 250 mg/kg, respectively. Mercury was non-detect in the soil sample.

Page 17 of 25

#### 7.0 CONCLUSIONS

The subsurface soil sampling program consisted of discrete soil samples from 11 test pits. The conceptual site model and sampling plan developed for the site were verified during the Phase II ESA assessment activities. The QA/QC procedures described in the chemical testing plan were adequate to verify the data acceptability. A summary of our findings and recommendations for each test pit is presented below.

#### 7.1 Test Pit MTP-1: Northwestern Fill Material

ESA Associates excavated the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 10 feet bgs. A dense glacial till was encountered at 10 feet bgs. Based on field screening results, a soil sample (MTP-1) was selected from the test pit at two feet bgs to be analyzed for contaminants. Petroleum hydrocarbons, VOCs, and SVOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits.

# 7.2 Test Pit MTP-2: Eastern Extent of Fill Material

ESA Associates excavated the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 10 feet bgs. A dense glacial till was encountered at 11 feet bgs. Based on field screening results, a soil sample (MTP-2) was selected from the test pit at two feet bgs to be analyzed for contaminants. Petroleum hydrocarbons, VOCs, and SVOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits.

#### 7.3 Test Pit MTP-3: Center of Western Fill Material

ESA Associates excavated the soil down to 11 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 10 feet bgs. A dense glacial till was encountered at 10 feet bgs. Based on field screening results, a soil sample (MTP-3) was selected from the test pit at one foot bgs to be analyzed for contaminants. Petroleum hydrocarbons, VOCs, and SVOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits.

#### 7.4 Test Pit MTP-4: Burn Pile

ESA Associates excavated the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 10 feet bgs. A dense glacial till was encountered at 10 feet bgs. Based on field screening results, a soil sample (MTP-4-1) was selected from the test pit at one foot bgs to be analyzed for contaminants. Petroleum hydrocarbons quantified as heavy oil were detected at a concentration of 512 mg/kg, which is below the MTCA Method A cleanup level of 2,000 mg/kg. The VOC, benzene, was detected at a concentration of 0.106 mg/kg, which is above the MTCA Method A cleanup level of 0.03 mg/kg. The VOCs (acetone, toluene, ethylbenzene, and styrene) were detected at concentrations far below the MTCA Method A or B cleanup levels for each constituent, if a cleanup level applied. SVOCs were either not detected above laboratory detection limits or detected at concentrations far below the MTCA Method B cleanup levels that applied to each constituent. cPAHs were not detected above the laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits.

#### 7.5 Test Pit MTP-5: North Eastern Side of Residence (Former Potential UST)

ESA Associates excavated the soil down to 6 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 2 feet bgs. Native soils were encountered at 5 feet bgs. Based on field screening results, a soil sample (MTP-5) was selected from the test pit at four feet bgs to be analyzed for petroleum hydrocarbons. Petroleum hydrocarbons were not detected above laboratory detection limits. VOCs, SVOCs, and MTCA-5 metals were not analyzed for this soil sample since the target analytes were petroleum hydrocarbons potentially released from a heating oil tank.

# 7.6 Test Pit MTP-6: North Western Side of Residence (Former Potential UST)

ESA Associates excavated the soil down to 6 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 2 feet bgs. Native soils were encountered at 3 feet bgs. Based on field screening results, a soil sample (MTP-6) was selected from the test pit at three feet bgs to be analyzed for petroleum hydrocarbons. Petroleum hydrocarbons were not detected above laboratory detection limits. VOCs, SVOCs, and MTCA-5 metals were not analyzed for this soil sample since the target analytes were petroleum hydrocarbons potentially released from a heating oil tank.

# 7.7 Test Pit MTP-7: Asphalt Grindings Southwestern Portion of Subject Property

ESA Associates excavated the soil down to 11 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 10 feet bgs. Asphalt grindings were encountered from just below the surface to two feet below the surface. Roots were encountered at 10 feet bgs. A dense glacial till was encountered at 11 feet bgs. Based on field screening results, a soil sample (MTP-7) was selected from the test pit at two feet bgs to be analyzed for targeted contaminants. Petroleum hydrocarbons quantified as heavy oil were detected at a concentration of 1,160 mg/kg, which is below the MTCA Method A cleanup level of 2,000 mg/kg. cPAHs were detected at concentrations below the MTCA Method A cleanup level. SVOCs and VOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits. The petroleum hydrocarbons and cPAHs were detected beneath a two foot layer of asphalt grindings found just below the surface. The lateral extent of the asphalt grindings is not known at this time as delineation of discovered buried waste was not a part of this project's scope of work.

# 7.8 Test Pit MTP-8: Top Soil, Plastics, and Buried Logs Southwestern Portion of Subject Property

ESA Associates excavated the soil down to 10 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of at least 10 feet bgs. Logs were encountered at nine feet bgs. Plastics, electrical tape, and plastic bags were encountered in the upper nine feet. We were unable to excavate further than 10 feet bgs due to the large logs. Based on field screening results, a soil sample (MTP-8) was selected from the test pit at two feet bgs to be analyzed for contaminants. The SVOC, chrysene, was detected at a concentration of 56.4 μg/kg, below the MTCA Method A cleanup level. Petroleum hydrocarbons, VOCs, and the remaining SVOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits. This test pit contained plastic fragments and large logs (potentially with creosote) at nine feet below ground surface.

# 7.9 Test Pit MTP-9: Fill Material Southwestern Portion of Subject Property

ESA Associates excavated the soil down to 5 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 5 feet bgs. A dense glacial till was encountered at 5 feet bgs. Based on field screening results, a soil sample was selected from the test pit at two feet bgs to be analyzed for contaminants. Petroleum hydrocarbons, VOCs, and SVOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits.

# 7.10 Test Pit MTP-10: Fill Material Southwestern Portion of Subject Property

ESA Associates excavated the soil down to 11 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 11 feet bgs. We could not advance further than 11 feet bgs due to a dense silt layer. Based on field screening results, a soil sample was selected from the test pit at one foot bgs to be analyzed for contaminants. Petroleum hydrocarbons, VOCs, and SVOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits.

# 7.11 Test Pit MTP-11: Fill Material Southwestern Portion of Subject Property

ESA Associates excavated the soil down to 11 feet bgs. Groundwater was not encountered in this test pit. Fill material was encountered to a depth of 5 feet bgs. We could not advance further than 5 feet bgs due to a dense silt layer. Based on field screening results, a soil sample was selected from the test pit at two feet bgs to be analyzed for contaminants. Petroleum hydrocarbons, VOCs, and SVOCs were not detected above laboratory detection limits. MTCA-5 metals were detected at concentrations consistent with the Washington State background levels for arsenic, cadmium, chromium, and lead. Mercury was not detected above the laboratory detection limits.

#### 8.0 RECOMMENDATIONS

ESA Associates believes that the Jamestown S'Klallam Tribe can rely on the findings, conclusions, and opinions of the Environmental Professional. ESA Associates' work was performed in accordance with our authorized proposal and contract (711-007-196), dated April 26, 2023. This report is subject to the limitations presented below in Section 10.0 of this report.

Eleven areas of concern were explored during our Phase II ESA. One area of concern (MTP-4) of the eleven areas of concern contained a **VOC** (benzene) within the soil at a concentration above Ecology's MTCA Method A cleanup level. The benzene is located in the burn pit located in the western portion of the subject property. An area 10 feet by 10 feet in plan dimensions and reaching a total depth of two feet bgs requires remediation. Based on these measurements, ten tons of contaminated soil will require removal and disposal at an appropriate facility.

One additional area of concern was discovered where asphalt grindings have been buried on the southwestern portion of the subject property. Petroleum hydrocarbons and cPAHs were detected beneath a two foot layer of asphalt grindings found just below the surface. Ecology does not regulate asphalt grindings as a solid waste when it is recycled back into new asphalt pavement and roads under specific conditions. If these conditions are not met (such as is the case on the subject property), then asphalt grindings are solid waste and subject to Ecology's solid waste regulations.

Asphalt grindings may pose a risk to the environment because of potential exposure to the carcinogenic compounds contained in the asphalt binder. Also the heavy oil present in the asphalt grindings have the potential to leach into the underlying soils. For this reason, and based on the data we collected from the test pit (MTP-7), we recommend removal of the asphalt grindings to minimize the potential release of these fine particles into the environment. It is estimated (at a minimum) that approximately 10 tons of asphalt grindings are present at the subject property. The lateral extent of the asphalt grindings is not known at this time as delineation of discovered buried waste was not a part of this project's scope of work. ESA Associates recommends delineating the extent of the buried asphalt grindings prior to removal activities.

Phase II ESA Mottis Property Page 22 of 25 The Phase II ESA determined that fill material is present across the western and southwestern portions of the subject property to a maximum depth of 10 feet bgs. The fill material contains varying materials such as plastics, asphalt grindings, logs, and imported top soil. Native very dense silts (glacial till) exist beneath the fill material. In our opinion, given the undocumented placement of fill material, these soils would not be suitable as structural fill material on which structures can be built. We estimate that approximately 1500 truckloads of fill material have been disposed of at the subject property. We cannot guarantee that other unknown materials are not buried within the fill material in areas we did not place test pits.

ESA Associates did not collect groundwater samples during this assessment since groundwater was not encountered. Based on the large volumes of fill material on the subject property, it is our opinion that collecting baseline water samples from the two wells on the subject property would be prudent prior to acquisition of the subject property. Chemical analysis of the drinking water samples should be analyzed for petroleum hydrocarbons, cPAHs, SVOCs, VOCs, and metals.

Our conclusions and recommendations are subject to the limitations stated in Section 10.0.

# 9.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312, and I have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Qualifications of the environmental professional who conducted this environmental site assessment are included in Appendix D.

Respectfully Submitted, ESA ASSOCIATES, INC.

Kristen L Burgess,

Registered Geologist, No. 1322



# 10.0 LIMITATIONS

Our proposed scope of services is intended to provide an assessment of possible contamination of soil and groundwater on the subject property. Although we believe our work provides a thorough assessment of potential areas of environmental concern on the subject property, it was not designed to eliminate all risk associated with the subject property. Even the most rigorous of professional assessments may fail to identify all existing conditions. This work will not provide a guarantee regarding site contamination and may not generate sufficient data to accurately define the lateral and vertical extent of contamination.

No ESA can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for chemical analysis may or may not be representative of a larger population. Professional judgment and interpretation are inherent in the process and uncertainty is inevitable. Additional assessment may be able to reduce the uncertainty. Even when Phase II ESA work is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but are not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects, and the limitations of assessment technologies.

Phase II ESAs do not generally require an exhaustive assessment of environmental conditions on a property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. If hazardous substance or petroleum releases are confirmed on a parcel of property, the extent of further assessment is related to the degree of uncertainty that is acceptable to the user with respect to the real estate transaction. Measurements and sampling data only represent the site conditions at the time of data collection. Therefore, the usability of data collected as part of this Phase II ESA may have a finite lifetime depending on the application and use being made of the data. An environmental professional should evaluate whether the generated data are appropriate for any subsequent use beyond the original purpose for which it was collected. Property activities and regulations beyond ESA Associate's control could change at any time after the completion of our property visit. Therefore, ESA Associate's observations, findings and opinions are based solely upon site conditions of the date of the property visit.

Our report may be used only by the client, only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use the generated report shall notify ESA Associates of such intended use by executing the "Application for Authorization to Use." Based on the intended use of the report, ESA Associates may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release ESA Associates from any liability resulting from the use of the report by any unauthorized party.

No warranty, express or implied, is made.

# PAGE INTENTIONALLY LEFT BLANK

# PHOTOGRAPH LOG



Fill material Facing northeast



Test pit 1 (MTP-1)



Test pit 2 (MTP-2)

# ESA Associates, Inc.

PROJECT NO. **711-007-196** 

May 2, 2023

# **Site Visit Photographs**

Mottis Property 290 Zaccardo Rd Sequim, WA 98382 РНОТО



Test pit 3 (MTP-3)



Burn pile (MTP-4)



Burn pile

ESA Associates, Inc.

PROJECT NO. **711-007-196** 

May 2, 2023

# **Site Visit Photographs**

Mottis Property 290 Zaccardo Rd Sequim, WA 98382 РНОТО



Burn pile test pit (MTP-4)



MTP-6

# ESA Associates, Inc.

PROJECT NO. 711-007-196

May 2, 2023



MTP-5



MTP-7

# **Site Visit Photographs**

Mottis Property 290 Zaccardo Rd Sequim, WA 98382 РНОТО



Test pit 8 (MTP-8)



Soil from MTP-8



MTP-9

# ESA Associates, Inc.

PROJECT NO. **711-007-196** 

May 2, 2023

# **Site Visit Photographs**

Mottis Property 290 Zaccardo Rd Sequim, WA 98382 РНОТО

MTP-10





MTP-11

# ESA Associates, Inc.

PROJECT NO. **711-007-196** 

May 2, 2023

# **Site Visit Photographs**

Mottis Property 290 Zaccardo Rd Sequim, WA 98382 РНОТО

# **Summary of Soil Samples Laboratory Analytical Results**

Mottis Property: Sequim, Washington Sampled on May 2, 2023 Results are in mg/kg for soil (MTP-1 through MTP-11)

Sample ID	Sample Depth (ft)	PID Reading (ppm)	Sheen Results	HCID	NWTPH- DX	VOCs EPA Method 8260	CPAHs EPA Method 8270 (SIM)	SVOCs EPA Method 8270	MTCA-5 EPA Method 7471 and 6020
MTP-1	2'	0.2	SS	ND	NA	Detected <sup>1</sup>	NA	ND	Detected <sup>4</sup>
MTP-2	1'	0.3	SS	ND	NA	Detected	NA	ND	Detected
MTP-3	1'	0.5	SS	ND	NA	ND	NA	ND	Detected
MTP-4-1	1′	1	HS	Detected	512	Detected	NA	Detected <sup>3</sup>	Detected
MTP-4-2	2'	0.7	SS+	NA	NA	ND	NA	NA	NA
MTP-4-3	3′	0.4	NS	NA	NA	NA	NA	NA	Na
MTP-5	4'	0.9	NS	ND	NA	NA	NA	NA	NA
MTP-6	3'	0.1	SS	ND	ND	NA	NA	NA	NA
MTP-7	1'	0.4	SS	Detected	1,160	ND	Detected <sup>2</sup>	Detected	Detected
MTP-8	2'	0.7	SS	ND	NA	ND	Detected	Detected	Detected
MTP-9	1'	0	NS	ND	NA	Detected	NA	ND	Detected
MTP-10	1'	0.9	NS	ND	NA	ND	NA	ND	Detected
MTP-11	2'	0.4	SS-	ND	NA	ND	NA	ND	Detected
MTCA Soil Cleanup levels (mg/kg)				2,000	See Table 2	See Table 3A	See Table 3	See Table 4	

Bold indicates concentrations exceeding the applicable MTCA Method A/B cleanup level

ND: Non-Detect NA: Not Analyzed

<sup>&</sup>lt;sup>1</sup>Detected VOCs are present in Table 2

<sup>&</sup>lt;sup>2</sup>Detected CPAHs are presented in Table 3A

<sup>&</sup>lt;sup>3</sup>Detected SVOCs are presented in Table 3

<sup>&</sup>lt;sup>4</sup>Detected MTCA-5 metals are presented in Table 4

# **Summary of Soil and Water Samples VOC Laboratory Analytical Results**

Mottis Property: Sequim, Washington Sampled on May 2, 2023 Results are in mg/kg for soil (MTP-1 through MTP-11)

Sample ID	Sample Depth (FT)	Benzene	Toluene	Ethylbenzene	Styrene	Xylenes	Acetone
MTP-1	2'	ND	ND	ND	ND	ND	0.121
MTP-2	1'	ND	ND	ND	ND	ND	ND
MTP-3	1'	ND	ND	ND	ND	ND	ND
MTP-4-1	1′	0.106	0.102	0.0523	0.696	ND	0.253
MTP-4-2	2'	ND	ND	ND	NA	ND	NA
MTP-4-3	3′	NA	NA	NA	NA	NA	NA
MTP-5	4'	NA	NA	NA	NA	NA	NA
MTP-6	3'	NA	NA	NA	NA	NA	NA
MTP-7	1'	ND	ND	ND	ND	ND	ND
MTP-8	2'	ND	ND	ND	ND	ND	ND
MTP-9	1'	ND	ND	ND	ND	ND	ND
MTP-10	1'	ND	ND	ND	ND	ND	ND
MTP-11	2'	ND	ND	ND	ND	ND	ND
MTCA Cleanup Levels	0.030	7	6	N/A	9	72,000	

Bold indicates concentrations exceeding the applicable MTCA Method A/B cleanup level

ND: Non-Detect NA: Not Analyzed

N/A: Cleanup not established

# **Summary of Soil and Water SVOCs Laboratory Analytical Results**

Mottis Property: Sequim, Washington Sampled on May 2, 2023 Results are in μg /kg for soil (MTP-1 through MTP-11)

SVOCs	MTP-1	MTP-2	MTP-3	MTP-4-1	MTP-4-2	MTP-5	MTP-6	MTP-7	MTP-8
Naphthalene	ND	ND	ND	61.2	NA	NA	NA	ND	ND
2-Methylnapthalene	ND	ND	ND	ND	NA	NA	NA	ND	ND
1- Methylnapthalene	ND	ND	ND	ND	NA	NA	NA	ND	ND
Acenaphthylene	ND	ND	ND	ND	NA	NA	NA	ND	ND
3&4-Methylphenol (m, p-cresol)	ND	ND	ND	ND	NA	NA	NA	ND	ND
Phenanthrene	ND	ND	ND	57.1	NA	NA	NA	ND	ND
Flouranthene	ND	ND	ND	ND	NA	NA	NA	ND	ND
Pyrene	ND	ND	ND	ND	NA	NA	NA	ND	ND
Di-n-butylphthalate	ND	ND	ND	ND	NA	NA	NA	ND	ND
bis(2-Ethylhexyl)phthalate	ND	ND	ND	1,760	NA	NA	NA	ND	ND
Butyl Benzylphthalate	ND	ND	ND	ND	NA	NA	NA	ND	ND
Benz(a)anthracene	ND	ND	ND	ND	NA	NA	NA	52.5	ND
Chrysene	ND	ND	ND	ND	NA	NA	NA	ND	56.4
Phenol	ND	ND	ND	250	NA	NA	NA	ND	ND
1,3 Dichlorobenzene	ND	ND	ND	ND	NA	NA	NA	ND	ND
1,2 Dichlorobenzene	ND	ND	ND	ND	NA	NA	NA	ND	ND
Benzo(a)pyrene	ND	ND	ND	ND	NA	NA	NA	62.1	ND

SVOCs	MTP-9	MTP-10	MTP-11
Naphthalene	ND	ND	ND
2-Methylnapthalene	ND	ND	ND
1- Methylnapthalene	ND	ND	ND
Acenaphthylene	ND	ND	ND
3&4-Methylphenol (m, p-cresol)	ND	ND	ND
Phenanthrene	ND	ND	ND
Flouranthene	ND	ND	ND
Pyrene	ND	ND	ND
Di-n-butylphthalate	ND	ND	ND
bis(2-Ethylhexyl)phthalate	ND	ND	ND
Butyl Benzylphthalate	ND	ND	ND
Benz(a)anthracene	ND	ND	ND
Chrysene	ND	ND	ND
Phenol	ND	ND	ND
1,3 Dichlorobenzene	ND	ND	ND
1,2 Dichlorobenzene	ND	ND	ND
Benzo(a)pyrene	ND	ND	ND

Bold indicates a concentration above the MCTA A/B Cleanup Levels
ND indicates non-detect
NA indicates not anlayzed

# **TABLE 3A**

# **Calculation of Total Carcinogenic PAHs**

Mottis Property: Sequim, Washington Sampled on May 2, 2023 Results are in µg /kg for soil (MTP-7 and MTP-8)

PAHs	TEF*	MTP-7	MTP-7 calc	MTP-8	MTP-8 calc
Benzo(a)anthracene	0.1	52.5	5.25	ND	ND
Chrysene	0.01	ND	ND	56.4	0.564
Benzo(b)flouranthene	0.1	ND	ND	ND	ND
Benzo(k)flouranthene	0.1	ND	ND	ND	ND
Benzo(a)pyrene	1	62.1	62.1	ND	ND
Indeno(1,2,3-cd)pyrene	0.1	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.1	ND	ND	ND	ND
Benzo(g,h,i)perylene	0.01	ND	ND	ND	ND
Calculated cPAH Total		67.35		0.564	
MTCA Cleanup Level cPAH T		137.0		137.0	

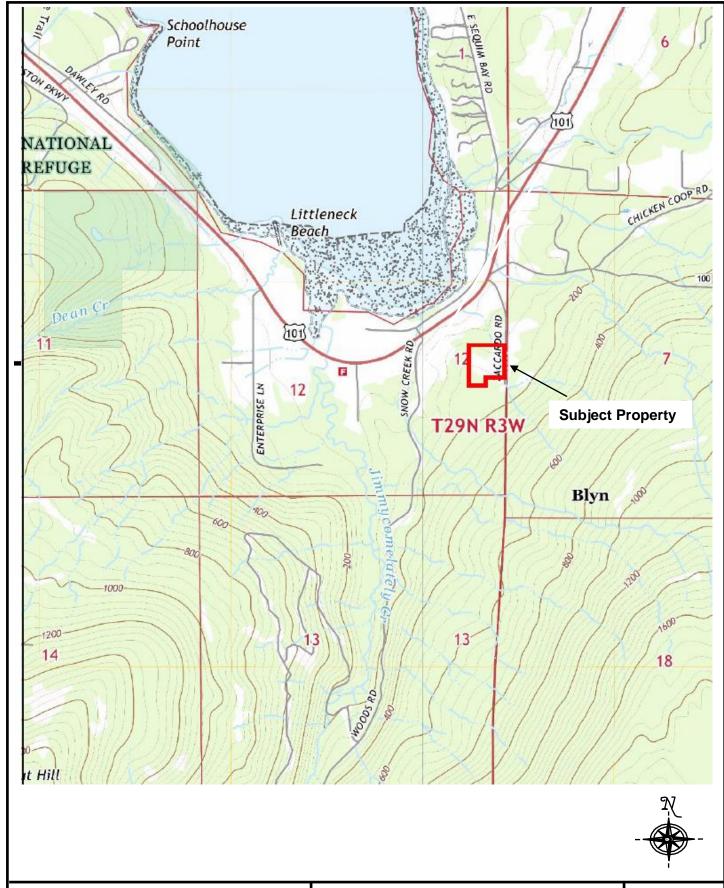
<sup>\*</sup> TEF: Toxicity Equivalence Factor ND: Non-Detect, cPAH: Carcinogenic Polycyclic Aromatic Hydrocarbons **Bold** indicates a total cPAH concentration which exceeds the MTCA Method A cleanup level.

# **Summary of Soil Samples MTCA-5 Metals Laboratory Analytical Results**

Mottis Property: Sequim, Washington Sampled on May 2, 2023 Results are in mg/kg for soil (MTP-1 through MTP-11)

Sample ID	Sample Depth (FT)	As Arsenic	Cd Cadmium	Cr Chromium	Pb Lead	Hg Mercury
MTP-1	2'	1.46	0.0402	16.2	1.44	ND
MTP-2	1'	1.56	0.0540	22.7	3.41	ND
MTP-3	1'	1.42	0.0374	27.9	ND	ND
MTP-4-1	1'	1.73	0.202	18.7	5.90	ND
MTP-4-2	2'	NA	NA	NA	NA	NA
MTP-4-3	3′	NA	NA	NA	NA	NA
MTP-5	4'	NA	NA	NA	NA	NA
MTP-6	3'	NA	NA	NA	NA	NA
MTP-7	1'	2.27	0.170	19.5	3.92	ND
MTP-8	2'	2.46	0.178	21.9	5.58	ND
MTP-9	1'	1.66	0.0296	35.8	2.62	ND
MTP-10	1'	1.63	0.0591	34.3	3.70	ND
MTP-11	2'	6.41	0.0809	27.2	4.89	ND
MTCA Cleanup Levels	20	2	2000	250	2	

### **FIGURES**



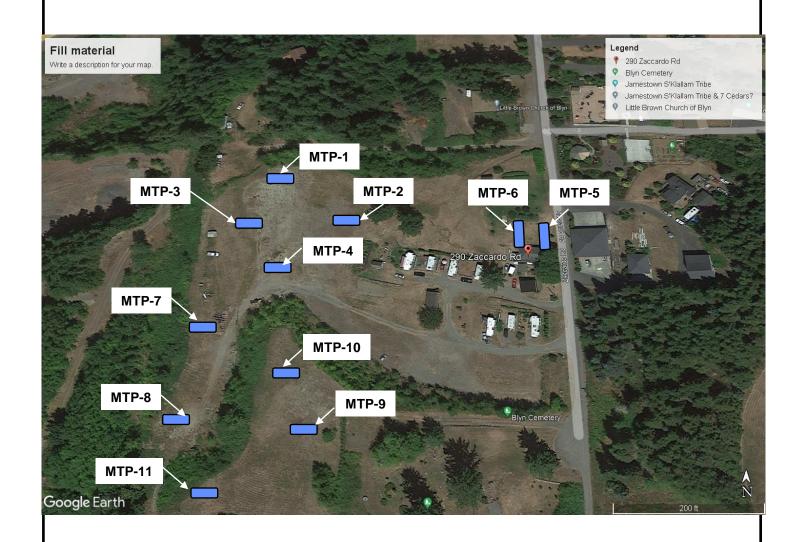
# ESA Associates, Inc.

PROJECT NO. 711-007-196 May 2, 2023

### **Site Vicinity Map**

Mottis Property 290 Zaccardo Road Sequim, WA 98382 Figure

1



Locations of test pits

PROJECT NO. 711-007-196



ESA Associates, Inc.

May 2, 2023

#### **Test Pit Locations**

Mottis Property 290 Zaccardo Road Sequim, WA 98382 Figure

2

# **APPENDICES**

### APPENDIX A

### **Field Methods and Procedures**

#### SITE EXPLORATION METHODS

#### General

ESA Associates developed a health and safety plan for this project prior to the start of fieldwork. The health and safety plan included specifications for steel toe boots, hard hats, safety glasses, and protective clothing. For the protection of the crew, a photoionization detector (PID) was used to screen for the presence of volatile organic concentrations in the breathing zone during the excavation of the test pits. The PID was a Thermo Environmental Model 580B OVM, or equivalent, with a 10.5 ev lamp. The instrument was calibrated to 100 parts per million by volume (ppmv) with an isobutylene gas standard. The PID measures volatile organic compounds (VOCs) in the air in ppmv.

#### **Soil Sampling**

A tribal contractor performed the excavation at this site. A backhoe was used to excavate each test pit. All sampling equipment was steam cleaned prior to mobilization to reduce the potential for cross contamination. Discrete soil samples are obtained using a stainless steel spoon. The spoon was decontaminated between sampling intervals to reduce the potential for cross contamination.

Collected soil samples were evaluated for evidence of contamination by visible discoloration of the soil sample or VOCs detected by the PID. A portion of each soil sample was placed into a plastic zip-lock bag, and the vapors were drawn through the PID for qualitative screening of VOCs. The vapor readings were documented as the field screening results. A new plastic bag was used each time a sample was screened.

Field screening on soil samples collected during subsurface explorations provide a relative indication of the degree of contamination. Field screening consists of inspecting the soil for stains indicative of contamination. Visual screening is generally effective in detecting the presence of heavy hydrocarbons such as diesel fuel or when the contaminant concentrations are high. Water sheen screening is also an effective way to detect lighter hydrocarbons such as gasoline as well as the heavier end hydrocarbons such as hydraulic oil.

Water sheen screening involves placing soil in a pan of distilled water and observing the water surface for signs of sheen. Sheen classifications are as follows:

No Sheen (NS) No visible sheen

Slight Sheen (SS)

Light, colorless, dull sheen; spread is irregular, not rapid;

sheen dissipates rapidly

Moderate Sheen (MS)

Light to heavy sheen; may have some color/iridescence;

spread is irregular to flowing, may be rapid; few remaining areas of

no sheen on the water surface.

Heavy Sheen (HS) Heavy sheen with color/iridescence; spread is rapid; entire

water surface maybe covered with sheen.

Where analysis of the complete suite of volatile organics is required, the procedure for sampling soils will include steps that are commensurate with EPA Method 5035a as follows:

After a fresh surface of the solid material is exposed to the atmosphere, the subsample collection process (splitting the sample: one to submit and the other for screening purpose) was completed in the least amount of time in order to minimize the loss of VOCs due to volatilization. Removing a subsample from a material was done in the least amount of disruption as possible. Additionally, rough trimming of the sampling location's surface was considered if the material may have already lost VOCs or if contaminated by other waste, different soil strata, or vegetation. Removal of surface layers was accomplished by scraping the surface using a clean spatula, scoop, knife, or shovel.

Subsamples of the appropriate size for analysis were collected using a metal or rigid plastic coring tool. For example, coring tools for the purpose of transferring a subsample were made from disposable plastic syringes by cutting off the tapered front end and removing the rubber cap from the plunger. When inserting a clean coring tool into a fresh surface for sample collection, air was not be trapped behind the sample.

Soil samples were placed directly into laboratory-provided sample jars and sealed with a Teflon lined lid. The samples were then placed into an ice chest containing frozen "blue ice" for preservation. The sample was then forwarded to the analytical laboratory using proper Chain-of-Custody procedures. All soil sample containers were labeled with sample identification numbers, the date, and the sampler's name.

### APPENDIX B

# **Chemical Analytical Report**



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

**ESA Associates, Inc.**Kristen Burgess
722 Prohaska Rd

Friday Harbor, WA 98250

**RE: Mottis Property** 

Work Order Number: 2305045

May 30, 2023

#### **Attention Kristen Burgess:**

Fremont Analytical, Inc. received 13 sample(s) on 5/3/2023 for the analyses presented in the following report.

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Hydrocarbon Identification by NWTPH-HCID

Mercury by EPA Method 7471B

Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample Moisture (Percent Moisture)

Semivolatile Organic Compounds by EPA Method 8270E

Total Metals by EPA Method 6020B

Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Brianna Barnes Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Date: 05/30/2023



CLIENT: ESA Associates, Inc. Work Order Sample Summary

Project: Mottis Property
Work Order: 2305045

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2305045-001	MTP-1	05/02/2023 9:16 AM	05/03/2023 8:17 AM
2305045-002	MTP-2	05/02/2023 9:30 AM	05/03/2023 8:17 AM
2305045-003	MTP-3	05/02/2023 10:08 AM	05/03/2023 8:17 AM
2305045-004	MTP-4-1	05/02/2023 10:32 AM	05/03/2023 8:17 AM
2305045-005	MTP-4-2	05/02/2023 10:43 AM	05/03/2023 8:17 AM
2305045-006	MTP-4-3	05/02/2023 11:00 AM	05/03/2023 8:17 AM
2305045-007	MTP-5	05/02/2023 11:33 AM	05/03/2023 8:17 AM
2305045-008	MTP-6	05/02/2023 11:52 AM	05/03/2023 8:17 AM
2305045-009	MTP-7	05/02/2023 12:36 PM	05/03/2023 8:17 AM
2305045-010	MTP-8	05/02/2023 1:02 PM	05/03/2023 8:17 AM
2305045-011	MTP-9	05/02/2023 1:30 PM	05/03/2023 8:17 AM
2305045-012	MTP-10	05/02/2023 1:42 PM	05/03/2023 8:17 AM
2305045-013	MTP-11	05/02/2023 2:00 PM	05/03/2023 8:17 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



#### **Case Narrative**

WO#: **2305045**Date: **5/30/2023** 

CLIENT: ESA Associates, Inc.
Project: Mottis Property

#### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

#### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

#### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

5/30/2023: Revision 1 includes re-analysis of PCE by EPA Method 8260.



### **Qualifiers & Acronyms**

WO#: **2305045** 

Date Reported: **5/30/2023** 

#### Qualifiers:

- \* Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

#### Acronyms:

%Rec - Percent Recovery

CCB - Continued Calibration Blank

**CCV - Continued Calibration Verification** 

DF - Dilution Factor

**DUP - Sample Duplicate** 

**HEM - Hexane Extractable Material** 

ICV - Initial Calibration Verification

LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate

MCL - Maximum Contaminant Level

MB or MBLANK - Method Blank

MDL - Method Detection Limit

MS/MSD - Matrix Spike / Matrix Spike Duplicate

PDS - Post Digestion Spike

Ref Val - Reference Value

REP - Sample Replicate

RL - Reporting Limit

RPD - Relative Percent Difference

SD - Serial Dilution

SGT - Silica Gel Treatment

SPK - Spike

Surr - Surrogate



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:16:00 AM

Project: Mottis Property

**Lab ID:** 2305045-001 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hydrocarbon Identification by	NWTPH-HCID			Batch	ı ID:	40360 Analyst: AP
Gasoline	ND	32.0		mg/Kg-dry	1	5/16/2023 7:20:58 PM
Mineral Spirits	ND	53.3		mg/Kg-dry	1	5/16/2023 7:20:58 PM
Kerosene	ND	53.3		mg/Kg-dry	1	5/16/2023 7:20:58 PM
Diesel (Fuel Oil)	ND	53.3		mg/Kg-dry	1	5/16/2023 7:20:58 PM
Heavy Oil	ND	107		mg/Kg-dry	1	5/16/2023 7:20:58 PM
Mineral Oil	ND	107		mg/Kg-dry	1	5/16/2023 7:20:58 PM
Surr: 2-Fluorobiphenyl	108	50 - 150		%Rec	1	5/16/2023 7:20:58 PM
Surr: o-Terphenyl	98.8	50 - 150		%Rec	1	5/16/2023 7:20:58 PM
Semivolatile Organic Compou	nds by EPA Met	hod 8270E		Batch	ı ID:	40361 Analyst: CB
Phenol	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Bis(2-chloroethyl) ether	ND	54.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2-Chlorophenol	ND	43.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
1,3-Dichlorobenzene	ND	43.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
1,4-Dichlorobenzene	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
1,2-Dichlorobenzene	ND	43.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Benzyl alcohol	ND	164		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2-Methylphenol (o-cresol)	ND	43.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Hexachloroethane	ND	43.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
N-Nitrosodi-n-propylamine	ND	87.7		μg/Kg-dry	1	5/17/2023 10:15:57 PM
3&4-Methylphenol (m, p-cresol)	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Nitrobenzene	ND	54.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Isophorone	ND	43.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2-Nitrophenol	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2,4-Dimethylphenol	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Bis(2-chloroethoxy)methane	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2,4-Dichlorophenol	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
1,2,4-Trichlorobenzene	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Naphthalene	ND	43.8		μg/Kg-dry	1	5/17/2023 10:15:57 PM
4-Chloroaniline	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Hexachlorobutadiene	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
4-Chloro-3-methylphenol	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2-Methylnaphthalene	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
1-Methylnaphthalene	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
Hexachlorocyclopentadiene	ND	110		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2,4,6-Trichlorophenol	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2,4,5-Trichlorophenol	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM
2-Chloronaphthalene	ND	32.9		μg/Kg-dry	1	5/17/2023 10:15:57 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:16:00 AM

Project: Mottis Property

**Lab ID:** 2305045-001 **Matrix:** Soil

Client Sample ID: MTP-1

DF **Analyses** Result **PQL** Qual Units **Date Analyzed** Batch ID: 40361 Analyst: CB Semivolatile Organic Compounds by EPA Method 8270E 2-Nitroaniline ND 54.8 5/17/2023 10:15:57 PM μg/Kg-dry 1 Acenaphthene ND 32.9 μg/Kg-dry 1 5/17/2023 10:15:57 PM Dimethylphthalate ND 3,840 μg/Kg-dry 1 5/17/2023 10:15:57 PM 2,6-Dinitrotoluene NΠ 43.8 μg/Kg-dry 1 5/17/2023 10:15:57 PM ND Acenaphthylene 32.9 5/17/2023 10:15:57 PM μg/Kg-dry 1 2,4-Dinitrophenol ND 329 μg/Kg-dry 1 5/17/2023 10:15:57 PM Dibenzofuran ND 32.9 μg/Kg-dry 1 5/17/2023 10:15:57 PM 2.4-Dinitrotoluene ND 65.8 1 5/17/2023 10:15:57 PM μg/Kg-dry 4-Nitrophenol ND 219 μg/Kg-dry 1 5/17/2023 10:15:57 PM ND 32.9 Fluorene 1 5/17/2023 10:15:57 PM μg/Kg-dry 4-Chlorophenyl phenyl ether ND 32.9 5/17/2023 10:15:57 PM μg/Kg-dry ND 822 Diethylphthalate μg/Kg-dry 1 5/17/2023 10:15:57 PM 4,6-Dinitro-2-methylphenol ND 274 1 5/17/2023 10:15:57 PM µg/Kg-dry ND 32.9 4-Bromophenyl phenyl ether μg/Kg-dry 1 5/17/2023 10:15:57 PM Hexachlorobenzene ND 32.9 μg/Kg-dry 1 5/17/2023 10:15:57 PM ND Pentachlorophenol 219 1 μg/Kg-dry 5/17/2023 10:15:57 PM Phenanthrene ND 32.9 μg/Kg-dry 1 5/17/2023 10:15:57 PM ND Anthracene 32.9 μg/Kg-dry 1 5/17/2023 10:15:57 PM Carbazole ND 32.9 1 5/17/2023 10:15:57 PM μg/Kg-dry Di-n-butylphthalate ND 32.9 μg/Kg-dry 1 5/17/2023 10:15:57 PM Fluoranthene ND 32.9 1 5/17/2023 10:15:57 PM μg/Kg-dry Pyrene ND 164 μg/Kg-dry 1 5/17/2023 10:15:57 PM **Butyl Benzylphthalate** ND 54.8 1 5/17/2023 10:15:57 PM μg/Kg-dry bis(2-Ethylhexyl)adipate ND 219 1 5/17/2023 10:15:57 PM μg/Kg-dry ND 32.9 Benz(a)anthracene 1 5/17/2023 10:15:57 PM μg/Kg-dry ND Chrysene 54.8 μg/Kg-dry 1 5/17/2023 10:15:57 PM bis (2-Ethylhexyl) phthalate ND 43.8 μg/Kg-dry 1 5/17/2023 10:15:57 PM Di-n-octyl phthalate ND 82.2 1 5/17/2023 10:15:57 PM μg/Kg-dry ND Benzo(b)fluoranthene 110 μg/Kg-dry 1 5/17/2023 10:15:57 PM Benzo(k)fluoranthene ND 32.9 1 5/17/2023 10:15:57 PM μg/Kg-dry ND Benzo(a)pyrene 43.8 μg/Kg-dry 1 5/17/2023 10:15:57 PM Indeno(1,2,3-cd)pyrene ND 219 μg/Kg-dry 1 5/17/2023 10:15:57 PM Dibenz(a,h)anthracene ND 110 1 5/17/2023 10:15:57 PM μg/Kg-dry ND Benzo(g,h,i)perylene 110 1 5/17/2023 10:15:57 PM μg/Kg-dry Surr: 2,4,6-Tribromophenol 16.2 - 150 73.7 %Rec 1 5/17/2023 10:15:57 PM Surr: 2-Fluorobiphenyl 79.8 25.3 - 139 %Rec 1 5/17/2023 10:15:57 PM Surr: Nitrobenzene-d5 65.5 12.7 - 143 %Rec 1 5/17/2023 10:15:57 PM Surr: Phenol-d6 21.4 - 139 66.8 %Rec 1 5/17/2023 10:15:57 PM Surr: p-Terphenyl 75.8 37.1 - 144 %Rec 1 5/17/2023 10:15:57 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:16:00 AM

Project: Mottis Property

**Lab ID**: 2305045-001 **Matrix**: Soil

Client Sample ID: MTP-1

Analyses Result PQL Qual Units DF Date Analyzed

#### Semivolatile Organic Compounds by EPA Method 8270E

Volatile Organic Compounds by EPA Method 8260D

Batch ID: 40361 Ar

Batch ID: 40374

Analyst: CB

Analyst: SH

#### NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Dichlorodifluoromethane (CFC-12)	ND	0.00713	QH	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Chloromethane	ND	0.0238	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Vinyl chloride	ND	0.0119	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Bromomethane	ND	0.0119	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Trichlorofluoromethane (CFC-11)	ND	0.00951	QH	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Chloroethane	ND	0.0357	QH	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,1-Dichloroethene	ND	0.0475	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Acetone	0.121	0.119	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Methylene chloride	ND	0.0166	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
trans-1,2-Dichloroethene	ND	0.00475	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Methyl tert-butyl ether (MTBE)	ND	0.00951	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,1-Dichloroethane	ND	0.0119	QH	mg/Kg-dry	1	5/17/2023 10:37:19 PM
cis-1,2-Dichloroethene	ND	0.00713	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
(MEK) 2-Butanone	ND	0.143	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Chloroform	ND	0.00832	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,1,1-Trichloroethane (TCA)	ND	0.00951	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,1-Dichloropropene	ND	0.00951	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Carbon tetrachloride	ND	0.0119	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,2-Dichloroethane (EDC)	ND	0.00951	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Benzene	ND	0.00832	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Trichloroethene (TCE)	ND	0.00713	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,2-Dichloropropane	ND	0.0119	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Bromodichloromethane	ND	0.0119	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Dibromomethane	ND	0.00594	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
cis-1,3-Dichloropropene	ND	0.00713	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Toluene	ND	0.0143	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Trans-1,3-Dichloropropylene	ND	0.00951	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0285	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,1,2-Trichloroethane	ND	0.00594	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
1,3-Dichloropropane	ND	0.00475	Н	mg/Kg-dry	1	5/17/2023 10:37:19 PM
Tetrachloroethene (PCE)	ND	0.00713	Н	mg/Kg-dry	1	5/23/2023 12:49:31 PM

0.00713

0.00475

0.0297

mg/Kg-dry

mg/Kg-dry

mg/Kg-dry

1

Н

ND

ND

ND

Dibromochloromethane

2-Hexanone (MBK)

1,2-Dibromoethane (EDB)

5/17/2023 10:37:19 PM

5/17/2023 10:37:19 PM

5/17/2023 10:37:19 PM



Work Order: 2305045 Date Reported: 5/30/2023

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:16:00 AM

**Project:** Mottis Property

Lab ID: 2305045-001 Matrix: Soil

Client Sample ID: MTP-1

Chlorobenzene	DF	Date Analyzed
1,1,1,2-Tetrachloroethane         ND         0.0119         H         mg/Kg-dr           Ethylbenzene         ND         0.0119         H         mg/Kg-dr           m,p-Xylene         ND         0.0238         H         mg/Kg-dr           o-Xylene         ND         0.0119         H         mg/Kg-dr           Styrene         ND         0.00475         H         mg/Kg-dr           Isopropylbenzene         ND         0.00713         H         mg/Kg-dr           Bromoform         ND         0.00713         H         mg/Kg-dr           1,1,2,2-Tetrachloroethane         ND         0.0951         H         mg/Kg-dr           n-Propylbenzene         ND         0.00713         H         mg/Kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           1,2,3-Trichloropropane         ND         0.00713         H         mg/Kg-dr           1,2,4-Trichlorobenzene	ch ID:	40374 Analyst: SH
1,1,1,2-Tetrachloroethane         ND         0.0119         H         mg/Kg-dr           Ethylbenzene         ND         0.0119         H         mg/Kg-dr           m,p-Xylene         ND         0.0238         H         mg/Kg-dr           o-Xylene         ND         0.0119         H         mg/Kg-dr           Styrene         ND         0.00475         H         mg/Kg-dr           Isopropylbenzene         ND         0.00713         H         mg/Kg-dr           Bromoform         ND         0.00713         H         mg/Kg-dr           1,1,2,2-Tetrachloroethane         ND         0.0951         H         mg/Kg-dr           n-Propylbenzene         ND         0.00713         H         mg/Kg-dr           Bromobenzene         ND         0.00733         H         mg/Kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           1,2,3-Trichloropropane         ND         0.00713         H         mg/Kg-dr           1,2,4-Trichlorobenzene         <	/ 1	5/17/2023 10:37:19 PM
Ethylbenzene         ND         0.0119         H         mg/kg-dr           m,p-Xylene         ND         0.0238         H         mg/kg-dr           o-Xylene         ND         0.0119         H         mg/kg-dr           Styrene         ND         0.00475         H         mg/kg-dr           Isopropylbenzene         ND         0.00713         H         mg/kg-dr           Bromoform         ND         0.00713         H         mg/kg-dr           1,1,2,2-Tetrachloroethane         ND         0.00713         H         mg/kg-dr           n-Propylbenzene         ND         0.00713         H         mg/kg-dr           Bromobenzene         ND         0.00713         H         mg/kg-dr           1,3,5-Trimethylbenzene         ND         0.00784         H         mg/kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/kg-dr           1,2,3-Trichloropropane         ND         0.00713         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0143         H         mg/kg-dr           1,3-Dichlorobenzene         ND		5/17/2023 10:37:19 PM
m,p-Xylene         ND         0.0238         H         mg/kg-dr           o-Xylene         ND         0.0119         H         mg/kg-dr           Styrene         ND         0.00475         H         mg/kg-dr           Isopropylbenzene         ND         0.00713         H         mg/kg-dr           Bromoform         ND         0.00713         H         mg/kg-dr           1,1,2,2-Tetrachloroethane         ND         0.0951         H         mg/kg-dr           1,1,2,2-Tetrachloroethane         ND         0.0951         H         mg/kg-dr           1,2,2-Tetrachloroethane         ND         0.00713         H         mg/kg-dr           1,3,5-Trimethylbenzene         ND         0.00594         H         mg/kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00713         H         mg/kg-dr           1,2,3-Trichloropropane         ND         0.0143         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/kg-dr           4-Isopropy		5/17/2023 10:37:19 PM
o-Xylene         ND         0.0119         H         mg/kg-dr           Styrene         ND         0.00475         H         mg/kg-dr           Isopropylbenzene         ND         0.00713         H         mg/kg-dr           Bromoform         ND         0.00713         H         mg/kg-dr           1,1,2,2-Tetrachloroethane         ND         0.0951         H         mg/kg-dr           n-Propylbenzene         ND         0.00713         H         mg/kg-dr           Bromobenzene         ND         0.00594         H         mg/kg-dr           Bromobenzene         ND         0.00713         H         mg/kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00713         H         mg/kg-dr           1,2,3-Trichloropropane         ND         0.00713         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/kg-dr           4-Isopropyltoluene         <	/ 1	5/17/2023 10:37:19 PM
Styrene         ND         0.00475         H         mg/Kg-dr           Isopropylbenzene         ND         0.00713         H         mg/Kg-dr           Bromoform         ND         0.00713         H         mg/Kg-dr           1,1,2,2-Tetrachloroethane         ND         0.0951         H         mg/Kg-dr           1,1,2,2-Tetrachloroethane         ND         0.00713         H         mg/Kg-dr           n-Propylbenzene         ND         0.00713         H         mg/Kg-dr           Bromobenzene         ND         0.00594         H         mg/Kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           1,2,3-Trichloropropane         ND         0.00713         H         mg/Kg-dr           1,2,4-Trichlorobenzene         ND         0.0143         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-D		5/17/2023 10:37:19 PM
Isopropylbenzene		5/17/2023 10:37:19 PM
1,1,2,2-Tetrachloroethane         ND         0.0951         H         mg/kg-dr           n-Propylbenzene         ND         0.00713         H         mg/kg-dr           Bromobenzene         ND         0.00594         H         mg/kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00713         H         mg/kg-dr           tert-Butylbenzene         ND         0.00713         H         mg/kg-dr           1,2,3-Trichloropropane         ND         0.0143         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/kg-dr           1,2-Sec-Butylbenzene         ND         0.0951         H         mg/kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,4-Dichlorobenzene         ND         0.00951         H         mg/kg-dr		5/17/2023 10:37:19 PM
n-Propylbenzene         ND         0.00713         H         mg/kg-dr           Bromobenzene         ND         0.00594         H         mg/kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00713         H         mg/kg-dr           1,2,3-Trichloropropane         ND         0.00713         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0713         H         mg/kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,4-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/kg-dr	/ 1	5/17/2023 10:37:19 PM
Bromobenzene         ND         0.00594         H         mg/kg-dr           1,3,5-Trimethylbenzene         ND         0.00713         H         mg/kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/kg-dr           tert-Butylbenzene         ND         0.00713         H         mg/kg-dr           1,2,3-Trichloropropane         ND         0.0143         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0951         H         mg/kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/kg-dr	/ 1	5/17/2023 10:37:19 PM
1,3,5-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           2-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           tert-Butylbenzene         ND         0.00713         H         mg/Kg-dr           1,2,3-Trichloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/Kg-dr           1,2,4-Trichlorobenzene         ND         0.0713         H         mg/Kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
2-Chlorotoluene         ND         0.00784         H         mg/kg-dr           4-Chlorotoluene         ND         0.00784         H         mg/kg-dr           tert-Butylbenzene         ND         0.00713         H         mg/kg-dr           1,2,3-Trichloropropane         ND         0.0143         H         mg/kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/kg-dr           sec-Butylbenzene         ND         0.0713         H         mg/kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/kg-dr           n-Butylbenzene         ND         0.00951         H         mg/kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/kg-dr <td>/ 1</td> <td>5/17/2023 10:37:19 PM</td>	/ 1	5/17/2023 10:37:19 PM
4-Chlorotoluene         ND         0.00784         H         mg/Kg-dr           tert-Butylbenzene         ND         0.00713         H         mg/Kg-dr           1,2,3-Trichloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/Kg-dr           sec-Butylbenzene         ND         0.0713         H         mg/Kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
tert-Butylbenzene         ND         0.00713         H         mg/Kg-dr           1,2,3-Trichloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/Kg-dr           sec-Butylbenzene         ND         0.0713         H         mg/Kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
1,2,3-Trichloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trichlorobenzene         ND         0.0285         H         mg/Kg-dr           sec-Butylbenzene         ND         0.0713         H         mg/Kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
1,2,4-Trichlorobenzene         ND         0.0285         H         mg/Kg-dr           sec-Butylbenzene         ND         0.0713         H         mg/Kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
sec-Butylbenzene         ND         0.0713         H         mg/Kg-dr           4-Isopropyltoluene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
4-Isopropyltoluene         ND         0.0951         H         mg/Kg-dr           1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
1,3-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
1,4-Dichlorobenzene         ND         0.00713         H         mg/Kg-dr           n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
n-Butylbenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
1,2-Dichlorobenzene         ND         0.00951         H         mg/Kg-dr           1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
1,2-Dibromo-3-chloropropane         ND         0.0143         H         mg/Kg-dr           1,2,4-Trimethylbenzene         ND         0.00713         H         mg/Kg-dr           Hexachloro-1,3-butadiene         ND         0.0190         H         mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	/ 1	5/17/2023 10:37:19 PM
Hexachloro-1,3-butadiene ND 0.0190 H mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
3 3 4	/ 1	5/17/2023 10:37:19 PM
Naphthalene ND 0.0475 H mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
	/ 1	5/17/2023 10:37:19 PM
1,2,3-Trichlorobenzene ND 0.0285 H mg/Kg-dr	/ 1	5/17/2023 10:37:19 PM
Surr: Dibromofluoromethane 105 80 - 120 H %Rec	1	5/17/2023 10:37:19 PM
Surr: Toluene-d8 99.2 80 - 120 H %Rec	1	5/17/2023 10:37:19 PM
Surr: 1-Bromo-4-fluorobenzene 93.6 80 - 120 H %Rec	1	5/17/2023 10:37:19 PM

#### NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Mercury	hy FPA	Method 7471B	
IVICI CUI V		1 MCHIOU / 4/ 1D	

ND Mercury 0.210 mg/Kg-dry 5/18/2023 1:08:43 PM

Analyst: ME

Batch ID: 40385



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:16:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-001 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Total Metals by EPA Metho	d 6020B			Batch	ID:	40372 Analyst: JR
Arsenic	1.46	0.221		mg/Kg-dry	1	5/17/2023 3:45:00 PM
Cadmium	0.0402	0.0177		mg/Kg-dry	1	5/17/2023 3:45:00 PM
Chromium	16.2	0.221		mg/Kg-dry	1	5/17/2023 3:45:00 PM
Lead	1.44	0.885		mg/Kg-dry	1	5/17/2023 3:45:00 PM
Sample Moisture (Percent I	<u>Moisture)</u>			Batch	ID:	R84000 Analyst: MP
Percent Moisture	10.3			wt%	1	5/16/2023 8:17:00 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:30:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-002 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hydrocarbon Identification by	NWTPH-HCID			Batch	ı ID:	40360 Analyst: AP
Gasoline	ND	34.1		mg/Kg-dry	1	5/16/2023 7:53:54 PM
Mineral Spirits	ND	56.8		mg/Kg-dry	1	5/16/2023 7:53:54 PM
Kerosene	ND	56.8		mg/Kg-dry	1	5/16/2023 7:53:54 PM
Diesel (Fuel Oil)	ND	56.8		mg/Kg-dry	1	5/16/2023 7:53:54 PM
Heavy Oil	ND	114		mg/Kg-dry	1	5/16/2023 7:53:54 PM
Mineral Oil	ND	114		mg/Kg-dry	1	5/16/2023 7:53:54 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	5/16/2023 7:53:54 PM
Surr: o-Terphenyl	97.5	50 - 150		%Rec	1	5/16/2023 7:53:54 PM
Cam o Torphony.	0.10	00 .00		70.100	•	6, 16, 2626 1 16616 1 1 111
Semivolatile Organic Compou	nds by EPA Met	<u>hod 8270E</u>		Batch	ı ID:	40361 Analyst: CB
Phenol	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Bis(2-chloroethyl) ether	ND	56.8		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2-Chlorophenol	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
1,3-Dichlorobenzene	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
1,4-Dichlorobenzene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
1,2-Dichlorobenzene	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Benzyl alcohol	ND	170		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2-Methylphenol (o-cresol)	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Hexachloroethane	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
N-Nitrosodi-n-propylamine	ND	90.8		μg/Kg-dry	1	5/17/2023 10:46:03 PM
3&4-Methylphenol (m, p-cresol)	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Nitrobenzene	ND	56.8		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Isophorone	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2-Nitrophenol	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2,4-Dimethylphenol	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Bis(2-chloroethoxy)methane	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2,4-Dichlorophenol	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
1,2,4-Trichlorobenzene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Naphthalene	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
4-Chloroaniline	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Hexachlorobutadiene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
4-Chloro-3-methylphenol	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2-Methylnaphthalene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
1-Methylnaphthalene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Hexachlorocyclopentadiene	ND	114		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2,4,6-Trichlorophenol	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2,4,5-Trichlorophenol	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2-Chloronaphthalene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:30:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-002 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compou	unds by EPA Me	thod 8270E		Batch	n ID: 4	.0361 Analyst: CB
2-Nitroaniline	ND	56.8		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Acenaphthene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Dimethylphthalate	ND	3,970		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2,6-Dinitrotoluene	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Acenaphthylene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2,4-Dinitrophenol	ND	341	Q	μg/Kg-dry	1	5/17/2023 10:46:03 PM
Dibenzofuran	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
2,4-Dinitrotoluene	ND	68.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
4-Nitrophenol	ND	227		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Fluorene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
4-Chlorophenyl phenyl ether	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Diethylphthalate	ND	851		μg/Kg-dry	1	5/17/2023 10:46:03 PM
4,6-Dinitro-2-methylphenol	ND	284	Q	μg/Kg-dry	1	5/17/2023 10:46:03 PM
4-Bromophenyl phenyl ether	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Hexachlorobenzene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Pentachlorophenol	ND	227		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Phenanthrene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Anthracene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Carbazole	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Di-n-butylphthalate	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Fluoranthene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Pyrene	ND	170		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Butyl Benzylphthalate	ND	56.8		μg/Kg-dry	1	5/17/2023 10:46:03 PM
bis(2-Ethylhexyl)adipate	ND	227		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Benz(a)anthracene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Chrysene	ND	56.8		μg/Kg-dry	1	5/17/2023 10:46:03 PM
bis (2-Ethylhexyl) phthalate	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Di-n-octyl phthalate	ND	85.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Benzo(b)fluoranthene	ND	114		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Benzo(k)fluoranthene	ND	34.1		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Benzo(a)pyrene	ND	45.4		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Indeno(1,2,3-cd)pyrene	ND	227		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Dibenz(a,h)anthracene	ND	114		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Benzo(g,h,i)perylene	ND	114		μg/Kg-dry	1	5/17/2023 10:46:03 PM
Surr: 2,4,6-Tribromophenol	64.5	16.2 - 150		%Rec	1	5/17/2023 10:46:03 PM
Surr: 2-Fluorobiphenyl	67.5	25.3 - 139		%Rec	1	5/17/2023 10:46:03 PM
Surr: Nitrobenzene-d5	57.7	12.7 - 143		%Rec	1	5/17/2023 10:46:03 PM
Surr: Phenol-d6	54.5	21.4 - 139		%Rec	1	5/17/2023 10:46:03 PM
Surr: p-Terphenyl	64.2	37.1 - 144		%Rec	1	5/17/2023 10:46:03 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:30:00 AM

Project: Mottis Property

**Lab ID:** 2305045-002 **Matrix:** Soil

Client Sample ID: MTP-2

Analyses Result PQL Qual Units DF Date Analyzed

#### Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 40361 Ar

Analyst: CB

Analyst: SH

#### NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Volatile Organic Compounds by EPA Method 8260D	Batch ID: 40374

Dichlorodifluoromethane (CFC-12)	ND	0.00718	QH	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Chloromethane	ND	0.0239	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Vinyl chloride	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Bromomethane	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Trichlorofluoromethane (CFC-11)	ND	0.00957	QH	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Chloroethane	ND	0.0359	QH	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,1-Dichloroethene	ND	0.0479	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Acetone	ND	0.120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Methylene chloride	ND	0.0167	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
trans-1,2-Dichloroethene	ND	0.00479	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Methyl tert-butyl ether (MTBE)	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,1-Dichloroethane	ND	0.0120	QH	mg/Kg-dry	1	5/17/2023 11:07:26 PM
cis-1,2-Dichloroethene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
(MEK) 2-Butanone	ND	0.144	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Chloroform	ND	0.00837	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,1,1-Trichloroethane (TCA)	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,1-Dichloropropene	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Carbon tetrachloride	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2-Dichloroethane (EDC)	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Benzene	ND	0.00837	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Trichloroethene (TCE)	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2-Dichloropropane	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Bromodichloromethane	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Dibromomethane	ND	0.00598	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
cis-1,3-Dichloropropene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Toluene	ND	0.0144	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Trans-1,3-Dichloropropylene	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0287	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,1,2-Trichloroethane	ND	0.00598	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,3-Dichloropropane	ND	0.00479	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Tetrachloroethene (PCE)	ND	0.00718	Н	mg/Kg-dry	1	5/24/2023 11:59:57 AM
Dibromochloromethane	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2-Dibromoethane (EDB)	ND	0.00479	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
2-Hexanone (MBK)	ND	0.0299	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM

Revision v1



Work Order: 2305045 Date Reported: 5/30/2023

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:30:00 AM

Batch ID: 40385

**Project:** Mottis Property

**Lab ID**: 2305045-002 Matrix: Soil

Client Sample ID: MTP-2

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds b	y EPA Method	8260D		Batch	ı ID: 4	40374 Analyst: SH
Chlorobenzene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,1,1,2-Tetrachloroethane	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Ethylbenzene	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
m,p-Xylene	ND	0.0239	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
o-Xylene	ND	0.0120	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Styrene	ND	0.00479	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Isopropylbenzene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Bromoform	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,1,2,2-Tetrachloroethane	ND	0.0957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
n-Propylbenzene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Bromobenzene	ND	0.00598	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,3,5-Trimethylbenzene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
2-Chlorotoluene	ND	0.00790	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
4-Chlorotoluene	ND	0.00790	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
tert-Butylbenzene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2,3-Trichloropropane	ND	0.0144	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2,4-Trichlorobenzene	ND	0.0287	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
sec-Butylbenzene	ND	0.0718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
4-Isopropyltoluene	ND	0.0957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,3-Dichlorobenzene	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,4-Dichlorobenzene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
n-Butylbenzene	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2-Dichlorobenzene	ND	0.00957	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2-Dibromo-3-chloropropane	ND	0.0144	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2,4-Trimethylbenzene	ND	0.00718	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Hexachloro-1,3-butadiene	ND	0.0191	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Naphthalene	ND	0.0479	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
1,2,3-Trichlorobenzene	ND	0.0287	Н	mg/Kg-dry	1	5/17/2023 11:07:26 PM
Surr: Dibromofluoromethane	107	80 - 120	Н	%Rec	1	5/17/2023 11:07:26 PM
Surr: Toluene-d8	100	80 - 120	Н	%Rec	1	5/17/2023 11:07:26 PM
Surr: 1-Bromo-4-fluorobenzene	95.9	80 - 120	Н	%Rec	1	5/17/2023 11:07:26 PM
NOTES						

#### NOTES:

#### Mercury by EPA Method 7471B

ND Mercury 0.221 mg/Kg-dry 5/18/2023 1:15:31 PM

Analyst: ME

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 9:30:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-002 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Total Metals by EPA Meth	nod 6020B			Batch	ID:	40372 Analyst: JR
Arsenic	1.56	0.233		mg/Kg-dry	1	5/17/2023 3:47:00 PM
Cadmium	0.0540	0.0186		mg/Kg-dry	1	5/17/2023 3:47:00 PM
Chromium	22.7	0.233		mg/Kg-dry	1	5/17/2023 3:47:00 PM
Lead	3.41	0.932		mg/Kg-dry	1	5/17/2023 3:47:00 PM
Sample Moisture (Percen	t Moisture)			Batch	ID:	R84000 Analyst: MP
Percent Moisture	14.8			wt%	1	5/16/2023 8:17:00 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:08:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-003 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hydrocarbon Identification by NW	TPH-HCID			Batch	ı ID:	40234 Analyst: AP
Gasoline	ND	33.9		mg/Kg-dry	1	5/4/2023 9:06:48 PM
Mineral Spirits	ND	56.5		mg/Kg-dry	1	5/4/2023 9:06:48 PM
Kerosene	ND	56.5		mg/Kg-dry	1	5/4/2023 9:06:48 PM
Diesel (Fuel Oil)	ND	56.5		mg/Kg-dry	1	5/4/2023 9:06:48 PM
Heavy Oil	ND	113		mg/Kg-dry	1	5/4/2023 9:06:48 PM
Mineral Oil	ND	113		mg/Kg-dry	1	5/4/2023 9:06:48 PM
Surr: 2-Fluorobiphenyl	116	50 - 150		%Rec	1	5/4/2023 9:06:48 PM
Surr: o-Terphenyl	114	50 - 150		%Rec	1	5/4/2023 9:06:48 PM
Semivolatile Organic Compounds	by EPA Met	<u>hod 8270E</u>		Batch	ı ID:	40270 Analyst: CB
Phenol	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Bis(2-chloroethyl) ether	ND	56.8		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2-Chlorophenol	ND	45.5		μg/Kg-dry	1	5/10/2023 11:44:32 AM
1,3-Dichlorobenzene	ND	45.5		μg/Kg-dry	1	5/10/2023 11:44:32 AM
1,4-Dichlorobenzene	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
1,2-Dichlorobenzene	ND	45.5		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Benzyl alcohol	ND	170		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2-Methylphenol (o-cresol)	ND	45.5		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Hexachloroethane	ND	45.5		μg/Kg-dry	1	5/10/2023 11:44:32 AM
N-Nitrosodi-n-propylamine	ND	90.9		μg/Kg-dry	1	5/10/2023 11:44:32 AM
3&4-Methylphenol (m, p-cresol)	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Nitrobenzene	ND	56.8		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Isophorone	ND	45.5		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2-Nitrophenol	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2,4-Dimethylphenol	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Bis(2-chloroethoxy)methane	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2,4-Dichlorophenol	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
1,2,4-Trichlorobenzene	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Naphthalene	ND	45.5		μg/Kg-dry	1	5/10/2023 11:44:32 AM
4-Chloroaniline	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Hexachlorobutadiene	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
4-Chloro-3-methylphenol	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2-Methylnaphthalene	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
1-Methylnaphthalene	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
Hexachlorocyclopentadiene	ND	114		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2,4,6-Trichlorophenol	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2,4,5-Trichlorophenol	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM
2-Chloronaphthalene	ND	34.1		μg/Kg-dry	1	5/10/2023 11:44:32 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:08:00 AM

Project: Mottis Property

**Lab ID:** 2305045-003 **Matrix:** Soil

Client Sample ID: MTP-3

DF **Analyses** Result **PQL** Qual Units **Date Analyzed** Batch ID: 40270 Analyst: CB Semivolatile Organic Compounds by EPA Method 8270E 2-Nitroaniline ND 56.8 5/10/2023 11:44:32 AM μg/Kg-dry 1 Acenaphthene ND 34.1 μg/Kg-dry 1 5/10/2023 11:44:32 AM Dimethylphthalate ND 3,980 1 5/10/2023 11:44:32 AM μg/Kg-dry 2,6-Dinitrotoluene NΠ 45.5 μg/Kg-dry 1 5/10/2023 11:44:32 AM ND Acenaphthylene 34.1 1 5/10/2023 11:44:32 AM μg/Kg-dry 2,4-Dinitrophenol ND 341 1 5/10/2023 11:44:32 AM μg/Kg-dry Dibenzofuran ND 34.1 μg/Kg-dry 1 5/10/2023 11:44:32 AM 2.4-Dinitrotoluene ND 68.2 1 5/10/2023 11:44:32 AM μg/Kg-dry 4-Nitrophenol ND 227 μg/Kg-dry 1 5/10/2023 11:44:32 AM ND 34.1 5/10/2023 11:44:32 AM Fluorene 1 μg/Kg-dry 4-Chlorophenyl phenyl ether ND 34.1 5/10/2023 11:44:32 AM μg/Kg-dry ND 852 Diethylphthalate μg/Kg-dry 1 5/10/2023 11:44:32 AM 4,6-Dinitro-2-methylphenol ND 284 1 5/10/2023 11:44:32 AM µg/Kg-dry ND 34.1 4-Bromophenyl phenyl ether μg/Kg-dry 1 5/10/2023 11:44:32 AM Hexachlorobenzene ND 34.1 μg/Kg-dry 1 5/10/2023 11:44:32 AM ND 227 Pentachlorophenol 1 5/10/2023 11:44:32 AM μg/Kg-dry Phenanthrene ND 34 1 μg/Kg-dry 1 5/10/2023 11:44:32 AM ND Anthracene 34.1 μg/Kg-dry 1 5/10/2023 11:44:32 AM Carbazole ND 34.1 1 5/10/2023 11:44:32 AM μg/Kg-dry Di-n-butylphthalate ND 34.1 μg/Kg-dry 1 5/10/2023 11:44:32 AM Fluoranthene ND 34.1 1 5/10/2023 11:44:32 AM μg/Kg-dry Pyrene ND 170 μg/Kg-dry 1 5/10/2023 11:44:32 AM **Butyl Benzylphthalate** ND 56.8 1 5/10/2023 11:44:32 AM μg/Kg-dry bis(2-Ethylhexyl)adipate ND 227 1 5/10/2023 11:44:32 AM μg/Kg-dry ND 34.1 Benz(a)anthracene 1 5/10/2023 11:44:32 AM μg/Kg-dry ND Chrysene 56.8 μg/Kg-dry 1 5/10/2023 11:44:32 AM bis (2-Ethylhexyl) phthalate ND 45.5 μg/Kg-dry 1 5/10/2023 11:44:32 AM Di-n-octyl phthalate ND 85.2 1 5/10/2023 11:44:32 AM μg/Kg-dry ND Benzo(b)fluoranthene 114 μg/Kg-dry 1 5/10/2023 11:44:32 AM Benzo(k)fluoranthene ND 34.1 1 5/10/2023 11:44:32 AM μg/Kg-dry ND Benzo(a)pyrene 45.5 μg/Kg-dry 1 5/10/2023 11:44:32 AM Indeno(1,2,3-cd)pyrene ND 227 μg/Kg-dry 1 5/10/2023 11:44:32 AM Dibenz(a,h)anthracene ND 114 1 5/10/2023 11:44:32 AM μg/Kg-dry ND Benzo(g,h,i)perylene 114 1 5/10/2023 11:44:32 AM μg/Kg-dry 5/10/2023 11:44:32 AM 63.5 16.2 - 150 1 Surr: 2,4,6-Tribromophenol %Rec Surr: 2-Fluorobiphenyl 73.4 25.3 - 139 %Rec 1 5/10/2023 11:44:32 AM Surr: Nitrobenzene-d5 58.2 12.7 - 143 %Rec 1 5/10/2023 11:44:32 AM Surr: Phenol-d6 21.4 - 139 5/10/2023 11:44:32 AM 69.9 %Rec 1 Surr: p-Terphenyl 69.9 37.1 - 144 %Rec 1 5/10/2023 11:44:32 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:08:00 AM

Project: Mottis Property

**Lab ID:** 2305045-003 **Matrix:** Soil

Client Sample ID: MTP-3

DF **Analyses** Result **PQL** Qual Units **Date Analyzed** Batch ID: 40245 Analyst: CC Volatile Organic Compounds by EPA Method 8260D Dichlorodifluoromethane (CFC-12) ND 0.00490 5/5/2023 7:56:19 AM mg/Kg-dry 1 Chloromethane ND 0.0163 mg/Kg-dry 1 5/5/2023 7:56:19 AM Vinyl chloride ND 0.00816 1 5/5/2023 7:56:19 AM mg/Kg-dry ND **Bromomethane** 0.00816 mg/Kg-dry 1 5/5/2023 7:56:19 AM Trichlorofluoromethane (CFC-11) ND 5/5/2023 7:56:19 AM 0.00653 mg/Kg-dry 1 Chloroethane ND 0.0245 1 5/5/2023 7:56:19 AM mg/Kg-dry 1,1-Dichloroethene ND 0.0326 mg/Kg-dry 1 5/5/2023 7:56:19 AM Acetone ND 0.0816 1 5/5/2023 7:56:19 AM mg/Kg-dry Methylene chloride ND 0.0114 mg/Kg-dry 1 5/5/2023 7:56:19 AM trans-1,2-Dichloroethene ND 0.00326 1 5/5/2023 7:56:19 AM mg/Kg-dry Methyl tert-butyl ether (MTBE) ND 0.00653 1 5/5/2023 7:56:19 AM mg/Kg-dry ND 5/5/2023 7:56:19 AM 1,1-Dichloroethane 0.00816 mg/Kg-dry 1 cis-1,2-Dichloroethene ND 1 5/5/2023 7:56:19 AM 0.00490 mg/Kg-dry (MEK) 2-Butanone ND 0.0979 mg/Kg-dry 1 5/5/2023 7:56:19 AM Chloroform ND 0.00571 mg/Kg-dry 1 5/5/2023 7:56:19 AM ND 1,1,1-Trichloroethane (TCA) 1 5/5/2023 7:56:19 AM 0.00653 mg/Kg-dry 1,1-Dichloropropene ND 0.00653 mg/Kg-dry 1 5/5/2023 7:56:19 AM ND Carbon tetrachloride 0.00816 mg/Kg-dry 1 5/5/2023 7:56:19 AM 1,2-Dichloroethane (EDC) ND 0.00653 1 5/5/2023 7:56:19 AM mg/Kg-dry Benzene ND 0.00571 mg/Kg-dry 1 5/5/2023 7:56:19 AM Trichloroethene (TCE) ND 0.00490 1 5/5/2023 7:56:19 AM mg/Kg-dry 1,2-Dichloropropane ND 0.00816 mg/Kg-dry 1 5/5/2023 7:56:19 AM Bromodichloromethane ND 0.00816 1 5/5/2023 7:56:19 AM mg/Kg-dry Dibromomethane ND 1 5/5/2023 7:56:19 AM 0.00408 mg/Kg-dry ND cis-1,3-Dichloropropene 0.00490 1 5/5/2023 7:56:19 AM mg/Kg-dry ND 0.00979 mg/Kg-dry 1 5/5/2023 7:56:19 AM Trans-1,3-Dichloropropylene ND 0.00653 mg/Kg-dry 1 5/5/2023 7:56:19 AM Methyl Isobutyl Ketone (MIBK) ND 0.0196 1 5/5/2023 7:56:19 AM mg/Kg-dry ND 1,1,2-Trichloroethane 0.00408 mg/Kg-dry 1 5/5/2023 7:56:19 AM 1,3-Dichloropropane ND 0.00326 1 5/5/2023 7:56:19 AM mg/Kg-dry ND Tetrachloroethene (PCE) 0.00490 mg/Kg-dry 1 5/5/2023 7:56:19 AM Dibromochloromethane ND 0.00490 1 5/5/2023 7:56:19 AM mg/Kg-dry 1,2-Dibromoethane (EDB) ND 0.00326 1 5/5/2023 7:56:19 AM mg/Kg-dry ND 2-Hexanone (MBK) 0.0204 1 5/5/2023 7:56:19 AM mg/Kg-dry Chlorobenzene ND 5/5/2023 7:56:19 AM 0.00490 mg/Kg-dry 1 ND 1,1,1,2-Tetrachloroethane 0.00816 mg/Kg-dry 1 5/5/2023 7:56:19 AM Ethylbenzene ND 0.00816 mg/Kg-dry 1 5/5/2023 7:56:19 AM ND m,p-Xylene 0.0163 mg/Kg-dry 1 5/5/2023 7:56:19 AM o-Xylene ND 0.00816 1 5/5/2023 7:56:19 AM mg/Kg-dry



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:08:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-003 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units DF		Date Analyzed
Volatile Organic Compounds by E		Batch ID:		40245 Analyst: CC		
Styrene	ND	0.00326		mg/Kg-dry	1	5/5/2023 7:56:19 AM
Isopropylbenzene	ND	0.00490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
Bromoform	ND	0.00490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,1,2,2-Tetrachloroethane	ND	0.0653		mg/Kg-dry	1	5/5/2023 7:56:19 AM
n-Propylbenzene	ND	0.00490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
Bromobenzene	ND	0.00408		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,3,5-Trimethylbenzene	ND	0.00490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
2-Chlorotoluene	ND	0.00539		mg/Kg-dry	1	5/5/2023 7:56:19 AM
4-Chlorotoluene	ND	0.00539		mg/Kg-dry	1	5/5/2023 7:56:19 AM
tert-Butylbenzene	ND	0.00490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,2,3-Trichloropropane	ND	0.00979		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,2,4-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/5/2023 7:56:19 AM
sec-Butylbenzene	ND	0.0490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
4-Isopropyltoluene	ND	0.0653		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,3-Dichlorobenzene	ND	0.00653		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,4-Dichlorobenzene	ND	0.00490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
n-Butylbenzene	ND	0.00653		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,2-Dichlorobenzene	ND	0.00653		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,2-Dibromo-3-chloropropane	ND	0.00979		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,2,4-Trimethylbenzene	ND	0.00490		mg/Kg-dry	1	5/5/2023 7:56:19 AM
Hexachloro-1,3-butadiene	ND	0.0131		mg/Kg-dry	1	5/5/2023 7:56:19 AM
Naphthalene	ND	0.0326		mg/Kg-dry	1	5/5/2023 7:56:19 AM
1,2,3-Trichlorobenzene	ND	0.0196		mg/Kg-dry	1	5/5/2023 7:56:19 AM
Surr: Dibromofluoromethane	101	80 - 120		%Rec	1	5/5/2023 7:56:19 AM
Surr: Toluene-d8	104	80 - 120		%Rec	1	5/5/2023 7:56:19 AM
Surr: 1-Bromo-4-fluorobenzene	100	80 - 120		%Rec	1	5/5/2023 7:56:19 AM
Mercury by EPA Method 7471B				Batch	ID:	40231 Analyst: ME
Mercury	ND	0.225		mg/Kg-dry	1	5/4/2023 12:54:00 PM
Total Metals by EPA Method 6020	<u>B</u>			Batch	ID:	40284 Analyst: JR
Arsenic	1.42	0.456	D	mg/Kg-dry	2	5/9/2023 4:13:00 PM
Cadmium	0.0374	0.0365	D	mg/Kg-dry	2	5/9/2023 4:13:00 PM
Chromium	27.9	0.456	D	mg/Kg-dry	2	5/9/2023 4:13:00 PM
Lead	ND	1.82	D	mg/Kg-dry	2	5/9/2023 4:13:00 PM
NOTES: Diluted due to matrix.						



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:08:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-003 **Matrix:** Soil

Client Sample ID: MTP-3

Analyses Result PQL Qual Units DF Date Analyzed

Sample Moisture (Percent Moisture)

Batch ID: R83699

Analyst: MP

Percent Moisture 13.0 wt% 1 5/4/2023 8:14:53 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:32:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-004 **Matrix:** Soil

nalyses	Result	PQL	Qual	Units	Units DF		ate Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.					Batch ID: 40234 Ar		
Diesel Range Organics	ND	49.4		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Heavy Oil	512	98.9		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Total Petroleum Hydrocarbons	512	148		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Surr: 2-Fluorobiphenyl	114	50 - 150		%Rec	1	5/4/2	2023 9:17:45 PM
Surr: o-Terphenyl	125	50 - 150		%Rec	1	5/4/2	2023 9:17:45 PM
NOTES:							
Chromatographic pattern is not consis	tent with a petroleum s	standard					
Hydrocarbon Identification by	y NWTPH-HCID			Batch	ı ID:	40234	Analyst: AP
Gasoline	ND	29.7		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Mineral Spirits	ND	49.4		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Kerosene	ND	49.4		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Diesel (Fuel Oil)	ND	49.4		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Heavy Oil	DETECT	98.9		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Mineral Oil	ND	98.9		mg/Kg-dry	1	5/4/2	2023 9:17:45 PM
Surr: 2-Fluorobiphenyl	114	50 - 150		%Rec	1	5/4/2	2023 9:17:45 PM
Surr: o-Terphenyl	125	50 - 150		%Rec	1	5/4/2	2023 9:17:45 PM
NOTES:							
Chromatographic pattern is not consis	tent with a petroleum s	standard					
Chromatographic pattern is not consis				Batch	ı ID:	40272	Analyst: CB
Chromatographic pattern is not consis					1 ID:		•
Chromatographic pattern is not consis	by EPA Method	8270 (SIM)		Batch µg/Kg-dry µg/Kg-dry		5/10	/2023 12:08:58 PM
Chromatographic pattern is not consis  Polyaromatic Hydrocarbons I  Benz(a)anthracene	by EPA Method	<b>8270 (SIM)</b> 19.3		μg/Kg-dry	1	5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consist Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene	by EPA Method  ND  ND	8270 (SIM) 19.3 19.3		μg/Kg-dry μg/Kg-dry	1 1	5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consist Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene Benzo(b)fluoranthene	ND ND ND	19.3 19.3 24.2		μg/Kg-dry μg/Kg-dry μg/Kg-dry	1 1 1	5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consist Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene	ND ND ND ND	19.3 19.3 24.2 24.2		µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry	1 1 1	5/10 5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consist Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene	ND	19.3 19.3 24.2 24.2 29.0		µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry	1 1 1 1	5/10 5/10 5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consis  Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene	ND	19.3 19.3 24.2 24.2 29.0 38.6		µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry	1 1 1 1 1	5/10 5/10 5/10 5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consis  Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene	ND N	19.3 19.3 24.2 24.2 29.0 38.6 48.3		µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry	1 1 1 1 1 1	5/10 5/10 5/10 5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consist Polyaromatic Hydrocarbons II  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Surr: 2-Fluorobiphenyl Surr: Terphenyl-d14 (surr)	ND N	19.3 19.3 24.2 24.2 29.0 38.6 48.3 29.4 - 126 32.5 - 139	į	µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry %Rec %Rec	1 1 1 1 1 1 1	5/10 5/10 5/10 5/10 5/10 5/10 5/10	Analyst: CB //2023 12:08:58 PM
Chromatographic pattern is not consist Polyaromatic Hydrocarbons II  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Surr: 2-Fluorobiphenyl Surr: Terphenyl-d14 (surr)	ND N	19.3 19.3 24.2 24.2 29.0 38.6 48.3 29.4 - 126 32.5 - 139		µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry %Rec %Rec	1 1 1 1 1 1 1	5/10 5/10 5/10 5/10 5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consist Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Surr: 2-Fluorobiphenyl Surr: Terphenyl-d14 (surr)  Semivolatile Organic Component	ND T6.2 86.7	19.3 19.3 24.2 24.2 29.0 38.6 48.3 29.4 - 126 32.5 - 139		µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry %Rec %Rec Batch	1 1 1 1 1 1 1 1	5/10 5/10 5/10 5/10 5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM
Chromatographic pattern is not consis  Polyaromatic Hydrocarbons I  Benz(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene Surr: 2-Fluorobiphenyl Surr: Terphenyl-d14 (surr)  Semivolatile Organic Components	ND T6.2 86.7 unds by EPA Me	19.3 19.3 24.2 24.2 29.0 38.6 48.3 29.4 - 126 32.5 - 139 ethod 8270E		µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry µg/Kg-dry %Rec %Rec Batch	1 1 1 1 1 1 1 1 1 1 1	5/10 5/10 5/10 5/10 5/10 5/10 5/10 5/10	/2023 12:08:58 PM /2023 12:08:58 PM Analyst: CB



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:32:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-004 **Matrix:** Soil

Analyses	Result PQL Qual Units I		DF	F Date Analyzed		
Semivolatile Organic Compounds by EPA Method 8270E Batch I						40270 Analyst: CB
1,4-Dichlorobenzene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
1,2-Dichlorobenzene	ND	38.6		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Benzyl alcohol	ND	145		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2-Methylphenol (o-cresol)	ND	38.6		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Hexachloroethane	ND	38.6		μg/Kg-dry	1	5/10/2023 12:14:59 PM
N-Nitrosodi-n-propylamine	ND	77.3		μg/Kg-dry	1	5/10/2023 12:14:59 PM
3&4-Methylphenol (m, p-cresol)	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Nitrobenzene	ND	48.3		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Isophorone	ND	38.6		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2-Nitrophenol	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2,4-Dimethylphenol	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Bis(2-chloroethoxy)methane	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2,4-Dichlorophenol	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
1,2,4-Trichlorobenzene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Naphthalene	61.2	38.6		μg/Kg-dry	1	5/10/2023 12:14:59 PM
4-Chloroaniline	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Hexachlorobutadiene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
4-Chloro-3-methylphenol	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2-Methylnaphthalene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
1-Methylnaphthalene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Hexachlorocyclopentadiene	ND	96.6		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2,4,6-Trichlorophenol	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2,4,5-Trichlorophenol	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2-Chloronaphthalene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2-Nitroaniline	ND	48.3		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Acenaphthene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Dimethylphthalate	ND	3,380		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2,6-Dinitrotoluene	ND	38.6		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Acenaphthylene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2,4-Dinitrophenol	ND	290		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Dibenzofuran	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
2,4-Dinitrotoluene	ND	58.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
4-Nitrophenol	ND	193		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Fluorene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
4-Chlorophenyl phenyl ether	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Diethylphthalate	ND	725		μg/Kg-dry	1	5/10/2023 12:14:59 PM
4,6-Dinitro-2-methylphenol	ND	242		μg/Kg-dry	1	5/10/2023 12:14:59 PM
4-Bromophenyl phenyl ether	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM
Hexachlorobenzene	ND	29.0		μg/Kg-dry	1	5/10/2023 12:14:59 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:32:00 AM

Project: Mottis Property

**Lab ID:** 2305045-004 **Matrix:** Soil

Client Sample ID: MTP-4-1

**Analyses** Result **PQL** Qual Units DF **Date Analyzed** Batch ID: 40270 Analyst: CB Semivolatile Organic Compounds by EPA Method 8270E Pentachlorophenol ND 193 μg/Kg-dry 5/10/2023 12:14:59 PM 1 Phenanthrene 57.1 29.0 µg/Kg-dry 1 5/10/2023 12:14:59 PM Anthracene ND 29.0 μg/Kg-dry 1 5/10/2023 12:14:59 PM Carbazole ND 29.0 5/10/2023 12:14:59 PM μg/Kg-dry 1 ND 29.0 Di-n-butylphthalate 5/10/2023 12:14:59 PM μg/Kg-dry 1 Fluoranthene ND 29.0 1 5/10/2023 12:14:59 PM μg/Kg-dry Pyrene ND 145 μg/Kg-dry 1 5/10/2023 12:14:59 PM Butyl Benzylphthalate ND 48.3 1 5/10/2023 12:14:59 PM μg/Kg-dry bis(2-Ethylhexyl)adipate ND 193 μg/Kg-dry 1 5/10/2023 12:14:59 PM Benz(a)anthracene ND 29.0 5/10/2023 12:14:59 PM μg/Kg-dry 1 Chrysene ND 48.3 5/10/2023 12:14:59 PM μg/Kg-dry 1,760 bis (2-Ethylhexyl) phthalate 38.6 μg/Kg-dry 1 5/10/2023 12:14:59 PM Di-n-octyl phthalate ND 72.5 5/10/2023 12:14:59 PM µg/Kg-dry 1 Benzo(b)fluoranthene ND 96.6 μg/Kg-dry 1 5/10/2023 12:14:59 PM Benzo(k)fluoranthene ND 29.0 μg/Kg-dry 1 5/10/2023 12:14:59 PM ND Benzo(a)pyrene 38.6 1 5/10/2023 12:14:59 PM μg/Kg-dry Indeno(1,2,3-cd)pyrene ND 193 μg/Kg-dry 1 5/10/2023 12:14:59 PM ND Dibenz(a,h)anthracene 96.6 μg/Kg-dry 1 5/10/2023 12:14:59 PM Benzo(q,h,i)perylene ND 96.6 1 5/10/2023 12:14:59 PM μg/Kg-dry Surr: 2,4,6-Tribromophenol 77.5 16.2 - 150 %Rec 1 5/10/2023 12:14:59 PM Surr: 2-Fluorobiphenyl 828 25.3 - 139 %Rec 1 5/10/2023 12:14:59 PM Surr: Nitrobenzene-d5 68.9 12.7 - 143 %Rec 1 5/10/2023 12:14:59 PM Surr: Phenol-d6 80.1 21.4 - 139 %Rec 1 5/10/2023 12:14:59 PM Surr: p-Terphenyl 84.0 37.1 - 144 %Rec 1 5/10/2023 12:14:59 PM Batch ID: 40245 Analyst: CC Volatile Organic Compounds by EPA Method 8260D Dichlorodifluoromethane (CFC-12) ND 0.0152 5/5/2023 8:26:34 AM mg/Kg-dry 1 Chloromethane ND 0.0506 mg/Kg-dry 1 5/5/2023 8:26:34 AM ND Vinyl chloride 0.0253 mg/Kg-dry 1 5/5/2023 8:26:34 AM **Bromomethane** ND 0.0253 mg/Kg-dry 1 5/5/2023 8:26:34 AM Trichlorofluoromethane (CFC-11) ND 0.0202 mg/Kg-dry 1 5/5/2023 8:26:34 AM Chloroethane ND 0.0758 mg/Kg-dry 1 5/5/2023 8:26:34 AM ND 1,1-Dichloroethene 0.101 mg/Kg-dry 1 5/5/2023 8:26:34 AM Acetone 0.253 0.253 1 5/5/2023 8:26:34 AM mg/Kg-dry Methylene chloride ND 0.0354 mg/Kg-dry 1 5/5/2023 8:26:34 AM ND 0.0101 trans-1.2-Dichloroethene 1 5/5/2023 8:26:34 AM mg/Kg-dry Methyl tert-butyl ether (MTBE) ND 0.0202 mg/Kg-dry 1 5/5/2023 8:26:34 AM 1,1-Dichloroethane ND 0.0253 5/5/2023 8:26:34 AM mg/Kg-dry 1



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:32:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-004 **Matrix:** Soil

Analyses	Result PQL Qual Units I		DF	Date Analyzed		
Volatile Organic Compounds	Batch ID:		40245 Analyst: CC			
cis-1,2-Dichloroethene	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
(MEK) 2-Butanone	ND	0.303		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Chloroform	ND	0.0177		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,1,1-Trichloroethane (TCA)	ND	0.0202		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,1-Dichloropropene	ND	0.0202		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Carbon tetrachloride	ND	0.0253		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,2-Dichloroethane (EDC)	ND	0.0202		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Benzene	0.106	0.0177		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Trichloroethene (TCE)	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,2-Dichloropropane	ND	0.0253		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Bromodichloromethane	ND	0.0253		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Dibromomethane	ND	0.0126		mg/Kg-dry	1	5/5/2023 8:26:34 AM
cis-1,3-Dichloropropene	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Toluene	0.102	0.0303		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Trans-1,3-Dichloropropylene	ND	0.0202		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Methyl Isobutyl Ketone (MIBK)	ND	0.0607		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,1,2-Trichloroethane	ND	0.0126		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,3-Dichloropropane	ND	0.0101		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Tetrachloroethene (PCE)	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Dibromochloromethane	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,2-Dibromoethane (EDB)	ND	0.0101		mg/Kg-dry	1	5/5/2023 8:26:34 AM
2-Hexanone (MBK)	ND	0.0632		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Chlorobenzene	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,1,1,2-Tetrachloroethane	ND	0.0253		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Ethylbenzene	0.0523	0.0253		mg/Kg-dry	1	5/5/2023 8:26:34 AM
m,p-Xylene	ND	0.0506		mg/Kg-dry	1	5/5/2023 8:26:34 AM
o-Xylene	ND	0.0253		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Styrene	0.696	0.0101		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Isopropylbenzene	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Bromoform	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,1,2,2-Tetrachloroethane	ND	0.202		mg/Kg-dry	1	5/5/2023 8:26:34 AM
n-Propylbenzene	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
Bromobenzene	ND	0.0126		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,3,5-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
2-Chlorotoluene	ND	0.0167		mg/Kg-dry	1	5/5/2023 8:26:34 AM
4-Chlorotoluene	ND	0.0167		mg/Kg-dry	1	5/5/2023 8:26:34 AM
tert-Butylbenzene	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,2,3-Trichloropropane	ND	0.0303		mg/Kg-dry	1	5/5/2023 8:26:34 AM
1,2,4-Trichlorobenzene	ND	0.0607		mg/Kg-dry	1	5/5/2023 8:26:34 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:32:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-004 **Matrix:** Soil

Client Sample ID: MTP-4-1

Analyses	Result	PQL	Qual	Units DF		F Date Analyzed	
Volatile Organic Compounds by EPA Method 8260D				Batch	ID:	40245	Analyst: CC
sec-Butylbenzene	ND	0.152		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
4-Isopropyltoluene	ND	0.202		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
1,3-Dichlorobenzene	ND	0.0202		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
1,4-Dichlorobenzene	ND	0.0152		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
n-Butylbenzene	ND	0.0202		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
1,2-Dichlorobenzene	ND	0.0202		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
1,2-Dibromo-3-chloropropane	ND	0.0303		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
1,2,4-Trimethylbenzene	ND	0.0152		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
Hexachloro-1,3-butadiene	ND	0.0404		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
Naphthalene	ND	0.101		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
1,2,3-Trichlorobenzene	ND	0.0607		mg/Kg-dry	1	5/5/2	2023 8:26:34 AM
Surr: Dibromofluoromethane	104	80 - 120		%Rec	1	5/5/2	2023 8:26:34 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	5/5/2	2023 8:26:34 AM
Surr: 1-Bromo-4-fluorobenzene	104	80 - 120		%Rec	1	5/5/2	2023 8:26:34 AM
Mercury by EPA Method 7471B				Batch	ID:	40231	Analyst: ME
Mercury	ND	0.199		mg/Kg-dry	1	5/4/2	2023 1:00:48 PM
Total Metals by EPA Method 6020	<u>B</u>			Batch	ID:	40284	Analyst: JR
Arsenic	1.73	0.205		mg/Kg-dry	1	5/9/2	2023 4:04:00 PM
Cadmium	0.202	0.0164		mg/Kg-dry	1	5/9/2	2023 4:04:00 PM
Chromium	18.7	0.205		mg/Kg-dry	1	5/9/2	2023 4:04:00 PM
Lead	5.90	0.820		mg/Kg-dry	1	5/9/2	2023 4:04:00 PM
Sample Moisture (Percent Moistu	re)			Batch	ID:	R83699	Analyst: MP
Percent Moisture	1.60			wt%	1	5/4/2	2023 8:14:53 AM

Revision v1



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 10:43:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-005 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date	Analyzed
Volatile Organic Compounds b	y EPA Method	8260D		Batch	ı ID:	40319	Analyst: SH
Benzene	ND	0.00692		mg/Kg-dry	1	5/14/20	23 3:46:03 AM
Toluene	ND	0.0119		mg/Kg-dry	1	5/14/20	23 3:46:03 AM
Ethylbenzene	ND	0.00988		mg/Kg-dry	1	5/14/20	23 3:46:03 AM
m,p-Xylene	ND	0.0198		mg/Kg-dry	1	5/14/20	23 3:46:03 AM
o-Xylene	ND	0.00988		mg/Kg-dry	1	5/14/20	23 3:46:03 AM
Surr: Dibromofluoromethane	111	80 - 120		%Rec	1	5/14/20	23 3:46:03 AM
Surr: Toluene-d8	102	80 - 120		%Rec	1	5/14/20	23 3:46:03 AM
Surr: 1-Bromo-4-fluorobenzene	95.5	80 - 120		%Rec	1	5/14/20	23 3:46:03 AM
Sample Moisture (Percent Mois	ture)			Batch	ı ID:	R83933	Analyst: MP
Percent Moisture	4.67			wt%	1	5/12/20	23 9:30:52 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 11:33:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-007 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hydrocarbon Identification I	by NWTPH-HCID			Batch	ID: 4	0234 Analyst: AP
Gasoline	ND	30.7		mg/Kg-dry	1	5/4/2023 9:39:36 PM
Mineral Spirits	ND	51.2		mg/Kg-dry	1	5/4/2023 9:39:36 PM
Kerosene	ND	51.2		mg/Kg-dry	1	5/4/2023 9:39:36 PM
Diesel (Fuel Oil)	ND	51.2		mg/Kg-dry	1	5/4/2023 9:39:36 PM
Heavy Oil	ND	102		mg/Kg-dry	1	5/4/2023 9:39:36 PM
Mineral Oil	ND	102		mg/Kg-dry	1	5/4/2023 9:39:36 PM
Surr: 2-Fluorobiphenyl	126	50 - 150		%Rec	1	5/4/2023 9:39:36 PM
Surr: o-Terphenyl	128	50 - 150		%Rec	1	5/4/2023 9:39:36 PM
Sample Moisture (Percent M	loisture)			Batch	ID: R	883699 Analyst: MP
Percent Moisture	8.66	0.500		wt%	1	5/4/2023 8:14:53 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 11:52:00 AM

**Project:** Mottis Property

**Lab ID:** 2305045-008 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch	10360 Analyst: AP	
Diesel Range Organics	ND	51.5		mg/Kg-dry	1	5/16/2023 8:04:51 PM
Heavy Oil	ND	103		mg/Kg-dry	1	5/16/2023 8:04:51 PM
Total Petroleum Hydrocarbons	ND	154		mg/Kg-dry	1	5/16/2023 8:04:51 PM
Surr: 2-Fluorobiphenyl	110	50 - 150		%Rec	1	5/16/2023 8:04:51 PM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	5/16/2023 8:04:51 PM
Sample Moisture (Percent Moi	sture)			Batch	ID: F	R84000 Analyst: MP
Percent Moisture	6.12	0.500		wt%	1	5/16/2023 8:17:00 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 12:36:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-009 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Diesel and Heavy Oil by NWT	PH-Dx/Dx Ext.			Batch	ID:	40234 Analyst: AP
Diesel Range Organics	ND	50.4		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Heavy Oil	1,160	101		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Total Petroleum Hydrocarbons	1,160	151		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Surr: 2-Fluorobiphenyl	116	50 - 150		%Rec	1	5/4/2023 9:50:28 PM
Surr: o-Terphenyl	119	50 - 150		%Rec	1	5/4/2023 9:50:28 PM
Hydrocarbon Identification by	NWTPH-HCID			Batch	ID:	40234 Analyst: AP
Gasoline	ND	30.2		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Mineral Spirits	ND	50.4		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Kerosene	ND	50.4		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Diesel (Fuel Oil)	ND	50.4		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Heavy Oil	DETECT	101		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Mineral Oil	ND	101		mg/Kg-dry	1	5/4/2023 9:50:28 PM
Surr: 2-Fluorobiphenyl	116	50 - 150		%Rec	1	5/4/2023 9:50:28 PM
Surr: o-Terphenyl	119	50 - 150		%Rec	1	5/4/2023 9:50:28 PM
Polyaromatic Hydrocarbons k	y EPA Method	8270 (SIM)		Batch	ID:	40272 Analyst: CB
Benz(a)anthracene	52.5	21.3		μg/Kg-dry	1	5/10/2023 1:33:56 PM
Chrysene	ND	21.3		μg/Kg-dry	1	5/10/2023 1:33:56 PM
Benzo(b)fluoranthene	ND	26.6		μg/Kg-dry	1	5/10/2023 1:33:56 PM
Benzo(k)fluoranthene	ND	26.6		μg/Kg-dry	1	5/10/2023 1:33:56 PM
Benzo(a)pyrene	62.1	31.9		μg/Kg-dry	1	5/10/2023 1:33:56 PM
Indeno(1,2,3-cd)pyrene	ND	42.6		μg/Kg-dry	1	5/10/2023 1:33:56 PM
Dibenz(a,h)anthracene	ND	53.2		μg/Kg-dry	1	5/10/2023 1:33:56 PM
Surr: 2-Fluorobiphenyl	74.0	29.4 - 126		%Rec	1	5/10/2023 1:33:56 PM
Surr: Terphenyl-d14 (surr)	88.8	32.5 - 139		%Rec	1	5/10/2023 1:33:56 PM
Semivolatile Organic Compou	unds by EPA Me	ethod 8270E		Batch	ID:	40270 Analyst: CB
Phenol	ND	31.9		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Bis(2-chloroethyl) ether	ND	53.2		μg/Kg-dry	1	5/10/2023 1:46:15 PM
2-Chlorophenol	ND	42.6		μg/Kg-dry	1	5/10/2023 1:46:15 PM
1,3-Dichlorobenzene	ND	42.6		μg/Kg-dry	1	5/10/2023 1:46:15 PM
1,4-Dichlorobenzene	ND	31.9		μg/Kg-dry	1	5/10/2023 1:46:15 PM
1,2-Dichlorobenzene	ND	42.6		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Benzyl alcohol	ND	160		μg/Kg-dry	1	5/10/2023 1:46:15 PM
2-Methylphenol (o-cresol)	ND	42.6		μg/Kg-dry	1	5/10/2023 1:46:15 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 12:36:00 PM

Project: Mottis Property

**Lab ID**: 2305045-009 **Matrix**: Soil

Client Sample ID: MTP-7

**Analyses** Result **PQL** Qual Units DF **Date Analyzed** Batch ID: 40270 Analyst: CB Semivolatile Organic Compounds by EPA Method 8270E Hexachloroethane ND 42.6 5/10/2023 1:46:15 PM μg/Kg-dry 1 N-Nitrosodi-n-propylamine ND 85.2 μg/Kg-dry 1 5/10/2023 1:46:15 PM 3&4-Methylphenol (m, p-cresol) ND 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry Nitrobenzene NΠ 53.2 μg/Kg-dry 1 5/10/2023 1:46:15 PM ND Isophorone 42.6 1 5/10/2023 1:46:15 PM μg/Kg-dry 2-Nitrophenol ND 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry 2,4-Dimethylphenol ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM Bis(2-chloroethoxy)methane ND 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry 2,4-Dichlorophenol ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM ND 31.9 1,2,4-Trichlorobenzene 1 5/10/2023 1:46:15 PM μg/Kg-dry Naphthalene ND 42.6 5/10/2023 1:46:15 PM μg/Kg-dry 4-Chloroaniline ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM Hexachlorobutadiene ND 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry ND 4-Chloro-3-methylphenol 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM 2-Methylnaphthalene ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM ND 1-Methylnaphthalene 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry Hexachlorocyclopentadiene ND 106 μg/Kg-dry 1 5/10/2023 1:46:15 PM ND 2,4,6-Trichlorophenol 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM 2,4,5-Trichlorophenol ND 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry 2-Chloronaphthalene ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM 2-Nitroaniline ND 53.2 1 5/10/2023 1:46:15 PM μg/Kg-dry Acenaphthene ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM Dimethylphthalate ND 3,730 1 5/10/2023 1:46:15 PM μg/Kg-dry 2,6-Dinitrotoluene ND 42.6 1 5/10/2023 1:46:15 PM μg/Kg-dry ND Acenaphthylene 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry ND 2,4-Dinitrophenol 319 μg/Kg-dry 1 5/10/2023 1:46:15 PM Dibenzofuran ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM 2,4-Dinitrotoluene ND 63.9 1 5/10/2023 1:46:15 PM μg/Kg-dry ND 4-Nitrophenol 213 μg/Kg-dry 1 5/10/2023 1:46:15 PM Fluorene ND 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry ND 4-Chlorophenyl phenyl ether 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM Diethylphthalate ND 798 1 5/10/2023 1:46:15 PM μg/Kg-dry 4,6-Dinitro-2-methylphenol ND 266 1 5/10/2023 1:46:15 PM μg/Kg-dry ND 4-Bromophenyl phenyl ether 31.9 1 5/10/2023 1:46:15 PM μg/Kg-dry Hexachlorobenzene ND 31.9 µg/Kg-dry 1 5/10/2023 1:46:15 PM ND Pentachlorophenol 213 μg/Kg-dry 1 5/10/2023 1:46:15 PM Phenanthrene ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM Anthracene ND 31.9 μg/Kg-dry 1 5/10/2023 1:46:15 PM Carbazole ND 31.9 1 5/10/2023 1:46:15 PM µg/Kg-dry



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 12:36:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-009 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compoun	ds by EPA Me	thod 8270E		Batch	ID:	40270 Analyst: CB
Di n hutulahthalata	ND	31.9		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Di-n-butylphthalate Fluoranthene	ND ND	31.9		μg/Kg-dry μg/Kg-dry	1	5/10/2023 1:46:15 PM
	ND ND	160		μg/Kg-dry μg/Kg-dry		5/10/2023 1:46:15 PM
Pyrene  Pyrene	ND ND	53.2			1	5/10/2023 1:46:15 PM
Butyl Benzylphthalate		213		μg/Kg-dry	1	5/10/2023 1:46:15 PM
bis(2-Ethylhexyl)adipate	ND ND	31.9		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Benz(a)anthracene				μg/Kg-dry	1	
Chrysene	ND	53.2		μg/Kg-dry	1	5/10/2023 1:46:15 PM
bis (2-Ethylhexyl) phthalate	ND	42.6		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Di-n-octyl phthalate	ND	79.8		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Benzo(b)fluoranthene	ND	106		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Benzo(k)fluoranthene	ND	31.9		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Benzo(a)pyrene	ND	42.6		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Indeno(1,2,3-cd)pyrene	ND	213		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Dibenz(a,h)anthracene	ND	106		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Benzo(g,h,i)perylene	ND	106		μg/Kg-dry	1	5/10/2023 1:46:15 PM
Surr: 2,4,6-Tribromophenol	75.9	16.2 - 150		%Rec	1	5/10/2023 1:46:15 PM
Surr: 2-Fluorobiphenyl	78.9	25.3 - 139		%Rec	1	5/10/2023 1:46:15 PM
Surr: Nitrobenzene-d5	64.7	12.7 - 143		%Rec	1	5/10/2023 1:46:15 PM
Surr: Phenol-d6	74.8	21.4 - 139		%Rec	1	5/10/2023 1:46:15 PM
Surr: p-Terphenyl	79.4	37.1 - 144		%Rec	1	5/10/2023 1:46:15 PM
Volatile Organic Compounds by	<u>y EPA Method</u>	8260D		Batch	ID:	40245 Analyst: CC
Dichlorodifluoromethane (CFC-12)	ND	0.00652		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Chloromethane	ND	0.0217		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Vinyl chloride	ND	0.0109		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Bromomethane	ND	0.0109		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Trichlorofluoromethane (CFC-11)	ND	0.00869		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Chloroethane	ND	0.0326		mg/Kg-dry	1	5/5/2023 8:56:42 AM
1,1-Dichloroethene	ND	0.0434		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Acetone	ND	0.109		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Methylene chloride	ND	0.0152		mg/Kg-dry	1	5/5/2023 8:56:42 AM
trans-1,2-Dichloroethene	ND	0.00434		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Methyl tert-butyl ether (MTBE)	ND	0.00454		mg/Kg-dry	1	5/5/2023 8:56:42 AM
1,1-Dichloroethane	ND	0.00009		mg/Kg-dry	1	5/5/2023 8:56:42 AM
cis-1,2-Dichloroethene	ND	0.0109		mg/Kg-dry	1	5/5/2023 8:56:42 AM
						5/5/2023 8:56:42 AM
(MEK) 2-Butanone	ND	0.130		mg/Kg-dry	1	
Chloroform	ND	0.00760		mg/Kg-dry	1	5/5/2023 8:56:42 AM
1,1,1-Trichloroethane (TCA)	ND	0.00869		mg/Kg-dry	1	5/5/2023 8:56:42 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 12:36:00 PM

Project: Mottis Property

**Lab ID:** 2305045-009 **Matrix:** Soil

Client Sample ID: MTP-7

DF **Analyses** Result **PQL** Qual Units **Date Analyzed** Batch ID: 40245 Analyst: CC **Volatile Organic Compounds by EPA Method 8260D** ND 0.00869 5/5/2023 8:56:42 AM 1,1-Dichloropropene mg/Kg-dry 1 Carbon tetrachloride ND 0.0109 mg/Kg-dry 1 5/5/2023 8:56:42 AM 1,2-Dichloroethane (EDC) ND 0.00869 mg/Kg-dry 1 5/5/2023 8:56:42 AM ND Benzene 0.00760 mg/Kg-dry 1 5/5/2023 8:56:42 AM ND Trichloroethene (TCE) 0.00652 5/5/2023 8:56:42 AM mg/Kg-dry 1 1,2-Dichloropropane ND 0.0109 1 5/5/2023 8:56:42 AM mg/Kg-dry Bromodichloromethane ND 0.0109 mg/Kg-dry 1 5/5/2023 8:56:42 AM Dibromomethane ND 0.00543 1 5/5/2023 8:56:42 AM mg/Kg-dry cis-1,3-Dichloropropene ND 0.00652 mg/Kg-dry 1 5/5/2023 8:56:42 AM ND Toluene 0.0130 1 5/5/2023 8:56:42 AM mg/Kg-dry Trans-1,3-Dichloropropylene ND 0.00869 1 5/5/2023 8:56:42 AM mg/Kg-dry ND Methyl Isobutyl Ketone (MIBK) 0.0261 mg/Kg-dry 1 5/5/2023 8:56:42 AM 1,1,2-Trichloroethane ND 0.00543 1 5/5/2023 8:56:42 AM mg/Kg-dry ND 1,3-Dichloropropane 0.00434 mg/Kg-dry 1 5/5/2023 8:56:42 AM Tetrachloroethene (PCE) ND 0.00652 mg/Kg-dry 1 5/5/2023 8:56:42 AM ND Dibromochloromethane 1 0.00652 mg/Kg-dry 5/5/2023 8:56:42 AM 1,2-Dibromoethane (EDB) ND 0.00434 mg/Kg-dry 1 5/5/2023 8:56:42 AM ND 2-Hexanone (MBK) 0.0271 mg/Kg-dry 1 5/5/2023 8:56:42 AM Chlorobenzene ND 0.00652 1 5/5/2023 8:56:42 AM mg/Kg-dry 1,1,1,2-Tetrachloroethane ND 0.0109 mg/Kg-dry 1 5/5/2023 8:56:42 AM Ethylbenzene ND 0.0109 1 5/5/2023 8:56:42 AM mg/Kg-dry m,p-Xylene ND 0.0217 mg/Kg-dry 1 5/5/2023 8:56:42 AM o-Xylene ND 0.0109 1 5/5/2023 8:56:42 AM mg/Kg-dry Styrene ND 0.00434 1 5/5/2023 8:56:42 AM mg/Kg-dry ND Isopropylbenzene 0.00652 1 5/5/2023 8:56:42 AM mg/Kg-dry ND **Bromoform** 0.00652 mg/Kg-dry 1 5/5/2023 8:56:42 AM 1,1,2,2-Tetrachloroethane ND 0.0869 mg/Kg-dry 1 5/5/2023 8:56:42 AM n-Propylbenzene ND 0.00652 1 5/5/2023 8:56:42 AM mg/Kg-dry ND Bromobenzene 0.00543 mg/Kg-dry 1 5/5/2023 8:56:42 AM 1,3,5-Trimethylbenzene ND 0.00652 1 5/5/2023 8:56:42 AM mg/Kg-dry ND 2-Chlorotoluene 0.00717 mg/Kg-dry 1 5/5/2023 8:56:42 AM 4-Chlorotoluene ND 0.00717 1 5/5/2023 8:56:42 AM mg/Kg-dry tert-Butylbenzene ND 0.00652 1 5/5/2023 8:56:42 AM mg/Kg-dry ND 1,2,3-Trichloropropane 0.0130 1 5/5/2023 8:56:42 AM mg/Kg-dry 1,2,4-Trichlorobenzene ND 5/5/2023 8:56:42 AM 0.0261 mg/Kg-dry 1 ND sec-Butylbenzene 0.0652 mg/Kg-dry 1 5/5/2023 8:56:42 AM 4-Isopropyltoluene ND 0.0869 mg/Kg-dry 1 5/5/2023 8:56:42 AM 1,3-Dichlorobenzene ND 0.00869 mg/Kg-dry 1 5/5/2023 8:56:42 AM 1.4-Dichlorobenzene ND 0.00652 1 5/5/2023 8:56:42 AM mg/Kg-dry



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 12:36:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-009 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds b	y EPA Method	8260D		Batch	ı ID:	40245 Analyst: CC
n-Butylbenzene	ND	0.00869		mg/Kg-dry	1	5/5/2023 8:56:42 AM
1,2-Dichlorobenzene	ND	0.00869		mg/Kg-dry	1	5/5/2023 8:56:42 AM
1,2-Dibromo-3-chloropropane	ND	0.0130		mg/Kg-dry	1	5/5/2023 8:56:42 AM
1,2,4-Trimethylbenzene	ND	0.00652		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Hexachloro-1,3-butadiene	ND	0.0174		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Naphthalene	ND	0.0434		mg/Kg-dry	1	5/5/2023 8:56:42 AM
1,2,3-Trichlorobenzene	ND	0.0261		mg/Kg-dry	1	5/5/2023 8:56:42 AM
Surr: Dibromofluoromethane	98.2	80 - 120		%Rec	1	5/5/2023 8:56:42 AM
Surr: Toluene-d8	104	80 - 120		%Rec	1	5/5/2023 8:56:42 AM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	5/5/2023 8:56:42 AM
Mercury by EPA Method 7471B				Batch	ı ID:	40231 Analyst: ME
Mercury	ND	0.201		mg/Kg-dry	1	5/4/2023 1:02:29 PM
Total Metals by EPA Method 60	20B			Batch	ı ID:	40284 Analyst: JR
Arsenic	2.27	0.219		mg/Kg-dry	1	5/9/2023 4:06:00 PM
Cadmium	0.170	0.0175		mg/Kg-dry	1	5/9/2023 4:06:00 PM
Chromium	19.5	0.219		mg/Kg-dry	1	5/9/2023 4:06:00 PM
Lead	3.92	0.877		mg/Kg-dry	1	5/9/2023 4:06:00 PM
Sample Moisture (Percent Mois	sture)			Batch	ı ID:	R83699 Analyst: MP
Percent Moisture	8.00			wt%	1	5/4/2023 8:14:53 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:02:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-010 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hydrocarbon Identification b	oy NWTPH-HCID			Batch	n ID: 40	234 Analyst: AP
Gasoline	ND	31.0		mg/Kg-dry	1	5/4/2023 10:23:26 PM
Mineral Spirits	ND	51.7		mg/Kg-dry	1	5/4/2023 10:23:26 PM
Kerosene	ND	51.7		mg/Kg-dry	1	5/4/2023 10:23:26 PM
Diesel (Fuel Oil)	ND	51.7		mg/Kg-dry	1	5/4/2023 10:23:26 PM
Heavy Oil	ND	103		mg/Kg-dry	1	5/4/2023 10:23:26 PM
Mineral Oil	ND	103		mg/Kg-dry	1	5/4/2023 10:23:26 PM
Surr: 2-Fluorobiphenyl	162	50 - 150	S	%Rec	1	5/4/2023 10:23:26 PM
Surr: o-Terphenyl	166	50 - 150	S	%Rec	1	5/4/2023 10:23:26 PM
NOTES:						

S - Outlying surrogate recovery(ies) observed (high bias). Sample is non-detect; result meets QC requirements.

Semivolatile Organic Compou	ınds by EPA Method	d 8270E	Batch ID:	40270 Analyst: CB
Phenol	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Bis(2-chloroethyl) ether	ND	52.3	μg/Kg-dry 1	5/10/2023 2:16:56 PM
2-Chlorophenol	ND	41.8	μg/Kg-dry 1	5/10/2023 2:16:56 PM
1,3-Dichlorobenzene	ND	41.8	μg/Kg-dry 1	5/10/2023 2:16:56 PM
1,4-Dichlorobenzene	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
1,2-Dichlorobenzene	ND	41.8	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Benzyl alcohol	ND	157	μg/Kg-dry 1	5/10/2023 2:16:56 PM
2-Methylphenol (o-cresol)	ND	41.8	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Hexachloroethane	ND	41.8	μg/Kg-dry 1	5/10/2023 2:16:56 PM
N-Nitrosodi-n-propylamine	ND	83.6	μg/Kg-dry 1	5/10/2023 2:16:56 PM
3&4-Methylphenol (m, p-cresol)	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Nitrobenzene	ND	52.3	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Isophorone	ND	32.3 41.8	μg/Kg-dry 1	5/10/2023 2:16:56 PM
2-Nitrophenol	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
2,4-Dimethylphenol	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Bis(2-chloroethoxy)methane	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
2,4-Dichlorophenol	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
1,2,4-Trichlorobenzene	ND ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Naphthalene	ND	41.8		5/10/2023 2:16:56 PM
4-Chloroaniline	ND	31.4	μg/Kg-dry 1 μg/Kg-dry 1	5/10/2023 2:16:56 PM
Hexachlorobutadiene	ND ND	31.4	, , ,	5/10/2023 2:16:56 PM
	ND ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
4-Chloro-3-methylphenol	ND ND		μg/Kg-dry 1	5/10/2023 2:16:56 PM
2-Methylnaphthalene		31.4	μg/Kg-dry 1	
1-Methylnaphthalene	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM
Hexachlorocyclopentadiene	ND	105	μg/Kg-dry 1	5/10/2023 2:16:56 PM
2,4,6-Trichlorophenol	ND	31.4	μg/Kg-dry 1	5/10/2023 2:16:56 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:02:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-010 **Matrix:** Soil

nalyses	Result	PQL	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compou	ınds by EPA Me	ethod 8270E	į	Batch	ı ID: 4	40270 Analyst: CB
2,4,5-Trichlorophenol	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
2-Chloronaphthalene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
2-Nitroaniline	ND	52.3		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Acenaphthene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Dimethylphthalate	ND	3,660		μg/Kg-dry	1	5/10/2023 2:16:56 PM
2,6-Dinitrotoluene	ND	41.8		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Acenaphthylene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
2,4-Dinitrophenol	ND	314		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Dibenzofuran	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
2,4-Dinitrotoluene	ND	62.7		μg/Kg-dry	1	5/10/2023 2:16:56 PM
4-Nitrophenol	ND	209		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Fluorene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
4-Chlorophenyl phenyl ether	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Diethylphthalate	ND	784		μg/Kg-dry	1	5/10/2023 2:16:56 PM
4,6-Dinitro-2-methylphenol	ND	261		μg/Kg-dry	1	5/10/2023 2:16:56 PM
4-Bromophenyl phenyl ether	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Hexachlorobenzene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Pentachlorophenol	ND	209		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Phenanthrene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Anthracene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Carbazole	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Di-n-butylphthalate	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Fluoranthene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Pyrene	ND	157		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Butyl Benzylphthalate	ND	52.3		μg/Kg-dry	1	5/10/2023 2:16:56 PM
bis(2-Ethylhexyl)adipate	ND	209		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Benz(a)anthracene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Chrysene	56.4	52.3		μg/Kg-dry	1	5/10/2023 2:16:56 PM
bis (2-Ethylhexyl) phthalate	ND	41.8		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Di-n-octyl phthalate	ND	78.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Benzo(b)fluoranthene	ND	105		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Benzo(k)fluoranthene	ND	31.4		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Benzo(a)pyrene	ND	41.8		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Indeno(1,2,3-cd)pyrene	ND	209		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Dibenz(a,h)anthracene	ND	105		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Benzo(g,h,i)perylene	ND	105		μg/Kg-dry	1	5/10/2023 2:16:56 PM
Surr: 2,4,6-Tribromophenol	65.4	16.2 - 150		%Rec	1	5/10/2023 2:16:56 PM
Surr: 2-Fluorobiphenyl	73.2	25.3 - 139		%Rec	1	5/10/2023 2:16:56 PM
Surr: Nitrobenzene-d5	57.2	12.7 - 143		%Rec	1	5/10/2023 2:16:56 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:02:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-010 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compoun	ds by EPA Me	thod 8270E	1	Batch	ı ID:	40270 Analyst: CB
Surr: Phenol-d6	65.7	21.4 - 139		%Rec	1	5/10/2023 2:16:56 PM
Surr: p-Terphenyl	72.6	37.1 - 144		%Rec	1	5/10/2023 2:16:56 PM
Volatile Organic Compounds b	y EPA Method	8260D		Batch	ID:	40245 Analyst: CC
Dichlorodifluoromethane (CFC-12)	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Chloromethane	ND	0.0280		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Vinyl chloride	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Bromomethane	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Trichlorofluoromethane (CFC-11)	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Chloroethane	ND	0.0420		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,1-Dichloroethene	ND	0.0560		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Acetone	ND	0.140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Methylene chloride	ND	0.0196		mg/Kg-dry	1	5/5/2023 9:26:52 AM
trans-1,2-Dichloroethene	ND	0.00560		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Methyl tert-butyl ether (MTBE)	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,1-Dichloroethane	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
cis-1,2-Dichloroethene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
(MEK) 2-Butanone	ND	0.168		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Chloroform	ND	0.00979		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,1,1-Trichloroethane (TCA)	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,1-Dichloropropene	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Carbon tetrachloride	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2-Dichloroethane (EDC)	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Benzene	ND	0.00979		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Trichloroethene (TCE)	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2-Dichloropropane	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Bromodichloromethane	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Dibromomethane	ND	0.00700		mg/Kg-dry	1	5/5/2023 9:26:52 AM
cis-1,3-Dichloropropene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Toluene	ND	0.0168		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Trans-1,3-Dichloropropylene	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Methyl Isobutyl Ketone (MIBK)	ND	0.0336		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,1,2-Trichloroethane	ND	0.00700		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,3-Dichloropropane	ND	0.00560		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Tetrachloroethene (PCE)	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Dibromochloromethane	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2-Dibromoethane (EDB)	ND	0.00560		mg/Kg-dry	1	5/5/2023 9:26:52 AM
2-Hexanone (MBK)	ND	0.0350		mg/Kg-dry	1	5/5/2023 9:26:52 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:02:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-010 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA	A Method	8260D		Batch	ID:	40245 Analyst: CC
Chlorobenzene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,1,1,2-Tetrachloroethane	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Ethylbenzene	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
m,p-Xylene	ND	0.0280		mg/Kg-dry	1	5/5/2023 9:26:52 AM
o-Xylene	ND	0.0140		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Styrene	ND	0.00560		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Isopropylbenzene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Bromoform	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,1,2,2-Tetrachloroethane	ND	0.112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
n-Propylbenzene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Bromobenzene	ND	0.00700		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,3,5-Trimethylbenzene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
2-Chlorotoluene	ND	0.00924		mg/Kg-dry	1	5/5/2023 9:26:52 AM
4-Chlorotoluene	ND	0.00924		mg/Kg-dry	1	5/5/2023 9:26:52 AM
tert-Butylbenzene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2,3-Trichloropropane	ND	0.0168		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2,4-Trichlorobenzene	ND	0.0336		mg/Kg-dry	1	5/5/2023 9:26:52 AM
sec-Butylbenzene	ND	0.0840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
4-Isopropyltoluene	ND	0.112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,3-Dichlorobenzene	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,4-Dichlorobenzene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
n-Butylbenzene	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2-Dichlorobenzene	ND	0.0112		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2-Dibromo-3-chloropropane	ND	0.0168		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2,4-Trimethylbenzene	ND	0.00840		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Hexachloro-1,3-butadiene	ND	0.0224		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Naphthalene	ND	0.0560		mg/Kg-dry	1	5/5/2023 9:26:52 AM
1,2,3-Trichlorobenzene	ND	0.0336		mg/Kg-dry	1	5/5/2023 9:26:52 AM
Surr: Dibromofluoromethane	96.8	80 - 120		%Rec	1	5/5/2023 9:26:52 AM
Surr: Toluene-d8	104	80 - 120		%Rec	1	5/5/2023 9:26:52 AM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	5/5/2023 9:26:52 AM
Mercury by EPA Method 7471B				Batch	ID:	40231 Analyst: ME
Mercury	ND	0.204		mg/Kg-dry	1	5/4/2023 1:07:34 PM
Total Metals by EPA Method 6020B				Batch	ID:	40284 Analyst: JR
Arsenic	2.46	0.219		mg/Kg-dry	1	5/9/2023 4:09:00 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:02:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-010 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Total Metals by EPA Metho	od 6020B			Batch	ı ID:	40284 Analyst: JR
Cadmium	0.178	0.0175		mg/Kg-dry	1	5/9/2023 4:09:00 PM
Chromium	21.9	0.219		mg/Kg-dry	1	5/9/2023 4:09:00 PM
Lead	5.58	0.877		mg/Kg-dry	1	5/9/2023 4:09:00 PM
Sample Moisture (Percent	Moisture)			Batch	ı ID:	R83699 Analyst: MP
Percent Moisture	10.9			wt%	1	5/4/2023 8:14:53 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:30:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-011 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hydrocarbon Identification by	NWTPH-HCID			Batch	n ID:	40360 Analyst: AP
Gasoline	ND	33.6		mg/Kg-dry	1	5/16/2023 8:15:52 PM
Mineral Spirits	ND ND	56.0		mg/Kg-dry	1	5/16/2023 8:15:52 PM
Kerosene	ND ND	56.0		mg/Kg-dry	1	5/16/2023 8:15:52 PM
Diesel (Fuel Oil)	ND	56.0		mg/Kg-dry	1	5/16/2023 8:15:52 PM
Heavy Oil	ND	112		mg/Kg-dry	1	5/16/2023 8:15:52 PM
Mineral Oil	ND	112		mg/Kg-dry	1	5/16/2023 8:15:52 PM
Surr: 2-Fluorobiphenyl	110	50 - 150		%Rec	1	5/16/2023 8:15:52 PM
Surr: o-Terphenyl	104	50 - 150		%Rec	1	5/16/2023 8:15:52 PM
Surf. 6-Telphenyl	104	30 - 130		/orcec		3/ 10/2023 6.13.32 F W
Semivolatile Organic Compou	nds by EPA Met	hod 8270E		Batch	n ID:	40361 Analyst: CB
Phenol	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Bis(2-chloroethyl) ether	ND	56.8		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2-Chlorophenol	ND	45.5		μg/Kg-dry	1	5/18/2023 12:16:24 AM
1,3-Dichlorobenzene	ND	45.5		μg/Kg-dry	1	5/18/2023 12:16:24 AM
1.4-Dichlorobenzene	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
1,2-Dichlorobenzene	ND	45.5		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Benzyl alcohol	ND	170		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2-Methylphenol (o-cresol)	ND	45.5		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Hexachloroethane	ND	45.5		μg/Kg-dry	1	5/18/2023 12:16:24 AM
N-Nitrosodi-n-propylamine	ND	90.9		μg/Kg-dry	1	5/18/2023 12:16:24 AM
3&4-Methylphenol (m, p-cresol)	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Nitrobenzene	ND	56.8		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Isophorone	ND	45.5		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2-Nitrophenol	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2,4-Dimethylphenol	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Bis(2-chloroethoxy)methane	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2,4-Dichlorophenol	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
1,2,4-Trichlorobenzene	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Naphthalene	ND	45.5		μg/Kg-dry	1	5/18/2023 12:16:24 AM
4-Chloroaniline	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Hexachlorobutadiene	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
4-Chloro-3-methylphenol	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2-Methylnaphthalene	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
1-Methylnaphthalene	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
Hexachlorocyclopentadiene	ND	114		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2,4,6-Trichlorophenol	ND	34.1		μg/Kg-dry	1	5/18/2023 12:16:24 AM
2,4,5-Trichlorophenol	ND	34.1		μg/Kg-dry μg/Kg-dry	1	5/18/2023 12:16:24 AM
2-Chloronaphthalene	ND	34.1		μg/Kg-dry μg/Kg-dry	1	5/18/2023 12:16:24 AM
2 Onioronaphinaidhe	ND	J <del>-1</del> . 1		μg/itg-uiy		J/ 10/2023 12.10.24 AW



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:30:00 PM

Project: Mottis Property

**Lab ID:** 2305045-011 **Matrix:** Soil

Client Sample ID: MTP-9

DF **Analyses** Result **PQL** Qual Units **Date Analyzed** Batch ID: 40361 Analyst: CB Semivolatile Organic Compounds by EPA Method 8270E 2-Nitroaniline ND 56.8 5/18/2023 12:16:24 AM μg/Kg-dry 1 Acenaphthene ND 34.1 μg/Kg-dry 1 5/18/2023 12:16:24 AM Dimethylphthalate ND 3,980 μg/Kg-dry 1 5/18/2023 12:16:24 AM 2,6-Dinitrotoluene 5/18/2023 12:16:24 AM NΠ 45.5 μg/Kg-dry 1 ND Acenaphthylene 34.1 5/18/2023 12:16:24 AM μg/Kg-dry 1 2,4-Dinitrophenol ND 341 μg/Kg-dry 1 5/18/2023 12:16:24 AM Dibenzofuran ND 34.1 μg/Kg-dry 1 5/18/2023 12:16:24 AM 2.4-Dinitrotoluene ND 68.2 1 5/18/2023 12:16:24 AM μg/Kg-dry 4-Nitrophenol ND 227 μg/Kg-dry 1 5/18/2023 12:16:24 AM ND 34.1 5/18/2023 12:16:24 AM Fluorene 1 μg/Kg-dry 4-Chlorophenyl phenyl ether ND 34.1 5/18/2023 12:16:24 AM μg/Kg-dry ND 852 Diethylphthalate μg/Kg-dry 1 5/18/2023 12:16:24 AM 4,6-Dinitro-2-methylphenol ND 284 Q 1 5/18/2023 12:16:24 AM µg/Kg-dry ND 34.1 4-Bromophenyl phenyl ether μg/Kg-dry 1 5/18/2023 12:16:24 AM Hexachlorobenzene ND 34.1 μg/Kg-dry 1 5/18/2023 12:16:24 AM ND 227 Pentachlorophenol 1 5/18/2023 12:16:24 AM μg/Kg-dry Phenanthrene ND 34 1 μg/Kg-dry 1 5/18/2023 12:16:24 AM ND Anthracene 34.1 μg/Kg-dry 1 5/18/2023 12:16:24 AM Carbazole ND 34.1 1 5/18/2023 12:16:24 AM μg/Kg-dry Di-n-butylphthalate ND 34.1 μg/Kg-dry 1 5/18/2023 12:16:24 AM Fluoranthene ND 34.1 1 5/18/2023 12:16:24 AM μg/Kg-dry Pyrene ND 170 μg/Kg-dry 1 5/18/2023 12:16:24 AM Butyl Benzylphthalate ND 56.8 1 5/18/2023 12:16:24 AM μg/Kg-dry bis(2-Ethylhexyl)adipate ND 227 1 5/18/2023 12:16:24 AM μg/Kg-dry ND 34.1 Benz(a)anthracene 1 5/18/2023 12:16:24 AM μg/Kg-dry ND Chrysene 56.8 μg/Kg-dry 1 5/18/2023 12:16:24 AM bis (2-Ethylhexyl) phthalate ND 45.5 μg/Kg-dry 1 5/18/2023 12:16:24 AM Di-n-octyl phthalate ND 85.2 1 5/18/2023 12:16:24 AM μg/Kg-dry ND Benzo(b)fluoranthene 114 μg/Kg-dry 1 5/18/2023 12:16:24 AM Benzo(k)fluoranthene ND 34.1 1 5/18/2023 12:16:24 AM μg/Kg-dry ND Benzo(a)pyrene 45.5 μg/Kg-dry 1 5/18/2023 12:16:24 AM Indeno(1,2,3-cd)pyrene ND 227 μg/Kg-dry 1 5/18/2023 12:16:24 AM Dibenz(a,h)anthracene ND 114 1 5/18/2023 12:16:24 AM μg/Kg-dry ND Benzo(g,h,i)perylene 114 1 5/18/2023 12:16:24 AM μg/Kg-dry 5/18/2023 12:16:24 AM 65.5 16.2 - 150 Surr: 2,4,6-Tribromophenol %Rec 1 Surr: 2-Fluorobiphenyl 66.9 25.3 - 139 %Rec 1 5/18/2023 12:16:24 AM Surr: Nitrobenzene-d5 55.8 12.7 - 143 %Rec 1 5/18/2023 12:16:24 AM 53.4 Surr: Phenol-d6 21.4 - 139 %Rec 1 5/18/2023 12:16:24 AM Surr: p-Terphenyl 65.6 37.1 - 144 %Rec 1 5/18/2023 12:16:24 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:30:00 PM

Project: Mottis Property

**Lab ID**: 2305045-011 **Matrix**: Soil

Client Sample ID: MTP-9

Analyses Result PQL Qual Units DF Date Analyzed

#### Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 40361

Batch ID: 40374

Analyst: CB

Analyst: SH

#### NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

#### Volatile Organic Compounds by EPA Method 8260D

Dichlorodifluoromethane (CFC-12)	ND	0.00549	QH	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Chloromethane	ND	0.0183	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Vinyl chloride	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Bromomethane	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Trichlorofluoromethane (CFC-11)	ND	0.00733	QH	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Chloroethane	ND	0.0275	QH	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,1-Dichloroethene	ND	0.0366	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Acetone	ND	0.0916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Methylene chloride	ND	0.0128	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
trans-1,2-Dichloroethene	ND	0.00366	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Methyl tert-butyl ether (MTBE)	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,1-Dichloroethane	ND	0.00916	QH	mg/Kg-dry	1	5/17/2023 11:37:32 PM
cis-1,2-Dichloroethene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
(MEK) 2-Butanone	ND	0.110	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Chloroform	ND	0.00641	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,1,1-Trichloroethane (TCA)	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,1-Dichloropropene	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Carbon tetrachloride	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2-Dichloroethane (EDC)	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Benzene	ND	0.00641	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Trichloroethene (TCE)	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2-Dichloropropane	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Bromodichloromethane	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Dibromomethane	ND	0.00458	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
cis-1,3-Dichloropropene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Toluene	ND	0.0110	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Trans-1,3-Dichloropropylene	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Methyl Isobutyl Ketone (MIBK)	ND	0.0220	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,1,2-Trichloroethane	ND	0.00458	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,3-Dichloropropane	ND	0.00366	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Tetrachloroethene (PCE)	ND	0.00549	Н	mg/Kg-dry	1	5/24/2023 12:31:39 PM
Dibromochloromethane	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2-Dibromoethane (EDB)	ND	0.00366	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
2-Hexanone (MBK)	ND	0.0229	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:30:00 PM

Project: Mottis Property

**Lab ID:** 2305045-011 **Matrix:** Soil

**Client Sample ID: MTP-9** 

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds b	y EPA Method	8260D		Batch	ID:	40374 Analyst: SH
Chlorobenzene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,1,1,2-Tetrachloroethane	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Ethylbenzene	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
m,p-Xylene	ND	0.0183	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
o-Xylene	ND	0.00916	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Styrene	ND	0.00366	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Isopropylbenzene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Bromoform	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,1,2,2-Tetrachloroethane	ND	0.0733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
n-Propylbenzene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Bromobenzene	ND	0.00458	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,3,5-Trimethylbenzene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
2-Chlorotoluene	ND	0.00604	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
4-Chlorotoluene	ND	0.00604	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
tert-Butylbenzene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2,3-Trichloropropane	ND	0.0110	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2,4-Trichlorobenzene	ND	0.0220	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
sec-Butylbenzene	ND	0.0549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
4-Isopropyltoluene	ND	0.0733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,3-Dichlorobenzene	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,4-Dichlorobenzene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
n-Butylbenzene	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2-Dichlorobenzene	ND	0.00733	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2-Dibromo-3-chloropropane	ND	0.0110	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2,4-Trimethylbenzene	ND	0.00549	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Hexachloro-1,3-butadiene	ND	0.0147	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Naphthalene	ND	0.0366	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
1,2,3-Trichlorobenzene	ND	0.0220	Н	mg/Kg-dry	1	5/17/2023 11:37:32 PM
Surr: Dibromofluoromethane	106	80 - 120	Н	%Rec	1	5/17/2023 11:37:32 PM
Surr: Toluene-d8	99.2	80 - 120	Н	%Rec	1	5/17/2023 11:37:32 PM
Surr: 1-Bromo-4-fluorobenzene	95.7	80 - 120	Н	%Rec	1	5/17/2023 11:37:32 PM
NOTES:						

#### NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Mercury	by EPA Method 7471B	
MEIGUI	DY LEA WEULUU 141 ID	

Mercury ND 0.236 mg/Kg-dry 1 5/18/2023 1:17:12 PM

Analyst: ME

Batch ID: 40385



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:30:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-011 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Total Metals by EPA Meth	nod 6020B			Batch	ID:	40372 Analyst: JR
Arsenic	1.66	0.242		mg/Kg-dry	1	5/17/2023 3:50:00 PM
Cadmium	0.0296	0.0194		mg/Kg-dry	1	5/17/2023 3:50:00 PM
Chromium	35.8	0.242		mg/Kg-dry	1	5/17/2023 3:50:00 PM
Lead	2.62	0.970		mg/Kg-dry	1	5/17/2023 3:50:00 PM
Sample Moisture (Percen	t Moisture)			Batch	ID:	R84000 Analyst: MP
Percent Moisture	16.8			wt%	1	5/16/2023 8:17:00 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:42:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-012 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hydrocarbon Identification b	oy NWTPH-HCID			Batch	ID: 40	234 Analyst: AP
Gasoline	ND	33.9		mg/Kg-dry	1	5/4/2023 11:18:03 PM
Mineral Spirits	ND	56.5		mg/Kg-dry	1	5/4/2023 11:18:03 PM
Kerosene	ND	56.5		mg/Kg-dry	1	5/4/2023 11:18:03 PM
Diesel (Fuel Oil)	ND	56.5		mg/Kg-dry	1	5/4/2023 11:18:03 PM
Heavy Oil	ND	113		mg/Kg-dry	1	5/4/2023 11:18:03 PM
Mineral Oil	ND	113		mg/Kg-dry	1	5/4/2023 11:18:03 PM
Surr: 2-Fluorobiphenyl	165	50 - 150	S	%Rec	1	5/4/2023 11:18:03 PM
Surr: o-Terphenyl	168	50 - 150	S	%Rec	1	5/4/2023 11:18:03 PM
NOTES:						

S - Outlying surrogate recovery(ies) observed (high bias). Sample is non-detect; result meets QC requirements.

Semivolatile Organic Compo	unds by EPA Metho	Batch ID:	40270 Analyst: CB	
Phenol	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Bis(2-chloroethyl) ether	ND	56.4	μg/Kg-dry 1	5/10/2023 2:47:31 PM
2-Chlorophenol	ND	45.1	μg/Kg-dry 1	5/10/2023 2:47:31 PM
1,3-Dichlorobenzene	ND	45.1	μg/Kg-dry 1	5/10/2023 2:47:31 PM
1,4-Dichlorobenzene	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
1,2-Dichlorobenzene	ND	45.1	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Benzyl alcohol	ND	169	μg/Kg-dry 1	5/10/2023 2:47:31 PM
2-Methylphenol (o-cresol)	ND	45.1	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Hexachloroethane	ND	45.1	μg/Kg-dry 1	5/10/2023 2:47:31 PM
N-Nitrosodi-n-propylamine	ND	90.2	μg/Kg-dry 1	5/10/2023 2:47:31 PM
3&4-Methylphenol (m, p-cresol)	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Nitrobenzene	ND	56.4	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Isophorone	ND	45.1	μg/Kg-dry 1	5/10/2023 2:47:31 PM
2-Nitrophenol	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
2,4-Dimethylphenol	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Bis(2-chloroethoxy)methane	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
2,4-Dichlorophenol	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
1,2,4-Trichlorobenzene	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Naphthalene	ND	45.1	μg/Kg-dry 1	5/10/2023 2:47:31 PM
4-Chloroaniline	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Hexachlorobutadiene	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
4-Chloro-3-methylphenol	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
2-Methylnaphthalene	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
1-Methylnaphthalene	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM
Hexachlorocyclopentadiene	ND	113	μg/Kg-dry 1	5/10/2023 2:47:31 PM
2,4,6-Trichlorophenol	ND	33.8	μg/Kg-dry 1	5/10/2023 2:47:31 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:42:00 PM

Project: Mottis Property

**Lab ID:** 2305045-012 **Matrix:** Soil

Client Sample ID: MTP-10

DF **Analyses** Result **PQL** Qual Units **Date Analyzed** Batch ID: 40270 Analyst: CB Semivolatile Organic Compounds by EPA Method 8270E 2,4,5-Trichlorophenol ND 33.8 5/10/2023 2:47:31 PM μg/Kg-dry 1 2-Chloronaphthalene ND 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM 2-Nitroaniline ND 56.4 1 5/10/2023 2:47:31 PM μg/Kg-dry ND 5/10/2023 2:47:31 PM Acenaphthene 33.8 μg/Kg-dry 1 ND Dimethylphthalate 3,950 1 5/10/2023 2:47:31 PM μg/Kg-dry 2,6-Dinitrotoluene ND 45.1 1 5/10/2023 2:47:31 PM μg/Kg-dry Acenaphthylene ND 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM 2,4-Dinitrophenol ND 338 1 5/10/2023 2:47:31 PM μg/Kg-dry Dibenzofuran ND 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM 2,4-Dinitrotoluene ND 67.6 1 5/10/2023 2:47:31 PM μg/Kg-dry 4-Nitrophenol ND 225 5/10/2023 2:47:31 PM μg/Kg-dry ND Fluorene 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM 4-Chlorophenyl phenyl ether ND 33.8 1 5/10/2023 2:47:31 PM µg/Kg-dry Diethylphthalate ND 845 μg/Kg-dry 1 5/10/2023 2:47:31 PM 4,6-Dinitro-2-methylphenol ND 282 μg/Kg-dry 1 5/10/2023 2:47:31 PM ND 4-Bromophenyl phenyl ether 33.8 1 5/10/2023 2:47:31 PM μg/Kg-dry Hexachlorobenzene ND 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM ND Pentachlorophenol 225 μg/Kg-dry 1 5/10/2023 2:47:31 PM Phenanthrene ND 33.8 1 5/10/2023 2:47:31 PM μg/Kg-dry Anthracene ND 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM Carbazole ND 33.8 1 5/10/2023 2:47:31 PM μg/Kg-dry Di-n-butylphthalate ND 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM Fluoranthene ND 33.8 1 5/10/2023 2:47:31 PM μg/Kg-dry ND 1 5/10/2023 2:47:31 PM Pyrene 169 μg/Kg-dry ND 56.4 Butyl Benzylphthalate 1 5/10/2023 2:47:31 PM μg/Kg-dry ND bis(2-Ethylhexyl)adipate 225 μg/Kg-dry 1 5/10/2023 2:47:31 PM Benz(a)anthracene ND 33.8 μg/Kg-dry 1 5/10/2023 2:47:31 PM Chrysene ND 56.4 1 5/10/2023 2:47:31 PM μg/Kg-dry bis (2-Ethylhexyl) phthalate ND 45.1 μg/Kg-dry 1 5/10/2023 2:47:31 PM Di-n-octyl phthalate ND 84.5 1 5/10/2023 2:47:31 PM μg/Kg-dry ND Benzo(b)fluoranthene 113 μg/Kg-dry 1 5/10/2023 2:47:31 PM Benzo(k)fluoranthene ND 33.8 1 5/10/2023 2:47:31 PM μg/Kg-dry Benzo(a)pyrene ND 45.1 1 5/10/2023 2:47:31 PM μg/Kg-dry ND Indeno(1,2,3-cd)pyrene 225 1 5/10/2023 2:47:31 PM μg/Kg-dry ND Dibenz(a,h)anthracene 113 µg/Kg-dry 1 5/10/2023 2:47:31 PM ND Benzo(g,h,i)perylene 113 μg/Kg-dry 1 5/10/2023 2:47:31 PM Surr: 2,4,6-Tribromophenol 66.4 16.2 - 150 %Rec 1 5/10/2023 2:47:31 PM Surr: 2-Fluorobiphenyl 74.0 25.3 - 139 1 5/10/2023 2:47:31 PM %Rec Surr: Nitrobenzene-d5 57.0 12.7 - 143 %Rec 1 5/10/2023 2:47:31 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:42:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-012 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compoun	ds by EPA Me	thod 8270E	į	Batch	ı ID:	40270 Analyst: CB
Surr: Phenol-d6	68.4	21.4 - 139		%Rec	1	5/10/2023 2:47:31 PM
Surr: p-Terphenyl	73.6	37.1 - 144		%Rec	1	5/10/2023 2:47:31 PM
Volatile Organic Compounds by	y EPA Method	8260D		Batch	ID:	40245 Analyst: CC
Dichlorodifluoromethane (CFC-12)	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Chloromethane	ND	0.0258		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Vinyl chloride	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Bromomethane	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Trichlorofluoromethane (CFC-11)	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Chloroethane	ND	0.0387		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,1-Dichloroethene	ND	0.0516		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Acetone	ND	0.129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Methylene chloride	ND	0.0181		mg/Kg-dry	1	5/5/2023 9:57:00 AM
trans-1,2-Dichloroethene	ND	0.00516		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,1-Dichloroethane	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
cis-1,2-Dichloroethene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
(MEK) 2-Butanone	ND	0.155		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Chloroform	ND	0.00903		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,1,1-Trichloroethane (TCA)	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,1-Dichloropropene	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Carbon tetrachloride	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2-Dichloroethane (EDC)	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Benzene	ND	0.00903		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Trichloroethene (TCE)	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2-Dichloropropane	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Bromodichloromethane	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Dibromomethane	ND	0.00645		mg/Kg-dry	1	5/5/2023 9:57:00 AM
cis-1,3-Dichloropropene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Toluene	ND	0.0155		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Trans-1,3-Dichloropropylene	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Methyl Isobutyl Ketone (MIBK)	ND	0.0309		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,1,2-Trichloroethane	ND	0.00645		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,3-Dichloropropane	ND	0.00516		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Tetrachloroethene (PCE)	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Dibromochloromethane	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2-Dibromoethane (EDB)	ND	0.00516		mg/Kg-dry	1	5/5/2023 9:57:00 AM
2-Hexanone (MBK)	ND	0.0322		mg/Kg-dry	1	5/5/2023 9:57:00 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:42:00 PM

Project: Mottis Property

**Lab ID:** 2305045-012 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by EPA	A Method	8260D		Batch	ID:	40245 Analyst: CC
Chlorobenzene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,1,1,2-Tetrachloroethane	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Ethylbenzene	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
m,p-Xylene	ND	0.0258		mg/Kg-dry	1	5/5/2023 9:57:00 AM
o-Xylene	ND	0.0129		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Styrene	ND	0.00516		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Isopropylbenzene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Bromoform	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,1,2,2-Tetrachloroethane	ND	0.103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
n-Propylbenzene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Bromobenzene	ND	0.00645		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,3,5-Trimethylbenzene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
2-Chlorotoluene	ND	0.00851		mg/Kg-dry	1	5/5/2023 9:57:00 AM
4-Chlorotoluene	ND	0.00851		mg/Kg-dry	1	5/5/2023 9:57:00 AM
tert-Butylbenzene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2,3-Trichloropropane	ND	0.0155		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2,4-Trichlorobenzene	ND	0.0309		mg/Kg-dry	1	5/5/2023 9:57:00 AM
sec-Butylbenzene	ND	0.0774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
4-Isopropyltoluene	ND	0.103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,3-Dichlorobenzene	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,4-Dichlorobenzene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
n-Butylbenzene	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2-Dichlorobenzene	ND	0.0103		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2-Dibromo-3-chloropropane	ND	0.0155		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2,4-Trimethylbenzene	ND	0.00774		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Hexachloro-1,3-butadiene	ND	0.0206		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Naphthalene	ND	0.0516		mg/Kg-dry	1	5/5/2023 9:57:00 AM
1,2,3-Trichlorobenzene	ND	0.0309		mg/Kg-dry	1	5/5/2023 9:57:00 AM
Surr: Dibromofluoromethane	101	80 - 120		%Rec	1	5/5/2023 9:57:00 AM
Surr: Toluene-d8	105	80 - 120		%Rec	1	5/5/2023 9:57:00 AM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	5/5/2023 9:57:00 AM
Mercury by EPA Method 7471B				Batch	ID:	40231 Analyst: ME
Mercury	ND	0.234		mg/Kg-dry	1	5/4/2023 1:09:21 PM
Total Metals by EPA Method 6020B				Batch	ID:	40284 Analyst: JR
Arsenic	1.63	0.458	D	mg/Kg-dry	2	5/9/2023 4:16:00 PM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 1:42:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-012 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Total Metals by EPA Metho	od 6020B			Batch	1D: 4	0284 Analyst: JR
Cadmium	0.0591	0.0366	D	mg/Kg-dry	2	5/9/2023 4:16:00 PM
Chromium	34.3	0.458	D	mg/Kg-dry	2	5/9/2023 4:16:00 PM
Lead <b>NOTES:</b> Diluted due to matrix.	3.70	1.83	D	mg/Kg-dry	2	5/9/2023 4:16:00 PM
Sample Moisture (Percent l	Moisture)			Batch	ID: R	83699 Analyst: MP
Percent Moisture	14.7			wt%	1	5/4/2023 8:14:53 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 2:00:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-013 **Matrix:** Soil

Batch ID: 40360   Analyst: AP	Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Mineral Spirits	Hydrocarbon Identification by	NWTPH-HCID			Batch	n ID:	40360 Analyst: AP
Mineral Spirits	Gasolino	ND	24.0		ma/Ka dny	1	5/16/2022 8:26:48 DM
No							
Diesel (Fuel Oil)   ND   58.1   mg/Kg-dry   1   5/16/2023 8:26:48 PM     Heavy Oil   ND   116   mg/Kg-dry   1   5/16/2023 8:26:48 PM     Mineral Oil   ND   116   mg/Kg-dry   1   5/16/2023 8:26:48 PM     Surr: 2-Fluorobiphenyl   106   50 - 150   %Rec   1   5/16/2023 8:26:48 PM     Surr: o-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM     Surr: o-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM     Surr: o-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM     Semivolatile Organic Compounds by EPA Method 8270E	•						
Heavy Oil   ND   116   mg/Kg-dry   1   5/16/2023 8:26:48 PM							
Mineral Oil   ND   116   mg/Kg-dry   1   5/16/2023 8:26:48 PM   Surr: 2-Fluorobiphenyl   106   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM   Surr: α-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 12:46:30 AM   97.3	,						
Surr: 2-Fluorobiphenyl   106   50 - 150   %Rec   1   5/16/2023 8:26:48 PM			-				
Surr: o-Terphenyl   97.3   50 - 150   %Rec   1   5/16/2023 8:26:48 PM			_				
Phenol							
Phenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Bis(2-chloroethyl) ether         ND         56.1         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Chlorophenol         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1,3-Dichlorobenzene         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1,4-Dichlorobenzene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2-Dichlorobenzene         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2-Dichlorobenzene         ND         168         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2-Dichlorobenzene         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylphenol (-cresol)         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           N-N-Nitrosodi-n-propylamine         ND         89.8         μg/Kg-dry         1         5/18/2023 12:46:30 AM           N-Nitrobenzene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitrobenzene <td>Surf. 0-Terphenyl</td> <td>91.3</td> <td>50 - 150</td> <td></td> <td>76Rec</td> <td></td> <td>3/10/2023 6.26.46 FW</td>	Surf. 0-Terphenyl	91.3	50 - 150		76Rec		3/10/2023 6.26.46 FW
Bis(2-chloroethyl) ether	Semivolatile Organic Compour	nds by EPA Met	hod 8270E		Batch	ı ID:	40361 Analyst: CB
Bis(2-chloroethyl) ether         ND         56.1         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Chlorophenol         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,3-Dichlorobenzene         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,4-Dichlorobenzene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2-Dichlorobenzene         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Benzyl alcohol         ND         168         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylphenol (o-cresol)         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           N-N-Nitrosodi-n-propylamine         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitrosodi-n-propylamine         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitr	Phenol	ND	33.7		ua/Ka-drv	1	5/18/2023 12:46:30 AM
2-Chlorophenol         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,3-Dichlorobenzene         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,4-Dichlorobenzene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2-Dichlorobenzene         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Benzyl alcohol         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylphenol (o-cresol)         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           N-Nitrosodi-n-propylamine         ND         89.8         µg/Kg-dry         1         5/18/2023 12:46:30 AM           N-Vitrobenzene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitrobenzene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dimethylphenol	Bis(2-chloroethyl) ether	ND	56.1				5/18/2023 12:46:30 AM
1,3-Dichlorobenzene         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,4-Dichlorobenzene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2-Dichlorobenzene         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Benzyl alcohol         ND         168         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylphenol (o-cresol)         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           N-Nitrosodi-n-propylamine         ND         89.8         µg/Kg-dry         1         5/18/2023 12:46:30 AM           3&4-Methylphenol (m, p-cresol)         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitrobenzene         ND         56.1         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Isophorone         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dimethylphenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dirhothor			44.9				
1,4-Dichlorobenzene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2-Dichlorobenzene         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Benzyl alcohol         ND         168         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylphenol (o-cresol)         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           N-Nitrosodi-n-propylamine         ND         89.8         µg/Kg-dry         1         5/18/2023 12:46:30 AM           3&4-Methylphenol (m, p-cresol)         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitrobenzene         ND         56.1         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Isophorone         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Nitrophenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Direlorophenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dichlorophenol<		ND	44.9				
1,2-Dichlorobenzene	•	ND	33.7				
Benzyl alcohol         ND         168         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylphenol (o-cresol)         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           N-Nitrosodi-n-propylamine         ND         89.8         µg/Kg-dry         1         5/18/2023 12:46:30 AM           3&4-Methylphenol (m, p-cresol)         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitrobenzene         ND         56.1         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Isophorone         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Nitrophenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-4-Dimethylphenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           3-4-Dichlorophenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-4-Dichlorophenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2,4-Trichlorophenol	•		44.9				
2-Methylphenol (o-cresol)         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachloroethane         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           N-Nitrosodi-n-propylamine         ND         89.8         µg/Kg-dry         1         5/18/2023 12:46:30 AM           3&4-Methylphenol (m, p-cresol)         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Nitrobenzene         ND         56.1         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Isophorone         ND         44.9         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Nitrophenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dimethylphenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dichlorophenol         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2,4-Trichlorobenzene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           Naphthalene         ND         33.7         µg/Kg-dry         1         5/18/2023 12:46:30 AM           4-Chloroaniline <td>•</td> <td>ND</td> <td>168</td> <td></td> <td></td> <td></td> <td></td>	•	ND	168				
Hexachloroethane   ND		ND	44.9			1	5/18/2023 12:46:30 AM
N-Nitrosodi-n-propylamine ND 89.8 µg/Kg-dry 1 5/18/2023 12:46:30 AM 3&4-Methylphenol (m, p-cresol) ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM Nitrobenzene ND 56.1 µg/Kg-dry 1 5/18/2023 12:46:30 AM Isophorone ND 44.9 µg/Kg-dry 1 5/18/2023 12:46:30 AM 2-Nitrophenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 2-A-Dichlorophenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 1,2,4-Trichlorobenzene ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM Naphthalene ND 44.9 µg/Kg-dry 1 5/18/2023 12:46:30 AM 4-Chloroaniline ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 4-Chloro-3-methylphenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM		ND	44.9			1	5/18/2023 12:46:30 AM
3&4-Methylphenol (m, p-cresol)         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           Nitrobenzene         ND         56.1         µg/kg-dry         1         5/18/2023 12:46:30 AM           Isophorone         ND         44.9         µg/kg-dry         1         5/18/2023 12:46:30 AM           2-Nitrophenol         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dimethylphenol         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           Bis(2-chloroethoxy)methane         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dichlorophenol         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           1,2,4-Trichlorobenzene         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           Naphthalene         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           4-Chloroaniline         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           4-Chloro-3-methylphenol         ND         33.7         µg/kg-dry         1         5/18/2023 12:46:30 AM           2-Methylnaphthalene </td <td>N-Nitrosodi-n-propylamine</td> <td>ND</td> <td>89.8</td> <td></td> <td></td> <td>1</td> <td>5/18/2023 12:46:30 AM</td>	N-Nitrosodi-n-propylamine	ND	89.8			1	5/18/2023 12:46:30 AM
Nitrobenzene         ND         56.1         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Isophorone         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Nitrophenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dimethylphenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Bis(2-chloroethoxy)methane         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dichlorophenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2,4-Trichlorobenzene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Naphthalene         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           4-Chloroaniline         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachlorobutadiene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           4-Chloro-3-methylphenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylnaphthalene		ND	33.7			1	5/18/2023 12:46:30 AM
Isophorone			56.1				
2-Nitrophenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 2,4-Dimethylphenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM Bis(2-chloroethoxy)methane ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 2,4-Dichlorophenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 1,2,4-Trichlorobenzene ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM Naphthalene ND 44.9 µg/Kg-dry 1 5/18/2023 12:46:30 AM 4-Chloroaniline ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM Hexachlorobutadiene ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 4-Chloro-3-methylphenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 2-Methylnaphthalene ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 1-Methylnaphthalene ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM 1-Meth	Isophorone	ND	44.9			1	5/18/2023 12:46:30 AM
2,4-DimethylphenolND33.7μg/Kg-dry15/18/2023 12:46:30 AMBis(2-chloroethoxy)methaneND33.7μg/Kg-dry15/18/2023 12:46:30 AM2,4-DichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM1,2,4-TrichlorobenzeneND33.7μg/Kg-dry15/18/2023 12:46:30 AMNaphthaleneND44.9μg/Kg-dry15/18/2023 12:46:30 AM4-ChloroanilineND33.7μg/Kg-dry15/18/2023 12:46:30 AMHexachlorobutadieneND33.7μg/Kg-dry15/18/2023 12:46:30 AM4-Chloro-3-methylphenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM2-MethylnaphthaleneND33.7μg/Kg-dry15/18/2023 12:46:30 AM1-MethylnaphthaleneND33.7μg/Kg-dry15/18/2023 12:46:30 AM1-MethylnaphthaleneND33.7μg/Kg-dry15/18/2023 12:46:30 AM2,4,6-TrichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM2,4,5-TrichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM2,4,5-TrichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM		ND	33.7			1	5/18/2023 12:46:30 AM
Bis(2-chloroethoxy)methane         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4-Dichlorophenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1,2,4-Trichlorobenzene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Naphthalene         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           4-Chloroaniline         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachlorobutadiene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           4-Chloro-3-methylphenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylnaphthalene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1-Methylnaphthalene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1-Methylnaphthalene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1-Methylnaphthalene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4,6-Tr		ND	33.7			1	5/18/2023 12:46:30 AM
2,4-DichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM1,2,4-TrichlorobenzeneND33.7μg/Kg-dry15/18/2023 12:46:30 AMNaphthaleneND44.9μg/Kg-dry15/18/2023 12:46:30 AM4-ChloroanilineND33.7μg/Kg-dry15/18/2023 12:46:30 AMHexachlorobutadieneND33.7μg/Kg-dry15/18/2023 12:46:30 AM4-Chloro-3-methylphenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM2-MethylnaphthaleneND33.7μg/Kg-dry15/18/2023 12:46:30 AM1-MethylnaphthaleneND33.7μg/Kg-dry15/18/2023 12:46:30 AMHexachlorocyclopentadieneND112μg/Kg-dry15/18/2023 12:46:30 AM2,4,6-TrichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM2,4,5-TrichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM2,4,5-TrichlorophenolND33.7μg/Kg-dry15/18/2023 12:46:30 AM		ND	33.7			1	5/18/2023 12:46:30 AM
1,2,4-Trichlorobenzene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Naphthalene       ND       44.9       μg/Kg-dry       1       5/18/2023 12:46:30 AM         4-Chloroaniline       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Hexachlorobutadiene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         4-Chloro-3-methylphenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         1-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Hexachlorocyclopentadiene       ND       112       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,6-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,5-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM		ND	33.7			1	5/18/2023 12:46:30 AM
Naphthalene         ND         44.9         μg/Kg-dry         1         5/18/2023 12:46:30 AM           4-Chloroaniline         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachlorobutadiene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           4-Chloro-3-methylphenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2-Methylnaphthalene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           1-Methylnaphthalene         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           Hexachlorocyclopentadiene         ND         112         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4,6-Trichlorophenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4,5-Trichlorophenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM		ND	33.7			1	5/18/2023 12:46:30 AM
4-Chloroaniline       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Hexachlorobutadiene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         4-Chloro-3-methylphenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         1-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Hexachlorocyclopentadiene       ND       112       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,6-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,5-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM	Naphthalene	ND	44.9			1	5/18/2023 12:46:30 AM
4-Chloro-3-methylphenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         1-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Hexachlorocyclopentadiene       ND       112       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,6-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,5-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM		ND	33.7			1	5/18/2023 12:46:30 AM
4-Chloro-3-methylphenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         1-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Hexachlorocyclopentadiene       ND       112       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,6-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,5-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM	Hexachlorobutadiene	ND	33.7		μg/Kg-dry	1	5/18/2023 12:46:30 AM
2-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         1-Methylnaphthalene       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         Hexachlorocyclopentadiene       ND       112       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,6-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,5-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM	4-Chloro-3-methylphenol	ND	33.7			1	5/18/2023 12:46:30 AM
1-Methylnaphthalene ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM Hexachlorocyclopentadiene ND 112 μg/Kg-dry 1 5/18/2023 12:46:30 AM 2,4,6-Trichlorophenol ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM 2,4,5-Trichlorophenol ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM 2,4,5-Trichlorophenol ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM						1	5/18/2023 12:46:30 AM
Hexachlorocyclopentadiene         ND         112         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4,6-Trichlorophenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM           2,4,5-Trichlorophenol         ND         33.7         μg/Kg-dry         1         5/18/2023 12:46:30 AM						1	5/18/2023 12:46:30 AM
2,4,6-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM         2,4,5-Trichlorophenol       ND       33.7       μg/Kg-dry       1       5/18/2023 12:46:30 AM							5/18/2023 12:46:30 AM
2,4,5-Trichlorophenol ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM							
	•						
							5/18/2023 12:46:30 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 2:00:00 PM

Project: Mottis Property

**Lab ID:** 2305045-013 **Matrix:** Soil

Client Sample ID: MTP-11

DF **Analyses** Result **PQL** Qual Units **Date Analyzed** Batch ID: 40361 Analyst: CB Semivolatile Organic Compounds by EPA Method 8270E 2-Nitroaniline ND 56.1 5/18/2023 12:46:30 AM μg/Kg-dry 1 Acenaphthene ND 33.7 µg/Kg-dry 1 5/18/2023 12:46:30 AM Dimethylphthalate ND 3,930 μg/Kg-dry 1 5/18/2023 12:46:30 AM 2,6-Dinitrotoluene 5/18/2023 12:46:30 AM NΠ 44.9 μg/Kg-dry 1 ND Acenaphthylene 33.7 1 5/18/2023 12:46:30 AM μg/Kg-dry 2,4-Dinitrophenol ND 337 μg/Kg-dry 1 5/18/2023 12:46:30 AM Dibenzofuran ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM 2.4-Dinitrotoluene ND 67.3 1 5/18/2023 12:46:30 AM μg/Kg-dry 4-Nitrophenol ND 224 μg/Kg-dry 1 5/18/2023 12:46:30 AM ND 33.7 Fluorene 1 5/18/2023 12:46:30 AM μg/Kg-dry 4-Chlorophenyl phenyl ether ND 33.7 5/18/2023 12:46:30 AM μg/Kg-dry ND Diethylphthalate 842 μg/Kg-dry 1 5/18/2023 12:46:30 AM 4,6-Dinitro-2-methylphenol ND 281 Q 1 5/18/2023 12:46:30 AM µg/Kg-dry ND 33.7 4-Bromophenyl phenyl ether μg/Kg-dry 1 5/18/2023 12:46:30 AM Hexachlorobenzene ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM ND Pentachlorophenol 224 1 5/18/2023 12:46:30 AM μg/Kg-dry Phenanthrene ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM ND Anthracene 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM Carbazole ND 33.7 1 5/18/2023 12:46:30 AM μg/Kg-dry Di-n-butylphthalate ND 33.7 μg/Kg-dry 1 5/18/2023 12:46:30 AM Fluoranthene ND 33.7 1 5/18/2023 12:46:30 AM μg/Kg-dry Pyrene ND 168 μg/Kg-dry 1 5/18/2023 12:46:30 AM Butyl Benzylphthalate ND 56.1 1 5/18/2023 12:46:30 AM μg/Kg-dry 5/18/2023 12:46:30 AM bis(2-Ethylhexyl)adipate ND 224 1 μg/Kg-dry ND 33.7 Benz(a)anthracene 1 5/18/2023 12:46:30 AM μg/Kg-dry ND Chrysene 56.1 μg/Kg-dry 1 5/18/2023 12:46:30 AM bis (2-Ethylhexyl) phthalate ND 44.9 μg/Kg-dry 1 5/18/2023 12:46:30 AM Di-n-octyl phthalate ND 84.2 1 5/18/2023 12:46:30 AM μg/Kg-dry ND Benzo(b)fluoranthene 112 μg/Kg-dry 1 5/18/2023 12:46:30 AM Benzo(k)fluoranthene ND 33.7 1 5/18/2023 12:46:30 AM μg/Kg-dry ND Benzo(a)pyrene 44.9 μg/Kg-dry 1 5/18/2023 12:46:30 AM Indeno(1,2,3-cd)pyrene ND 224 μg/Kg-dry 1 5/18/2023 12:46:30 AM Dibenz(a,h)anthracene ND 112 1 5/18/2023 12:46:30 AM μg/Kg-dry ND Benzo(g,h,i)perylene 112 1 5/18/2023 12:46:30 AM μg/Kg-dry Surr: 2,4,6-Tribromophenol 70.7 16.2 - 150 %Rec 1 5/18/2023 12:46:30 AM Surr: 2-Fluorobiphenyl 71.7 25.3 - 139 %Rec 1 5/18/2023 12:46:30 AM Surr: Nitrobenzene-d5 60.6 12.7 - 143 %Rec 1 5/18/2023 12:46:30 AM Surr: Phenol-d6 21.4 - 139 5/18/2023 12:46:30 AM 61.6 %Rec 1 Surr: p-Terphenyl 72.6 37.1 - 144 %Rec 1 5/18/2023 12:46:30 AM



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 2:00:00 PM

Project: Mottis Property

**Lab ID:** 2305045-013 **Matrix:** Soil

Client Sample ID: MTP-11

Analyses Result PQL Qual Units DF Date Analyzed

#### Semivolatile Organic Compounds by EPA Method 8270E

Batch ID: 40361

Batch ID: 40374

Analyst: CB

Analyst: SH

#### NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

	EPA Method 8260D	Compounds by	<b>Volatile Organic</b>
--	------------------	--------------	-------------------------

Dichlorodifluoromethane (CFC-12)	ND	0.00521	QH	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Chloromethane	ND	0.0174	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Vinyl chloride	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Bromomethane	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Trichlorofluoromethane (CFC-11)	ND	0.00695	QH	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Chloroethane	ND	0.0261	QH	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,1-Dichloroethene	ND	0.0347	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Acetone	ND	0.0869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Methylene chloride	ND	0.0122	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
trans-1,2-Dichloroethene	ND	0.00347	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Methyl tert-butyl ether (MTBE)	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,1-Dichloroethane	ND	0.00869	QH	mg/Kg-dry	1	5/18/2023 12:07:40 AM
cis-1,2-Dichloroethene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
(MEK) 2-Butanone	ND	0.104	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Chloroform	ND	0.00608	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,1,1-Trichloroethane (TCA)	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,1-Dichloropropene	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Carbon tetrachloride	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2-Dichloroethane (EDC)	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Benzene	ND	0.00608	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Trichloroethene (TCE)	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2-Dichloropropane	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Bromodichloromethane	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Dibromomethane	ND	0.00434	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
cis-1,3-Dichloropropene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Toluene	ND	0.0104	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Trans-1,3-Dichloropropylene	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Methyl Isobutyl Ketone (MIBK)	ND	0.0208	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,1,2-Trichloroethane	ND	0.00434	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,3-Dichloropropane	ND	0.00347	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Tetrachloroethene (PCE)	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Dibromochloromethane	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2-Dibromoethane (EDB)	ND	0.00347	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
2-Hexanone (MBK)	ND	0.0217	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
,				5 5 7		



Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 2:00:00 PM

Project: Mottis Property

**Lab ID:** 2305045-013 **Matrix:** Soil

Client Sample ID: MTP-11

nalyses	Result	PQL	Qual	Units	DF	Date Analyzed
/olatile Organic Compounds b	y EPA Method	8260D		Batch	ID:	40374 Analyst: SH
Chlorobenzene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,1,1,2-Tetrachloroethane	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Ethylbenzene	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
m,p-Xylene	ND	0.0174	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
o-Xylene	ND	0.00869	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Styrene	ND	0.00347	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Isopropylbenzene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Bromoform	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,1,2,2-Tetrachloroethane	ND	0.0695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
n-Propylbenzene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Bromobenzene	ND	0.00434	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,3,5-Trimethylbenzene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
2-Chlorotoluene	ND	0.00573	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
4-Chlorotoluene	ND	0.00573	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
tert-Butylbenzene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2,3-Trichloropropane	ND	0.0104	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2,4-Trichlorobenzene	ND	0.0208	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
sec-Butylbenzene	ND	0.0521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
4-Isopropyltoluene	ND	0.0695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,3-Dichlorobenzene	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,4-Dichlorobenzene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
n-Butylbenzene	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2-Dichlorobenzene	ND	0.00695	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2-Dibromo-3-chloropropane	ND	0.0104	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2,4-Trimethylbenzene	ND	0.00521	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Hexachloro-1,3-butadiene	ND	0.0139	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Naphthalene	ND	0.0347	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
1,2,3-Trichlorobenzene	ND	0.0208	Н	mg/Kg-dry	1	5/18/2023 12:07:40 AM
Surr: Dibromofluoromethane	107	80 - 120	Н	%Rec	1	5/18/2023 12:07:40 AM
Surr: Toluene-d8	101	80 - 120	Н	%Rec	1	5/18/2023 12:07:40 AM
Surr: 1-Bromo-4-fluorobenzene	94.9	80 - 120	Н	%Rec	1	5/18/2023 12:07:40 AM

#### NOTES:

#### Mercury by EPA Method 7471B

Mercury ND 0.232 mg/Kg-dry 1 5/18/2023 1:22:23 PM

Analyst: ME

Batch ID: 40385

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.



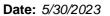
Work Order: **2305045**Date Reported: **5/30/2023** 

Client: ESA Associates, Inc. Collection Date: 5/2/2023 2:00:00 PM

**Project:** Mottis Property

**Lab ID:** 2305045-013 **Matrix:** Soil

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Total Metals by EPA Method	1 6020B			Batch	ID:	40372 Analyst: JR
Arsenic	6.41	0.242		mg/Kg-dry	1	5/17/2023 3:52:00 PM
Cadmium	0.0809	0.0194		mg/Kg-dry	1	5/17/2023 3:52:00 PM
Chromium	27.2	0.242		mg/Kg-dry	1	5/17/2023 3:52:00 PM
Lead	4.89	0.969		mg/Kg-dry	1	5/17/2023 3:52:00 PM
Sample Moisture (Percent M	oisture)			Batch	ID:	R84000 Analyst: MP
Percent Moisture	15.4			wt%	1	5/16/2023 8:17:00 AM





CLIENT:

ESA Associates, Inc.

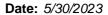
**Project:** Mottis Property

### **QC SUMMARY REPORT**

#### **Total Metals by EPA Method 6020B**

Project: Mottis Pro	perty										0020
Sample ID: <b>MB-40284</b>	SampType: MBLK			Units: mg/Kg		Prep Date	e: <b>5/9/202</b>	3	RunNo: <b>838</b>	48	
Client ID: MBLKS	Batch ID: 40284					Analysis Date	e: <b>5/9/202</b>	3	SeqNo: <b>174</b>	8649	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.250									
Cadmium	ND	0.0200									
Chromium	ND	0.250									
Lead	ND	1.00									
Sample ID: LCS-40284	SampType: LCS			Units: mg/Kg		Prep Date	e: <b>5/9/202</b>	3	RunNo: 838	48	
Client ID: LCSS	Batch ID: 40284					Analysis Date	e: <b>5/9/202</b>	3	SeqNo: <b>174</b>	8650	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	38.7	0.205	40.98	0	94.5	80	120				
Cadmium	1.94	0.0164	2.049	0	94.6	80	120				
Chromium	39.5	0.205	40.98	0	96.3	80	120				
Lead	20.0	0.820	20.49	0	97.7	80	120				
Sample ID: <b>2305029-003AMS</b>	SampType: <b>MS</b>			Units: mg/Kg-	dry	Prep Date	e: <b>5/9/202</b>	3	RunNo: 838	48	
Client ID: BATCH	Batch ID: 40284					Analysis Date	e: <b>5/9/202</b>	3	SeqNo: <b>174</b>	8653	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	42.2	0.223	44.60	3.556	86.6	75	125				
Cadmium	2.18	0.0178	2.230	0.1101	92.7	75	125				
Chromium	59.4	0.223	44.60	25.24	76.5	75	125				
Lead	27.8	0.892	22.30	8.021	88.9	75	125				
Sample ID: <b>2305029-003AMSD</b>	SampType: MSD			Units: mg/Kg-	dry	Prep Date	e: <b>5/9/202</b>	3	RunNo: 838	48	
	SampType: MSD Batch ID: 40284			Units: mg/Kg-	dry	Prep Date Analysis Date			RunNo: <b>838</b> SeqNo: <b>174</b>		
		RL	SPK value	Units: mg/Kg-	dry %REC	Analysis Date	e: <b>5/9/202</b>		SeqNo: <b>174</b>		Qual
Client ID: BATCH	Batch ID: 40284	RL 0.228	SPK value			Analysis Date	e: <b>5/9/202</b>	3	SeqNo: <b>174</b>	8654	Qual
Client ID: <b>BATCH</b> Analyte	Batch ID: 40284 Result			SPK Ref Val	%REC	Analysis Date	e: <b>5/9/202</b> HighLimit	RPD Ref Val	SeqNo: 174 %RPD	8654 RPDLimit	Qual

Revision v1 Page 54 of 115





**QC SUMMARY REPORT** 

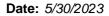
**CLIENT:** ESA Associates, Inc.

Project: Mottis Prop	erty							Total Meta	als by EPA	Method	6020
Sample ID: <b>2305029-003AMSD</b>	SampType: MSD			Units: mg/Kg-	dry	Prep Date	e: <b>5/9/202</b>	3	RunNo: 838	348	
Client ID: BATCH	Batch ID: 40284					Analysis Dat	e: <b>5/9/202</b>	3	SeqNo: 174	18654	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	30.2	0.913	22.84	8.021	97.2	75	125	27.84	8.17	20	
Sample ID: <b>MB-40372</b>	SampType: MBLK			Units: mg/Kg		Prep Date	e: <b>5/17/20</b>	23	RunNo: 840	062	
Client ID: MBLKS	Batch ID: 40372					Analysis Dat	e: <b>5/17/20</b>	23	SeqNo: 17	53388	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.250									
Cadmium	ND	0.0200									
Chromium	ND	0.250									
Lead	ND	1.00									
Sample ID: LCS-40372	SampType: LCS			Units: mg/Kg		Prep Date	e: <b>5/17/20</b>	23	RunNo: 840	062	
Client ID: LCSS	Batch ID: 40372					Analysis Dat	e: <b>5/17/20</b>	23	SeqNo: 17	53389	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	43.6	0.198	39.68	0	110	80	120				
Cadmium	2.20	0.0159	1.984	0	111	80	120				
Chromium	44.2	0.198	39.68	0	111	80	120				
Lead	22.0	0.794	19.84	0	111	80	120				
Sample ID: <b>2305304-001AMS</b>	SampType: MS			Units: mg/Kg-	dry	Prep Date	e: <b>5/17/20</b>	23	RunNo: 840	062	
Client ID: BATCH	Batch ID: 40372					Analysis Dat	e: <b>5/17/20</b>	23	SeqNo: 17	53392	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	45.0	0.234	46.77	0.1800	95.9	75	125				
Cadmium	2.33	0.0187	2.338	0.01255	98.9	75	125				
Chromium	47.7	0.234	46.77	3.314	95.0	75	125				
Lead	3,760	0.935	23.38	3,388	1,590	75	125				ES
NOTES:											

#### NOTES:

Page 55 of 115 Revision v1

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.





**QC SUMMARY REPORT** 

CLIENT: ESA Associates, Inc. Mottis Property

**Total Metals by EPA Method 6020B** 

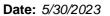
Sample ID: 2305304-001AMSD	SampType: MSD				Kg-dry	Prep Dat	e: <b>5/17/2</b> 0	)23	RunNo: 840	062	
Client ID: BATCH	Batch ID: 40372					Analysis Dat	te: <b>5/17/20</b>	)23	SeqNo: 175	3393	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	43.0	0.216	43.28	0.1800	99.0	75	125	45.01	4.50	20	
Cadmium	2.35	0.0173	2.164	0.01255	108	75	125	2.326	1.13	20	
Chromium	46.3	0.216	43.28	3.314	99.2	75	125	47.73	3.15	20	
Lead	3,130	0.866	21.64	3,388	-1,210	75	125	3,761	18.4	20	ES

#### NOTES:

Project:

Page 56 of 115 Revision v1

S - Spiked amount was low relative to sample concentration. Outlying spike recoveries may be expected.





**CLIENT:** ESA Associates, Inc.

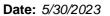
**Project:** Mottis Property

**QC SUMMARY REPORT** 

**Mercury by EPA Method 7471B** 

<b>Project:</b> Mottis Prop	erty							morod	y y <i>y</i>	· motriou	7-77-12
Sample ID: <b>MB-40231</b>	SampType: MBLK			Units: mg/Kg		Prep Date	5/4/202	3	RunNo: 83	730	
Client ID: MBLKS	Batch ID: 40231					Analysis Date	5/4/202	3	SeqNo: 17	45407	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.200									
Sample ID: LCS-40231	SampType: LCS			Units: mg/Kg		Prep Date	5/4/202	3	RunNo: 83	730	
Client ID: LCSS	Batch ID: 40231					Analysis Date	5/4/202	3	SeqNo: 17	45408	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.238	0.200	0.2500	0	95.2	80	120				
Sample ID: <b>2305045-003ADUP</b>	SampType: <b>DUP</b>			Units: mg/Kg-	dry	Prep Date	5/4/202	3	RunNo: 83	730	
Client ID: MTP-3	Batch ID: 40231					Analysis Date	5/4/202	3	SeqNo: 17	45410	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.221						0		20	
Sample ID: <b>2305045-003AMS</b>	SampType: MS			Units: mg/Kg-	dry	Prep Date	5/4/202	3	RunNo: 83	730	
Client ID: MTP-3	Batch ID: 40231					Analysis Date	5/4/202	3	SeqNo: <b>17</b>	45411	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.269	0.205	0.2565	0.02918	93.4	70	130				
Sample ID: 2305045-003AMSD	SampType: MSD			Units: mg/Kg-	dry	Prep Date	5/4/202	3	RunNo: 83	730	
Client ID: MTP-3	Batch ID: 40231					Analysis Date	5/4/202	3	SeqNo: <b>17</b>	45412	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.313	0.221	0.2762	0.02918	103	70	130	0.2688	15.1	20	

Revision v1 Page 57 of 115





**CLIENT:** ESA Associates, Inc.

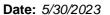
**Project:** Mottis Property

**QC SUMMARY REPORT** 

**Mercury by EPA Method 7471B** 

<b>Project:</b> Mottis Prop	erty							Moroa	y	· motriou	, 4, 16
Sample ID: <b>MB-40385</b>	SampType: MBLK			Units: mg/Kg		Prep Date	5/18/20	)23	RunNo: 84	080	
Client ID: MBLKS	Batch ID: 40385					Analysis Date	5/18/20	)23	SeqNo: 17	53731	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit F	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.200									
Sample ID: LCS-40385	SampType: LCS			Units: mg/Kg		Prep Date:	5/18/20	)23	RunNo: 84	080	
Client ID: LCSS	Batch ID: 40385					Analysis Date	5/18/20	)23	SeqNo: <b>17</b>	53732	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.246	0.200	0.2500	0	98.4	80	120				
Sample ID: 2305045-001ADUP	SampType: <b>DUP</b>			Units: mg/Kg-	dry	Prep Date:	: 5/18/20	)23	RunNo: 84	080	
Client ID: MTP-1	Batch ID: 40385					Analysis Date	: 5/18/20	)23	SeqNo: 17	53734	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.210						0		20	
Sample ID: 2305045-001AMS	SampType: MS			Units: mg/Kg-	dry	Prep Date:	: 5/18/20	)23	RunNo: 84	080	
Client ID: MTP-1	Batch ID: 40385					Analysis Date	5/18/20	)23	SeqNo: <b>17</b>	53735	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit F	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.294	0.214	0.2679	0.01262	105	70	130				
Sample ID: 2305045-001AMSD	SampType: MSD			Units: mg/Kg-	dry	Prep Date:	: 5/18/20	)23	RunNo: 84	080	
Client ID: MTP-1	Batch ID: 40385					Analysis Date	5/18/20	23	SeqNo: <b>17</b>	53736	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit F	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.271	0.206	0.2580	0.01262	100	70	130	0.2936	7.87	20	

Revision v1 Page 58 of 115





### **QC SUMMARY REPORT**

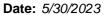
CLIENT: ESA Associates, Inc.

Project: Mottis Property

#### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

<b>Project:</b> Mottis Prop	erty						Diesei	and neavy	On by itt		<b>7</b>
Sample ID: <b>MB-40234</b>	SampType: MBLK			Units: mg/Kg		Prep Dat	e: <b>5/4/202</b>	3	RunNo: 837	76	
Client ID: MBLKS	Batch ID: 40234					Analysis Dat	e: <b>5/4/202</b>	3	SeqNo: 174	7051	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	10.8		10.00		108	50	150				
Surr: o-Terphenyl	10.9		10.00		109	50	150				
Sample ID: LCS-40234	SampType: LCS			Units: mg/Kg		Prep Dat	e: <b>5/4/202</b>	3	RunNo: 837	76	
Client ID: LCSS	Batch ID: 40234					Analysis Dat	e: <b>5/4/202</b>	3	SeqNo: 174	7052	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	527	150	500.0	0	105	81.4	125				
Surr: 2-Fluorobiphenyl	10.6		10.00		106	50	150				
Surr: o-Terphenyl	12.7		10.00		127	50	150				
Sample ID: <b>2305022-001AMS</b>	SampType: MS			Units: mg/Kg	-dry	Prep Dat	e: <b>5/4/202</b>	3	RunNo: 837	76	
Client ID: BATCH	Batch ID: 40234					Analysis Dat	e: <b>5/4/202</b>	3	SeqNo: 174	7054	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	568	155	515.7	0	110	50.8	149				
Surr: 2-Fluorobiphenyl	10.2		10.31		99.0	50	150				
Surr: o-Terphenyl	13.3		10.31		129	50	150				
Sample ID: <b>2305046-015ADUP</b>	SampType: <b>DUP</b>			Units: mg/Kg	-dry	Prep Dat	e: <b>5/4/202</b>	3	RunNo: 837	76	
Client ID: BATCH	Batch ID: 40234					Analysis Dat	e: <b>5/5/202</b>	3	SeqNo: 174	7066	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	64.5						0		30	
Heavy Oil	ND	129						0		30	
ricavy Cii											
Total Petroleum Hydrocarbons	ND	194						0		30	

Revision v1 Page 59 of 115





### **QC SUMMARY REPORT**

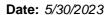
CLIENT: ESA Associates, Inc.

Project: Mottis Property

#### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Project: Mottis Prope	erty								cavy On by NWT1 11-bx	
Sample ID: <b>2305046-015ADUP</b>	SampType	e: <b>DUP</b>			Units: mg/K	g-dry	Prep Dat	e: <b>5/4/2023</b>	RunNo: 83776	
Client ID: BATCH	Batch ID:	40234					Analysis Dat	e: <b>5/5/2023</b>	SeqNo: 1747066	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Re	ef Val %RPD RPDLimit	Qua
Surr: o-Terphenyl NOTES:		21.6		12.90		168	50	150	0	S
S - Outlying surrogate recovery(i	es) observed	(high bias). S	Sample is no	on-detect; res	ult meets QC requ	irements.				
Sample ID: MB-40360	SampType	e: MBLK			Units: mg/K	g	Prep Dat	e: <b>5/16/2023</b>	RunNo: <b>84076</b>	
Client ID: MBLKS	Batch ID:	40360					Analysis Dat	e: <b>5/16/2023</b>	SeqNo: 1753621	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Re	ef Val %RPD RPDLimit	Qua
Diesel Range Organics		ND	50.0							
Heavy Oil		ND	100							
Total Petroleum Hydrocarbons		ND	150							
Surr: 2-Fluorobiphenyl		10.4		10.00		104	50	150		
Surr: o-Terphenyl		9.45		10.00		94.5	50	150		
Sample ID: LCS-40360	SampType	e: LCS			Units: mg/K	 (g	Prep Dat	e: <b>5/16/2023</b>	RunNo: <b>84076</b>	
Client ID: LCSS	Batch ID:	40360					Analysis Dat	e: <b>5/16/2023</b>	SeqNo: <b>1753622</b>	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Re	ef Val %RPD RPDLimit	Qua
Total Petroleum Hydrocarbons		477	150	500.0	0	95.4	81.4	125		
Surr: 2-Fluorobiphenyl		10.7		10.00		107	50	150		
Surr: o-Terphenyl		11.9		10.00		119	50	150		
Sample ID: <b>2305045-001AMS</b>	SampType	e: <b>MS</b>			Units: mg/K	g-dry	Prep Dat	e: <b>5/16/2023</b>	RunNo: <b>84076</b>	
Client ID: MTP-1	Batch ID:	40360			-	-	Analysis Dat	e: <b>5/16/2023</b>	SeqNo: <b>1753624</b>	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Re	ef Val %RPD RPDLimit	Qua
Total Petroleum Hydrocarbons		528	160	534.3	0	98.8	50.8	149		
Surr: 2-Fluorobiphenyl		11.0		10.69		103	50	150		
Surr: o-Terphenyl		12.3		10.69		115	50	150		

Revision v1 Page 60 of 115





### **QC SUMMARY REPORT**

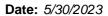
**CLIENT:** ESA Associates, Inc.

#### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Project: N	lottis Prope	erty						Diesel	and Heavy	Oil by NW	TPH-Dx/L	Ox Ext.
Sample ID: 2305045-0	001AMSD	SampType: MSD			Units: mg/	Kg-dry	Prep Da	te: <b>5/16/2</b> 0	23	RunNo: 840	076	
Client ID: MTP-1		Batch ID: 40360					Analysis Da	te: <b>5/16/2</b> 0	23	SeqNo: 17	53625	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydro	carbons	587	160	533.3	0	110	50.8	149	527.8	10.6	30	
Surr: 2-Fluorobipher	nyl	13.8		10.67		129	50	150		0		
Surr: o-Terphenyl		15.6		10.67		146	50	150		0		

Sample ID: 2305045-013ADUP	SampType: <b>DUP</b>			Units: mg/K	g-dry	Prep Da	te: <b>5/16/2</b> 0	23	RunNo: 840	076	
Client ID: MTP-11	Batch ID: 40360					Analysis Da	te: <b>5/16/2</b> 0	23	SeqNo: 175	53628	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	58.0						0		30	
Heavy Oil	ND	116						0		30	
Total Petroleum Hydrocarbons	ND	174						0		30	
Surr: 2-Fluorobiphenyl	12.3		11.61		106	50	150		0		
Surr: o-Terphenyl	11.6		11.61		100	50	150		0		

Page 61 of 115 Revision v1





#### **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

#### **Hydrocarbon Identification by NWTPH-HCID**

Sample ID: MB-40234	SampType: MBLK			Units: mg/Kg		Prep Date	e: <b>5/4/202</b>	:3	RunNo: 838	331	
Client ID: MBLKS	Batch ID: 40234					Analysis Date	e: <b>5/4/202</b>	3	SeqNo: 174	18429	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	30.0									
Mineral Spirits	ND	50.0									
Kerosene	ND	50.0									
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Mineral Oil	ND	100									
Surr: 2-Fluorobiphenyl	10.8		10.00		108	50	150				
Surr: o-Terphenyl	10.9		10.00		109	50	150				
Sample ID: LCS-40234	SampType: <b>LCS</b>			Units: mg/Kg		Prep Date	e: <b>5/4/202</b>	3	RunNo: 838	331	
Client ID: LCSS	Batch ID: 40234					Analysis Date	e: <b>5/4/202</b>	3	SeqNo: 174	18430	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	527	50.0	500.0	0	105	74.5	125				
Surr: 2-Fluorobiphenyl	10.6		10.00		106	50	150				
Surr: o-Terphenyl	12.7		10.00		127	50	150				
Sample ID: MB-40360	SampType: <b>MBLK</b>			Units: mg/Kg		Prep Date	e: <b>5/16/2</b> 0	23	RunNo: 840	)77	
Client ID: MBLKS	Batch ID: 40360					Analysis Date	e: <b>5/16/2</b> 0	23	SeqNo: 175	3641	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	30.0									
Mineral Spirits	ND	50.0									
Kerosene	ND	50.0									
Diesel (Fuel Oil)	ND	50.0									
Heavy Oil	ND	100									
Mineral Oil	ND	100									
	40.4		40.00		404	<b>50</b>	150				
Surr: 2-Fluorobiphenyl	10.4		10.00		104	50	150				

Revision v1 Page 62 of 115

Date: 5/30/2023



Work Order: 2305045

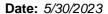
#### **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

#### **Hydrocarbon Identification by NWTPH-HCID**

Sample ID: LCS-40360 Client ID: LCSS	SampType: LCS Batch ID: 40360			Units: mg/Kg		•	te: 5/16/20		RunNo: 840		
Client ID: LC55	Batch ID: 40360					Analysis Da	te: 5/16/20	23	SeqNo: 17	3642	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	477	50.0	500.0	0	95.4	74.5	125				
Surr: 2-Fluorobiphenyl	10.7		10.00		107	50	150				
Surr: o-Terphenyl	11.9		10.00		119	50	150				

Revision v1 Page 63 of 115





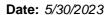
### **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

#### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

<b>Project:</b> Mottis Prop	erty					oryan Omiati	ic Hydrocarbons b	y El A Mol		J (OII
Sample ID: MB-40272	SampType: MBLK			Units: µg/Kg		Prep Date	e: <b>5/8/2023</b>	RunNo: 838	82	
Client ID: MBLKS	Batch ID: 40272					Analysis Date	e: <b>5/10/2023</b>	SeqNo: <b>17</b> 4	9329	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	20.0								
Chrysene	ND	20.0								
Benzo(b)fluoranthene	ND	25.0								
Benzo(k)fluoranthene	ND	25.0								
Benzo(a)pyrene	ND	30.0								
Indeno(1,2,3-cd)pyrene	ND	40.0								
Dibenz(a,h)anthracene	ND	50.0								
Surr: 2-Fluorobiphenyl	553		1,000		55.3	29.4	126			
Surr: Terphenyl-d14 (surr)	645		1,000		64.5	32.5	139			
Sample ID: LCS-40272	SampType: <b>LCS</b>			Units: µg/Kg		Prep Date	e: <b>5/8/2023</b>	RunNo: 838	882	
Client ID: LCSS	Batch ID: 40272					Analysis Date	e: <b>5/10/2023</b>	SeqNo: <b>17</b> 4	9330	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	1,560	20.0	2,000	0	78.0	59.8	131			
Chrysene	1,370	20.0	2,000	0	68.6	54.1	116			
Benzo(b)fluoranthene	1,430	25.0	2,000	0	71.7	56.7	123			
Benzo(k)fluoranthene	1,360	25.0	2,000	0	68.1	54.9	119			
Benzo(a)pyrene	1,460	30.0	2,000	0	72.9	54.7	121			
Indeno(1,2,3-cd)pyrene	1,450	40.0	2,000	0	72.5	57.1	119			
Dibenz(a,h)anthracene	1,450	50.0	2,000	0	72.6	57.2	117			
Surr: 2-Fluorobiphenyl	849		1,000		84.9	29.4	126			
Surr: Terphenyl-d14 (surr)	916		1,000		91.6	32.5	139			
Sample ID: <b>2305045-004AMS</b>	SampType: <b>MS</b>			Units: µg/Kg-	lry	Prep Date	e: 5/8/2023	RunNo: 838	882	
Client ID: MTP-4-1	Batch ID: 40272					Analysis Date	e: <b>5/10/2023</b>	SeqNo: <b>17</b> 4	9332	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	1,450	19.3	1,930	0	75.0	47.4	115			
Chrysene	1,160	19.3	1,930	0	59.8	41.5	108			
Benzo(b)fluoranthene	1,290	24.1	1,930	0	66.6	42.7	117			

Revision v1 Page 64 of 115





Project:

## **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

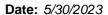
Mottis Property

## Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2305045-004AMS	SampType: MS	Units: µg/Kg-dry Prep Date: 5/8/2023					23	RunNo: 838	382		
Client ID: MTP-4-1	Batch ID: 40272					Analysis Da	te: <b>5/10/20</b>	)23	SeqNo: 174	19332	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	1,090	24.1	1,930	0	56.7	39.4	112				
Benzo(a)pyrene	1,220	29.0	1,930	0	63.4	39.8	111				
Indeno(1,2,3-cd)pyrene	973	38.6	1,930	0	50.4	36.6	111				
Dibenz(a,h)anthracene	973	48.3	1,930	0	50.4	38.5	106				
Surr: 2-Fluorobiphenyl	711		965.1		73.6	29.4	126				
Surr: Terphenyl-d14 (surr)	759		965.1		78.6	32.5	139				

Sample ID: 2305045-004AMSD	SampType: MSD			Units: µg/K	g-dry	Prep Da	te: <b>5/8/202</b>	:3	RunNo: 838	382	
Client ID: MTP-4-1	Batch ID: 40272					Analysis Da	te: <b>5/10/20</b>	23	SeqNo: 174	19333	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	1,540	19.2	1,925	0	80.0	47.4	115	1,448	6.12	30	
Chrysene	1,220	19.2	1,925	0	63.4	41.5	108	1,155	5.45	30	
Benzo(b)fluoranthene	1,330	24.1	1,925	0	69.1	42.7	117	1,285	3.37	30	
Benzo(k)fluoranthene	1,130	24.1	1,925	0	58.7	39.4	112	1,094	3.34	30	
Benzo(a)pyrene	1,250	28.9	1,925	0	64.9	39.8	111	1,223	2.08	30	
Indeno(1,2,3-cd)pyrene	918	38.5	1,925	0	47.7	36.6	111	973.1	5.83	30	
Dibenz(a,h)anthracene	912	48.1	1,925	0	47.4	38.5	106	973.4	6.54	30	
Surr: 2-Fluorobiphenyl	740		962.4		76.9	29.4	126		0		
Surr: Terphenyl-d14 (surr)	802		962.4		83.3	32.5	139		0		

Revision v1 Page 65 of 115





Project:

## **QC SUMMARY REPORT**

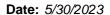
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: <b>MB-40270</b>	SampType: MBLK			Units: µg/Kg		Prep Da	ite: 5/8/202	23	RunNo: <b>840</b>	68	
Client ID: MBLKS	Batch ID: 40270					Analysis Da	ite: <b>5/10/2</b> 0	23	SeqNo: <b>175</b>	3494	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	30.0									
Bis(2-chloroethyl) ether	ND	50.0									
2-Chlorophenol	ND	40.0									
1,3-Dichlorobenzene	ND	40.0									
1,4-Dichlorobenzene	ND	30.0									
1,2-Dichlorobenzene	ND	40.0									
Benzyl alcohol	ND	150									
2-Methylphenol (o-cresol)	ND	40.0									
Hexachloroethane	ND	40.0									
N-Nitrosodi-n-propylamine	ND	80.0									
3&4-Methylphenol (m, p-cresol)	ND	30.0									
Nitrobenzene	ND	50.0									
Isophorone	ND	40.0									
2-Nitrophenol	ND	30.0									
2,4-Dimethylphenol	ND	30.0									
Bis(2-chloroethoxy)methane	ND	30.0									
2,4-Dichlorophenol	ND	30.0									
1,2,4-Trichlorobenzene	ND	30.0									
Naphthalene	ND	40.0									
4-Chloroaniline	ND	30.0									
Hexachlorobutadiene	ND	30.0									
4-Chloro-3-methylphenol	ND	30.0									
2-Methylnaphthalene	ND	30.0									
1-Methylnaphthalene	ND	30.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	30.0									
2,4,5-Trichlorophenol	ND	30.0									
2-Chloronaphthalene	ND	30.0									
2-Nitroaniline	ND	50.0									
Acenaphthene	ND	30.0									
Dimethylphthalate	ND	3,500									
2,6-Dinitrotoluene	ND	40.0									

Revision v1 Page 66 of 115





Project:

## **QC SUMMARY REPORT**

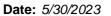
# **CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-40270	SampType: MBLK			Units: µg/Kg		Prep Da	te: <b>5/8/202</b>	23	RunNo: <b>840</b>	068	
Client ID: MBLKS	Batch ID: 40270					Analysis Da	te: <b>5/10/2</b> 0	)23	SeqNo: 175	53494	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthylene	ND	30.0									
2,4-Dinitrophenol	ND	300									
Dibenzofuran	ND	30.0									
2,4-Dinitrotoluene	ND	60.0									
4-Nitrophenol	ND	200									
Fluorene	ND	30.0									
4-Chlorophenyl phenyl ether	ND	30.0									
Diethylphthalate	ND	750									
4,6-Dinitro-2-methylphenol	ND	250									
4-Bromophenyl phenyl ether	ND	30.0									
Hexachlorobenzene	ND	30.0									
Pentachlorophenol	ND	200									
Phenanthrene	ND	30.0									
Anthracene	ND	30.0									
Carbazole	ND	30.0									
Di-n-butylphthalate	ND	30.0									
Fluoranthene	ND	30.0									
Pyrene	ND	150									
Butyl Benzylphthalate	ND	50.0									
bis(2-Ethylhexyl)adipate	ND	200									
Benz(a)anthracene	ND	30.0									
Chrysene	ND	50.0									
bis (2-Ethylhexyl) phthalate	ND	40.0									
Di-n-octyl phthalate	ND	75.0									
Benzo(b)fluoranthene	ND	100									
Benzo(k)fluoranthene	ND	30.0									
Benzo(a)pyrene	ND	40.0									
Indeno(1,2,3-cd)pyrene	ND	200									
Dibenz(a,h)anthracene	ND	100									
Benzo(g,h,i)perylene	ND	100									
Surr: 2,4,6-Tribromophenol	907		2,000		45.4	16.2	150				
Surr: 2-Fluorobiphenyl	629		1,000		62.9	25.3	139				

Revision v1 Page 67 of 115





# **QC SUMMARY REPORT**

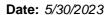
CLIENT: ESA Associates, Inc.

## Semivolatile Organic Compounds by EPA Method 8270E

<b>Project:</b> Mottis Pr	operty				Sem	iivolatile	Organic	Compoun	as by EPA	Netnoa	8270
Sample ID: <b>MB-40270</b>	SampType: MBLK			Units: µg/Kg		Prep Da	te: <b>5/8/202</b>	23	RunNo: 840	)68	
Client ID: MBLKS	Batch ID: 40270					Analysis Da	te: <b>5/10/20</b>	)23	SeqNo: <b>175</b>	53494	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	519		1,000		51.9	12.7	143				
Surr: Phenol-d6	1,230		2,000		61.4	21.4	139				
Surr: p-Terphenyl	627		1,000		62.7	37.1	144				

Sample ID: <b>LCS-40270</b>	SampType: LCS			Units: µg/Kg		Prep Dat	te: <b>5/8/2023</b>	RunNo: <b>84068</b>
Client ID: LCSS	Batch ID: 40270					Analysis Dat	te: <b>5/10/2023</b>	SeqNo: <b>1753495</b>
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref	Val %RPD RPDLimit Qual
Phenol	1,310	30.0	2,000	0	65.5	53.9	113	
Bis(2-chloroethyl) ether	1,430	50.0	2,000	0	71.3	60.2	112	
2-Chlorophenol	1,390	40.0	2,000	0	69.5	61.2	110	
1,3-Dichlorobenzene	1,430	40.0	2,000	0	71.3	59.2	110	
1,4-Dichlorobenzene	1,380	30.0	2,000	0	68.9	59.4	111	
1,2-Dichlorobenzene	1,380	40.0	2,000	0	69.0	58.2	112	
Benzyl alcohol	1,160	150	2,000	0	57.8	5	149	
2-Methylphenol (o-cresol)	1,440	40.0	2,000	0	71.8	54.2	113	
Hexachloroethane	1,410	40.0	2,000	0	70.3	58.7	110	
N-Nitrosodi-n-propylamine	1,320	80.0	2,000	0	66.2	58.8	115	
3&4-Methylphenol (m, p-cresol)	1,350	30.0	2,000	0	67.6	49	121	
Nitrobenzene	1,370	50.0	2,000	0	68.6	62	113	
Isophorone	1,330	40.0	2,000	0	66.5	62.5	113	
2-Nitrophenol	1,320	30.0	2,000	0	66.2	60.3	114	
2,4-Dimethylphenol	1,240	30.0	2,000	0	62.0	38	119	
Bis(2-chloroethoxy)methane	1,380	30.0	2,000	0	68.8	58.5	112	
2,4-Dichlorophenol	1,370	30.0	2,000	0	68.3	56.6	115	
1,2,4-Trichlorobenzene	1,410	30.0	2,000	0	70.5	60.4	112	
Naphthalene	1,340	40.0	2,000	0	66.9	60.1	110	
4-Chloroaniline	1,240	30.0	2,000	0	62.0	53.6	116	
Hexachlorobutadiene	1,390	30.0	2,000	0	69.4	61.5	116	
4-Chloro-3-methylphenol	1,270	30.0	2,000	0	63.7	54.7	116	
2-Methylnaphthalene	1,360	30.0	2,000	0	67.9	59.5	116	

Page 68 of 115 Revision v1





Project:

## **QC SUMMARY REPORT**

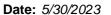
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-40270	SampType: LCS			Units: µg/Kg		Prep Dat	te: <b>5/8/202</b>	23	RunNo: 840	068	
Client ID: LCSS	Batch ID: 40270					Analysis Da	te: <b>5/10/20</b>	23	SeqNo: 17	53495	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1-Methylnaphthalene	1,410	30.0	2,000	0	70.5	61	112				
Hexachlorocyclopentadiene	1,420	100	2,000	0	71.2	39.9	130				
2,4,6-Trichlorophenol	1,320	30.0	2,000	0	65.9	60.3	117				
2,4,5-Trichlorophenol	1,280	30.0	2,000	0	63.8	53.3	120				
2-Chloronaphthalene	1,390	30.0	2,000	0	69.7	60.6	114				
2-Nitroaniline	1,310	50.0	2,000	0	65.4	59.1	121				
Acenaphthene	1,350	30.0	2,000	0	67.7	59.4	117				
Dimethylphthalate	1330	3,500	2,000	0	66.6	59.7	119				
2,6-Dinitrotoluene	1,380	40.0	2,000	0	69.1	59.9	121				
Acenaphthylene	1,440	30.0	2,000	0	72.1	60.2	112				
2,4-Dinitrophenol	2,510	300	4,000	0	62.7	5	119				
Dibenzofuran	1,400	30.0	2,000	0	69.9	56.7	116				
2,4-Dinitrotoluene	1,360	60.0	2,000	0	67.8	60.9	120				
4-Nitrophenol	1,290	200	2,000	0	64.3	36	126				
Fluorene	1,380	30.0	2,000	0	68.9	58.9	114				
4-Chlorophenyl phenyl ether	1,360	30.0	2,000	0	68.1	57.7	117				
Diethylphthalate	1,300	750	2,000	0	65.0	57.3	112				
4,6-Dinitro-2-methylphenol	1,370	250	2,000	0	68.7	5	132				
4-Bromophenyl phenyl ether	1,300	30.0	2,000	0	65.1	60	117				
Hexachlorobenzene	1,340	30.0	2,000	0	66.9	59.5	117				
Pentachlorophenol	1,000	200	2,000	0	50.0	26.5	109				
Phenanthrene	1,380	30.0	2,000	0	69.0	57.2	114				
Anthracene	1,370	30.0	2,000	0	68.4	56.9	115				
Carbazole	1,350	30.0	2,000	0	67.4	51.7	124				
Di-n-butylphthalate	1,340	30.0	2,000	0	66.9	60.4	116				
Fluoranthene	1,390	30.0	2,000	0	69.4	55.8	119				
Pyrene	1,420	150	2,000	0	70.8	54.9	120				
Butyl Benzylphthalate	1,300	50.0	2,000	0	65.2	60	121				
bis(2-Ethylhexyl)adipate	1,260	200	2,000	0	63.0	57.4	122				
Benz(a)anthracene	1,490	30.0	2,000	0	74.7	52.2	130				
Chrysene	1,350	50.0	2,000	0	67.7	56.3	113				
bis (2-Ethylhexyl) phthalate	1,250	40.0	2,000	0	62.3	55.4	124				

Revision v1 Page 69 of 115





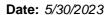
# **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Project: Motti	s Property				Sen	nivolatile	Organic Compoui	nds by EPA Method	8270E
Sample ID: LCS-40270	SampType: LCS			Units: µg/Kg		Prep Date	e: <b>5/8/2023</b>	RunNo: <b>84068</b>	
Client ID: LCSS	Batch ID: 40270					Analysis Date	e: <b>5/10/2023</b>	SeqNo: <b>1753495</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Di-n-octyl phthalate	1,330	75.0	2,000	0	66.5	50.2	136		
Benzo(b)fluoranthene	1,410	100	2,000	0	70.5	58.2	117		
Benzo(k)fluoranthene	1,390	30.0	2,000	0	69.3	52.4	118		
Benzo(a)pyrene	1,470	40.0	2,000	0	73.5	54.9	111		
Indeno(1,2,3-cd)pyrene	1,790	200	2,000	0	89.3	51.9	127		
Dibenz(a,h)anthracene	1,230	100	2,000	0	61.6	47.5	134		
Benzo(g,h,i)perylene	1,620	100	2,000	0	80.8	52.6	117		
Surr: 2,4,6-Tribromophe	nol 1,560		2,000		78.2	16.2	150		
Surr: 2-Fluorobiphenyl	850		1,000		85.0	25.3	139		
Surr: Nitrobenzene-d5	786		1,000		78.6	12.7	143		
Surr: Phenol-d6	1,600		2,000		80.1	21.4	139		
Surr: p-Terphenyl	864		1,000		86.4	37.1	144		
Sample ID: <b>2305045-004</b>	MS SampType: MS			Units: µg/Kg-0	lry	Prep Date	e: <b>5/8/2023</b>	RunNo: <b>84068</b>	
Client ID: MTP-4-1	Batch ID: 40270					Analysis Date	e: <b>5/10/2023</b>	SeqNo: <b>1753498</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual

Sample ID: 2305045-004AMS	SampType: <b>MS</b>			Units: µg/K	(g-dry	Prep Da	te: <b>5/8/202</b>	3	RunNo: <b>840</b>	168	
Client ID: MTP-4-1	Batch ID: 40270					Analysis Da	te: <b>5/10/20</b>	23	SeqNo: 175	3498	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1,460	29.0	1,930	249.7	62.9	22	117				
Bis(2-chloroethyl) ether	1,280	48.3	1,930	0	66.5	40.8	99.2				
2-Chlorophenol	1,290	38.6	1,930	0	67.0	22.2	114				
1,3-Dichlorobenzene	1,310	38.6	1,930	0	67.9	30.7	102				
1,4-Dichlorobenzene	1,320	29.0	1,930	0	68.4	31.1	102				
1,2-Dichlorobenzene	1,270	38.6	1,930	0	65.9	31.8	103				
Benzyl alcohol	1,290	145	1,930	68.67	63.2	5	130				
2-Methylphenol (o-cresol)	1,400	38.6	1,930	0	72.7	23.9	118				
Hexachloroethane	1,310	38.6	1,930	0	67.8	21.8	116				
N-Nitrosodi-n-propylamine	1,260	77.2	1,930	0	65.2	41.4	106				
3&4-Methylphenol (m, p-cresol)	1,350	29.0	1,930	0	70.0	20.3	119				
Nitrobenzene	1,300	48.3	1,930	0	67.4	29.9	108				
Isophorone	1,290	38.6	1,930	0	66.8	41.6	107				
2-Nitrophenol	1,350	29.0	1,930	0	70.1	20.3	120				

Page 70 of 115 Revision v1





Project:

## **QC SUMMARY REPORT**

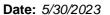
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2305045-004AMS	SampType: MS			Units: µg/K	g-dry	Prep Da	te: <b>5/8/202</b>	23	RunNo: <b>840</b>	068	
Client ID: MTP-4-1	Batch ID: 40270					Analysis Da	te: <b>5/10/2</b> 0	)23	SeqNo: 17	53498	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dimethylphenol	1,240	29.0	1,930	0	64.2	25.5	117				
Bis(2-chloroethoxy)methane	1,280	29.0	1,930	0	66.2	46	99.3				
2,4-Dichlorophenol	1,360	29.0	1,930	0	70.4	27.3	118				
1,2,4-Trichlorobenzene	1,290	29.0	1,930	0	67.0	32.6	107				
Naphthalene	1,330	38.6	1,930	61.24	65.7	27.4	110				
4-Chloroaniline	1,170	29.0	1,930	0	60.8	3.21	116				
Hexachlorobutadiene	1,300	29.0	1,930	0	67.3	44.5	100				
4-Chloro-3-methylphenol	1,380	29.0	1,930	0	71.6	27.7	120				
2-Methylnaphthalene	1,320	29.0	1,930	13.11	67.7	36.9	107				
1-Methylnaphthalene	1,370	29.0	1,930	19.16	70.2	37.6	107				
Hexachlorocyclopentadiene	1,050	96.5	1,930	0	54.6	5	104				
2,4,6-Trichlorophenol	1,370	29.0	1,930	0	71.0	51.2	101				
2,4,5-Trichlorophenol	1,350	29.0	1,930	0	70.0	49.8	109				
2-Chloronaphthalene	1,350	29.0	1,930	0	69.7	46.2	99.3				
2-Nitroaniline	1,660	48.3	1,930	0	86.2	30.1	119				
Acenaphthene	1,350	29.0	1,930	0	70.1	25.7	113				
Dimethylphthalate	1320	3,380	1,930	0	68.2	46.8	104				
2,6-Dinitrotoluene	1,390	38.6	1,930	0	72.2	34	112				
Acenaphthylene	1,440	29.0	1,930	16.97	73.8	36.1	107				
2,4-Dinitrophenol	1,700	290	3,861	0	44.1	5	102				
Dibenzofuran	1,330	29.0	1,930	0	69.0	45.2	102				
2,4-Dinitrotoluene	1,370	57.9	1,930	0	71.0	36.8	117				
4-Nitrophenol	1,400	193	1,930	0	72.3	5	143				
Fluorene	1,340	29.0	1,930	0	69.6	29	113				
4-Chlorophenyl phenyl ether	1,320	29.0	1,930	0	68.4	39	105				
Diethylphthalate	1,350	724	1,930	0	69.8	48.1	98.4				
4,6-Dinitro-2-methylphenol	1,070	241	1,930	0	55.5	5	129				
4-Bromophenyl phenyl ether	1,290	29.0	1,930	0	66.8	38.5	108				
Hexachlorobenzene	1,310	29.0	1,930	0	67.8	35.6	111				
Pentachlorophenol	1,120	193	1,930	0	57.9	21	116				
Phenanthrene	1,310	29.0	1,930	57.08	64.8	26.4	113				
Anthracene	1,260	29.0	1,930	0	65.2	43.9	105				

Revision v1 Page 71 of 115





## **QC SUMMARY REPORT**

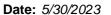
CLIENT: ESA Associates, Inc.
Project: Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2305045-004AMS	SampType: MS			Units: µg/K	g-dry	Prep Da	te: <b>5/8/202</b>	3	RunNo: 840	)68	
Client ID: MTP-4-1	Batch ID: 40270					Analysis Da	te: <b>5/10/20</b>	23	SeqNo: 175	3498	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbazole	1,310	29.0	1,930	0	67.9	26.8	120				
Di-n-butylphthalate	1,330	29.0	1,930	0	68.7	44.1	112				
Fluoranthene	1,310	29.0	1,930	0	67.7	43.2	106				
Pyrene	1,320	145	1,930	0	68.6	40.2	107				
Butyl Benzylphthalate	1,410	48.3	1,930	0	73.0	31	128				
bis(2-Ethylhexyl)adipate	1,300	193	1,930	0	67.4	38.4	126				
Benz(a)anthracene	1,370	29.0	1,930	0	70.7	37.8	118				
Chrysene	1,220	48.3	1,930	0	63.1	30	116				
bis (2-Ethylhexyl) phthalate	2,910	38.6	1,930	1,758	59.8	37.2	125				
Di-n-octyl phthalate	1,540	72.4	1,930	0	80.0	26.8	139				
Benzo(b)fluoranthene	1,300	96.5	1,930	0	67.5	24.7	118				
Benzo(k)fluoranthene	1,180	29.0	1,930	0	61.2	22.4	121				
Benzo(a)pyrene	1,350	38.6	1,930	0	69.7	18	121				
Indeno(1,2,3-cd)pyrene	1,590	193	1,930	0	82.4	13.9	132				
Dibenz(a,h)anthracene	1,240	96.5	1,930	0	64.1	14.3	139				
Benzo(g,h,i)perylene	1,170	96.5	1,930	0	60.9	10.1	121				
Surr: 2,4,6-Tribromophenol	1,450		1,930		75.2	16.2	150				
Surr: 2-Fluorobiphenyl	749		965.1		77.6	25.3	139				
Surr: Nitrobenzene-d5	691		965.1		71.6	12.7	143				
Surr: Phenol-d6	1,420		1,930		73.7	21.4	139				
Surr: p-Terphenyl	756		965.1		78.3	37.1	144				

Sample ID: 2305045-004AMSD	SampType: MSD	100,					Prep Date: 5/8/2023			RunNo: <b>84068</b>		
Client ID: MTP-4-1	Batch ID: 40270					Analysis Da	te: <b>5/10/20</b>	)23	SeqNo: 175	53499		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Phenol	1,570	28.9	1,925	249.7	68.4	22	117	1,463	6.74	50		
Bis(2-chloroethyl) ether	1,230	48.1	1,925	0	63.8	40.8	99.2	1,283	4.34	50		
2-Chlorophenol	1,330	38.5	1,925	0	69.1	22.2	114	1,293	2.90	50		
1,3-Dichlorobenzene	1,290	38.5	1,925	0	66.8	30.7	102	1,310	1.85	50		
1,4-Dichlorobenzene	1,320	28.9	1,925	0	68.6	31.1	102	1,321	0.123	50		

Revision v1 Page 72 of 115





Project:

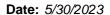
## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc. Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

ample ID: 2305045-004AMSD SampType: MSD Units: με					g-dry	Prep Da	te: <b>5/8/202</b>	23	RunNo: <b>84068</b>			
Client ID: MTP-4-1	Batch ID: 40270					Analysis Da	te: <b>5/10/2</b> 0	23	SeqNo: 175	53499		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,2-Dichlorobenzene	1,330	38.5	1,925	0	69.0	31.8	103	1,272	4.39	50		
Benzyl alcohol	1,370	144	1,925	68.67	67.5	5	130	1,289	5.92	50		
2-Methylphenol (o-cresol)	1,390	38.5	1,925	0	72.0	23.9	118	1,404	1.24	50		
Hexachloroethane	1,290	38.5	1,925	0	67.3	21.8	116	1,309	1.12	50		
N-Nitrosodi-n-propylamine	1,280	77.0	1,925	0	66.7	41.4	106	1,259	1.91	50		
3&4-Methylphenol (m, p-cresol)	1,380	28.9	1,925	0	71.9	20.3	119	1,352	2.35	50		
Nitrobenzene	1,300	48.1	1,925	0	67.7	29.9	108	1,300	0.247	50		
Isophorone	1,310	38.5	1,925	0	68.1	41.6	107	1,290	1.57	50		
2-Nitrophenol	1,370	28.9	1,925	0	71.0	20.3	120	1,353	0.927	50		
2,4-Dimethylphenol	1,230	28.9	1,925	0	63.7	25.5	117	1,239	1.10	50		
Bis(2-chloroethoxy)methane	1,280	28.9	1,925	0	66.3	46	99.3	1,277	0.0884	50		
2,4-Dichlorophenol	1,370	28.9	1,925	0	71.2	27.3	118	1,359	0.815	50		
1,2,4-Trichlorobenzene	1,320	28.9	1,925	0	68.8	32.6	107	1,294	2.30	50		
Naphthalene	1,380	38.5	1,925	61.24	68.6	27.4	110	1,330	3.86	50		
4-Chloroaniline	1,160	28.9	1,925	0	60.4	3.21	116	1,173	0.943	50		
Hexachlorobutadiene	1,350	28.9	1,925	0	70.1	44.5	100	1,299	3.83	50		
4-Chloro-3-methylphenol	1,370	28.9	1,925	0	71.4	27.7	120	1,382	0.562	50		
2-Methylnaphthalene	1,290	28.9	1,925	13.11	66.4	36.9	107	1,319	2.15	50		
1-Methylnaphthalene	1,370	28.9	1,925	19.16	70.4	37.6	107	1,374	0.0165	50		
Hexachlorocyclopentadiene	950	96.2	1,925	0	49.3	5	104	1,054	10.4	50		
2,4,6-Trichlorophenol	1,360	28.9	1,925	0	70.4	51.2	101	1,370	1.05	50		
2,4,5-Trichlorophenol	1,380	28.9	1,925	0	71.7	49.8	109	1,352	2.12	50		
2-Chloronaphthalene	1,370	28.9	1,925	0	71.3	46.2	99.3	1,346	1.98	50		
2-Nitroaniline	1,770	48.1	1,925	0	92.0	30.1	119	1,665	6.20	50		
Acenaphthene	1,330	28.9	1,925	0	69.2	25.7	113	1,353	1.54	50		
Dimethylphthalate	1310	3,370	1,925	0	68.3	46.8	104	0		50		
2,6-Dinitrotoluene	1,410	38.5	1,925	0	73.4	34	112	1,393	1.43	50		
Acenaphthylene	1,470	28.9	1,925	16.97	75.3	36.1	107	1,441	1.74	50		
2,4-Dinitrophenol	1,830	289	3,850	0	47.5	5	102	1,704	7.10	50		
Dibenzofuran	1,340	28.9	1,925	0	69.8	45.2	102	1,332	0.898	50		
2,4-Dinitrotoluene	1,330	57.7	1,925	0	69.0	36.8	117	1,371	3.20	50		
4-Nitrophenol	1,410	192	1,925	0	73.5	5	143	1,396	1.33	50		

Page 73 of 115 Revision v1





Project:

## **QC SUMMARY REPORT**

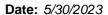
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2305045-004AMSD							23	RunNo: <b>840</b>	068		
Client ID: MTP-4-1	Batch ID: 40270					Analysis Da	te: <b>5/10/2</b> 0	)23	SeqNo: 175	53499	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	1,360	28.9	1,925	0	70.7	29	113	1,343	1.35	50	
4-Chlorophenyl phenyl ether	1,330	28.9	1,925	0	69.3	39	105	1,319	1.11	50	
Diethylphthalate	1,340	722	1,925	0	69.8	48.1	98.4	1,347	0.258	50	
4,6-Dinitro-2-methylphenol	1,040	241	1,925	0	54.0	5	129	1,071	3.02	50	
4-Bromophenyl phenyl ether	1,310	28.9	1,925	0	68.1	38.5	108	1,290	1.70	50	
Hexachlorobenzene	1,260	28.9	1,925	0	65.4	35.6	111	1,308	3.78	50	
Pentachlorophenol	1,170	192	1,925	0	60.6	21	116	1,118	4.25	50	
Phenanthrene	1,350	28.9	1,925	57.08	67.1	26.4	113	1,308	3.00	50	
Anthracene	1,300	28.9	1,925	0	67.3	43.9	105	1,258	2.96	50	
Carbazole	1,320	28.9	1,925	0	68.7	26.8	120	1,312	0.801	50	
Di-n-butylphthalate	1,380	28.9	1,925	0	71.7	44.1	112	1,325	4.00	50	
Fluoranthene	1,360	28.9	1,925	0	70.6	43.2	106	1,308	3.80	50	
Pyrene	1,360	144	1,925	0	70.8	40.2	107	1,323	2.95	50	
Butyl Benzylphthalate	1,410	48.1	1,925	0	73.0	31	128	1,409	0.270	50	
bis(2-Ethylhexyl)adipate	1,350	192	1,925	0	70.0	38.4	126	1,300	3.53	50	
Benz(a)anthracene	1,360	28.9	1,925	0	70.8	37.8	118	1,365	0.249	50	
Chrysene	1,210	48.1	1,925	0	62.7	30	116	1,218	0.884	50	
bis (2-Ethylhexyl) phthalate	3,320	38.5	1,925	1,758	81.4	37.2	125	2,912	13.2	50	
Di-n-octyl phthalate	1,540	72.2	1,925	0	80.2	26.8	139	1,543	0.0632	50	
Benzo(b)fluoranthene	1,350	96.2	1,925	0	70.1	24.7	118	1,303	3.43	50	
Benzo(k)fluoranthene	1,120	28.9	1,925	0	58.1	22.4	121	1,181	5.35	50	
Benzo(a)pyrene	1,300	38.5	1,925	0	67.5	18	121	1,346	3.56	50	
Indeno(1,2,3-cd)pyrene	1,490	192	1,925	0	77.6	13.9	132	1,591	6.36	50	
Dibenz(a,h)anthracene	1,070	96.2	1,925	0	55.4	14.3	139	1,237	14.9	50	
Benzo(g,h,i)perylene	1,080	96.2	1,925	0	56.0	10.1	121	1,175	8.58	50	
Surr: 2,4,6-Tribromophenol	1,570		1,925		81.6	16.2	150		0		
Surr: 2-Fluorobiphenyl	741		962.4		77.0	25.3	139		0		
Surr: Nitrobenzene-d5	674		962.4		70.0	12.7	143		0		
Surr: Phenol-d6	1,440		1,925		75.0	21.4	139		0		
Surr: p-Terphenyl	769		962.4		79.9	37.1	144		0		

Revision v1 Page 74 of 115





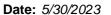
## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-40361	SampType: MBLK			Units: µg/Kg		Prep Da	te: <b>5/16/2</b> 0	)23	RunNo: <b>840</b>	70	
Client ID: MBLKS	Batch ID: 40361					Analysis Da	te: <b>5/17/2</b> 0	)23	SeqNo: <b>175</b>	3521	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Phenol	ND	30.0									
Bis(2-chloroethyl) ether	ND	50.0									
2-Chlorophenol	ND	40.0									
1,3-Dichlorobenzene	ND	40.0									
1,4-Dichlorobenzene	ND	30.0									
1,2-Dichlorobenzene	ND	40.0									
Benzyl alcohol	ND	150									
2-Methylphenol (o-cresol)	ND	40.0									
Hexachloroethane	ND	40.0									
N-Nitrosodi-n-propylamine	ND	80.0									
3&4-Methylphenol (m, p-cresol)	ND	30.0									
Nitrobenzene	ND	50.0									
Isophorone	ND	40.0									
2-Nitrophenol	ND	30.0									
2,4-Dimethylphenol	ND	30.0									
Bis(2-chloroethoxy)methane	ND	30.0									
2,4-Dichlorophenol	ND	30.0									
1,2,4-Trichlorobenzene	ND	30.0									
Naphthalene	ND	40.0									
4-Chloroaniline	ND	30.0									
Hexachlorobutadiene	ND	30.0									
4-Chloro-3-methylphenol	ND	30.0									
2-Methylnaphthalene	ND	30.0									
1-Methylnaphthalene	ND	30.0									
Hexachlorocyclopentadiene	ND	100									
2,4,6-Trichlorophenol	ND	30.0									
2,4,5-Trichlorophenol	ND	30.0									
2-Chloronaphthalene	ND	30.0									
2-Nitroaniline	ND	50.0									
Acenaphthene	ND	30.0									
Dimethylphthalate	ND	3,500									
2,6-Dinitrotoluene	ND	40.0									

Revision v1 Page 75 of 115





Project:

## **QC SUMMARY REPORT**

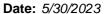
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-40361	SampType: MBLK			Units: µg/Kg		Prep Da	ite: <b>5/16/2</b> 0	023	RunNo: <b>840</b>	070	
Client ID: MBLKS	Batch ID: 40361					Analysis Da	ate: <b>5/17/2</b> 0	023	SeqNo: 17	53521	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthylene	ND	30.0									
2,4-Dinitrophenol	ND	300									Q
Dibenzofuran	ND	30.0									
2,4-Dinitrotoluene	ND	60.0									
4-Nitrophenol	ND	200									
Fluorene	ND	30.0									
4-Chlorophenyl phenyl ether	ND	30.0									
Diethylphthalate	ND	750									
4,6-Dinitro-2-methylphenol	ND	250									Q
4-Bromophenyl phenyl ether	ND	30.0									
Hexachlorobenzene	ND	30.0									
Pentachlorophenol	ND	200									
Phenanthrene	ND	30.0									
Anthracene	ND	30.0									
Carbazole	ND	30.0									
Di-n-butylphthalate	ND	30.0									
Fluoranthene	ND	30.0									
Pyrene	ND	150									
Butyl Benzylphthalate	ND	50.0									
bis(2-Ethylhexyl)adipate	ND	200									
Benz(a)anthracene	ND	30.0									
Chrysene	ND	50.0									
bis (2-Ethylhexyl) phthalate	ND	40.0									
Di-n-octyl phthalate	ND	75.0									
Benzo(b)fluoranthene	ND	100									
Benzo(k)fluoranthene	ND	30.0									
Benzo(a)pyrene	ND	40.0									
Indeno(1,2,3-cd)pyrene	ND	200									
Dibenz(a,h)anthracene	ND	100									
Benzo(g,h,i)perylene	ND	100									
Surr: 2,4,6-Tribromophenol	1,650		2,000		82.4	16.2	150				
Surr: 2-Fluorobiphenyl	936		1,000		93.6	25.3	139				

Revision v1 Page 76 of 115





## **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

## Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: MB-40361	SampType: MBLK		Units: µg/Kg							RunNo: <b>84070</b>		
Client ID: MBLKS	Batch ID: 40361					Analysis Da	te: <b>5/17/20</b>	)23	SeqNo: 175	3521		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: Nitrobenzene-d5	791		1,000		79.1	12.7	143					
Surr: Phenol-d6	1,620		2,000		81.2	21.4	139					
Surr: p-Terphenyl	898		1,000		89.8	37.1	144					
NOTES:												

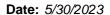
NOTES:

Project:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: LCS-40361	SampType: LCS			Units: µg/Kg		Prep Da	te: <b>5/16/20</b>	23	RunNo: 840	70	
Client ID: LCSS	Batch ID: 40361					Analysis Da	te: <b>5/17/20</b>	23	SeqNo: 175	3522	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1,280	30.0	2,000	0	64.2	53.9	113				
Bis(2-chloroethyl) ether	1,560	50.0	2,000	0	78.0	60.2	112				
2-Chlorophenol	1,510	40.0	2,000	0	75.3	61.2	110				
1,3-Dichlorobenzene	1,520	40.0	2,000	0	75.8	59.2	110				
1,4-Dichlorobenzene	1,510	30.0	2,000	0	75.6	59.4	111				
1,2-Dichlorobenzene	1,530	40.0	2,000	0	76.3	58.2	112				
Benzyl alcohol	1,940	150	2,000	0	97.0	5	149				
2-Methylphenol (o-cresol)	1,370	40.0	2,000	0	68.4	54.2	113				
Hexachloroethane	1,550	40.0	2,000	0	77.6	58.7	110				
N-Nitrosodi-n-propylamine	1,510	80.0	2,000	0	75.6	58.8	115				
3&4-Methylphenol (m, p-cresol)	1,340	30.0	2,000	0	67.0	49	121				
Nitrobenzene	1,580	50.0	2,000	0	79.2	62	113				
Isophorone	1,590	40.0	2,000	0	79.3	62.5	113				
2-Nitrophenol	1,600	30.0	2,000	0	80.0	60.3	114				
2,4-Dimethylphenol	1,370	30.0	2,000	0	68.6	38	119				
Bis(2-chloroethoxy)methane	1,530	30.0	2,000	0	76.6	58.5	112				
2,4-Dichlorophenol	1,400	30.0	2,000	0	70.1	56.6	115				
1,2,4-Trichlorobenzene	1,550	30.0	2,000	0	77.6	60.4	112				
Naphthalene	1,480	40.0	2,000	0	74.2	60.1	110				
4-Chloroaniline	1,340	30.0	2,000	0	66.9	53.6	116				
Hexachlorobutadiene	1,470	30.0	2,000	0	73.5	61.5	116				
4-Chloro-3-methylphenol	1,160	30.0	2,000	0	58.2	54.7	116				

Revision v1 Page 77 of 115





Project:

## **QC SUMMARY REPORT**

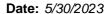
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-40361	SampType: LCS			Units: µg/Kg		Prep Da	te: <b>5/16/2</b> 0	23	RunNo: 840	070	
Client ID: LCSS	Batch ID: 40361					Analysis Da	te: <b>5/17/20</b>	23	SeqNo: 17	53522	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	1,470	30.0	2,000	0	73.6	59.5	116				
1-Methylnaphthalene	1,550	30.0	2,000	0	77.3	61	112				
Hexachlorocyclopentadiene	1,440	100	2,000	0	71.9	39.9	130				
2,4,6-Trichlorophenol	1,480	30.0	2,000	0	74.1	60.3	117				
2,4,5-Trichlorophenol	1,330	30.0	2,000	0	66.3	53.3	120				
2-Chloronaphthalene	1,560	30.0	2,000	0	77.9	60.6	114				
2-Nitroaniline	1,540	50.0	2,000	0	76.9	59.1	121				
Acenaphthene	1,520	30.0	2,000	0	75.9	59.4	117				
Dimethylphthalate	1500	3,500	2,000	0	75.0	59.7	119				
2,6-Dinitrotoluene	1,590	40.0	2,000	0	79.4	59.9	121				
Acenaphthylene	1,610	30.0	2,000	0	80.7	60.2	112				
2,4-Dinitrophenol	969	300	4,000	0	24.2	5	119				
Dibenzofuran	1,550	30.0	2,000	0	77.5	56.7	116				
2,4-Dinitrotoluene	1,580	60.0	2,000	0	79.1	60.9	120				
4-Nitrophenol	1,530	200	2,000	0	76.4	36	126				
Fluorene	1,530	30.0	2,000	0	76.5	58.9	114				
4-Chlorophenyl phenyl ether	1,490	30.0	2,000	0	74.4	57.7	117				
Diethylphthalate	1,520	750	2,000	0	76.1	57.3	112				
4,6-Dinitro-2-methylphenol	826	250	2,000	0	41.3	5	132				
4-Bromophenyl phenyl ether	1,540	30.0	2,000	0	77.0	60	117				
Hexachlorobenzene	1,480	30.0	2,000	0	73.8	59.5	117				
Pentachlorophenol	1,500	200	2,000	0	74.9	26.5	109				
Phenanthrene	1,480	30.0	2,000	0	74.0	57.2	114				
Anthracene	1,480	30.0	2,000	0	73.9	56.9	115				
Carbazole	1,570	30.0	2,000	0	78.6	51.7	124				
Di-n-butylphthalate	1,460	30.0	2,000	0	73.1	60.4	116				
Fluoranthene	1,550	30.0	2,000	0	77.4	55.8	119				
Pyrene	1,530	150	2,000	0	76.7	54.9	120				
Butyl Benzylphthalate	1,530	50.0	2,000	0	76.7	60	121				
bis(2-Ethylhexyl)adipate	1,490	200	2,000	0	74.4	57.4	122				
Benz(a)anthracene	1,820	30.0	2,000	0	90.8	52.2	130				
Chrysene	1,440	50.0	2,000	0	71.9	56.3	113				

Revision v1 Page 78 of 115





# **QC SUMMARY REPORT**

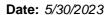
**CLIENT:** ESA Associates, Inc.

#### Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-40361	SampType: LCS			Units: µg/Kg		Prep Date	: 5/16/202	3	RunNo: <b>840</b>	070	
Client ID: LCSS	Batch ID: 40361					Analysis Date	: 5/17/202	3	SeqNo: 17	53522	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
bis (2-Ethylhexyl) phthalate	1,350	40.0	2,000	0	67.6	55.4	124				
Di-n-octyl phthalate	1,510	75.0	2,000	0	75.4	50.2	136				
Benzo(b)fluoranthene	1,690	100	2,000	0	84.5	58.2	117				
Benzo(k)fluoranthene	1,500	30.0	2,000	0	75.1	52.4	118				
Benzo(a)pyrene	1,870	40.0	2,000	0	93.6	54.9	111				
Indeno(1,2,3-cd)pyrene	2,160	200	2,000	0	108	51.9	127				
Dibenz(a,h)anthracene	1,710	100	2,000	0	85.7	47.5	134				
Benzo(g,h,i)perylene	1,800	100	2,000	0	90.1	52.6	117				
Surr: 2,4,6-Tribromophenol	1,620		2,000		81.2	16.2	150				
Surr: 2-Fluorobiphenyl	864		1,000		86.4	25.3	139				
Surr: Nitrobenzene-d5	739		1,000		73.9	12.7	143				
Surr: Phenol-d6	1,490		2,000		74.7	21.4	139				
Surr: p-Terphenyl	870		1,000		87.0	37.1	144				
Sample ID: <b>2305045-002AMS</b>	SampType: <b>MS</b>			Units: µg/Kg-	dry	Prep Date	: 5/16/202	3	RunNo: 840	)70	
Client ID: MTP-2	Batch ID: 40361					Analysis Date	: 5/17/202	3	SegNo: 175	53525	

Sample ID: 2305045-002AMS	SampType: MS			Units: µg/K	g-dry	Prep Dat	e: <b>5/16/2</b> 0	23	RunNo: <b>840</b>	70	
Client ID: MTP-2	Batch ID: 40361					Analysis Dat	e: <b>5/17/2</b> 0	23	SeqNo: 175	3525	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1,080	34.1	2,271	0	47.7	22	117				
Bis(2-chloroethyl) ether	1,420	56.8	2,271	0	62.6	40.8	99.2				
2-Chlorophenol	1,400	45.4	2,271	0	61.7	22.2	114				
1,3-Dichlorobenzene	1,410	45.4	2,271	0	61.9	30.7	102				
1,4-Dichlorobenzene	1,400	34.1	2,271	0	61.7	31.1	102				
1,2-Dichlorobenzene	1,430	45.4	2,271	0	63.0	31.8	103				
Benzyl alcohol	1,780	170	2,271	0	78.3	5	130				
2-Methylphenol (o-cresol)	1,270	45.4	2,271	0	55.8	23.9	118				
Hexachloroethane	1,420	45.4	2,271	0	62.4	21.8	116				
N-Nitrosodi-n-propylamine	1,390	90.8	2,271	0	61.2	41.4	106				
3&4-Methylphenol (m, p-cresol)	1,170	34.1	2,271	0	51.3	20.3	119				
Nitrobenzene	1,430	56.8	2,271	0	62.8	29.9	108				
Isophorone	1,440	45.4	2,271	0	63.4	41.6	107				

Revision v1 Page 79 of 115





Project:

## **QC SUMMARY REPORT**

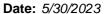
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2305045-002AMS	SampType: MS					te: <b>5/16/2</b> 0	23	RunNo: <b>840</b>	70		
Client ID: MTP-2	Batch ID: 40361					Analysis Da	te: <b>5/17/2</b> 0	23	SeqNo: <b>175</b>	3525	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Nitrophenol	1,470	34.1	2,271	0	64.7	20.3	120				
2,4-Dimethylphenol	1,190	34.1	2,271	0	52.3	25.5	117				
Bis(2-chloroethoxy)methane	1,430	34.1	2,271	0	62.9	46	99.3				
2,4-Dichlorophenol	1,280	34.1	2,271	0	56.5	27.3	118				
1,2,4-Trichlorobenzene	1,420	34.1	2,271	0	62.5	32.6	107				
Naphthalene	1,390	45.4	2,271	0	61.2	27.4	110				
4-Chloroaniline	908	34.1	2,271	0	40.0	3.21	116				
Hexachlorobutadiene	1,410	34.1	2,271	0	62.1	44.5	100				
4-Chloro-3-methylphenol	1,150	34.1	2,271	0	50.6	27.7	120				
2-Methylnaphthalene	1,380	34.1	2,271	0	60.8	36.9	107				
1-Methylnaphthalene	1,450	34.1	2,271	0	64.0	37.6	107				
Hexachlorocyclopentadiene	1,340	114	2,271	0	58.8	5	104				
2,4,6-Trichlorophenol	1,380	34.1	2,271	0	61.0	51.2	101				
2,4,5-Trichlorophenol	1,280	34.1	2,271	0	56.3	49.8	109				
2-Chloronaphthalene	1,440	34.1	2,271	0	63.3	46.2	99.3				
2-Nitroaniline	1,440	56.8	2,271	0	63.4	30.1	119				
Acenaphthene	1,420	34.1	2,271	0	62.7	25.7	113				
Dimethylphthalate	1424	3,970	2,271	0	62.7	46.8	104				
2,6-Dinitrotoluene	1,500	45.4	2,271	0	66.1	34	112				
Acenaphthylene	1,530	34.1	2,271	0	67.5	36.1	107				
2,4-Dinitrophenol	3,890	341	4,541	0	85.6	5	102				
Dibenzofuran	1,430	34.1	2,271	0	63.1	45.2	102				
2,4-Dinitrotoluene	1,450	68.1	2,271	0	63.8	36.8	117				
4-Nitrophenol	1,360	227	2,271	0	60.1	5	143				
Fluorene	1,420	34.1	2,271	0	62.7	29	113				
4-Chlorophenyl phenyl ether	1,390	34.1	2,271	0	61.2	39	105				
Diethylphthalate	1,370	851	2,271	0	60.4	48.1	98.4				
4,6-Dinitro-2-methylphenol	1,780	284	2,271	0	78.4	5	129				
4-Bromophenyl phenyl ether	1,370	34.1	2,271	0	60.5	38.5	108				
Hexachlorobenzene	1,380	34.1	2,271	0	60.7	35.6	111				
Pentachlorophenol	1,520	227	2,271	0	66.7	21	116				
Phenanthrene	1,350	34.1	2,271	0	59.3	26.4	113				

Revision v1 Page 80 of 115





Project:

## **QC SUMMARY REPORT**

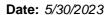
**CLIENT:** ESA Associates, Inc.

Mottis Property

## Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2305045-002AMS	SampType: MS			Units: µg/K	g-dry	Prep Date	: <b>5/16/20</b>	23	RunNo: <b>840</b>	70	
Client ID: MTP-2	Batch ID: 40361					Analysis Date	e: 5/17/20	23	SeqNo: <b>175</b>	3525	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anthracene	1,330	34.1	2,271	0	58.4	43.9	105				
Carbazole	1,400	34.1	2,271	0	61.6	26.8	120				
Di-n-butylphthalate	1,320	34.1	2,271	0	58.1	44.1	112				
Fluoranthene	1,370	34.1	2,271	0	60.3	43.2	106				
Pyrene	1,390	170	2,271	0	61.2	40.2	107				
Butyl Benzylphthalate	1,390	56.8	2,271	0	61.3	31	128				
bis(2-Ethylhexyl)adipate	1,340	227	2,271	0	59.2	38.4	126				
Benz(a)anthracene	1,590	34.1	2,271	0	70.0	37.8	118				
Chrysene	1,280	56.8	2,271	0	56.6	30	116				
bis (2-Ethylhexyl) phthalate	1,240	45.4	2,271	0	54.5	37.2	125				
Di-n-octyl phthalate	1,430	85.1	2,271	0	62.8	26.8	139				
Benzo(b)fluoranthene	1,520	114	2,271	0	66.7	24.7	118				
Benzo(k)fluoranthene	1,410	34.1	2,271	0	62.3	22.4	121				
Benzo(a)pyrene	1,680	45.4	2,271	0	74.0	18	121				
ndeno(1,2,3-cd)pyrene	2,180	227	2,271	0	95.9	13.9	132				
Dibenz(a,h)anthracene	1,720	114	2,271	0	75.6	14.3	139				
Benzo(g,h,i)perylene	1,780	114	2,271	0	78.3	10.1	121				
Surr: 2,4,6-Tribromophenol	1,480		2,271		65.0	16.2	150				
Surr: 2-Fluorobiphenyl	790		1,135		69.6	25.3	139				
Surr: Nitrobenzene-d5	749		1,135		66.0	12.7	143				
Surr: Phenol-d6	1,350		2,271		59.5	21.4	139				
Surr: p-Terphenyl	774		1,135		68.2	37.1	144				
Sample ID: <b>2305045-002AMSD</b>	SampType: <b>MSD</b>			Units: µg/K	g-dry	Prep Date	e: 5/16/20	23	RunNo: 840	)70	
Client ID: MTP-2	Batch ID: 40361					Analysis Date	e: 5/17/20	23	SeqNo: 175	3526	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	1,170	34.1	2,271	0	51.5	22	117	1,084	7.57	50	
Bis(2-chloroethyl) ether	1,440	56.8	2,271	0	63.4	40.8	99.2	1,422	1.29	50	
2-Chlorophenol	1,430	45.4	2,271	0	63.0	22.2	114	1,402	2.09	50	
1,3-Dichlorobenzene	1,430	45.4	2,271	0	63.0	30.7	102	1,406	1.66	50	

Revision v1 Page 81 of 115





Project:

## **QC SUMMARY REPORT**

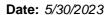
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: <b>2305045-002AMSD</b>	SampType: MSD			Units: µg/K	g-dry	Prep Da	te: <b>5/16/20</b>	23	RunNo: <b>84070</b>			
Client ID: MTP-2	Batch ID: 40361					Analysis Da	te: <b>5/17/20</b>	23	SeqNo: 175	53526		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,4-Dichlorobenzene	1,480	34.1	2,271	0	65.0	31.1	102	1,400	5.27	50		
1,2-Dichlorobenzene	1,430	45.4	2,271	0	62.9	31.8	103	1,431	0.186	50		
Benzyl alcohol	1,810	170	2,271	0	79.8	5	130	1,777	1.90	50		
2-Methylphenol (o-cresol)	1,290	45.4	2,271	0	56.8	23.9	118	1,266	1.90	50		
Hexachloroethane	1,520	45.4	2,271	0	67.1	21.8	116	1,416	7.27	50		
N-Nitrosodi-n-propylamine	1,420	90.8	2,271	0	62.6	41.4	106	1,391	2.23	50		
3&4-Methylphenol (m, p-cresol)	1,180	34.1	2,271	0	52.2	20.3	119	1,165	1.66	50		
Nitrobenzene	1,440	56.8	2,271	0	63.3	29.9	108	1,426	0.806	50		
Isophorone	1,460	45.4	2,271	0	64.4	41.6	107	1,439	1.61	50		
2-Nitrophenol	1,560	34.1	2,271	0	68.8	20.3	120	1,469	6.18	50		
2,4-Dimethylphenol	1,060	34.1	2,271	0	46.8	25.5	117	1,188	11.3	50		
Bis(2-chloroethoxy)methane	1,420	34.1	2,271	0	62.7	46	99.3	1,429	0.341	50		
2,4-Dichlorophenol	1,360	34.1	2,271	0	60.1	27.3	118	1,282	6.21	50		
1,2,4-Trichlorobenzene	1,420	34.1	2,271	0	62.4	32.6	107	1,419	0.182	50		
Naphthalene	1,430	45.4	2,271	0	63.0	27.4	110	1,390	2.93	50		
4-Chloroaniline	940	34.1	2,271	0	41.4	3.21	116	907.6	3.47	50		
Hexachlorobutadiene	1,520	34.1	2,271	0	67.0	44.5	100	1,410	7.62	50		
4-Chloro-3-methylphenol	1,230	34.1	2,271	0	54.0	27.7	120	1,149	6.51	50		
2-Methylnaphthalene	1,410	34.1	2,271	0	62.2	36.9	107	1,382	2.26	50		
1-Methylnaphthalene	1,470	34.1	2,271	0	64.9	37.6	107	1,452	1.51	50		
Hexachlorocyclopentadiene	1,410	114	2,271	0	62.1	5	104	1,335	5.37	50		
2,4,6-Trichlorophenol	1,440	34.1	2,271	0	63.4	51.2	101	1,384	3.86	50		
2,4,5-Trichlorophenol	1,320	34.1	2,271	0	58.1	49.8	109	1,279	3.02	50		
2-Chloronaphthalene	1,460	34.1	2,271	0	64.1	46.2	99.3	1,438	1.17	50		
2-Nitroaniline	1,440	56.8	2,271	0	63.4	30.1	119	1,439	0.0417	50		
Acenaphthene	1,450	34.1	2,271	0	63.8	25.7	113	1,425	1.65	50		
Dimethylphthalate	1480	3,970	2,271	0	65.3	46.8	104	0		50		
2,6-Dinitrotoluene	1,590	45.4	2,271	0	69.9	34	112	1,502	5.50	50		
Acenaphthylene	1,550	34.1	2,271	0	68.1	36.1	107	1,532	0.880	50		
2,4-Dinitrophenol	4,120	341	4,541	0	90.7	5	102	3,888	5.75	50		
Dibenzofuran	1,510	34.1	2,271	0	66.4	45.2	102	1,434	4.97	50		
2,4-Dinitrotoluene	1,580	68.1	2,271	0	69.7	36.8	117	1,448	8.87	50		

Revision v1 Page 82 of 115





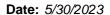
## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: <b>2305045-002AMSD</b>	SampType: MSD			Units: µg/Kg	g-dry	Prep Da	te: <b>5/16/2</b> 0	23	RunNo: <b>840</b>	070	
Client ID: MTP-2	Batch ID: 40361					Analysis Da	te: <b>5/17/2</b> 0	)23	SeqNo: 175	53526	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4-Nitrophenol	1,580	227	2,271	0	69.8	5	143	1,364	14.9	50	
Fluorene	1,480	34.1	2,271	0	65.3	29	113	1,424	4.10	50	
4-Chlorophenyl phenyl ether	1,460	34.1	2,271	0	64.3	39	105	1,389	4.90	50	
Diethylphthalate	1,440	851	2,271	0	63.4	48.1	98.4	1,371	4.80	50	
4,6-Dinitro-2-methylphenol	1,950	284	2,271	0	85.7	5	129	1,781	8.88	50	
4-Bromophenyl phenyl ether	1,440	34.1	2,271	0	63.5	38.5	108	1,374	4.79	50	
Hexachlorobenzene	1,400	34.1	2,271	0	61.5	35.6	111	1,379	1.29	50	
Pentachlorophenol	1,620	227	2,271	0	71.3	21	116	1,515	6.57	50	
Phenanthrene	1,400	34.1	2,271	0	61.7	26.4	113	1,347	4.00	50	
Anthracene	1,390	34.1	2,271	0	61.2	43.9	105	1,325	4.80	50	
Carbazole	1,470	34.1	2,271	0	64.7	26.8	120	1,399	4.89	50	
Di-n-butylphthalate	1,390	34.1	2,271	0	61.4	44.1	112	1,319	5.47	50	
Fluoranthene	1,450	34.1	2,271	0	63.9	43.2	106	1,368	5.87	50	
Pyrene	1,470	170	2,271	0	64.7	40.2	107	1,390	5.47	50	
Butyl Benzylphthalate	1,490	56.8	2,271	0	65.7	31	128	1,391	7.03	50	
bis(2-Ethylhexyl)adipate	1,390	227	2,271	0	61.0	38.4	126	1,344	2.99	50	
Benz(a)anthracene	1,700	34.1	2,271	0	75.0	37.8	118	1,590	6.93	50	
Chrysene	1,380	56.8	2,271	0	60.8	30	116	1,284	7.26	50	
bis (2-Ethylhexyl) phthalate	1,330	45.4	2,271	0	58.6	37.2	125	1,236	7.26	50	
Di-n-octyl phthalate	1,490	85.1	2,271	0	65.5	26.8	139	1,426	4.26	50	
Benzo(b)fluoranthene	1,650	114	2,271	0	72.5	24.7	118	1,516	8.25	50	
Benzo(k)fluoranthene	1,490	34.1	2,271	0	65.4	22.4	121	1,414	4.91	50	
Benzo(a)pyrene	1,770	45.4	2,271	0	77.8	18	121	1,680	5.02	50	
Indeno(1,2,3-cd)pyrene	2,200	227	2,271	0	97.0	13.9	132	2,179	1.06	50	
Dibenz(a,h)anthracene	1,680	114	2,271	0	74.2	14.3	139	1,718	1.93	50	
Benzo(g,h,i)perylene	1,780	114	2,271	0	78.6	10.1	121	1,778	0.328	50	
Surr: 2,4,6-Tribromophenol	1,550		2,271		68.5	16.2	150		0		
Surr: 2-Fluorobiphenyl	804		1,135		70.8	25.3	139		0		
Surr: Nitrobenzene-d5	685		1,135		60.3	12.7	143		0		
Surr: Phenol-d6	1,400		2,271		61.8	21.4	139		0		
Surr: p-Terphenyl	808		1,135		71.2	37.1	144		0		

Revision v1 Page 83 of 115





Project:

## **QC SUMMARY REPORT**

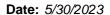
**CLIENT:** ESA Associates, Inc.

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: LCS-40245	SampType: LCS			Units: µg/L		Prep Da	te: <b>5/4/202</b>	23	RunNo: 837	760	
Client ID: LCSS	Batch ID: 40245					Analysis Da	te: <b>5/4/202</b>	23	SeqNo: 174	46511	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.26	0.0150	1.000	0	126	80	120				S
Chloromethane	0.988	0.0500	1.000	0	98.8	80	120				
Vinyl chloride	1.02	0.0250	1.000	0	102	80	120				
Bromomethane	1.05	0.0250	1.000	0	105	80	120				
Trichlorofluoromethane (CFC-11)	1.06	0.0200	1.000	0	106	80	120				
Chloroethane	1.02	0.0750	1.000	0	102	80	120				
1,1-Dichloroethene	0.978	0.100	1.000	0	97.8	80	120				
Acetone	2.13	0.250	2.500	0	85.2	80	120				
Methylene chloride	0.957	0.0350	1.000	0	95.7	80	120				
trans-1,2-Dichloroethene	0.968	0.0100	1.000	0	96.8	80	120				
Methyl tert-butyl ether (MTBE)	1.04	0.0200	1.000	0	104	80	120				
1,1-Dichloroethane	0.971	0.0250	1.000	0	97.1	80	120				
cis-1,2-Dichloroethene	0.996	0.0150	1.000	0	99.6	80	120				
(MEK) 2-Butanone	2.38	0.300	2.500	0	95.2	80	120				
Chloroform	0.977	0.0175	1.000	0	97.7	80	120				
1,1,1-Trichloroethane (TCA)	0.978	0.0200	1.000	0	97.8	80	120				
1,1-Dichloropropene	1.06	0.0200	1.000	0	106	80	120				
Carbon tetrachloride	0.953	0.0250	1.000	0	95.3	80	120				
1,2-Dichloroethane (EDC)	1.02	0.0200	1.000	0	102	80	120				
Benzene	0.956	0.0175	1.000	0	95.6	80	120				
Trichloroethene (TCE)	0.846	0.0150	1.000	0	84.6	80	120				
1,2-Dichloropropane	1.03	0.0250	1.000	0	103	80	120				
Bromodichloromethane	0.995	0.0250	1.000	0	99.5	80	120				
Dibromomethane	0.995	0.0125	1.000	0	99.5	80	120				
cis-1,3-Dichloropropene	1.09	0.0150	1.000	0	109	80	120				
Toluene	0.986	0.0300	1.000	0	98.6	80	120				
Trans-1,3-Dichloropropylene	1.07	0.0200	1.000	0	107	80	120				
Methyl Isobutyl Ketone (MIBK)	2.50	0.0600	2.500	0	100	80	120				
1,1,2-Trichloroethane	1.02	0.0125	1.000	0	102	80	120				
1,3-Dichloropropane	1.02	0.0100	1.000	0	102	80	120				
Tetrachloroethene (PCE)	1.01	0.0150	1.000	0	101	80	120				
Dibromochloromethane	1.06	0.0150	1.000	0	106	80	120				

Revision v1 Page 84 of 115





Project:

## **QC SUMMARY REPORT**

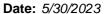
**CLIENT:** ESA Associates, Inc.

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: LCS-40245	SampType: LCS			Units: µg/L		Prep Da	te: <b>5/4/202</b>	3	RunNo: 837	760	
Client ID: LCSS	Batch ID: 40245					Analysis Da	te: <b>5/4/202</b>	3	SeqNo: 174	16511	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	0.964	0.0100	1.000	0	96.4	80	120				
2-Hexanone (MBK)	2.13	0.0625	2.500	0	85.2	80	120				
Chlorobenzene	1.00	0.0150	1.000	0	100	80	120				
1,1,1,2-Tetrachloroethane	1.02	0.0250	1.000	0	102	80	120				
Ethylbenzene	1.01	0.0250	1.000	0	101	80	120				
m,p-Xylene	1.99	0.0500	2.000	0	99.7	80	120				
o-Xylene	1.01	0.0250	1.000	0	101	80	120				
Styrene	1.05	0.0100	1.000	0	105	80	120				
Isopropylbenzene	0.998	0.0150	1.000	0	99.8	80	120				
Bromoform	1.05	0.0150	1.000	0	105	80	120				
1,1,2,2-Tetrachloroethane	1.48	0.200	1.000	0	148	80	120				S
n-Propylbenzene	1.02	0.0150	1.000	0	102	80	120				
Bromobenzene	1.00	0.0125	1.000	0	100	80	120				
1,3,5-Trimethylbenzene	1.02	0.0150	1.000	0	102	80	120				
2-Chlorotoluene	0.972	0.0165	1.000	0	97.2	80	120				
4-Chlorotoluene	1.01	0.0165	1.000	0	101	80	120				
tert-Butylbenzene	0.997	0.0150	1.000	0	99.7	80	120				
1,2,3-Trichloropropane	1.01	0.0300	1.000	0	101	80	120				
1,2,4-Trichlorobenzene	1.04	0.0600	1.000	0	104	80	120				
sec-Butylbenzene	1.01	0.150	1.000	0	101	80	120				
4-Isopropyltoluene	1.07	0.200	1.000	0	107	80	120				
1,3-Dichlorobenzene	0.979	0.0200	1.000	0	97.9	80	120				
1,4-Dichlorobenzene	0.958	0.0150	1.000	0	95.8	80	120				
n-Butylbenzene	1.09	0.0200	1.000	0	109	80	120				
1,2-Dichlorobenzene	0.993	0.0200	1.000	0	99.3	80	120				
1,2-Dibromo-3-chloropropane	1.13	0.0300	1.000	0	113	80	120				
1,2,4-Trimethylbenzene	1.06	0.0150	1.000	0	106	80	120				
Hexachloro-1,3-butadiene	1.07	0.0400	1.000	0	107	80	120				
Naphthalene	0.964	0.100	1.000	0	96.4	80	120				
1,2,3-Trichlorobenzene	1.02	0.0600	1.000	0	102	80	120				
Surr: Dibromofluoromethane	1.26		1.250	-	101	80	120				
Surr: Toluene-d8	1.24		1.250		99.1	80	120				

Revision v1 Page 85 of 115





**QC SUMMARY REPORT** 

CLIENT: ESA Associates, Inc.
Project: Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

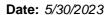
Sample ID: LCS-40245	SampType: <b>LCS</b>			Units: µg/L		Prep Da	te: <b>5/4/2023</b>		RunNo: <b>837</b>	<sup>'</sup> 60	
Client ID: LCSS	Batch ID: 40245					Analysis Da	te: <b>5/4/2023</b>		SeqNo: <b>174</b>	6511	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RI	PD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		99.3	80	120				

#### NOTES:

S - Outlying spike recovery observed (high bias). Associated samples are non-detect.

Sample ID: <b>MB-40245</b>	SampType: MBLK			Units: mg/Kg			ite: 5/4/202	e: <b>5/4/2023</b> RunNo: <b>83</b>		<b>'60</b>	
Client ID: MBLKS	Batch ID: 40245					Analysis Da	ite: <b>5/4/20</b> 2	23	SeqNo: <b>17</b> 4	6508	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0150									
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0250									
Trichlorofluoromethane (CFC-11)	ND	0.0200									
Chloroethane	ND	0.0750									
1,1-Dichloroethene	ND	0.100									
Acetone	ND	0.250									
Methylene chloride	ND	0.0350									
trans-1,2-Dichloroethene	ND	0.0100									
Methyl tert-butyl ether (MTBE)	ND	0.0200									
1,1-Dichloroethane	ND	0.0250									
cis-1,2-Dichloroethene	ND	0.0150									
(MEK) 2-Butanone	ND	0.300									
Chloroform	ND	0.0175									
1,1,1-Trichloroethane (TCA)	ND	0.0200									
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0175									
Trichloroethene (TCE)	ND	0.0150									
1,2-Dichloropropane	ND	0.0250									
Bromodichloromethane	ND	0.0250									
Dibromomethane	ND	0.0125									

Revision v1 Page 86 of 115





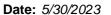
## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-40245	SampType: MBLK			Units: mg/Kg		Prep Da	ite: <b>5/4/20</b> 2	23	RunNo: 837	<b>'60</b>	
Client ID: MBLKS	Batch ID: 40245					Analysis Da	ate: <b>5/4/20</b> 2	23	SeqNo: 174	16508	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.0150									
Toluene	ND	0.0300									
Trans-1,3-Dichloropropylene	ND	0.0200									
Methyl Isobutyl Ketone (MIBK)	ND	0.0600									
1,1,2-Trichloroethane	ND	0.0125									
1,3-Dichloropropane	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0150									
Dibromochloromethane	ND	0.0150									
1,2-Dibromoethane (EDB)	ND	0.0100									
2-Hexanone (MBK)	ND	0.0625									
Chlorobenzene	ND	0.0150									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0100									
Isopropylbenzene	ND	0.0150									
Bromoform	ND	0.0150									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.0150									
Bromobenzene	ND	0.0125									
1,3,5-Trimethylbenzene	ND	0.0150									
2-Chlorotoluene	ND	0.0165									
4-Chlorotoluene	ND	0.0165									
tert-Butylbenzene	ND	0.0150									
1,2,3-Trichloropropane	ND	0.0300									
1,2,4-Trichlorobenzene	ND	0.0600									
sec-Butylbenzene	ND	0.150									
4-Isopropyltoluene	ND	0.200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0150									
n-Butylbenzene	ND	0.0200									

Revision v1 Page 87 of 115





Project:

# **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

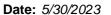
Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-40245	SampType: MBLK			Units: mg/Kg		Prep Da	te: <b>5/4/20</b> 2	23	RunNo: <b>837</b>	<b>′60</b>	
Client ID: MBLKS	Batch ID: 40245					Analysis Da	te: <b>5/4/20</b> 2	23	SeqNo: <b>174</b>	16508	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0150									
Hexachloro-1,3-butadiene	ND	0.0400									
Naphthalene	ND	0.100									
1,2,3-Trichlorobenzene	ND	0.0600									
Surr: Dibromofluoromethane	1.12		1.250		89.8	80	120				
Surr: Toluene-d8	1.27		1.250		102	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.22		1.250		97.3	80	120				

Sample ID: 2305085-001BDUP	SampType: <b>DUP</b>			Units: mg/K	(g-dry	Prep Da	ite: 5/4/202	23	RunNo: <b>837</b>	60	
Client ID: BATCH	Batch ID: 40245					Analysis Da	ate: <b>5/4/202</b>	23	SeqNo: <b>174</b>	6504	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0401						0		30	
Chloromethane	ND	0.134						0		30	
Vinyl chloride	ND	0.0669						0		30	
Bromomethane	ND	0.0669						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0535						0		30	
Chloroethane	ND	0.201						0		30	
1,1-Dichloroethene	ND	0.268						0		30	
Acetone	ND	0.669						0		30	
Methylene chloride	ND	0.0937						0		30	
trans-1,2-Dichloroethene	ND	0.0268						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0535						0		30	
1,1-Dichloroethane	ND	0.0669						0		30	
cis-1,2-Dichloroethene	ND	0.0401						0		30	
(MEK) 2-Butanone	ND	0.803						0		30	
Chloroform	ND	0.0468						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0535						0		30	
1,1-Dichloropropene	ND	0.0535						0		30	

Revision v1 Page 88 of 115





Project:

## **QC SUMMARY REPORT**

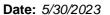
**CLIENT:** ESA Associates, Inc.

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305085-001BDUP	SampType: <b>DUP</b>			Units: mg/k	(g-dry	Prep Date	e: <b>5/4/202</b>	23	RunNo: 837	760	
Client ID: BATCH	Batch ID: 40245					Analysis Date	e: <b>5/4/202</b>	23	SeqNo: 174	16504	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon tetrachloride	ND	0.0669						0		30	
1,2-Dichloroethane (EDC)	ND	0.0535						0		30	
Benzene	ND	0.0468						0		30	
Trichloroethene (TCE)	ND	0.0401						0		30	
1,2-Dichloropropane	ND	0.0669						0		30	
Bromodichloromethane	ND	0.0669						0		30	
Dibromomethane	ND	0.0334						0		30	
cis-1,3-Dichloropropene	ND	0.0401						0		30	
Toluene	ND	0.0803						0		30	
Trans-1,3-Dichloropropylene	ND	0.0535						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.161						0		30	
1,1,2-Trichloroethane	ND	0.0334						0		30	
1,3-Dichloropropane	ND	0.0268						0		30	
Tetrachloroethene (PCE)	ND	0.0401						0		30	
Dibromochloromethane	ND	0.0401						0		30	
1,2-Dibromoethane (EDB)	ND	0.0268						0		30	
2-Hexanone (MBK)	ND	0.167						0		30	
Chlorobenzene	ND	0.0401						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0669						0		30	
Ethylbenzene	ND	0.0669						0		30	
m,p-Xylene	ND	0.134						0		30	
o-Xylene	ND	0.0669						0		30	
Styrene	ND	0.0268						0		30	
Isopropylbenzene	ND	0.0401						0		30	
Bromoform	ND	0.0401						0		30	
1,1,2,2-Tetrachloroethane	ND	0.535						0		30	
n-Propylbenzene	ND	0.0401						0		30	
Bromobenzene	ND	0.0334						0		30	
1,3,5-Trimethylbenzene	ND	0.0401						0		30	
2-Chlorotoluene	ND	0.0442						0		30	
4-Chlorotoluene	ND	0.0442						0		30	
tert-Butylbenzene	ND	0.0401						0		30	

Revision v1 Page 89 of 115





Project:

## **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

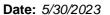
Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305085-001BDUP	SampType	DUP			Units: mg	/Kg-dry	Prep Da	te: <b>5/4/202</b>	23	RunNo: 837	760	
Client ID: BATCH	Batch ID:	40245					Analysis Da	te: <b>5/4/202</b>	23	SeqNo: 174	16504	
Analyte	F	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane		ND	0.0803						0		30	
1,2,4-Trichlorobenzene		ND	0.161						0		30	
sec-Butylbenzene		ND	0.401						0		30	
4-Isopropyltoluene		ND	0.535						0		30	
1,3-Dichlorobenzene		ND	0.0535						0		30	
1,4-Dichlorobenzene		ND	0.0401						0		30	
n-Butylbenzene		ND	0.0535						0		30	
1,2-Dichlorobenzene		ND	0.0535						0		30	
1,2-Dibromo-3-chloropropane		ND	0.0803						0		30	
1,2,4-Trimethylbenzene		ND	0.0401						0		30	
Hexachloro-1,3-butadiene		ND	0.107						0		30	
Naphthalene		ND	0.268						0		30	
1,2,3-Trichlorobenzene		ND	0.161						0		30	
Surr: Dibromofluoromethane		3.23		3.345		96.5	80	120		0		
Surr: Toluene-d8		3.39		3.345		101	80	120		0		
Surr: 1-Bromo-4-fluorobenzene		3.38		3.345		101	80	120		0		

Sample ID: 2305010-001BDUP	SampType: <b>DUP</b>			Units: mg/l	Kg-dry	Prep Da	te: <b>5/4/202</b>	3	RunNo: <b>837</b>	<b>'</b> 60	
Client ID: BATCH	Batch ID: 40245					Analysis Da	te: <b>5/4/202</b>	3	SeqNo: <b>17</b> 4	16486	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0161						0		30	
Chloromethane	ND	0.0536						0		30	
Vinyl chloride	ND	0.0268						0		30	
Bromomethane	ND	0.0268						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0214						0		30	
Chloroethane	ND	0.0804						0		30	
1,1-Dichloroethene	ND	0.107						0		30	
Acetone	ND	0.268						0		30	
Methylene chloride	ND	0.0375						0		30	
trans-1,2-Dichloroethene	ND	0.0107						0		30	

Revision v1 Page 90 of 115





Project:

## **QC SUMMARY REPORT**

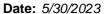
**CLIENT:** ESA Associates, Inc.

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305010-001BDUP	SampType: <b>DUP</b>			Units: mg/l	Kg-dry	Prep Dat	e: <b>5/4/202</b>	23	RunNo: 837	760	
Client ID: BATCH	Batch ID: 40245					Analysis Dat	e: <b>5/4/202</b>	23	SeqNo: 174	16486	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.0214						0		30	
1,1-Dichloroethane	ND	0.0268						0		30	
cis-1,2-Dichloroethene	ND	0.0161						0		30	
(MEK) 2-Butanone	ND	0.322						0		30	
Chloroform	ND	0.0188						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0214						0		30	
1,1-Dichloropropene	ND	0.0214						0		30	
Carbon tetrachloride	ND	0.0268						0		30	
1,2-Dichloroethane (EDC)	ND	0.0214						0		30	
Benzene	ND	0.0188						0		30	
Trichloroethene (TCE)	ND	0.0161						0		30	
1,2-Dichloropropane	ND	0.0268						0		30	
Bromodichloromethane	ND	0.0268						0		30	
Dibromomethane	ND	0.0134						0		30	
cis-1,3-Dichloropropene	ND	0.0161						0		30	
Toluene	ND	0.0322						0		30	
Trans-1,3-Dichloropropylene	ND	0.0214						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0643						0		30	
1,1,2-Trichloroethane	ND	0.0134						0		30	
1,3-Dichloropropane	ND	0.0107						0		30	
Tetrachloroethene (PCE)	ND	0.0161						0		30	
Dibromochloromethane	ND	0.0161						0		30	
1,2-Dibromoethane (EDB)	ND	0.0107						0		30	
2-Hexanone (MBK)	ND	0.0670						0		30	
Chlorobenzene	ND	0.0161						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0268						0		30	
Ethylbenzene	ND	0.0268						0		30	
m,p-Xylene	ND	0.0536						0		30	
o-Xylene	ND	0.0268						0		30	
Styrene	ND	0.0107						0		30	
Isopropylbenzene	ND	0.0161						0		30	
Bromoform	ND	0.0161						0		30	

Revision v1 Page 91 of 115





Chloromethane

Vinyl chloride

1.21

1.42

0.0742

0.0371

1.484

1.484

## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc. Project:

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305010-001BDUP	SampType: <b>DUP</b>			Units: mg	/Kg-dry	Prep Dat	te: <b>5/4/202</b>	3	RunNo: 837	760	
Client ID: BATCH	Batch ID: 40245					Analysis Dat	te: <b>5/4/202</b>	3	SeqNo: 174	16486	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,2,2-Tetrachloroethane	ND	0.214						0		30	
n-Propylbenzene	ND	0.0161						0		30	
Bromobenzene	ND	0.0134						0		30	
1,3,5-Trimethylbenzene	ND	0.0161						0		30	
2-Chlorotoluene	ND	0.0177						0		30	
4-Chlorotoluene	ND	0.0177						0		30	
tert-Butylbenzene	ND	0.0161						0		30	
1,2,3-Trichloropropane	ND	0.0322						0		30	
1,2,4-Trichlorobenzene	ND	0.0643						0		30	
sec-Butylbenzene	ND	0.161						0		30	
4-Isopropyltoluene	ND	0.214						0		30	
1,3-Dichlorobenzene	ND	0.0214						0		30	
1,4-Dichlorobenzene	ND	0.0161						0		30	
n-Butylbenzene	ND	0.0214						0		30	
1,2-Dichlorobenzene	ND	0.0214						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0322						0		30	
1,2,4-Trimethylbenzene	ND	0.0161						0		30	
Hexachloro-1,3-butadiene	ND	0.0429						0		30	
Naphthalene	ND	0.107						0		30	
1,2,3-Trichlorobenzene	ND	0.0643						0		30	
Surr: Dibromofluoromethane	1.22		1.340		91.0	80	120		0		
Surr: Toluene-d8	1.35		1.340		101	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.36		1.340		101	80	120		0		
Sample ID: <b>2305022-001BMS</b>	SampType: <b>MS</b>			Units: <b>mg</b>	/Kg-dry	Prep Dat	te: <b>5/4/202</b>	3	RunNo: 837	760	
Client ID: BATCH	Batch ID: <b>40245</b>			J	- · ·	Analysis Dat	te: <b>5/5/202</b>	3	SeqNo: 174	16488	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.22	0.0223	1.484	0	82.2	8.18	151				

Page 92 of 115 Revision v1

0

0

81.5

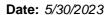
95.8

28

41.2

150

155





Project:

## **QC SUMMARY REPORT**

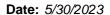
**CLIENT:** ESA Associates, Inc.

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305022-001BMS	SampType: MS			Units: mg/K	g-dry	Prep Da	te: <b>5/4/202</b>	23	RunNo: 837	760	
Client ID: BATCH	Batch ID: 40245					Analysis Da	te: <b>5/5/202</b>	3	SeqNo: 174	16488	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromomethane	1.28	0.0371	1.484	0	86.1	34.5	166				
Trichlorofluoromethane (CFC-11)	1.40	0.0297	1.484	0	94.5	46.8	159				
Chloroethane	1.32	0.111	1.484	0	89.0	41.5	157				
1,1-Dichloroethene	1.51	0.148	1.484	0	101	67.8	143				
Acetone	3.60	0.371	3.710	0	97.1	58.6	150				
Methylene chloride	1.37	0.0519	1.484	0	92.4	65.8	132				
trans-1,2-Dichloroethene	1.48	0.0148	1.484	0	99.5	72.5	138				
Methyl tert-butyl ether (MTBE)	1.71	0.0297	1.484	0	115	64.8	138				
1,1-Dichloroethane	1.47	0.0371	1.484	0	99.3	68.8	138				
cis-1,2-Dichloroethene	1.48	0.0223	1.484	0	99.5	74.7	131				
(MEK) 2-Butanone	3.87	0.445	3.710	0	104	52.8	152				
Chloroform	1.48	0.0260	1.484	0	100	72.7	133				
1,1,1-Trichloroethane (TCA)	1.52	0.0297	1.484	0	103	72.5	139				
1,1-Dichloropropene	1.66	0.0297	1.484	0	112	72.5	141				
Carbon tetrachloride	1.54	0.0371	1.484	0	104	72.8	142				
1,2-Dichloroethane (EDC)	1.59	0.0297	1.484	0	107	70.4	134				
Benzene	1.51	0.0260	1.484	0	102	72.5	137				
Trichloroethene (TCE)	1.60	0.0223	1.484	0	108	73.7	141				
1,2-Dichloropropane	1.60	0.0371	1.484	0	108	69.7	139				
Bromodichloromethane	1.50	0.0371	1.484	0	101	72.1	136				
Dibromomethane	1.57	0.0185	1.484	0	106	76.5	135				
cis-1,3-Dichloropropene	1.71	0.0223	1.484	0	115	67.6	138				
Toluene	1.53	0.0445	1.484	0	103	76.2	133				
Trans-1,3-Dichloropropylene	1.72	0.0297	1.484	0	116	65.2	137				
Methyl Isobutyl Ketone (MIBK)	4.52	0.0890	3.710	0	122	57.2	154				
1,1,2-Trichloroethane	1.69	0.0185	1.484	0	114	74.6	137				
1,3-Dichloropropane	1.67	0.0148	1.484	0	112	67.9	142				
Tetrachloroethene (PCE)	1.65	0.0223	1.484	0	111	71.8	142				
Dibromochloromethane	1.69	0.0223	1.484	0	114	69.2	140				
1,2-Dibromoethane (EDB)	1.60	0.0148	1.484	0	108	69.4	140				
2-Hexanone (MBK)	4.01	0.0927	3.710	0	108	48.8	156				
Chlorobenzene	1.50	0.0223	1.484	0	101	80.3	126				

Revision v1 Page 93 of 115





Project:

## **QC SUMMARY REPORT**

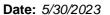
**CLIENT:** ESA Associates, Inc.

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305022-001BMS	SampType: MS			Units: mg/k	(g-dry	Prep Da	te: <b>5/4/202</b>	3	RunNo: 837	<b>'60</b>	
Client ID: BATCH	Batch ID: 40245					Analysis Da	te: <b>5/5/202</b>	3	SeqNo: 174	6488	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	1.61	0.0371	1.484	0	108	77.3	128				
Ethylbenzene	1.50	0.0371	1.484	0	101	74.4	135				
m,p-Xylene	2.97	0.0742	2.968	0	99.9	76.2	131				
o-Xylene	1.50	0.0371	1.484	0	101	75.7	134				
Styrene	1.55	0.0148	1.484	0	104	75.6	131				
Isopropylbenzene	1.50	0.0223	1.484	0	101	76.5	138				
Bromoform	1.66	0.0223	1.484	0	112	61	134				
1,1,2,2-Tetrachloroethane	1.81	0.297	1.484	0	122	64	137				
n-Propylbenzene	1.51	0.0223	1.484	0	102	73.3	142				
Bromobenzene	1.50	0.0185	1.484	0	101	76.3	129				
1,3,5-Trimethylbenzene	1.52	0.0223	1.484	0	102	74	137				
2-Chlorotoluene	1.44	0.0245	1.484	0	96.8	74.2	135				
4-Chlorotoluene	1.49	0.0245	1.484	0	100	76.3	133				
tert-Butylbenzene	1.54	0.0223	1.484	0	104	73.7	137				
1,2,3-Trichloropropane	1.64	0.0445	1.484	0	111	64.3	137				
1,2,4-Trichlorobenzene	1.44	0.0890	1.484	0	97.1	64.8	135				
sec-Butylbenzene	1.53	0.223	1.484	0	103	69.8	144				
4-Isopropyltoluene	1.57	0.297	1.484	0	106	69.7	139				
1,3-Dichlorobenzene	1.43	0.0297	1.484	0	96.5	77.4	130				
1,4-Dichlorobenzene	1.40	0.0223	1.484	0	94.1	74.4	129				
n-Butylbenzene	1.53	0.0297	1.484	0	103	73	136				
1,2-Dichlorobenzene	1.42	0.0297	1.484	0	95.8	78	128				
1,2-Dibromo-3-chloropropane	1.73	0.0445	1.484	0	117	54.6	145				
1,2,4-Trimethylbenzene	1.56	0.0223	1.484	0	105	73.7	137				
Hexachloro-1,3-butadiene	1.53	0.0594	1.484	0	103	62.1	143				
Naphthalene	1.42	0.148	1.484	0	95.6	55.3	151				
1,2,3-Trichlorobenzene	1.46	0.0890	1.484	0	98.3	54.6	144				
Surr: Dibromofluoromethane	1.82		1.855		98.3	80	120				
Surr: Toluene-d8	1.84		1.855		99.3	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.85		1.855		99.7	80	120				

Revision v1 Page 94 of 115





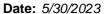
# **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

## **Volatile Organic Compounds by EPA Method 8260D**

Project: Mottis Prope	erty					Volatile C	Organio	Compoun	ds by EPA	Method	8260
Sample ID: LCS-40319	SampType: LCS			Units: µg/L		Prep Date:	5/11/20	)23	RunNo: 839	970	
Client ID: LCSS	Batch ID: 40319					Analysis Date:	5/13/20	)23	SeqNo: <b>175</b>	51485	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.04	0.0175	1.000	0	104	80	120				
Toluene	0.981	0.0300	1.000	0	98.1	80	120				
Ethylbenzene	0.975	0.0250	1.000	0	97.5	80	120				
m,p-Xylene	1.96	0.0500	2.000	0	97.9	80	120				
o-Xylene	1.03	0.0250	1.000	0	103	80	120				
Surr: Dibromofluoromethane	1.34		1.250		108	80	120				
Surr: Toluene-d8	1.27		1.250		101	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	80	120				
Sample ID: MB-40319	SampType: <b>MBLK</b>			Units: mg/Kg		Prep Date:	5/11/20	)23	RunNo: 839	970	
Client ID: MBLKS	Batch ID: 40319					Analysis Date:	5/13/20	)23	SeqNo: 175	51470	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit F	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene	ND	0.0175									
Toluene	ND	0.0300									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.26		1.250		101	80	120				
Surr: Toluene-d8	1.22		1.250		97.3	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.19		1.250		95.4	80	120				
Sample ID: <b>2305219-001BDUP</b>	SampType: <b>DUP</b>			Units: mg/Kg-	dry	Prep Date:	5/11/20	)23	RunNo: 839	970	
Client ID: BATCH	Batch ID: 40319			, , , , , , , , , , , , , , , , , , ,	ř	Analysis Date:	5/13/20	)23	SeqNo: 175	51458	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit H	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene	ND	0.0176						0		30	
Toluene	ND	0.0302						0		30	
Ethylbenzene	ND	0.0252						0		30	
m,p-Xylene	ND	0.0504						0		30	
o-Xylene	ND	0.0252						0			

Page 95 of 115 Revision v1





# **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

#### Volatile Organic Compounds by EPA Method 8260D

Project:	Mottis Proper	ty					Volume Organio	Compound	ao by El A	Motriou	OLOOD
Sample ID: 23	05219-001BDUP	SampType: <b>DUP</b>			Units: mg/Kg	g-dry	Prep Date: 5/11/202	3	RunNo: 839	70	
Client ID: BA	АТСН	Batch ID: 40319					Analysis Date: 5/13/202	3	SeqNo: <b>175</b>	1458	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
	<u> </u>	·			·		<u> </u>				

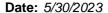
Surr: Dibromofluoromethane	1.32	1.260	105	80	120	0
Surr: Toluene-d8	1.25	1.260	99.0	80	120	0
Surr: 1-Bromo-4-fluorobenzene	5.40	6.301	85.8	80	120	0

Sample ID: 2305219-003BMS	SampType: MS			Units: mg/l	Kg-dry	Prep Da	te: <b>5/11/20</b>	23	RunNo: 839	970	
Client ID: BATCH	Batch ID: 40319					Analysis Da	te: <b>5/14/20</b>	23	SeqNo: 175	51460	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.738	0.0184	1.052	0.03294	67.0	72.5	137				S
Toluene	0.692	0.0316	1.052	0.03659	62.3	76.2	133				S
Ethylbenzene	0.709	0.0263	1.052	0	67.5	74.4	135				S
m,p-Xylene	1.43	0.0526	2.103	0	68.1	76.2	131				S
o-Xylene	0.740	0.0263	1.052	0	70.4	75.7	134				S
Surr: Dibromofluoromethane	1.38		1.315		105	80	120				
Surr: Toluene-d8	1.32		1.315		100	80	120				
Surr: 1-Bromo-4-fluorobenzene	4.58		1.315		349	80	120				S
NOTES:											

S - Outlying spike recoveries were associated with this sample.

Sample ID: 2305214-002BDUP	SampType: <b>DUP</b>			Units: mg/	/Kg-dry	Prep Date: 5/11/2023			RunNo: <b>83970</b>		
Client ID: BATCH	Batch ID: 40319					Analysis Da	te: <b>5/14/2</b> 0	)23	SeqNo: 17	51452	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0183						0		30	
Toluene	ND	0.0313						0		30	
Ethylbenzene	ND	0.0261						0		30	
m,p-Xylene	ND	0.0522						0		30	
o-Xylene	ND	0.0261						0		30	
Surr: Dibromofluoromethane	1.40		1.304		107	80	120		0		
Surr: Toluene-d8	1.31		1.304		100	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.21		1.304		92.9	80	120		0		

Page 96 of 115 Revision v1





## **QC SUMMARY REPORT**

ESA Associates, Inc. CLIENT:

Mottis Property

#### **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305214-002BDUP SampType: **DUP** 

Units: mg/Kg-dry

SPK value SPK Ref Val

Prep Date: 5/11/2023

RunNo: 83970

Client ID: BATCH

Batch ID: 40319

Result

RL

Analysis Date: 5/14/2023 %REC LowLimit HighLimit RPD Ref Val SeqNo: 1751452

%RPD RPDLimit Qual

#### NOTES:

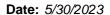
Analyte

Project:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: LCS-40374	SampType: LCS			Units: µg/L	μg/L Prep Date: 5/17/2023  Analysis Date: 5/17/2023			)23	RunNo: <b>84</b> 1	120	
Client ID: LCSS	Batch ID: 40374					Analysis Da	te: <b>5/17/2</b> 0	)23	SeqNo: 17	54861	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	0.697	0.0150	1.000	0	69.7	80	120				S
Chloromethane	0.849	0.0500	1.000	0	84.9	80	120				
Vinyl chloride	0.822	0.0250	1.000	0	82.2	80	120				
Bromomethane	0.991	0.0250	1.000	0	99.1	80	120				
Trichlorofluoromethane (CFC-11)	0.605	0.0200	1.000	0	60.5	80	120				S
Chloroethane	0.701	0.0750	1.000	0	70.1	80	120				S
1,1-Dichloroethene	0.825	0.100	1.000	0	82.5	80	120				
Acetone	2.99	0.250	2.500	0	119	80	120				
Methylene chloride	1.01	0.0350	1.000	0	101	80	120				
trans-1,2-Dichloroethene	0.983	0.0100	1.000	0	98.3	80	120				
Methyl tert-butyl ether (MTBE)	1.17	0.0200	1.000	0	117	80	120				
1,1-Dichloroethane	0.773	0.0250	1.000	0	77.3	80	120				S
cis-1,2-Dichloroethene	0.958	0.0150	1.000	0	95.8	80	120				
(MEK) 2-Butanone	2.99	0.300	2.500	0	120	80	120				
Chloroform	0.985	0.0175	1.000	0	98.5	80	120				
1,1,1-Trichloroethane (TCA)	0.948	0.0200	1.000	0	94.8	80	120				
1,1-Dichloropropene	0.868	0.0200	1.000	0	86.8	80	120				
Carbon tetrachloride	0.997	0.0250	1.000	0	99.7	80	120				
1,2-Dichloroethane (EDC)	1.03	0.0200	1.000	0	103	80	120				
Benzene	0.979	0.0175	1.000	0	97.9	80	120				
Trichloroethene (TCE)	0.938	0.0150	1.000	0	93.8	80	120				
1,2-Dichloropropane	0.986	0.0250	1.000	0	98.6	80	120				
Bromodichloromethane	1.04	0.0250	1.000	0	104	80	120				
Dibromomethane	1.12	0.0125	1.000	0	112	80	120				
cis-1,3-Dichloropropene	1.10	0.0150	1.000	0	110	80	120				

Page 97 of 115 Revision v1





Project:

## **QC SUMMARY REPORT**

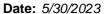
**CLIENT:** ESA Associates, Inc.

Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: LCS-40374	SampType: LCS			Units: µg/L		Prep Da	te: <b>5/17/20</b>	23	RunNo: <b>84</b> 1	120	
Client ID: LCSS	Batch ID: 40374					Analysis Da	te: <b>5/17/20</b>	23	SeqNo: 175	54861	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	0.922	0.0300	1.000	0	92.2	80	120				
Trans-1,3-Dichloropropylene	1.08	0.0200	1.000	0	108	80	120				
Methyl Isobutyl Ketone (MIBK)	2.66	0.0600	2.500	0	106	80	120				
1,1,2-Trichloroethane	1.16	0.0125	1.000	0	116	80	120				
1,3-Dichloropropane	1.14	0.0100	1.000	0	114	80	120				
Tetrachloroethene (PCE)	0.978	0.0150	1.000	0	97.8	80	120				
Dibromochloromethane	1.08	0.0150	1.000	0	108	80	120				
1,2-Dibromoethane (EDB)	1.16	0.0100	1.000	0	116	80	120				
2-Hexanone (MBK)	2.61	0.0625	2.500	0	104	80	120				
Chlorobenzene	0.964	0.0150	1.000	0	96.4	80	120				
1,1,1,2-Tetrachloroethane	1.11	0.0250	1.000	0	111	80	120				
Ethylbenzene	0.931	0.0250	1.000	0	93.1	80	120				
m,p-Xylene	1.91	0.0500	2.000	0	95.3	80	120				
o-Xylene	1.02	0.0250	1.000	0	102	80	120				
Styrene	1.02	0.0100	1.000	0	102	80	120				
Isopropylbenzene	0.962	0.0150	1.000	0	96.2	80	120				
Bromoform	1.10	0.0150	1.000	0	110	80	120				
1,1,2,2-Tetrachloroethane	1.30	0.200	1.000	0	130	80	120				S
n-Propylbenzene	0.992	0.0150	1.000	0	99.2	80	120				
Bromobenzene	1.08	0.0125	1.000	0	108	80	120				
1,3,5-Trimethylbenzene	0.974	0.0150	1.000	0	97.4	80	120				
2-Chlorotoluene	0.935	0.0165	1.000	0	93.5	80	120				
4-Chlorotoluene	0.964	0.0165	1.000	0	96.4	80	120				
tert-Butylbenzene	0.972	0.0150	1.000	0	97.2	80	120				
1,2,3-Trichloropropane	1.08	0.0300	1.000	0	108	80	120				
1,2,4-Trichlorobenzene	0.999	0.0600	1.000	0	99.9	80	120				
sec-Butylbenzene	0.949	0.150	1.000	0	94.9	80	120				
4-Isopropyltoluene	0.994	0.200	1.000	0	99.4	80	120				
1,3-Dichlorobenzene	0.964	0.0200	1.000	0	96.4	80	120				
1,4-Dichlorobenzene	0.971	0.0150	1.000	0	97.1	80	120				
n-Butylbenzene	0.983	0.0200	1.000	0	98.3	80	120				
1,2-Dichlorobenzene	1.06	0.0200	1.000	0	106	80	120				

Revision v1 Page 98 of 115





## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.

Mottis Property

#### **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: LCS-40374	SampType: LCS			Units: µg/L		Prep Dat	Prep Date: 5/17/2023			RunNo: <b>84120</b>		
Client ID: LCSS	Batch ID: 40374					Analysis Dat	te: <b>5/17/2</b> 0	)23	SeqNo: 17	54861		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,2-Dibromo-3-chloropropane	1.01	0.0300	1.000	0	101	80	120					
1,2,4-Trimethylbenzene	1.03	0.0150	1.000	0	103	80	120					
Hexachloro-1,3-butadiene	0.983	0.0400	1.000	0	98.3	80	120					
Naphthalene	1.02	0.100	1.000	0	102	80	120					
1,2,3-Trichlorobenzene	1.16	0.0600	1.000	0	116	80	120					
Surr: Dibromofluoromethane	1.21		1.250		96.5	80	120					
Surr: Toluene-d8	1.23		1.250		98.7	80	120					
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	80	120					
NOTES:												

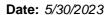
Project:

S - Outlying spike recovery observed (low bias). Samples will be qualified with a Q.

Sample ID: <b>MB-40374</b>	SampType: MBLK			Units: mg/Kg		Prep Date:	5/17/20	)23	RunNo: 84	120	
Client ID: MBLKS	Batch ID: 40374					Analysis Date:	5/17/20	)23	SeqNo: 17	54859	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit F	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0150									Q
Chloromethane	ND	0.0500									
Vinyl chloride	ND	0.0250									
Bromomethane	ND	0.0250									
Trichlorofluoromethane (CFC-11)	ND	0.0200									Q
Chloroethane	ND	0.0750									Q
1,1-Dichloroethene	ND	0.100									
Acetone	ND	0.250									
Methylene chloride	ND	0.0350									
trans-1,2-Dichloroethene	ND	0.0100									
Methyl tert-butyl ether (MTBE)	ND	0.0200									
1,1-Dichloroethane	ND	0.0250									Q
cis-1,2-Dichloroethene	ND	0.0150									
(MEK) 2-Butanone	ND	0.300									
Chloroform	ND	0.0175									
1,1,1-Trichloroethane (TCA)	ND	0.0200									

Page 99 of 115 Revision v1

S - Outlying spike recovery observed (high bias). Samples are non-detect; result meets QC requirements.





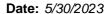
## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

# **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-40374	SampType: MBLK			Units: mg/Kg		Prep Da	te: <b>5/17/2</b> 0	023	RunNo: <b>84120</b> SeqNo: <b>1754859</b>		
Client ID: MBLKS	Batch ID: 40374					Analysis Da	te: <b>5/17/2</b> 0	)23			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	0.0200									
Carbon tetrachloride	ND	0.0250									
1,2-Dichloroethane (EDC)	ND	0.0200									
Benzene	ND	0.0175									
Trichloroethene (TCE)	ND	0.0150									
1,2-Dichloropropane	ND	0.0250									
Bromodichloromethane	ND	0.0250									
Dibromomethane	ND	0.0125									
cis-1,3-Dichloropropene	ND	0.0150									
Toluene	ND	0.0300									
Trans-1,3-Dichloropropylene	ND	0.0200									
Methyl Isobutyl Ketone (MIBK)	ND	0.0600									
1,1,2-Trichloroethane	ND	0.0125									
1,3-Dichloropropane	ND	0.0100									
Tetrachloroethene (PCE)	ND	0.0150									
Dibromochloromethane	ND	0.0150									
1,2-Dibromoethane (EDB)	ND	0.0100									
2-Hexanone (MBK)	ND	0.0625									
Chlorobenzene	ND	0.0150									
1,1,1,2-Tetrachloroethane	ND	0.0250									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Styrene	ND	0.0100									
Isopropylbenzene	ND	0.0150									
Bromoform	ND	0.0150									
1,1,2,2-Tetrachloroethane	ND	0.200									
n-Propylbenzene	ND	0.0150									
Bromobenzene	ND	0.0125									
1,3,5-Trimethylbenzene	ND	0.0150									
2-Chlorotoluene	ND	0.0165									
4-Chlorotoluene	ND	0.0165									

Revision v1 Page 100 of 115





Project:

#### **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

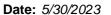
#### **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-40374	SampType: MBLK			Units: mg/Kg		Prep Da	te: <b>5/17/2</b> 0	)23	RunNo: 841	120	
Client ID: MBLKS	Batch ID: 40374					Analysis Da	te: <b>5/17/2</b> 0	)23	SeqNo: 175	54859	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
tert-Butylbenzene	ND	0.0150									
1,2,3-Trichloropropane	ND	0.0300									
1,2,4-Trichlorobenzene	ND	0.0600									
sec-Butylbenzene	ND	0.150									
4-Isopropyltoluene	ND	0.200									
1,3-Dichlorobenzene	ND	0.0200									
1,4-Dichlorobenzene	ND	0.0150									
n-Butylbenzene	ND	0.0200									
1,2-Dichlorobenzene	ND	0.0200									
1,2-Dibromo-3-chloropropane	ND	0.0300									
1,2,4-Trimethylbenzene	ND	0.0150									
Hexachloro-1,3-butadiene	ND	0.0400									
Naphthalene	ND	0.100									
1,2,3-Trichlorobenzene	ND	0.0600									
Surr: Dibromofluoromethane	1.24		1.250		98.9	80	120				
Surr: Toluene-d8	1.23		1.250		98.4	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.16		1.250		93.1	80	120				
NOTES:											

#### Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2305280-011BDUP	SampType: <b>DUP</b>			Units: mg/l	<b>Kg-dry</b>	Prep Dat	e: <b>5/17/2</b> 0	)23	RunNo: 841	120	
Client ID: BATCH	Batch ID: 40374					Analysis Dat	e: <b>5/18/2</b> 0	)23	SeqNo: 175	54856	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.0181						0		30	Q
Chloromethane	ND	0.0604						0		30	
Vinyl chloride	ND	0.0302						0		30	
Bromomethane	ND	0.0302						0		30	
Trichlorofluoromethane (CFC-11)	ND	0.0242						0		30	Q
Chloroethane	ND	0.0906						0		30	Q
1,1-Dichloroethene	ND	0.121						0		30	
Acetone	ND	0.302						0		30	

Revision v1 Page 101 of 115





Project:

#### **QC SUMMARY REPORT**

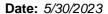
**CLIENT:** ESA Associates, Inc.

Mottis Property

#### **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305280-011BDUP	SampType: <b>DUP</b>			Units: mg/l	Kg-dry	Prep Da	ite: <b>5/17/2</b> 0	)23	RunNo: <b>84</b> 1	120	
Client ID: BATCH	Batch ID: 40374					Analysis Da	ite: <b>5/18/2</b> 0	)23	SeqNo: 175	54856	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.0423						0		30	
trans-1,2-Dichloroethene	ND	0.0121						0		30	
Methyl tert-butyl ether (MTBE)	ND	0.0242						0		30	
1,1-Dichloroethane	ND	0.0302						0		30	Q
cis-1,2-Dichloroethene	ND	0.0181						0		30	
(MEK) 2-Butanone	ND	0.362						0		30	
Chloroform	ND	0.0211						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.0242						0		30	
1,1-Dichloropropene	ND	0.0242						0		30	
Carbon tetrachloride	ND	0.0302						0		30	
1,2-Dichloroethane (EDC)	ND	0.0242						0		30	
Benzene	ND	0.0211						0		30	
Trichloroethene (TCE)	ND	0.0181						0		30	
1,2-Dichloropropane	ND	0.0302						0		30	
Bromodichloromethane	ND	0.0302						0		30	
Dibromomethane	ND	0.0151						0		30	
cis-1,3-Dichloropropene	ND	0.0181						0		30	
Toluene	ND	0.0362						0		30	
Trans-1,3-Dichloropropylene	ND	0.0242						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	0.0725						0		30	
1,1,2-Trichloroethane	ND	0.0151						0		30	
1,3-Dichloropropane	ND	0.0121						0		30	
Tetrachloroethene (PCE)	0.0396	0.0181						0.1948	132	30	R
Dibromochloromethane	ND	0.0181						0		30	
1,2-Dibromoethane (EDB)	ND	0.0121						0		30	
2-Hexanone (MBK)	ND	0.0755						0		30	
Chlorobenzene	ND	0.0181						0		30	
1,1,1,2-Tetrachloroethane	ND	0.0302						0		30	
Ethylbenzene	ND	0.0302						0		30	
m,p-Xylene	ND	0.0604						0		30	
o-Xylene	ND	0.0302						0		30	
Styrene	ND	0.0121						0		30	

Revision v1 Page 102 of 115





Project:

#### **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

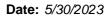
#### **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305280-011BDUP	SampType: <b>DUP</b>			Units: mg/	Kg-dry	Prep Da	te: <b>5/17/2</b> 0	023	RunNo: 84	120	
Client ID: BATCH	Batch ID: 40374					Analysis Da	te: <b>5/18/2</b> 0	023	SeqNo: 17	54856	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	0.0181						0		30	
Bromoform	ND	0.0181						0		30	
1,1,2,2-Tetrachloroethane	ND	0.242						0		30	
n-Propylbenzene	ND	0.0181						0		30	
Bromobenzene	ND	0.0151						0		30	
1,3,5-Trimethylbenzene	ND	0.0181						0		30	
2-Chlorotoluene	ND	0.0199						0		30	
4-Chlorotoluene	ND	0.0199						0		30	
tert-Butylbenzene	ND	0.0181						0		30	
1,2,3-Trichloropropane	ND	0.0362						0		30	
1,2,4-Trichlorobenzene	ND	0.0725						0		30	
sec-Butylbenzene	ND	0.181						0		30	
4-Isopropyltoluene	ND	0.242						0		30	
1,3-Dichlorobenzene	ND	0.0242						0		30	
1,4-Dichlorobenzene	ND	0.0181						0		30	
n-Butylbenzene	ND	0.0242						0		30	
1,2-Dichlorobenzene	ND	0.0242						0		30	
1,2-Dibromo-3-chloropropane	ND	0.0362						0		30	
1,2,4-Trimethylbenzene	ND	0.0181						0		30	
Hexachloro-1,3-butadiene	ND	0.0483						0		30	
Naphthalene	ND	0.121						0		30	
1,2,3-Trichlorobenzene	ND	0.0725						0		30	
Surr: Dibromofluoromethane	1.60		1.510		106	80	120		0		
Surr: Toluene-d8	1.51		1.510		99.9	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	1.42		1.510		93.8	80	120		0		
NOTES:											

NOTES:

Revision v1 Page 103 of 115

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.





Project:

#### **QC SUMMARY REPORT**

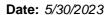
**CLIENT:** ESA Associates, Inc.

Mottis Property

#### **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305280-017BMS	SampType: MS			Units: mg/k	(g-dry	Prep Da	te: <b>5/17/2</b> 0	)23	RunNo: 84	120	
Client ID: BATCH	Batch ID: 40374					Analysis Da	te: <b>5/18/2</b> 0	)23	SeqNo: <b>17</b>	54890	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	1.11	0.0176	1.175	0	94.2	8.18	151				
Chloromethane	1.18	0.0588	1.175	0	101	28	150				
Vinyl chloride	1.27	0.0294	1.175	0	108	41.2	155				
Bromomethane	1.21	0.0294	1.175	0	103	34.5	166				
Trichlorofluoromethane (CFC-11)	1.15	0.0235	1.175	0	97.9	46.8	159				
Chloroethane	0.985	0.0882	1.175	0	83.8	41.5	157				
1,1-Dichloroethene	1.34	0.118	1.175	0	114	67.8	143				
Acetone	3.53	0.294	2.939	0	120	58.6	150				
Methylene chloride	1.22	0.0411	1.175	0	103	65.8	132				
trans-1,2-Dichloroethene	1.35	0.0118	1.175	0	115	72.5	138				
Methyl tert-butyl ether (MTBE)	1.39	0.0235	1.175	0	118	64.8	138				
1,1-Dichloroethane	1.20	0.0294	1.175	0	102	68.8	138				
cis-1,2-Dichloroethene	1.24	0.0176	1.175	0	106	74.7	131				
(MEK) 2-Butanone	3.30	0.353	2.939	0	112	52.8	152				
Chloroform	1.26	0.0206	1.175	0	107	72.7	133				
1,1,1-Trichloroethane (TCA)	1.40	0.0235	1.175	0	119	72.5	139				
1,1-Dichloropropene	1.37	0.0235	1.175	0	116	72.5	141				
Carbon tetrachloride	1.53	0.0294	1.175	0	130	72.8	142				
1,2-Dichloroethane (EDC)	1.21	0.0235	1.175	0	103	70.4	134				
Benzene	1.25	0.0206	1.175	0	106	72.5	137				
Trichloroethene (TCE)	1.36	0.0176	1.175	0	115	73.7	141				
1,2-Dichloropropane	1.23	0.0294	1.175	0	105	69.7	139				
Bromodichloromethane	1.24	0.0294	1.175	0	105	72.1	136				
Dibromomethane	1.27	0.0147	1.175	0	108	76.5	135				
cis-1,3-Dichloropropene	1.18	0.0176	1.175	0	101	67.6	138				
Toluene	1.21	0.0353	1.175	0	103	76.2	133				
Trans-1,3-Dichloropropylene	1.11	0.0235	1.175	0	94.3	65.2	137				
Methyl Isobutyl Ketone (MIBK)	3.00	0.0705	2.939	0	102	57.2	154				
1,1,2-Trichloroethane	1.31	0.0147	1.175	0	111	74.6	137				
1,3-Dichloropropane	1.29	0.0118	1.175	0	110	67.9	142				
Tetrachloroethene (PCE)	1.39	0.0176	1.175	0.1577	105	71.8	142				
Dibromochloromethane	1.23	0.0176	1.175	0	105	69.2	140				

Revision v1 Page 104 of 115





#### **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

#### **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2305280-017BMS	SampType: MS			Units: mg/k	g-dry	Prep Da	te: <b>5/17/2</b> 0	23	RunNo: 84	120	
Client ID: BATCH	Batch ID: 40374					Analysis Da	te: <b>5/18/2</b> 0	)23	SeqNo: 17	54890	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	1.36	0.0118	1.175	0	116	69.4	140				
2-Hexanone (MBK)	3.30	0.0735	2.939	0	112	48.8	156				
Chlorobenzene	1.24	0.0176	1.175	0	106	80.3	126				
1,1,1,2-Tetrachloroethane	1.39	0.0294	1.175	0	118	77.3	128				
Ethylbenzene	1.28	0.0294	1.175	0	109	74.4	135				
m,p-Xylene	2.57	0.0588	2.351	0	109	76.2	131				
o-Xylene	1.31	0.0294	1.175	0	112	75.7	134				
Styrene	1.27	0.0118	1.175	0	108	75.6	131				
Isopropylbenzene	1.35	0.0176	1.175	0	115	76.5	138				
Bromoform	1.29	0.0176	1.175	0	109	61	134				
1,1,2,2-Tetrachloroethane	1.44	0.235	1.175	0	122	64	137				
n-Propylbenzene	1.42	0.0176	1.175	0	121	73.3	142				
Bromobenzene	1.35	0.0147	1.175	0	115	76.3	129				
1,3,5-Trimethylbenzene	1.32	0.0176	1.175	0	113	74	137				
2-Chlorotoluene	1.24	0.0194	1.175	0	105	74.2	135				
4-Chlorotoluene	1.25	0.0194	1.175	0	106	76.3	133				
tert-Butylbenzene	1.41	0.0176	1.175	0	120	73.7	137				
1,2,3-Trichloropropane	1.34	0.0353	1.175	0	114	64.3	137				
1,2,4-Trichlorobenzene	1.29	0.0705	1.175	0	110	64.8	135				
sec-Butylbenzene	1.46	0.176	1.175	0	124	69.8	144				
4-Isopropyltoluene	1.45	0.235	1.175	0	123	69.7	139				
1,3-Dichlorobenzene	1.24	0.0235	1.175	0	105	77.4	130				
1,4-Dichlorobenzene	1.23	0.0176	1.175	0	104	74.4	129				
n-Butylbenzene	1.42	0.0235	1.175	0	121	73	136				
1,2-Dichlorobenzene	1.33	0.0235	1.175	0	113	78	128				
1,2-Dibromo-3-chloropropane	1.32	0.0353	1.175	0	112	54.6	145				
1,2,4-Trimethylbenzene	1.35	0.0176	1.175	0	114	73.7	137				
Hexachloro-1,3-butadiene	1.52	0.0470	1.175	0	129	62.1	143				
Naphthalene	1.36	0.118	1.175	0	116	55.3	151				
1,2,3-Trichlorobenzene	1.53	0.0705	1.175	0	130	54.6	144				
Surr: Dibromofluoromethane	1.56		1.469	-	106	80	120				
Surr: Toluene-d8	1.46		1.469		99.1	80	120				

Revision v1 Page 105 of 115

Date: 5/30/2023



Work Order: 2305045

Project:

**QC SUMMARY REPORT** 

**CLIENT:** ESA Associates, Inc.

Mottis Property

**Volatile Organic Compounds by EPA Method 8260D** 

Client ID: **BATCH** Batch ID: **40374** Analysis Date: **5/18/2023** SeqNo: **1754890** 

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

Surr: 1-Bromo-4-fluorobenzene 1.50 1.469 102 80 120

Revision v1 Page 106 of 115



## Sample Log-In Check List

CI	ient Name:	ESA		Work Ord	der Number:	2305045	
Lo	gged by:	Clare Griggs		Date Red	eived:	5/3/2023 8	:17:00 AM
Cha	in of Custo	ody					
		ustody complete?		Yes	<b>✓</b>	No 🗌	Not Present
		sample delivered?		Client			
100	ln.						
Log				V		N- 🗆	NA 🗆
3.	Coolers are p	resent?		Yes	<b>V</b>	No 🗀	NA 🗀
4.	Shipping conf	tainer/cooler in good condition	?	Yes	<b>✓</b>	No 🗌	
		s present on shipping containenments for Custody Seals not in		Yes		No 🗌	Not Present ✓
6.	Was an atten	npt made to cool the samples?		Yes	✓	No $\square$	na 🗆
7.	Were all item	s received at a temperature of	>2°C to 6°C *	Yes	<b>✓</b>	No 🗌	NA $\square$
8.	Sample(s) in	proper container(s)?		Yes	<b>✓</b>	No $\square$	
9.	Sufficient san	nple volume for indicated test(	s)?	Yes	✓	No $\square$	
10.	Are samples	properly preserved?		Yes	✓	No $\square$	
11.	Was preserva	ative added to bottles?		Yes		No 🗸	NA 🗆
12.	Is there head	space in the VOA vials?		Yes		No 🗌	NA 🗹
		es containers arrive in good co	ndition(unbroken)?	Yes	✓	No 🗌	
14.	Does paperw	ork match bottle labels?		Yes	✓	No 🗌	
15.	Are matrices	correctly identified on Chain of	f Custody?	Yes	<b>✓</b>	No 🗌	
		at analyses were requested?	·			No 🗌	
17.	Were all hold	ing times able to be met?		Yes	✓	No $\square$	
Sne	cial Handlı	ing (if applicable)					
-		otified of all discrepancies with	this order?	Yes		No $\square$	NA 🗹
10.							1012
	Person		Date		□ <b>D</b> I		71
	By Who		Via:	eMail	Phone	Fax L	In Person
	Regardi						
		structions:					
19.	Additional rer	narks:					
<u>ltem l</u>	nformation						
		Item #	Temp °C				
	Sample		3.9				

<sup>\*</sup> Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Page 108 of 115

remo	3600 Fremont Seattle, WA Tel: 206-35: Fax: 206-35:  AAA - 48:  WA - 48:  WA - 48:  Time  Sample Time	Date: Project I Project I Collecte Collecte PM Ema	Chain of Custody Record  Date: 5/2/23  Project Name: Math's Property  Project No: 711-007-196  Collected by: Kn Skyn Burgess  Location: 2902a.c.a.x.da. Ray, SEQUIM  Report To (PM): Kn Skyn Burgess  PM Email: 25046.3516.3516.3516.3516.3516.3516.3516.351	** P	ct No (internal):
Sample Name	Sample	# of 100 (5) (5) (6) (6) (6) (6) (6) (6) (6) (6) (6) (6	14. 18 25 18 C 18. 18. 18. 18. 18. 18. 18. 18. 18. 18.		Comments
1 MP-9	0				
2 MTP-10	1 1342	`	\		
3 MTP-11	1400				
4					
5					
6					
7					
00					
9					
10					
Q = Aqueous, B = Bulk,	O = Other, P = Product, S = Soil	iment, SL = Solid,	DW = Drinking Water,	SW = Storm Water,	Vaste Water Turn-gro
Micros (Circle): (MICA-5) RCRA-6	Priority Pollutants IAL /	individual: Ag Al AS B Ba Be Ca	Ca Co Cr Cu re Hg K Mg Mn I	Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ii II	V Zn Stallbald Next Day
***Anions (Circle): Nitrate Nitrite	Chloride Sulfate	Bromide O-Phosphate Flu	Fluoride Nitrate+Nitrite		☐ 3 Day ☐ Same Day
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.	o enter into this Agreemen nd backside of this Agreer	t with Fremont Analytical on lent.	sehalf of the Client named abo	ve, that I have verified Client's	2 Day
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	
1	Grister Success	5/3/23 8:15	S. S.	Emme Tech	- 5/3/23 8:
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time

(WAY NA)	3600 Fremont Ave N.	Chain of Custody Record	dv Record & Labora	rd & Laboratory Services Agreement	
Fremo	3	Date:	Page:   of: 7 4	Laboratory Project No (internal): 25057845	15
Am	17015747871 Fax: 206-352-7178	Project Name:		Special Remarks:  Y = 2dd por KB 5/1/2023 -BB	of 1
Client (SA) ASSOCIATES	ates Inc	Project No: 711-007-			e 11
Address: 722 Pro	Prohanka RD.	Collected by: Knstan R	BURLEYS		Pag
City, State, Zip: The College	OR WA	98250 Location: 290 2000	2000 pl. Segom WA		
	425 870 8481	(PM): アコ	C	Sample Disposal: Return to client Disposal by lab (after 30 days)	
		esa	att. net		
			THE POPULATION OF THE PARTY OF	/////*cPAH	
	Sample Sample	Sample # of Control of			
Sample Name	Q II	COME. 127 87 67 87 67 3		Comments	
1 1 1 1 1 1	1400 020	- 80			
2 2 2 2	0000				
MTP-4-1	1032	\ \ \			
5 MP-4-2	1043			THE SED	10
6 NTP-4-3	1100			Run for Quantific	
2-dN 2	1133	<			
8 MID-6	11 52				
· MTP-7	1236	< < < < < < < < < < < < < < < < < < <	<		
10 MTP-8	1302	\ \ \ \			
A 15	O = Other, P = Product, S = Soi	SD = Sediment, SL = Solid, W = Water, DW = Drinking Water,	er, GW = Ground Water, SW = St	WW = Waste Water Turn-arc	
**Metals (Circle): MTCA-5 RC	RCRA-8 Priority Pollutants TAL	Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg	Fe Hg K Mg Mn Mo Na Ni Pb Sb Se	e Sr Sn II II V Zn	_
***Anions (Circle): Nitrate	Nitrite Chloride Sulfate	Bromide O-Phosphate Fluoride Nitra	Nitrate+Nitrite	☐ 3 Day ☐ Same Day	~
I represent that I am autho to each of the terms on the	I represent that I am authorized to enter into this Agreement wit to each of the terms on the front and backside of this Agreement.	I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named to each of the terms on the front and backside of this Agreement.		above, that I have verified Client's agreement  2 Day (specify)	1
Relinquished (Signature) ×	Minsten Brayess	Date/Time Received x 5/3/23 8:15 x	Received (Signature)  Print Name  X  EMANA	Tuck \$13/23 8:17	
Relinquished (Signature)	Print Name		Received (Signature) Print Name ×	ame Date/Time	+

2 2	3600 Fremont Ave N. Seattle, WA 98103 Tel: 206-352-3790 Fax: 206-352-7178  A R.J.  WA 98250	Date: Project Project Collecte	Chain of Custody Record  Date: 5/8/23  Project Name: Moths Proper by  Project No: 711-007-196  Collected by: Knsken Burgess  Location: 2902a.c.a.rda Ra., SEQUIM,	of: Z Laboratory Services  Laboratory Project No (Internal):  Special Remarks:	
Telephone: 435 870 848	481	Report To (PM): PM Email:	Kriskin Busyless	Sample Disposal: Return to client	eturn to client Disposal by lab (after 30 days)
Sample Name	Sample Sample Date Time	Sample # of Type # of Colors (Matrix)* Cont.			Comments
1 MP-9	0				
2 MTP-10	1342	5	\ \ \		
3 MTP-11	1 IHOO	_			
4					
5					
6					
7					
00					
9					
10					
Q = Aqueous, B = Bulk,	O = Other, P = Product, S = So	iment, St = Solid,	W = Water, DW = Drinking Water,	SW = Storm Water, WW = W	Turn-aro
	ALL ALL AND ADDRESS OF THE PARTY OF THE PART	The state of the s	the tot on the ten to the ten the ten the ten the ten ten ten ten ten ten ten ten ten te	Ma Mi 10 20 20 21 21 11 11 4 411	
***Anions (Circle): Nitrate Nitrite	Chloride Sulfate	Bromide O-Phosphate	Fluoride Nitrate+Nitrite		☐ 3 Day ☐ Same Day
I represent that I am authorized to enter into this Agreement wit to each of the terms on the front and backside of this Agreement.	o enter into this Agreeme nd backside of this Agre	ent with Fremont Analyti ement.	I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.	, that I have verified Client's agr	2 Day
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	
1	Grister Everioss		8:15	Emme Tech	tl:8 85/2/5
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time

3600 Fren	3600 Fremont Ave N.	Chain of Custody Record & Labora	rd & Laboratory Services Agreement
Fremont Seattle, Tel: 20		Date: 14 11 2 2 2023 Page: 1 of 7 1	5
Analytical Fax: 20	Fax: 206-352-7178	t Name: Noths Proposition	Special Remarks:  Y = 2dd   Der KR 5/1/2022   RR  O
client ESA ASSOCIATES INC	Pı		
Address: 722 Promanka R8	C	collected by: Kastas Burges	Pag
City, State, Zip: Trackly Throat & A	98250	Location: 290 2000 counts Pd. Segomun	
Telephone: 425 870 8481		Str. Burgess	Sample Disposal: Return to client Disposal by lab (after 30 days)
	P	esakby Od	
		TIGO TICO	////*cPAH
Sample Sample	Sample Type		
1 MT2-1 5/2/23 916	200		Send results (m
2 MID-3 1 930	10		1+c11), NETALS, VOC
3 MTP-3	80	\ \ \ \	was social
4 MTP-4-1	032	×	
5 MTP-4-2 105	048	×	サイン・干する(大豆)
6 MTP-4-3 1100	0		Run for quantity
1 N-01 N	1133		
= ZP-6	52		
· MTP-7	84	\ \ \ \	
10 MTP-8 139	02	\ \ \ \	
s, B=Bulk, O=Other, P=Product	S = Soil, SD = Sedi	W = Water, DW = Drinking Water, GW = Ground Water, SW = St	WW = Waste Water Turn-arc
KCKA-6 PRIORITY POHILIANTS		Be C4 C0 C0 C1	E 31 31 11 11 V 41
****Anions (Circle): Nitrate Nitrite Chloride Sulfate	ate Bromide		☐ 3 Day ☐ Same Day
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named to each of the terms on the front and backside of this Agreement.	reement with Fi Agreement.		above, that I have verified Client's agreement  2 Day (specify)
Relinquished (Signature)  Print Name  Anskr Brayess	5	Date/Time Received (Signature) Print Name	Truck \$73/23 8:17
Relinquished (Signature)  Print Name	Dar	Date/Time Received (Signature) Print Name	ame Date/Time

Client: ESA ASSOCIALES Address: 722 Provided City, State, Zip: Friday Harlow Telephone: 425 870 848 Fax:	Seatt Tel: Fax:  Rd .  WA	Date: Project   Project   Collecte Location Report 1	Chain of Cust  5/2/23  Name: Moths  No: 7/11-00  adby: Knsten  To (PM): Knsten  To (PM): Knsten  To (PM): Knsten  To (PM): Knsten	THE THE PROPERTY OF THE PROPER	\$ P.	Laboratory Services Agreement  Laboratory Project No (Internal): Special Remarks:  Special Remarks:  Sample Disposal: Return to client Disposal by lab (after 30 d	es Agreement	b (after 30 days)
Sample Name	Sample Sample	Sample Type # of [(Matrix)* Cont.		14. 18 25 18 C. 18. 18. 18. 18. 18. 18. 18. 18. 18. 18			Comments	
1 MD-9	23	5016						
2 MTP-10	1342	<		\				
3 MTP-11	1 1400	<u></u>						
4								
5								
6								
7								
00								
9								
10								
Q = Aqueous, B = Bulk,	O = Other, P = Product, S =		SL = Solid, W = Water, I	/ = Drinking Water,	SW = St	W = WW	2	Turn-around Time:
	Maria	The state of the s	50 50 50	CO CI CO 100 100 100 100 100 100 100 100 100 10	THE WILL WE WE TO JO JO	31 311 11 V 211	4	
***Anions (Circle): Nitrate Nitrite	Chloride Sulfate	Bromide O-	O-Phosphate Fluoride	Nitrate+Nitrite			☐ 3 Day	☐ Same Day
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.	o enter into this Agree and backside of this Ag	ment with Fremon reement.	t Analytical on beha	lf of the Client named	above, that I have ver	ified Client's agreemen	_	(specify)
Relinquished (Signature)	Print Name	Date/Time	·	Received (Signature)	Print Name		Date/Time	):
1	Grista Suegoss	5/3/23	8:15	3	Emme	Just S	12123	41:3
Relinquished (Signature)	Print Name	Date/Time		Received (Signature)	Print Name		Date/Time	

3600 Fremont Ave N.		Chain of Custody Record & Laboratory Services Agreement
Femont Seattle, WA 98103 Tel: 206-352-3790	Date:	of: 2 Laboratory Project No (Internal): 25257845
4malyaran Fax: 206-352-7178	Project Name: 145 HS Pro	
Client EST ASSECTES INC	Project No: 711-007-196	X - add per KB 5/11/23 - mwdl
Address: 722 Prohanka (8)	Collected by: KNSTED BURGEY	S
City, State, Zip: France Land There WA 98250	Location: 290 Zaccoxide	Rd. Segomula
	timb .	S
	esakby det	et
		///*cPAH
Sample	(C) 4 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	
Sample Name Date Time (Matrix)*	Cont. \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Comments
- 1	×	120 OF THE
	\ \ \	who was also
4 MTP-4-1 1032	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
5 MTP-4-2 1043	×	また 子は 名まる
6 MTP-4-3 1100		Run for Quantify
7 MP-5 1133	<u></u>	
8 MID-6	×	
9 MTP-7 1236	\ \ \ \	
10 MTP-8 1 1302 1		
s, B=Bulk, O=Other, P=Product, S=Soi	W = Water, DW = Drinking Water,	= Ground Water, SW = Storm Water, WW = Waste Water
MICA-3 NCNA-6 FIGURY FOILUIGHS IAL	AR AI AS D DA DE CA CA CA CA CA CA TE TIE N	ING BILL BID IN
I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named	t with Fremont Analytical on behalf of the Client nar	med above, that I have verified Client's agreement
Relinquished (Signature) Print Name	Date/Time	Print Name Date/Time
Relinquished (Signature) Print Name	Date/Time Received (Signature)	-

www.fremontanalytical.com

COC 1.3 - 11.06.20

S ad Page 1	Tel: 206-35: Fax: 206-35:  A	X * * * *	Page  No Prope  Caxdo Page  SEN BUSGE  SEN B	Special Remarks:  Special Rema	Return to client Disposal by lab (after 30 days)
Sample Name	Sample Time	# of LOCS (LOP)		136 100	Comments
MP-9	12/13 1330	×	×		
MTP-10	1342	5	`		
MTP-11	1400	×	×		
4					
5	+	-			
7					
00					
9					
10					
*Matrix: A = Air, AQ = Aqueous, B = Bulk,  **Metals (Circle): (MTCA-5) RCRA-8	O = Other, Priority Po	P = Product, S = Soil, SD = Sediment, SL = Solid, Illutants TAL Individual: Ag Al As B Ba	W = Water, DW = Drinking Water, GW = Ground Water,  Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni	nd Water, SW = Storm Water, WW = Waste Water to Na Ni Pb Sb Se Sr Sn Tl Tl V Zn	ste Water  Turn-ground Time:  2n  Standard  Next Day
***Anions (Circle): Nitrate Nitrite	te Chloride Sulfate	Bromide O-Phosphate	Fluoride Nitrate+Nitrite		3 Day   Same Day
I represent that I am authorized to enter into this Agreement wit to each of the terms on the front and backside of this Agreement.	d to enter into this Agreemen t and backside of this Agreen	t with Fremont Analyti nent.	I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.	ve, that I have verified Client's agr	
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	
	Grove Sucress		8:15 × 82	Emme Treet	5/3/23 8:17
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time

## APPENDIX C

## **Test Pit Logs**

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-1
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: 10'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	SC-1	SS	0.2	Bwn silty fine to course sand w/ occ gravel
2'	MTP-1	SS	0.2	Bwn silty fine to course sand w/ occ gravel
3'	SC-3	SS	0	Bwn silty fine to course sand w/ occ gravel
4'	SC-4	SS	0	Bwn silty fine to course sand w/ occ gravel
5'	SC-5	SS	0	Grey course sand w/ trace gravel
6'	SC-6	SS	0	Grey silty fine sand
7'	SC-7	NS	0	Grey silty fine sand
8'	SC-8	NS	0	Grey silty fine sand
9'	SC-9	NS	0	Grey silty fine sand
10'	SC-10	NS	0	Grey sandy silt

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-2
Operator: ESA Associates	Completion Date:May 2, 2023
Total Depth:9.5'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	MTP-2	SS	0.3	Bwn sandy silt w/ occ gravel & trace cobbles
2'	SC-2	NS	0.1	Bwn sandy silt w/ occ gravel & trace cobbles
3'	SC-3	NS	0	Bwn sandy silt w/ occ gravel & trace cobbles
4'	SC-4	SS	0	Bwn sandy silt w/ trace cobbles and boulders
5'	SC-5	SS	0	Bwn sandy silt w/ trace cobbles and boulders
6'	SC-6	SS	0	Bwn sandy silt w/ trace cobbles and boulders
7'	SC-7	NS	0	Bwn sandy silt w/ trace cobbles and boulders
9.5'	SC-8	NS	0	Bwn silty sand w/ gravel & boulders
<u> </u>	ļ		L	

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-3
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: 11'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	MTP-3	SS	0.5	Bwn silty fine sand w/ occ gravel
2'	SC-2	NS	0.3	Bwn silty fine sand w/ occ gravel
3'	SC-3	NS	0.4	Grey sandy silt
5'	SC-4	NS	0.4	Grey fine to course sand w/ occ gravel
8.5'	SC-5	NS	0.3	Grey silty fine to course sand w/ occ gravel
11'	SC-6	NS	0	Grey silt w/fine to course sand w/ occ gravel

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-4
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: 10'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	MTP-4-1	HS	1	Grey fine to course sand w/ silt & occ. gravel
2'	MTP-4-2	SS+	0.7	Grey fine to course sand w/ silt & occ. gravel
3'	MTP-4-3	NS	0.6	Grey fine to course sand w/ silt & occ. gravel
6'	SC-3	NS	0	Grey fine to course sand w/ silt & occ. gravel
8'	SC-4	NS	0	Grey fine to course sand w/ silt & occ. gravel
10'	SC-5	NS	0	Grey silt w/fine to course sand w/occ. Gravel

Project NO:711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-5
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth:6'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
4'	MTP-5	NS	0.9	Grey sand w/ silt & gravel
5'	SC-2	NS	0.6	Bwn silt w/ fine sand & occ gravel
6'	SC-3	NS	0.3	Bwn silt w/ fine sand & occ gravel Bwn silt w/ fine sand & occ gravel
				, , , , , , , , , , , , , , , , , , , ,

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-6
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: 6'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	SC-1	SS	0	Bwn silty sand w/ occ. gravel & boulders
2'	SC-2	SS	0	Bwn silty sand w/ occ. gravel & boulders
3'	MTP-6	SS	0.1	Bwn silty sand w/ occ. gravel & boulders
4'	SC-3	NS	0	Bwn sandy silt w/ occ. gravel
6'	SC-4	NS	0	Bwn sandy silt w/ occ. gravel

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe		
Location: Sequim, WA	Subcontractor: RED		
Start Date: May 2, 2023	Test Pit: MTP-7		
Operator: ESA Associates	Completion Date: May 2, 2023		
Total Depth: 11'	Rig Type: Track mounted excavator		
Water Level: No Water	Surface Elevation: N/A		
MP Elevation: N/A	Logged By: Kara Burgess		

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	MTP-7	MS	0.4	Asphalt w/ bwn silty fine sand
2'	SC-2	SS	0	Bwn silty fine sand w/ gravel
3'	SC-3	SS	0.2	Bwn silty fine sand w/ gravel
4'	SC-4	SS	0.2	Bwn silty fine sand w/ gravel
5'	SC-5	SS	0.2	Bwn silty fine sand w/ gravel
6'	SC-6	NS	0.2	Grey silt
10'	SC-7	NS	0.3	Bwn silty fine sand w/ roots
11'	SC-7	NS	0.3	Grey silt

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-8
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: 10'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	SC-1	NS	0.3	Dark bwn silty fine sand
2'	MTP-8	SS	0.7	Dark bwn silty fine sand
3'	SC-3	NS	0.3	Dark bwn silty fine sand
4'	SC-4	NS	0	Light bwn silt
5'	SC-5	NS	0	Light bwn silt
6'	SC-6	NS	0	Grey-blue silt
9'	SC-7	NS	0	Grey-blue silt w/ large wood fragments
10'	SC-8	NS	0	Grey-blue silt w/ log
	-			

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-9
Operator: ESA Associates	Completion Date:May 2, 2023
Total Depth: 5'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	MTP-9	NS	0	Grey fine to course sand w/ silt & occ. gravel
2'	SC-2	NS	0	Bwn mottled silt w/ sand
3'	SC-3	NS	0	Grey fine to course sand w/ silt & occ. gravel
5'	SC-4	NS	0	Grey Silt
				,
	_			
	_			

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-10
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: 11'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description
1'	MTP-10	NS	0.9	Bwn mottled silt w/ sand & occ. Gravel
2'	SC-2	SS	0.4	Bwn silty fine sand
3'	SC-3	SS	0.4	Bwn silty fine sand
6'	SC-4	NS	0	Grey fine to course sand
8'	SC-5	NS	0	Grey fine to course sand
11'	SC-6	NS	0	Grey silt

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pit: MTP-11
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: 5'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

1' SC-1 NS 0.4 Bwn fine sandy silt w/ occ. Gravel 2' MTP-11 SS- 0.4 Bwn fine sandy silt w/ occ. Gravel 3' SC-3 NS 0 Bwn fine sandy silt w/ occ. Gravel 5' SC-4 NS 0 Grey silt  Grey silt	Depth BGS	Sample ID	Field Sheen	PID	Sample Description
2' MTP-11 SS- 0.4 Bwn fine sandy silt w/ occ. Gravel 3' SC-3 NS 0 Bwn fine sandy silt w/ occ. Gravel	1'	SC-1	NS	0.4	Bwn fine sandy silt w/ occ. Gravel
3' SC-3 NS 0 Bwn fine sandy silt w/ occ. Gravel	2'		SS-	0.4	
5' SC-4 NS 0 Grey silt	3'	SC-3	NS	0	Bwn fine sandy silt w/ occ. Gravel
	5'	SC-4	NS	0	Grey silt
					·

# Mottis Property Soil Log

Project NO: 711-007-196	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: May 2, 2023	Test Pits: MTP-1 to MTP-11
Operator: ESA Associates	Completion Date: May 2, 2023
Total Depth: N/A	Rig Type: Track mounted excavator
Water Level: No water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

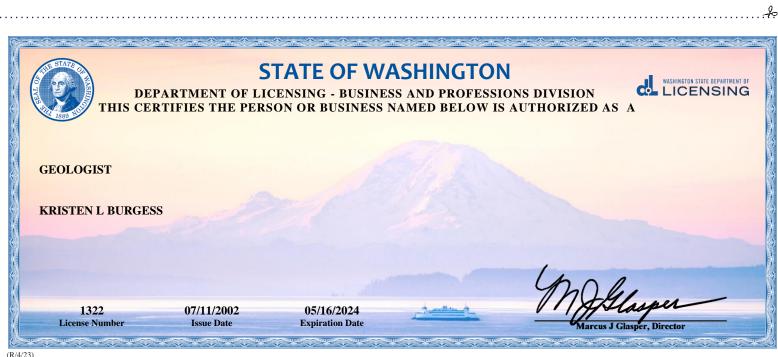
Depth BGS	Sample ID	Field Sheen	PID	Sample Description	
2'	MTP-1	SS	0.2	Bwn silty fine to course sand w/ occ gravel	
1'	MTP-2	SS	0.3	Bwn sandy silt w/ trace cobbles & occ. gravel	
1'	MTP-3	SS	0.5	Bwn silty fine sand w/ occ gravel	
1'	MTP-4-1	HS	1	Grey fine to course sand w/ silt & occ. gravel	
2'	MTP-4-2	SS+	0.7	Grey fine to course sand w/ silt & occ. gravel	
10'	MTP-4-3	NS	1	Grey fine to course sand w/ silt & occ. gravel	
4'	MTP-5	NS	0.9	Grey sand w/ silt & gravel	
3'	MTP-6	SS	0.1	Bwn silty sand w/ occ gravel & boulders	
1'	MTP-7	SS	0.4	Asphalt w/ bwn silty fine sand	
2'	MTP-8	SS	0.7	Dark bwn silty fine sand	
1'	MTP-9	NS	0	Grey fine to course sand w/ silt & occ. gravel	
1'	MTP-10	NS	0.9	Bwn modeled silt w/ sand & occ. gravel	
2'	MTP-11	SS-	0.4	Bwn fine sandy silt w/ occ. Gravel	
	<del>-</del>		ē		

## APPENDIX D

## **Qualifications of Environmental Professional**



KRISTEN L BURGESS 722 PROHASKA RD FRIDAY HARBOR WA 98250-5007



## APPENDIX E

# **Application for Authorization to Use**

#### APPLICATION FOR AUTHORIZATION TO USE

#### Phase II Environmental Site Assessment Jamestown S'Klallam Tribe Mottis Property Sequim, WA 98382

#### ESA ASSOCIATES PROJECT NUMBER: 711-007-196

May 30, 2023

TO:	ESA Associates, Inc. 722 Prohaska Rd Friday Harbor, Wa 98250	
FRON	<b>Л</b> :	
Applicant [State here the use(s) contemplated]		hereby applies for permission to:
	e purpose(s) of: ere why you wish to do what is contemplated as	s set forth above]
Inc. is strictl Assoc may v	the copyright owner and that unau y prohibited without the express tiates' client. The applicant understa	ne above identified report prepared by ESA Associates athorized use or copying of the above identified report is written permission of ESA Associates, Inc. and ESA ands that ESA Associates and/or ESA Associates' clien discretion, or grant such permission upon such terms an
Dated	:	Applicant
		by

# Appendix D - Sampling and Analysis Plan - Phase II ESA

# Sampling and Analysis Plan

Mottis Property: 290 Zaccardo Road, Blyn, WA

Title	Printed Name	Signature	Date	
Jamestown S'Klalla	m Ann Jagger			
Tribal Housing Manager				
Jamestown S'Klalla	m Robert Knapp			
Tribal Env. Planni	ng			
Manager				
CEO ESA Associates, Inc	Kristen Burgess			
Jamestown S'Klalla	m Jenna Ziogas			
Tribe Tribal Respon	se			
Coordinator				

Kristen Burgess 4-27-2023

April 27, 2023 ESA Associates File No.711-007-196

Mr. Robert Knapp Environmental Planning Manager Jamestown S'Klallam Tribe 1033 Old Blyn Highway Sequim, WA

SUBJECT: Sampling and Analysis Plan
For the Mottis Property Phase II ESA
290 Zaccardo Road
Sequim, Washington

Dear Mr. Knapp:

We have prepared a site-specific Sampling and Analysis Plan (SAP) for the Mottis property. All sampling performed under this SAP will be performed by field personnel with training in soil sampling protocol. This site-specific SAP contains the summary of reporting requirements and project schedule. This site-specific SAP has incorporated Standard Operating Procedures (SOPs) that are presented in the Jamestown S'Klallam Tribe's 2021 Quality Assurance Project Plan (QAPP) for Tribal assessment activities as follows:

- Sample collection procedures
- Field documentation procedures
- Management procedures for investigation-derived wastes
- Field equipment calibration and analysis
- Decontamination procedures
- Soil classification
- The number and type of QC samples to be collected and submitted for analysis
- Analytical Methods
- Analytical QC Requirements
- Reporting requirements
- Special safety or cautionary information

Please refer to the Tribal QAPP for a complete description of the SOPs. Refer to Appendix A for sampling containers, preservation, and holding times for samples.

#### Site Specific Sampling and Analysis Plan

ESA Associates, Inc. (ESA Associates) is pleased to present this SAP to collect soil samples at the subject property known as the Mottis Property located at 290 Zaccardo Road in Blyn, Washington. The primary goals of this soil sampling event are to: 1) provide valid data of known and documented quality to characterize the soil associated with the fill material on the western and southwestern portion of the subject property; and 2) explore the northern side of the home for a possible heating oil Underground Storage Tank (UST).

#### Site History and Description

Our 2023 Phase I ESA of the Mottis Property did reveal current RECs associated with the subject property. There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property.

We also encountered the following data gap that requires a phase II ESA to rule out possible petroleum releases to the subsurface soil as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records. The oil heating source may have been an underground storage tank or an above ground storage tank. Our historical review and site observations did not reveal an above ground storage tank, therefore, further exploration around the perimeter of the home is necessary to determine whether a UST is located near the home and requires removal or a UST was located near the home and has been removed.

Further investigation or corrective action is needed in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use. We recommended a Phase II ESA on the subject property to determine whether the fill material could affect the health and safety of occupants or conflict with the intended utilization of the

property. We also recommended exploring the northern side of the home for a possible underground heating oil storage tank.

This site-specific SAP may not initially identify all possible field conditions. In the event of changing field conditions, the scope of sampling activities and parameters measured will be modified as needed. This may include the collection of additional samples and analysis of additional chemicals parameters that were not anticipated in this site-specific SAP. Any changes or alterations to the site-specific SAP will be reported in the final report submitted to the Tribe upon the completion of the Phase II ESA.

### **Proposed Scope of Work**

ESA Associates understands that the undocumented fill material must be assessed to determine whether any contaminants exist with the fill material. We further understand that the current home was once heating with heating oil and may have had a UST at the north end of the home.

The surface soils will be screened with a Photoionization Detector (PID) and observed for any obvious soil staining and fuel releases. The surface soils will also be screened using sheen testing at 11 sampling locations based on our initial field screening results as depicted on Figure 1.

A trackhoe will be used to excavate the soil within the fill material in one foot intervals. According to historical aerials, the fill material was placed on the western and southwestern portions of the subject property. Nine test pits will be advanced to explore these areas. The excavator will be directed by an ESA Associates' licensed geologist. The test pits will be placed to investigate any hydrocarbon, Semi-Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs), and metal impacts in soil that might remain specifically between the surface to 12 feet below ground surface (bgs). Two test pits will be advanced on the north side of the home on either side of the hatch leading to the basement. These test pits will be excavated down to at least five feet bgs and as deep as ten feet bgs.

The sampling locations will be strategically placed to document the current soil conditions and to further define the impacts of possible contaminants at the western, southwestern, and north end of the home where a UST may have been located. If data collected from sampling locations indicates additional soil sampling is warranted, ESA Associates will collect more soil samples and archive them until we have authorization from the Tribe to perform additional analyses. If the vertical extent of any petroleum hydrocarbon release requires further delineation, then soil samples will be collected at one foot intervals to depths between 5 and 10 feet bgs. Soil samples

screened and evaluated during this assessment will be logged using the Unified Soil Classification System by an ESA Associates' Senior geologist.

### **Pre-field Activities**

As required by the Occupational Health and Safety Administration (OSHA) "Hazardous Waste Operations and Emergency Response" guidelines, ESA Associates will prepare a site specific Health and Safety Plan (HASP). At a minimum, the HASP will define the proposed activities, describe physical and chemical hazards that may be associated with the work, provide a map to the nearest emergency medical facility, and include material safety data sheets for any hazardous chemicals that will be used or produced during the work. A copy of the HASP will be available onsite at all times during field work. The field staff and contractors performing field activities will review the HASP prior to beginning field operations at the site. Refer to Figure 2 for site control measures.

Prior to mobilizing, ESA Associates will notify One Call Utility Notification Service to alert the utility companies in the area of the scheduled work and to mark all underground utilities in accordance with State of Washington requirements. In addition, ESA Associates may subcontract with a private utility locating contractor to mark private underground utilities near the proposed well locations. All appropriate access agreements and permits will be acquired and followed during field activities.

#### Soil Sampling and Analysis

Soil samples will be collected from each excavation on one-foot intervals for lithological description and hydrocarbon vapor screening using a portable PID. At least one soil sample from the vadose zone (if present) with the highest PID reading will be sent to a certified laboratory for analysis to determine the contamination impacts. All soil samples collected below the water table (if present) will be archived by the laboratory for further analysis. At least six soil samples will be analyzed from selected test pits. Additional soil samples may be necessary in order to define the vertical extent of petroleum hydrocarbon migration associated with the petroleum hydrocarbon releases.

The soil samples will be sent to the laboratory under Chain of Custody (CoC) procedures for analysis of the following: Petroleum hydrocarbons by the Washington State Department of Ecology's (Ecology's) HCID screening method, MTCA-5 metals by EPA Method 6020B, SVOCs by EPA Method 8270, and VOCs by EPA Method 8260D. These analyses were chosen

to characterize anticipated contaminants that are typically associated with undocumented fill materials and heating oil tanks.

The Washington State Model Toxics Control Act (MTCA) will be followed for this SAP. Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under CoC to a laboratory certified to perform the specified tests by the State of Washington as specified above.

#### Disposal of Contaminated Soil Samples

Contaminated soil generated during the field activities may be retained on-site in an appropriate visqueen lined berm for future disposal. Analytical results will be used for waste profiling and disposal. After profiling, ESA Associates will discuss with the Tribe, the necessary actions to remediate, transport, and dispose of the impacted materials. If groundwater is encountered at the site, ESA Associates will notify the Tribe prior to extraction and removal from the site. We do not anticipate encountering groundwater at the site.

### Project Members, Their Responsibilities, and Contact Information

Kristen Burgess is the project manager for this assessment (425-870-8481)

Kara Burgess is the field assistant for this assessment (425-239-1951)

RED, Inc. is the excavator operator for this assessment (360-870-4442)

Fremont Analytical, Inc. is the Ecology Certified Laboratory for this assessment (206-352-3790)

#### Report

Following the completion of these site assessment activities, ESA Associates will submit a report documenting the findings of the investigation. The report will include soil sampling test pit logs, soil analytical results, CoC documentation, conclusions, and recommendations as necessary.

#### Name of Persons To Whom the Data Are To Be Reported

The results of the chemical analytical data, our draft and final reports will be submitted to the following Jamestown S'Klallam Tribal Staff:

Robert Knapp, Environmental Planning Manager for the Jamestown S'Klallam Tribe: 360-681-4666

Jenna Ziogas, Environmental Program Specialist for the Jamestown S'Klallam Tribe: 360-681-4620

### Project schedule

Fieldwork is anticipated to begin following the Tribe's review of this SAP. We anticipate receipt of draft laboratory results approximately three days after sample submittal. We will prepare a draft report approximately two weeks after receipt of the chemical analytical data, and a final report one week after your approval of the draft. Given this schedule, we anticipate providing a final report within six weeks of project authorization, for the described scope of services. Additionally, we will keep you informed of conditions as they develop and will provide periodic verbal summary reports during our work.

#### Limitations

The proposed scope of services is intended to provide soil sampling on the property as requested by the Jamestown S'Klallam Tribe. However, this soil sampling event is not designed to identify all potential concerns or to eliminate all risk associated with the subject property. Even the most rigorous of professional assessments may fail to identify all existing conditions. This sampling event will not provide a guarantee regarding all site contamination and may not generate sufficient data to accurately define the lateral and vertical extent of contamination, if present. This assessment will not include other services not specifically described in the scope of services presented above.

The report may be used only by the client and funding agencies, and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use the assessment report shall notify ESA Associates of such intended use by executing the "Application for Authorization to Use" which will follow the report as an Appendix. Based on the intended use of the report, ESA Associates may require that additional work be performed and that an updated report be issued. Noncompliance with any of these requirements by the client or anyone else will release ESA Associates from any liability resulting from the use of the report by any unauthorized party. No warranty, express or implied, is made.

# Closing

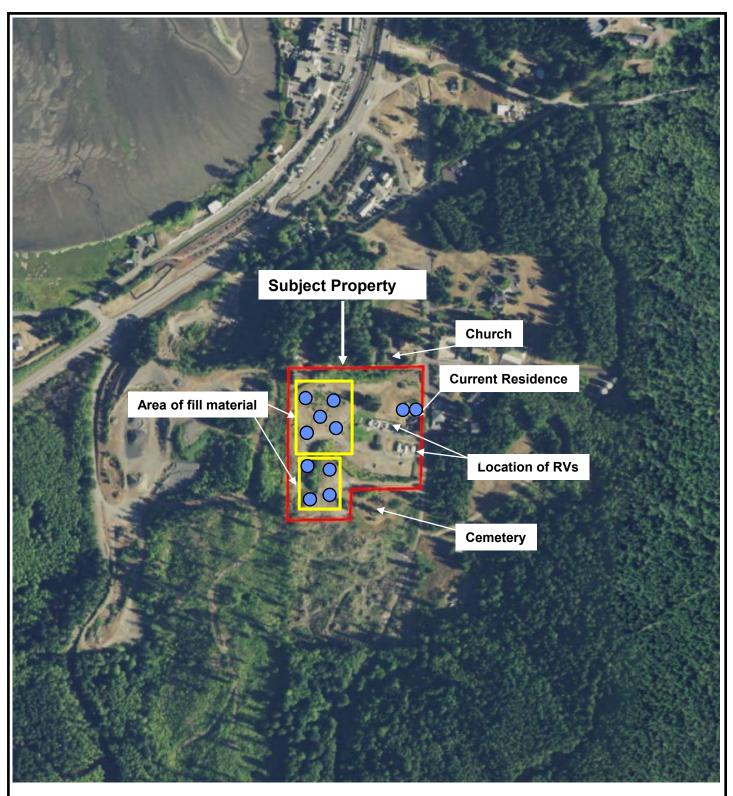
We appreciate the opportunity to submit this SAP. If you have any questions, comments, or require additional information, please contact the undersigned at (425) 870-8481.

Respectfully submitted,

ESA ASSOCIATES, INC.

Kristen Burgess

Kristen Burgess President, ESA Associates, Inc.



Locations of proposed test pits



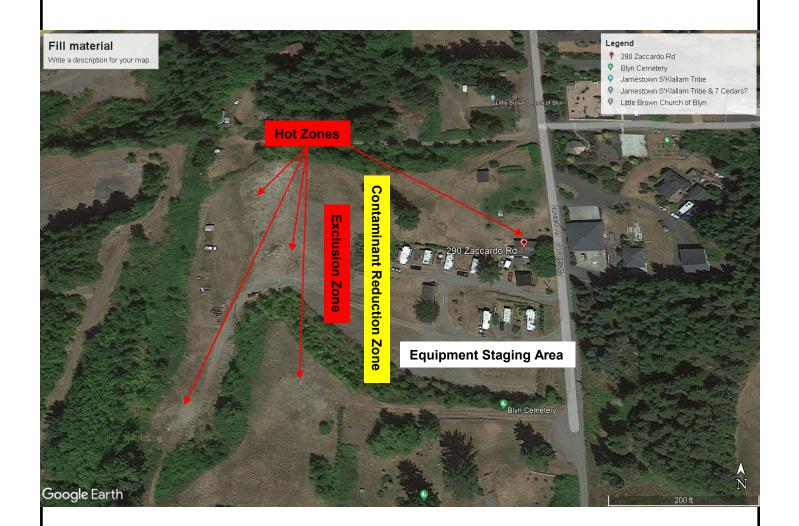
ESA Assocíates, Inc.

PROJECT NO. 711-007-196 May 2023

# **Test Pit Locations**

Mottis Property 290 Zaccardo Road Sequim, WA 98382 Figure

1





Site Control Measures
Mottis Property
290 Zaccardo Road
Blyn, Washington

FIGURE

2

# **APPENDIX** A

<b>SAMPLE CONTAINERS</b>	PRESERVATION AND	HOLDING TIMES

# SAMPLE CONTAINERS, PRESERVATION AND HOLDING TIMES

Parameter	Method	Matrix	Minimum Sample Volume	Container	Preservation	Maximum Holding Time
			Organic A	Analysis		
Diesel Range Organics (Extractable	8015M NWTPH-Dx AK102	Water	500 mL	500 mL glass	*Cool, 4°C	*7 days to extract, 40 days after extr.
TPH)	8015M NWTPH-Dx AK102/103	Soil	50 grams	4 oz glass	Cool, 4°C	14 days to extract, 40 days after extr.
Gasoline Range Organics (Purgable TPH)	8015M NWTPH-Gx AK101	Water	40 mL	40 mL VOA	Cool, 4°C, HCl to pH<2, no headspace	14 days
	8015M NWTPH-Gx	Soil	20 grams	4 oz glass	Cool, 4°C	14 days
	AK101	Soil	арр. 50 g	4 oz glass septum top	Methanol	28 days
HCID	NWTPH- HCID	Water	500 mL	500 mL glass	Cool, 4°C	7 days to extract, 40 days after extr.
		Soil	50 grams	4 oz glass	Cool, 4°C	14 days
Oil and Grease	1664	Water	1 Liter	1 L glass	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28 days
PCBs	8082	Water	1 Liter	1 L glass	Cool, 4°C	7 days to extract, 40 days after extr.
	8082	Soil	50 grams	4 oz glass	Cool, 4°C	14 days to extract, 40 days after extr.
PNAs (PAHs)	8270C or 8270C SIM	Water	500 mL	500 mL glass	Cool, 4°C	7 days to extract, 40 days after extr.
	8270C or 8270C SIM	Soil	50 grams	4 oz glass	Cool, 4°C	14 days to extract, 40 days after extr.
Purgable Aromatic Hydrocarbons	8021B or AK101	Water	40 mL	40 mL VOA	Cool, 4°C, HCl to pH<2, no headspace	14 days
(BTEX, MTBE)	8021B	Soil	20 grams	4 oz glass	Cool, 4°C,	14 days
	AK101	Soil	app. 50 g	4 oz glass septum top	Methanol	28 days
Semivolatile Organic	8270C	Water	1 Liter	1 L glass	Cool, 4°C	7 days to extract, 40 days after extr.
Compounds (SVOCs, BNAs)	8270C	Soil	50 grams	4 oz glass	Cool, 4°C	14 days to extract, 40 days after extr.
Volatile Organic Compounds	8260B	Water	40 mL	40 mL VOA	Cool, 4°C, HCl to pH<2, no headspace	14 days
(VOCs)	8260B	Soil	20 grams	4 oz glass	Cool, 4°C	14 days

<sup>\*</sup> For NWTPH-Dx and AK102 methods, if preserved with HCl or  $H_2SO_4$  to pH<2, holding time is 14 days to extract.

# SAMPLE CONTAINERS, PRESERVATION AND HOLDING TIMES

Parameter	Method	Matrix	Minimum Sample Volume	Container	Preservation	Maximum Holding Time
			Inorganic	Analysis		
Alkalinity	SM2320B	Water	100 mL	500 mL poly	Cool, 4°C	14 days
BOD	405.1	Water	1 Liter	1 L glass	Cool, 4°C	48 hours
Chloride	300.0	Water	100 mL	500 mL poly	Cool, 4°C	28 days
COD	410.4	Water	100 mL	500 mL poly	H <sub>2</sub> SO <sub>4</sub> to pH<2	28 days
Conductivity	120.1	Water	100 mL	500 mL poly	Cool, 4°C	28 days
Cyanide, total	335.2	Water	1 Liter	1 L glass	NaOH to pH 12	14 days
Fluoride	300.0	Water	100 mL	500 mL poly	Cool, 4°C	28 days
Hardness	SM2340B	Water	100 mL	500 mL poly	HNO <sub>3</sub> to pH,<2	6 months
Nitrate	300.0	Water	100 mL	500 mL poly	Cool, 4°C	48 hours
Nitrite	300.0	Water	100 mL	500 mL poly	Cool, 4°C	48 hours
Nitrate-Nitrite	353.2	Water	100 mL	500 mL poly	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28 days
pН	9040/150.1	Water	20 mL	500 mL poly	none	24 hours
•	9045	Soil	20 grams	4 oz glass	none	28 days
Phosphorus, total	365.2	Water	100 mL	500 mL poly	Cool, 4°C, H <sub>2</sub> SO <sub>4</sub> to pH<2	28 days
Sulfate	300.0	Water	100 mL	500 mL poly	Cool, 4°C	28 days
Sulfide	376.2	Water	500 mL	500 mL poly	Cool, 4°C ZnAcetate plus NaOH to pH>9	7 days
Sulfite	377.1	Water	100 mL	500 mL poly	none	24 hours
Total Dissolved Solids (TDS)	SM2540C/ 160.1	Water	500 mL	500 mL poly	Cool, 4°C	7 days
Total Organic Carbon (TOC)	415.1/ 9060M	Water	100 mL	500 mL poly	H <sub>2</sub> SO <sub>4</sub> to pH<2	28 days
Total Suspended Solids (TSS)	SM2540D	Water	250 mL	500 mL poly	Cool, 4°C	7 days
Turbidity	SM2130B	Water	20 mL	500 mL poly	Cool, 4°C	48 hours
			Metals A	analysis		
Metals (except Cr VI	6010B or 6020/200.8	Water	200 mL	500 mL poly	HNO <sub>3</sub> to pH<2	6 months
and Mercury)	6010B or 6020/200.8	Soil	20 grams	4 oz glass	Cool, 4°C	6 months
Chromium VI	7196A	Water	100 mL	500 mL poly	Cool, 4°C	24 hours
	7195	Soil	20 grams	4 oz glass	Cool, 4°C	28 days
Mercury	7040	Water	100 mL	500 mL poly	HNO <sub>3</sub> to pH<2	28 days
•	7041	Soil	20 grams	4 oz glass	Cool, 4°C	28 days

**Appendix E- Phase III – Environmental Site Assessment – Remediation** 

Remediation Report Mottis Property 290 Zaccardo Road Sequim, Washington 98382

Prepared for: Jamestown S'Klallam Tribes

1033 Old Blyn Highway

Blyn, WA 98283

Prepared by: ESA Associates, Inc.

722 Prohaska Road

Friday Harbor, WA 98250 Phone: (425) 870-8481

June 26, 2023

Report Date: June 21, 2023 Site Work: June 6-7, 2023

Location: Parcels 032912417010, 032912419010

# TABLE OF CONTENTS

SEC.	<u>ITON</u>		<u>.</u>	<u>PAGE</u>			
1.0	SUMMARY						
	1.1 MTP-4 Burn Pit						
	1.2	MTP-7 I	Buried Asphalt	3			
	1.3		ampling				
	1.4		ions				
2.0	BACI	KGROUNI	)	6			
3.0	OBJE	ECTIVE AN	ND SCOPE OF SERVICES	9			
4.0	SURS	SURFACE	INVESTIGATION	11			
1.0	4.1		Burn Pile				
	4.2		Asphalt Grindings Southwestern Portion of Subject Property				
	4.3		ater Sampling.				
5.0	LARO	ORATORY	ANALYSIS OF SOIL AND DRINKING WATER	14			
	5.1		nple Collection.				
	5.2		al Soil Analysis				
	5.3		ater Sampling				
6.0	SUBS	SURFACE	FINDINGS AND ANALYTICAL RESULTS	15			
	6.1 Subsurface Soil Sampling						
	6.2 Subsurface Soil Analytical Results						
		6.2.1	Total Petroleum Hydrocarbons by Ecology Method NWHCID and NWTPH-D				
		6.2.2	cPAHs by EPA Method 8270 SIM				
		6.2.3	BTEX by EPA Method 8260				
	6.3	Water Sa	ampling				
	6.4 Water Analytical Results						
		6.4.1	Total Petroleum Hydrocarbons by Ecology Method NWTPH-HCID and NWT				
			Dext				
		6.4.2	Semi-Volatile Organic Compounds and cPAHs by EPA Method 8270				
		6.4.3	Volatile Organic Compounds by EPA Method 8260				
		6.4.4	MTCA-5 Total Metals by EPA Method 200.8 and 245.1				
		6.4.5	MTCA-5 Dissolved Metals by EPA Method 200.8 and 245.1	18			
7.0	CONCLUSIONS						
	7.1		Burn Pile				
	7.2						
	7.3	Water W	Vells of the Subject Property	19			
8.0	REC	RECOMMENDATIONS					
9.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS						
10.0	LIMITATIONS						
PAGE	INTEN	JTIONAI I	V I FFT RI ANK	1			

#### SITE PHOTOGRAPHS

#### **TABLES**

- 1 Summary of Soil Analytical Results
- 2 Summary of Water Analytical Results
- 3 Summary of Water Total Metals Analytical Results
- 4 Summary of Water Dissolved Metals Analytical Results

#### **FIGURES**

- 1 Site Vicinity Map
- 2 Site Diagram: Sample Locations for the Remedial Excavations
- 3 Sample Locations for the Burn Pile Remedial Excavation
- 4 Sample Locations for the Asphalt Grindings Excavation

#### **APPENDICES**

- A Field Methods and Procedures
- B Chemical Analytical Reports
- C Excavation Logs
- D Lewis County Landfill Weight Ticket
- E Well Log W-2
- F Application for Authorization to Use
- G Qualifications of Environmental Professional

#### 1.0 SUMMARY

At the request of the Jamestown S'Klallam Tribe, ESA Associates, Inc. (ESA Associates) has completed a remediation for the property located at 290 Zaccardo Road, Blyn, Washington. The site is known as the Mottis Property and consists of two Clallam County tax parcels (032912417010 and 032912419010). The Mottis property consists of a 1916 home with a detached garage and seven RV parking spaces.

The following report is a summary of work performed using the guidelines set forth in the Washington State Department of Ecology's (DOE) Model Toxics Control Act (MTCA). This report was prepared by a qualified *Environmental Professional* with ESA Associates as set forth in 40 CFR §312.10(b). This report shall satisfy the requirements for conducting "all appropriate inquiry" under Section 101 (35) (B) (i) (I) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Small Business Liability Relief and Brownfields Revitalization Act.

A Phase I ESA was conducted by ESA Associates in April 2023 for the Mottis property. Our Phase I ESA of the Mottis Property did reveal current Recognized Environmental Concerns (RECs) associated with the subject property. To ensure the property met the requirements of 24 CFR 58.5(i)(2) and 50.3(i) for the proposed Department of Housing & Urban Development (HUD), further investigation was recommended for the following reasons:

Our Phase I ESA revealed extensive excavation on the subject property, as well as deposition of imported fill material. Our aerial photographic review indicated that the subject property received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. We also discovered that the 1916 residence on the subject property was once heated with heating oil. There was no documentation, using Clallam County records, of removing a heating oil tank. The oil heating source may have been an underground storage tank (UST) or an above ground storage tank (AST). Our historical review and site observations did not reveal an AST. Therefore, further exploration around the perimeter of the home was recommended to discover evidence of a current UST, which would require removal, or if a UST was located near the home and had been removed.

ESA associates mobilized to the subject property on May 2, 2023, to direct the excavation of 11 test pits in the areas of concern noted above. All soil samples were analyzed for one or more of the following: petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), carcinogenic Polyaromatic Hydrocarbons (cPAHs), and Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA)-5 metals. Two areas of concern are identified as follows:

Chemical analytical results indicated that one area of concern, (MTP-4), of the eleven areas of concern, contained the VOC (benzene) in the soil at a concentration above the MTCA Method A cleanup level. The area contained other VOCs (acetone, toluene, ethylbenzene, and styrene) at concentrations below the respective MTCA Method A cleanup levels. This area also contained SVOCs (naphthalene, phenanthrene, and bis (2-ethylhexyl) phalate) at concentrations below the respective MTCA Method A/B cleanup levels. cPAHs were not detected in this area at concentrations above the laboratory detection limits. Petroleum hydrocarbons quantified as heavy oil were detected in the area MTP-4 at a concentration of 512 milligrams per kilogram (mg/kg), which is below the MTCA Method A cleanup level of 2,000 mg/kg. The concentrations of the MTCA-5 metals from area MTP-4 were consistent with the natural Washington State background levels for these metals.

The area of concern (MTP-7) was excavated in the southwestern portion of the subject property, where two feet of asphalt grindings were buried. The soil sample from (MTP-7) contained petroleum hydrocarbons quantified as heavy oil at a concentration of 1,160 mg/kg, which is below the MTCA Method A cleanup level of 2,000 mg/kg. This soil sample (MTP-7) also contained cPAHs, benz(a)anthracene and benzo(a)pyrene) at concentrations below the MTCA Method A cleanup level. VOCs were not detected in this area at concentrations above the laboratory detection limits. The concentrations of the MTCA-5 metals from area MTP-7 were consistent with the natural Washington State background levels for these metals.

ESA Associates mobilized to the subject property on June 6, 2023 to direct the removal of contaminated soils and asphalt grindings in the areas discovered during our Phase II ESA as follows:

#### 1.1 MTP-4 Burn Pit

ESA Associates remediated the area designated MTP-4, on the western portion of the subject property, where the land owner had burned household garbage. Soil impacted by the VOC, benzene, was brought above ground and temporarily stockpiled at the edge of the excavation. The final limits of the remedial excavation measure 10 feet by 10 feet in plan dimensions and reached a total depth of three feet below ground surface (bgs). Groundwater was not encountered. Approximately 10 cubic yards of benzene impacted soil was removed from the remedial excavation and transported to a licensed landfill in Lewis County.

The confirmation soil samples collected during the remedial activities of area MTP-4 were analyzed for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX). Chemical analytical results of the soil samples collected from the remedial excavation indicated that BTEX was non-detect in all five soil samples analyzed from the remedial excavation.

### 1.2 MTP-7 Buried Asphalt

ESA Associates directed the removal of buried asphalt identified in MTP-7 on the western portion of the subject property. The asphalt was covered by one foot of clean soil. The asphalt was encountered from one foot bgs to two feet bgs. The asphalt was brought above ground and temporarily stockpiled at the edge of the excavation. The final limits of the excavation measured 13 feet by 14 feet in plan dimensions and reached a total depth of three feet bgs. Groundwater was not encountered. Approximately 10 tons of asphalt grindings were removed from the area of MTP-7, and disposed of at a recycling facility in Tumwater, Washington.

The confirmation soil samples collected beneath the layer of asphalt were analyzed for petroleum hydrocarbons quantified as diesel and heavy oil and cPAHs. Chemical analytical results of the soil samples collected from the excavation indicated that petroleum hydrocarbons quantified as diesel and heavy oil and cPAHs were non-detect in all five soil samples analyzed from the sidewalls and base of the excavation.

### 1.3 Water Sampling

The on-site water wells (W-1 and W-2) were sampled on June 7, 2023. Well (W-1) serves the original home and well (W-2) serves the seven RVs on site. The water samples were analyzed for the following contaminants: Total petroleum hydrocarbons, VOCs, SVOCs, MTCA-5 metals, and cPAHs.

Chemical analytical results for well (W-1) indicated total petroleum hydrocarbons, cPAHs, and VOCs were not detected above the laboratory detection limits in the water sample. One SVOC, Carbazole, was detected at a concentration of 0.629 µg/l. There is no MCL, action level, or MTCA cleanup level for this chemical. It is known as a breakdown of coal tar. Chemical analytical results for total metals in well (W-1) contained concentrations of arsenic at 1.71 micrograms per liter (µg/l) and chromium (2.77 µg/l), well below the MTCA Method A cleanup levels of 5 µg/l and 2,400 µg/l, respectively, and below the Washington State Department of Health's (DOH) Maximum Contaminant Level (MCL) of 10 µg/l and 100 µg/l, respectively. Cadmium, mercury, and lead were not detected above the laboratory detection limits.

Chemical analytical results for well (W-2) indicated total petroleum hydrocarbons quantified as diesel in water sample (W-2) were detected at a concentration of 380 µg/l, which is below the MTCA Method A cleanup level of 500 µg/l. ESA Associates had the chemist pull the chromatogram and analyze it more carefully. While the detection was in the diesel range, it did not match the diesel standard. Therefore, a silica gel cleanup that removes any matrix interference in the carbon range was applied. The sample was analyzed again, and the result was non-detect for petroleum hydrocarbons quantified as diesel. Chemical analytical results indicated SVOCs, cPAHs, and VOCs were not detected above the laboratory detection limits in the water sample (W-2).

Chemical analytical results for total metals in well (W-2) contained concentrations of arsenic (1.54  $\mu$ g/l), chromium (2.93  $\mu$ g/l), cadmium (0.254  $\mu$ g/l), and lead (122  $\mu$ g/l). The concentrations of arsenic, chromium, and cadmium are well below the MTCA Method A cleanup levels of 5  $\mu$ g/l, 2,400  $\mu$ g/l, and 5  $\mu$ g/l, respectively, and below the DOH MCLs of 10  $\mu$ g/l, 100  $\mu$ g/l, and 5  $\mu$ g/l, respectively. Mercury was not detected above the laboratory detection limits. The concentration for total lead in well (W-2) is well above the Washington State's DOH action level of 15  $\mu$ g/l. The dissolved concentration for lead in water sample (W-2) was 6.91  $\mu$ g/l, which is well below the applicable MCTA Method A cleanup level of 15  $\mu$ g/l.

#### 1.4 Conclusions

Based on the chemical analytical data collected, ESA Associates concludes that the contaminants found in MTP-4 have been successfully remediated. Approximately 10 cubic yards of impacted soil was transported to Lewis County Landfill once chemical analytical data indicated clean limits had been reached for each remedial excavation. As directed by ESA Associates, the remedial excavation was brought to grade utilizing clean on-site soils. ESA Associates concludes that no further remedial actions are necessary for the area of concern identified in MTP-4.

Based on chemical analytical results, ESA Associates concludes that petroleum hydrocarbons and cPAHs did not leach into the subsurface soil beneath the asphalt layers at MTP-7. Approximately 10 tons of asphalt were removed from MTP-7 and transported to a recycling facility in Tumwater, Washington. As directed by ESA Associates, the excavation was brought to grade utilizing clean on-site soils. ESA Associates concludes that no further remedial actions are necessary for the area of concern identified in MTP-7.

We conclude that the detection of Carbazole in well water (W-1) is at a very low concentration, and it is not a regulated chemical. Therefore, no action is necessary for well (W-1) on the subject property.

We conclude that the detection of petroleum hydrocarbons quantified as diesel was an interference of carbon range particles, and was confirmed that it was not a diesel hydrocarbon, therefore, the detection was a false positive, and does not require further investigation.

The concentration for total lead in well (W-2) on the subject property is well above the Washington State's DOH action level of 15 µg/l. According to the new Lead and Copper Rule established by the U.S. Environmental Protection Agency (EPA), if a sample taken from a home has a result over 15 ppb of lead, the water system must notify occupants of the home within three days, so that steps to reduce lead exposure can be taken immediately. Notification of tap sample results under 15 ppb will occur within 30 days. If there is a systemwide action level exceedance, water systems will notify all customers within 24 hours and provide educational materials within 60 days. Water systems will also notify homeowners and building owners about opportunities to replace lead service lines, including information about financial assistance programs, if available, to help pay for replacing the customer-owned side of the line. The well water in (W-2) may also require treatment and/or filtering prior to human consumption. ESA Associates recommends further sampling of both wells prior to acquisition.

#### 2.0 BACKGROUND

Historical aerial photographs, reverse city directories, Clallam County records, interviews, and historical topographic maps of the subject property indicted that the subject property consists of a 1916 three bedroom, wood framed home with a asphalt tab roof. It covers 906 square feet. The home has a loft that covers 540 square feet. There is a porch that covers 176 square feet, and a deck that covers 180 square feet. There is a detached garage that covers 400 square feet, and a small carport. There are seven RV parking lots and they each have an RV occupying the space.

The home is hooked up to a 130 foot well (original well). The RVs are hooked up to a 160 foot well that was drilled about ten years ago. The home and RVs are hooked up to the same septic system, which has three tanks. The home is currently heated with electric forced air and a woodstove. The Clallam County Assessor, however, has the home heated with forced air oil.

Our 2023 Phase I ESA of the Mottis Property did reveal current RECs associated with the subject property. There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material, from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property.

Our city directory review indicated that Mr. Mottis ran a "Blyn Back Hoe Service from the property in 2000, and "Greg's Excavating & Hauling, Inc." from 2005 to 2010. These years correspond directly with the aerial photographic review of large amounts of fill material coming onto the subject property. During our interview with Mr. Mottis, he stated that he was retired, and he did not wish to share his former occupation. Mr. Mottis disclosed that Jamestown S'Klallam Tribe brought at least 50 truckloads of fill material onto his property about ten years ago. This amount of soil (1,000 cubic yards) does not reflect the total amount of imported fill material onto the subject property.

In our opinion, significant data gaps were encountered during this assessment (note: a "data gap" is defined in the E1527-21 Standard as "a lack or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information"). The data gaps are as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records; 2) the current owner's answers to our questions regarding the past operations at the property did not match our site reconnaissance observations and historical aerial reviews; 3) the subject property has received large volumes of undocumented fill material over many years; and 4) the former owner was not available for an interview about past historical activities at the subject property.

These data gaps create significant breaches in our historical interpretation of past activities at the subject property that may have resulted in the release of hazardous substances or petroleum products.

Further investigation was recommended to ensure the property meets requirements of 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use. We recommended a Phase II ESA on the subject property to determine whether the fill material could affect the health and safety of occupants or conflict with the intended utilization of the property. We also recommended exploring the northern side of the home for a possible underground heating oil storage tank.

ESA associates mobilized to the subject property on May 2, 2023, to direct the excavation of 11 test pits in areas of concern noted above. All soil samples were analyzed for one or more of the following: petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), carcinogenic Polyaromatic Hydrocarbons (cPAHs), and Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA)-5 metals. Two areas of concern were identified as follows:

Chemical analytical results indicated that one area of concern (MTP-4) of the eleven areas of concern contained the **VOC** (**benzene**) in the soil at a concentration above the MTCA Method A cleanup level. The area contained other VOCs (acetone, toluene, ethylbenzene, and styrene) at concentrations below the respective MTCA Method A cleanup levels. This area also contained SVOCs (naphthalene, phenanthrene, and bis (2-ethylhexyl) phalate) at concentrations below the respective MTCA Method A/B cleanup levels. cPAHs were not detected in this area at concentrations above the laboratory detection limits. Petroleum hydrocarbons quantified as heavy oil were detected in the area MTP-4 at a concentration of 512 milligrams per kilogram (mg/kg), which is below the MTCA Method A cleanup level of 2,000 mg/kg. The concentrations

of the MTCA-5 metals from area MTP-4 were consistent with the natural Washington State background levels for these metals.

The area of concern (MTP-7) was excavated in the southwestern portion of the subject property where two feet of asphalt grindings were buried. The soil sample from (MTP-7) contained petroleum hydrocarbons quantified as heavy oil at a concentration of 1,160 mg/kg, which is below the MTCA Method A cleanup level of 2,000 mg/kg. This soil sample also contained cPAHs, benz(a)anthracene and benzo(a)pyrene) at concentrations below the MTCA Method A cleanup level. VOCs were not detected in this area at concentrations above the laboratory detection limits. The concentrations of the MTCA-5 metals from area MTP-7 were consistent with the natural Washington State background levels for these metals.

ESA Associates mobilized to the subject property on June 6, 2023, to direct the removal of contaminated soils in the areas discovered during our Phase II ESA and to collect water samples from the on-site water wells. The details of our remedial activities, findings, and conclusions are documented in the body of this report.

#### 3.0 OBJECTIVE AND SCOPE OF SERVICES

ESA Associates excavated two areas of concern and collected 10 soil samples (five from each area of concern), one stockpile sample, and two well water samples (WW-1 and WW-2) in accordance with our authorized proposal dated May 30, 2023. ESA Associate's primary objective was to remediate the areas of concern identified in our May 2023 Phase II ESA.

The remediation plan was designed to: 1) provide valid data of known and documented quality to characterize the contamination in areas of identified concern; 2) collect the appropriate number of confirmation samples for each remedial excavation; and 3) meet the substantive requirements of MTCA for each cleanup action; 4) ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use; and 5) provide documentation for the Jamestown S'Klallam Tribe to assist in determining whether the Mottis property is suitable for acquisition.

The conceptual model considers known target analytes (benzene) associated with the historical practices at the subject property (burn pit). The target analytes known to be present in the buried asphalt are petroleum hydrocarbons quantified as heavy oil and cPAHs.

The conceptual site model takes into consideration the potential distributions of contaminants with respect to the properties, behaviors and fate and transport characteristics of the contaminant in a setting such as that being assessed. A sampling plan was designed to provide for the collection of known contaminated environmental media, at locations and depths where the highest concentrations occurred. This conceptual site model and sampling plan were developed in general accordance with Ecology's MTCA. These methodologies are described as representing good commercial and customary practice for conducting remediation of the subject property.

In light of the environmental behavior, fate, and transport characteristics of the particular target analytes and all reasonably ascertainable information about their presence or likely presence, the following tasks were executed under this scope of services to accomplish our objectives:

- 1) Provided a Washington State licensed geologist to observe the excavation activities and collect the appropriate number of soil samples.
- 2) Observed and documented soil sampling activities for each area of concern. This included field screening soils for the presence of volatile organic compounds with a photoionization detector (PID) reading in parts per million by volume and testing for petroleum hydrocarbon sheens for each soil horizon.
- 3) Documented any obvious indications of soil or groundwater contamination (as indicated by free product, stained soils, odors, or "oily" sheen).
- 4) Collected 10 confirmation soil samples and one stockpile sample, and documented the field screening results from the two areas of concerns.
- 5) Collected two water samples from the two on-site water wells.
- 6) Submitted the selected soil samples for one or more of the following: petroleum hydrocarbons (by Ecology Methods NWTPH-D extended), BTEX by EPA Method 8260; and cPAHs by EPA Method 8270 SIM.
- 7) Submitted the water samples for the following: total petroleum hydrocarbon screen by Ecology's NWHCID, petroleum hydrocarbons (by Ecology Methods NWTPH-D extended), SVOCs by EPA Method 8270; VOCs by EPA Method 8260, Dissolved and total Mercury by EPA Method 245.1 Dissolved Metals by EPA Method 200.8; and cPAHs by EPA Method 8270 SIM.
- 8) Prepared a draft and final report.

#### 4.0 SUBSURFACE INVESTIGATION

ESA Associates mobilized to the site on June 6, 2023, through June 7, 2023, to excavate two areas of concern outlined in our May 2023 Phase II ESA report. ESA Associates utilized a track mounted excavator and operator provided by RED, Inc. to excavate the areas of concern as directed by an ESA Associates' geologist. ESA Associates screened the soil in each remedial excavation, characterized the subsurface soil, and inspected the soil for any obvious signs of burned debris, asphalt, or fill material. All excavated soil from each excavation was temporarily stored at the edge of the excavation, and subsequently placed in trucks to be transported to the appropriate facility, upon completion of sampling.

The subsurface sampling program consisted of discrete soil samples collected from a stainless steel shovel or plastic tubing as dictated by the corresponding analysis to be performed on the selected soil sample from each test pit. All field sampling and decontamination procedures, sample preparation and shipping, and overall field procedures were performed in general accordance with protocol established by the EPA and Ecology. All soil classification was performed using the ASTM D2487 Soil Classification Method, "Soil Survey Standard Test Method, Unified Soil Classification System: Field Method." Field procedures pertaining to the soil sampling and decontamination protocol are presented in Appendix A.

The remedial excavations were placed as discussed in the proposal prepared by ESA Associates for the subject property, and as discussed in the Sampling and Analysis Plan (SAP) prepared by ESA Associates for the subject property. Soil samples were collected directly from the excavation sidewalls and base using a stainless steel spoon. Soil samples were screened for the presence of VOCs using a PID. The PID was a Thermo Environmental Model 580B OVM with a 10.5 ev lamp. The instrument was calibrated to 100 parts per million by volume (ppmv) with an isobutylene gas standard. The PID measures VOCs in the air in ppmv. The ESA Associates geologist documented the condition of the soil and visually inspected it for staining (sheen) or discoloration. The vapor reading and sheen tests were noted on the field logs.

Soil samples were collected in areas of obvious soil staining or high PID readings. All soil horizons were screened regardless of visible indications of contamination. Soil samples were collected on a continuous basis from grade to the depth of the excavation. Based on field screening results, the ash/soil sample exhibiting the greatest degree of contaminants was selected from the remedial excavation to be analyzed for the following contaminants: petroleum hydrocarbons screening by Ecology's Method NWHCID, total petroleum hydrocarbons quantified as diesel and heavy oil by Ecology's Method NWTPH-Dx extended, BTEX by EPA Method 8260, and cPAHs by EPA Method 8270 SIM.

Based on field screening results, at least one soil sample was submitted from each sidewall and base of the excavation for chemical analysis. The depth from which the soil sample was collected is recorded on the field logs. The samples were retained in appropriate containers (per analytical requirements), sealed with teflon-lined lids and stored on ice until delivered under chain-of-custody documentation for laboratory analyses. Site exploration methods are included in Appendix A. Chemical Analytical reports and Chain-of Custody reports are included in Appendix B. Field Logs are included in Appendix C. The weight ticket for the Lewis County Landfill is in Appendix D. The well Log for well (W-2) is in Appendix E. The site vicinity map is presented on Figure 1. The sampling locations of each area of concern are presented on Figure 2. Figures 3 and 4 depict the soil sample locations for each excavation.

#### 4.1 MTP-4: Burn Pile

The area of MTP-4 was identified by ESA Associates as an area where a burn pile was located in the western portion of the subject property. ESA Associates used a track mounted excavator to excavate the soil down to three feet bgs. Groundwater was not encountered in this remedial excavation. The obvious burned debris and ash was removed first and stockpiled at the edge of the excavation. Field screening was used to determine the lateral and vertical extent of benzene impacted soils. Sidewall samples were taken at the one foot level bgs, where the benzene contamination was confirmed during our Phase II ESA sampling event. Based on field screening results, we over excavated the area down to three feet bgs, and laterally 10 feet by 10 feet in order to reach clean limits of the excavation. We excavated until there were no PID readings and no sheens in the collected soil samples from the sidewalls and base. Soil samples (BP-1 through BP-5) were selected from the remedial excavation to be analyzed for the following contaminants: BTEX by EPA Method 8260. The base sample BP-5 was collected from 3 feet bgs. One additional soil sample (SP-1) was collected from the soil stockpile for disposal purposes, and analyzed for the target analyte benzene through BTEX analysis by EPA Method 8260.

## 4.2 MTP-7: Asphalt Grindings Southwestern Portion of Subject Property

The area of MTP-7 was identified by ESA Associates as an historic area for disposing of asphalt grindings. ESA Associates used a track mounted excavator to excavate the soil down to three feet bgs. Groundwater was not encountered in this remedial excavation. An obvious layer of asphalt grindings was found under one foot of clean overburden. The layer was removed and stockpiled at the edge of the excavation. Field screening was used to determine the lateral and vertical extent of asphalt grindings impacted soils. Sidewall samples were taken at the two foot level bgs, where the asphalt grindings impacted soil was confirmed during our Phase II ESA sampling event. Based on field screening results, we over excavated the area down to three feet bgs, and laterally 13 feet by 14 feet in order to remove all the encountered asphalt grindings. We excavated until there were no PID readings and no sheens in the collected soil samples from the sidewalls and base. Soil samples (AG-1 through AG-5) were selected from the sidewalls and base of the excavation to be analyzed for the following contaminants: petroleum hydrocarbons quantified as heavy oil by Ecology Method NWTPH-Dx and cPAHs by EPA Method 8270 SIM. The base sample AG-5 was collected from 3 feet bgs.

### 4.3 Well Water Sampling

The on-site water wells were sampled on June 7, 2023. Well (W-1) is 130 feet deep and well (W-2) is 130 feet deep. Reportedly, well No. W-1 is used for drinking water in the original home, and well No. W-2 is used for drinking water in the seven RVs on the subject property. The first draw of the morning was sampled from each well at 5:00 am on June 7, 2023. The water samples were analyzed for the following contaminants: Total petroleum hydrocarbons by Ecology's Method NWHCID, petroleum hydrocarbons quantified as diesel by Ecology's Method NWTPH-Dx with silica gel cleanup, VOCs by EPA Method 8260, SVOCs by EPA Method 8270, Polyaromatic Hydrocarbons by EPA Method 8270 (SIM), diesel and heavy Oil by NWTPH-Dx/Dx Ext, Dissolved Mercury by EPA Method 245.1, Dissolved Metals by EPA Method 200.8, Mercury by EPA Method 245.1, and Total Metals by EPA Method 200.8.

#### 5.0 LABORATORY ANALYSIS OF SOIL AND WATER

The samples were submitted to Fremont Analytical of Seattle, Washington, an Ecology-certified and accredited Washington State DOH laboratory, for analysis in accordance with applicable Ecology and EPA Methods. The chemical testing plan was designed to detect the contaminants suspected to be present in the samples collected. This testing plan included tests which provide quality assurance (QA) and techniques that provide quality control (QC) over the chemical analysis. QA/QC included generally accepted procedures for sample collection, storage, tracking, and documentation. All sampling equipment was washed and rinsed prior to the collection of the samples. All samples were labeled with a sample number, date, time, and sampler name, and stored in an ice chest containing frozen "blue ice" under appropriate chain-of-custody documentation. Detailed information regarding the field sampling protocol and decontamination procedures is presented in Appendix A.

# 5.1 Soil Sample Collection

The soil sample that exhibited the highest potential for containing affected soil was selected for testing (i.e., elevated field screening readings or historic knowledge of depth of contamination). Five sidewall samples and one base sample was collected from ach excavation. Copies of the laboratory analysis reports and Chain-of-Custody documentation are presented in Appendix B.

### 5.2 Chemical Soil Analysis

The soil samples (BP-1 through BP-5, and SP-1) collected from the burn pile excavation and stockpile, respectively, were analyzed for the following: BTEX (by EPA Method 8260). The soil samples (AG-1 through AG-5) were collected from the asphalt grindings excavation and analyzed for the following: petroleum hydrocarbons quantified as diesel and heavy oil (by Ecology Method NWTPH-D ext) and cPAHs by EPA Method 8270 SIM.

### 5.3 Well Water Sampling

Water well samples (W-1 and W-2) were collected from the two water wells on the subject property and were analyzed for the following contaminants: Total petroleum hydrocarbons by Ecology's Method NWHCID, petroleum hydrocarbons quantified as diesel by Ecology's Method NWTPH-Dx, VOCs by EPA Method 8260, SVOCs by EPA Method 8270, Polyaromatic Hydrocarbons by EPA Method 8270 (SIM), diesel and heavy oil by NWTPH-Dx/Dx Ext, Dissolved Mercury by EPA Method 245.1, Dissolved Metals by EPA Method 200.8, Mercury by EPA Method 245.1, and Total Metals by EPA Method 200.8.

#### 6.0 SUBSURFACE FINDINGS AND ANALYTICAL RESULTS

The subject property is located north of the Olympic Mountain range and southeast of Sequim Bay. The original contours of the site are 143 feet above mean sea level (AMSL), with moderate slopes to the southeast and southwest. The regional ground water flow is to the north northwest toward Sequim Bay. Well depths in the area range from 9 to 160 feet bgs. The static water level in well (W-2) is 107 feet bgs. The surrounding area is utilized as either small farms or single family residences. There is a church to the north of the subject property and a cemetery to the southeast of the subject property.

The soils in the vicinity of the subject property are mapped as Hoypus gravelly sandy loam. These soils have a hydrologic group of Class A and exhibit high infiltration rates. The soil was formed in glacial outwash and is described as somewhat excessively drained sand and gravel. The native vegetation this soil supports is mostly conifers and shrubs.

There are also Clallam soils in the area of the subject property. Clallam soils are a gravelly sandy loam in hydrologic group C, which are soils with layers impeding downward movement of water, or soils with moderately fine or fine textures. They are moderately well drained and have slow infiltration rates.

### 6.1 Subsurface Soil Sampling

In general, the site surface soils did not vary greatly throughout the remedial excavations. In general, the soils on the subject property consisted of brown silty sand with occasional gravel (fill material) underlain by a grey sandy silt (native soil). Groundwater was not encountered in the remedial excavations to the final depth of the excavations at three feet bgs.

#### **6.2** Subsurface Soil Analytical Results

The soil sample that exhibited the highest potential for containing affected soil was selected for chemical analysis. Eight sidewall and two base soil samples (BP-1, BP-2, BP-3, BP-4, BP-5, AG-1, AG-2, AG-3, AG-4, and AG-5) were submitted for chemical analysis. One additional soil sample (SP-1) was collected from the burn pile stockpile for disposal purposes. The samples were submitted to Fremont Analytical on June 7, 2023. Analytical results from the excavations are presented on Tables 1 through 4. Chemical analytical reports and the laboratory Quality Assurance/Quality Control (QA/QC) are presented in Appendix B.

#### 6.2.1 Total Petroleum Hydrocarbons by Ecology Method NWHCID and NWTPH-D

Analytical results indicated total petroleum hydrocarbons quantified as heavy oil were not detected above the laboratory detection limits in the soil samples (AG-1, AG-2, AG-3, AG-4, and AG-5) submitted for this analysis.

#### 6.2.2 cPAHs by EPA Method 8270 SIM

Analytical results indicated that cPAHs were not detected above the laboratory detection limits in soil samples (AG-1, AG-2, AG-3, AG-4, and AG-5) submitted for this analysis.

#### 6.2.3 BTEX by EPA Method 8260

Analytical results indicated that BTEX were not detected above the laboratory detection limits in soil samples (BP-1, BP-2, BP-3, BP-4, and BP-5) submitted from the sidewalls and base of the burn pile excavation. The chemical analytical results from stockpile sample (SP-1) of the excavated soil from the burn pile excavation indicated that BTEX were not detected above the laboratory detection limits.

### 6.3 Water Sampling

The water samples were taken as the first draw in the morning at 5 am on June 7, 2023. There is no well data or logs for well (W-1). The well is believed by the current property owner to be 130 feet deep. There is no known static water level. The well 6 inch well (W-2) was drilled in 2006 to a total depth of 281 feet bgs and completed to a final depth of 130 feet bgs. The well has a seal to 18 feet bgs and is perforated from 120 feet to 135 feet bgs. The well pumps at 5 gallons per minute. The static water level in well (W-2) is 107 feet bgs.

#### **6.4** Water Analytical Results

Two water samples (W-1 and W-2) were submitted for chemical analysis. The samples were submitted to Fremont Analytical on June 7, 2023. Analytical results from the wells are presented on Tables 1 through 4. Chemical analytical reports and the laboratory Quality Assurance/Quality Control (QA/QC) are presented in Appendix B.

#### 6.4.1 Total Petroleum Hydrocarbons by Ecology Method NWTPH-HCID and NWTPH-Dext

Analytical results indicated total petroleum hydrocarbons were not detected above the laboratory detection limits in the water sample (W-1). Analytical results indicated total petroleum hydrocarbons quantified as diesel in water sample (W-2) were detected at a concentration of 380 micrograms per liter ( $\mu$ g/l), which is below the MTCA Method A cleanup level of 500  $\mu$ g/l. After a silica gel cleanup was applied to the water sample, the sample was re-analyzed. The chemical analytical results was no-detect after the silica gel cleanup was applied.

#### 6.4.2 Semi-Volatile Organic Compounds and cPAHs by EPA Method 8270

Analytical results indicated SVOCs were not detected above the laboratory detection limits in the water samples (W-2). The SVOC, Carbazole, was detected in water sample (W-1) at a concentration of 0.629  $\mu$ g/l. There is no MCL, action level, or MTCA cleanup level for this chemical.

#### 6.4.3 Volatile Organic Compounds by EPA Method 8260

Analytical results indicated VOCs were not detected above the laboratory detection limits in the water samples (W-1 and W-2) submitted for this analysis.

### 6.4.4 MTCA-5 Total Metals by EPA Method 200.8 and 245.1

Chemical analytical results for total metals in well (W-1) contained concentrations of arsenic (1.71  $\mu$ g/l), cadmium (non-detect), chromium (2.77  $\mu$ g/l), mercury (non-detect), and lead (non-detect), well below the MTCA Method A cleanup levels of 5  $\mu$ g/l , 5  $\mu$ g/l , 2,400  $\mu$ g/l , 2  $\mu$ g/l , and 250  $\mu$ g/l , respectively. Total metals were below the DOH MCLs for arsenic (10  $\mu$ g/l), cadmium (5  $\mu$ g/l), chromium (100  $\mu$ g/l), lead (15  $\mu$ g/l), and mercury (2  $\mu$ g/l).

Chemical analytical results for total metals in well (W-2) contained concentrations of arsenic (1.54  $\mu$ g/l), cadmium (0.254  $\mu$ g/l), chromium (2.93  $\mu$ g/l), and mercury (non-detect), well below the MTCA Method A cleanup levels of 5  $\mu$ g/l , 5  $\mu$ g/l , 2,400  $\mu$ g/l , and 2  $\mu$ g/l , respectively. Total metals were below the DOH MCLs for arsenic (10  $\mu$ g/l), cadmium (5  $\mu$ g/l), chromium (100  $\mu$ g/l), and mercury (2  $\mu$ g/l).

Chemical analytical results for total lead in well (W-2) contained concentrations of lead (122  $\mu$ g/l), which is above the DOH MCL of 15  $\mu$ g/l.

#### 6.4.5 MTCA-5 Dissolved Metals by EPA Method 200.8 and 245.1

Chemical analytical results for dissolved metals in well (W-1) contained concentrations of arsenic (1.61  $\mu$ g/l), cadmium (non-detect), chromium (2.44  $\mu$ g/l), mercury (non-detect), and lead (non-detect), well below the applicable MTCA Method A cleanup levels of 5  $\mu$ g/l, 5  $\mu$ g/l, 2,400  $\mu$ g/l, 2  $\mu$ g/l, and 250  $\mu$ g/l, respectively.

Chemical analytical results for dissolved metals in well (W-2) contained concentrations of arsenic (1.14  $\mu$ g/l), cadmium (non-detect), chromium (0.838  $\mu$ g/l), and mercury (non-detect), well below the applicable MTCA Method A cleanup levels of 5  $\mu$ g/l , 5  $\mu$ g/l , 2,400  $\mu$ g/l, and 2  $\mu$ g/l, respectively. Chemical analytical results for dissolved lead in well (W-2) contained concentrations of lead (6.91  $\mu$ g/l), which is below the applicable MTCA Method A cleanup level of 15  $\mu$ g/l.

### 7.0 CONCLUSIONS

The subsurface soil sampling program consisted of discrete soil samples from two remedial excavations. The conceptual site model and sampling plan developed for the site were verified during the remedial activities. The QA/QC procedures described in the chemical testing plan were adequate to verify the data acceptability. A summary of our findings and recommendations for each area of concern is presented below.

#### 7.1 MTP-4: Burn Pile

The area of MTP-4 was identified by ESA Associates as an area where a burn pile was located in the western portion of the subject property. ESA Associates used a track mounted excavator to excavate the soil down to three feet bgs. Groundwater was not encountered in this remedial excavation. Based on field screening results, we over excavated the area down to three feet bgs, and laterally 10 feet by 10 feet in order to reach clean limits of the excavation. Soil samples (BP-1 through BP-5) were collected from the sidewalls and base and analyzed for the following contaminants: BTEX by EPA Method 8260. The base sample BP-5 was collected from 3 feet bgs. One additional soil sample (SP-1) was collected from the soil stockpile for disposal purposes, and analyzed for the target analyte, benzene, by EPA Method 8260. Approximately 10 cubic yards of benzene impacted soils were transported off site to Lewis County Landfill in Washington State.

# 7.2 MTP-7: Asphalt Grindings Southwestern Portion of Subject Property

The area of MTP-7 was identified by ESA Associates as an historic area for disposing of asphalt grindings. ESA Associates used a track mounted excavator to excavate the soil down to three feet bgs. Groundwater was not encountered in this excavation. Asphalt grindings were found under one foot of clean overburden, removed from the excavation, and stockpiled at the edge of the excavation. Based on field screening results, we over excavated the area down to three feet bgs, and laterally 13 feet by 14 feet in order to remove all the encountered asphalt grindings. Soil samples (AG-1 through AG-5) were collected from the sidewalls and base of the excavation and analyzed for the following contaminants: petroleum hydrocarbons quantified as heavy oil by Ecology Method NWTPH-Dx and cPAHs by EPA Method 8270 SIM. The base sample AG-5 was collected from 3 feet bgs. Petroleum hydrocarbons quantified as heavy oil and cPAHs were not detected above the laboratory detection limits in all five confirmation soil samples. We removed approximately 10 tons of asphalt grindings from the area of MTP-7, and transported the asphalt to a recycling facility in Tumwater, Washington.

## 7.3 Water Wells of the Subject Property

The on-site water wells were sampled on June 7, 2023. Well (W-1) is 130 feet deep and well (W-2) is 130 feet deep. The water samples were analyzed for the following contaminants: Total petroleum hydrocarbons by Ecology's Method NWHCID, petroleum hydrocarbons quantified as diesel by Ecology's Method NWTPH-Dx, VOCs by EPA Method 8260, SVOCs by EPA Method 8270, diesel and Heavy Oil by NWTPH-Dx/Dx Ext, Dissolved Mercury by EPA Method 245.1, Dissolved Metals by EPA Method 200.8, Mercury by EPA Method 245.1, Polyaromatic Hydrocarbons by EPA Method 8270 (SIM); and Total Metals by EPA Method 200.8.

Chemical analytical results for well (W-1) indicated total petroleum hydrocarbons, cPAHs, and VOCs were not detected above the laboratory detection limits in the water sample. The SVOC, Carbazole, was detected in water sample (W-1) at a concentration of 0.629 µg/l. There are no MCLs, action levels, or MTCA cleanup level for this chemical. It is known as a break down product of coal tar, but it is not a regulated chemical. Chemical analytical results for total metals in well (W-1) contained concentrations of arsenic (1.71 µg/l) and chromium (2.77 µg/l), well below the MTCA Method A cleanup levels of 5 µg/l and 2,400 µg/l, respectively, and below the Washington State DOH MCLs of 10 µg/l and 100 µg/l, respectfully. Cadmium, mercury, and lead were not detected above the laboratory detection limits.

Chemical analytical results for well (W-2) indicated total petroleum hydrocarbons quantified as diesel in water sample (W-2) were detected at a concentration of 380 µg/l, which is below the MTCA Method A cleanup level of 500 µg/l. ESA Associates had the chemist pull the chromatogram and analyze it more carefully. While the detection was in the diesel range, it did not match the diesel standard. Therefore, a silica gel cleanup that removes any matrix interference in the carbon range was applied. The sample was analyzed again, and the result was non-detect for petroleum hydrocarbons quantified as diesel. Chemical analytical results indicated SVOCs, cPAHs, and VOCs were not detected above the laboratory detection limits in the water sample (W-2).

Chemical analytical results for total metals in well (W-2) contained concentrations of arsenic (1.54  $\mu$ g/l), chromium (2.93  $\mu$ g/l), cadmium (0.254  $\mu$ g/l), and lead (122  $\mu$ g/l). The concentrations of arsenic, chromium, and cadmium are well below the MTCA Method A cleanup levels of 5  $\mu$ g/l, 2,400  $\mu$ g/l, and 5  $\mu$ g/l, respectively, and below the DOH MCLs of 10  $\mu$ g/l, 100  $\mu$ g/l, and 5  $\mu$ g/l, respectively. Mercury was not detected above the laboratory detection limits. The concentration for total lead in well (W-2) is well above the Washington State's DOH action level of 15  $\mu$ g/l. Exceedance of the DOH action level must be reported to the occupants utilizing the water for drinking water (as discussed in Section 8.0). The dissolved concentration for lead in water sample (W-2) was 6.91  $\mu$ g/l, which is well below the applicable MCTA Method A cleanup level of 15  $\mu$ g/l.

#### 8.0 **RECOMMENDATIONS**

ESA Associates believes that the Jamestown S'Klallam Tribe can rely on the findings, conclusions, and opinions of the Environmental Professional. ESA Associates' work was performed in accordance with our authorized proposal and contract (711-007-197), dated May 30, 2023. This report is subject to the limitations presented below in Section 10.0 of this report.

Two areas of concern were remediated during our Phase III ESA. One area of concern (MTP-4) contained a **VOC** (**benzene**) within the soil at a concentration above Ecology's MTCA Method A cleanup level. The benzene was located in the burn pit located in the western portion of the subject property. An area 10 feet by 10 feet in plan dimensions and reaching a total depth of three feet bgs required remediation. Based on these measurements, 10 cubic yards of contaminated soil were removed and disposed of at the Lewis County Landfill. No further action is necessary for the benzene impacted area of the former burn pile.

One additional area of concern (MTP-7) was discovered where asphalt grindings were buried on the southwestern portion of the subject property. Petroleum hydrocarbons and cPAHs were detected beneath a two foot layer of asphalt grindings found one foot below the surface. Ecology does not regulate asphalt grindings as a solid waste when it is recycled back into new asphalt pavement and roads under specific conditions. If these conditions are not met (such as is the case on the subject property), then asphalt grindings are solid waste and subject to Ecology's solid waste regulations.

Since asphalt grindings may pose a risk to the environment because of potential exposure to the carcinogenic compounds contained in the asphalt binder and the heavy oil present in the asphalt grindings have the potential to leach into the underlying soil, we removed the asphalt grindings to minimize the potential release of these fine particles into the environment. We removed approximately 10 tons of asphalt grindings from the area of MTP-7. The lateral extent of the asphalt grindings was measured at 13 by 14 feet in plan dimensions and reached a total depth of 3 feet bgs. The asphalt grindings were taken to a recycling facility in Tumwater, Washington. No further action is necessary for the asphalt grindings in the western portion of the subject property.

No action is necessary for well (W-1) on the subject property. The concentration for total lead in well (W-2) on the subject property is well above the Washington State's DOH action level of 15 µg/l. According to the new Lead and Copper Rule established by the EPA, if a sample taken from a home has a result over 15 ppb of lead, the water system must notify occupants of the home within three days, so that steps to reduce lead exposure can be taken immediately. Notification of tap sample results under 15 ppb will occur within 30 days. If there is a systemwide action level exceedance, water systems will notify all customers within 24 hours and provide educational materials within 60 days. Water systems will also notify homeowners and building owners about opportunities to replace lead service lines, including information about financial assistance programs, if available, to help pay for replacing the customer-owned side of the line. The well water in (W-2) may also require treatment and/or filtering prior to human consumption. ESA Associates recommends further sampling of both wells prior to acquisition.

Since the dissolved concentration of lead in well (W-2) is  $(6.91 \mu g/l)$ , and the concentration of 15  $\mu g/l$  is used for establishing groundwater cleanup levels under Ecology's MTCA Method A, no reporting action to Ecology is necessary for the water from well (W-2).

# 9.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312, and I have the specific qualifications based on education, training, and experience to assess and remediate a *property* of the nature, history, and setting of the subject *property*. Qualifications of the environmental professional who conducted this environmental site assessment are included in Appendix F.

Respectfully Submitted, **ESA ASSOCIATES, INC.** 

Kristen L Burgess,

Registered Geologist, No. 1322



#### 10.0 LIMITATIONS

Our proposed scope of services is intended to provide an assessment and cleanup of contamination of soil and/or groundwater on the subject property. Although we believe our work provides a thorough assessment of potential areas of environmental concern on the subject property, it was not designed to eliminate all risk associated with the subject property. Even the most rigorous of professional assessments may fail to identify all existing conditions. This work will not provide a guarantee regarding site contamination and may not generate sufficient data to accurately define the lateral and vertical extent of contamination.

No ESA can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for chemical analysis may or may not be representative of a larger population. Professional judgment and interpretation are inherent in the process and uncertainty is inevitable. Additional assessment may be able to reduce the uncertainty. Even when the remedial work is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but are not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects, and the limitations of assessment technologies.

Remediations do not generally cover an exhaustive assessment of environmental conditions on a property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. If hazardous substance or petroleum releases are confirmed on a parcel of property, the extent of further assessment is related to the degree of uncertainty that is acceptable to the user with respect to the real estate transaction. Measurements and sampling data only represent the site conditions at the time of data collection. Therefore, the usability of data collected as part of this remediation may have a finite lifetime depending on the application and use being made of the data. An environmental professional should evaluate whether the generated data are appropriate for any subsequent use beyond the original purpose for which it was collected. Property activities and regulations beyond ESA Associate's control could change at any time after the completion of our property visit. Therefore, ESA Associate's observations, findings and opinions are based solely upon site conditions of the date of the remediation.

Remediation Mottis Property ESA Associates, Inc. 2023 Our report may be used only by the client, only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use the generated report shall notify ESA Associates of such intended use by executing the "Application for Authorization to Use." Based on the intended use of the report, ESA Associates may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release ESA Associates from any liability resulting from the use of the report by any unauthorized party.

No warranty, express or implied, is made.

Remediation Mottis Property ESA Associates, Inc. 2023

### PAGE INTENTIONALLY LEFT BLANK

### **Summary of Soil Analytical Results**

Mottis Property: Sequim, Washington Sampled on June 6-7, 2023 Results are in mg/kg for soil (AG-1 through SP-1)

Sample ID	Sample Depth (ft)	PID Reading (ppm)	Sheen Results	NWTPH-DX	BTEX EPA Method 8260	PAHs EPA Method 8270
AG-1	2	0	NS	ND	NA	ND
AG-2	2	0	NS	ND	NA	ND
AG-3	2	0	NS	ND	NA	ND
AG-4	2	0	NS	ND	NA	ND
AG-5	3	0	NS	ND	NA	ND
BP-1	1	0	NS	NA	ND	NA
BP-2	1	0	NS	NA	ND	NA
BP-3	1	0	NS	NA	ND	NA
BP-4	1	0	NS	NA	ND	NA
BP-5	1	0	NS	NA	ND	NA
SP-1	2	0.2	SS+	NA	ND	NA
MTC	CA Soil Clear	nup levels (mg	/kg)	2,000	N/A	N/A

#### Bold indicates concentrations exceeding the applicable MTCA Method A/B cleanup level

ND: Non-Detect, below reporting limit for each constituent

NA: Not Analyzed N/A: Not Applicable

### **Summary of Water Samples Laboratory Analytical Results**

Mottis Property: Sequim, Washington Sampled on June 6-7, 2023 Results are in µg/L for water (W-1 and W-2)

Sample ID	HCID	NWTPH- DX VOCs EPA Method 8260		SVOCs EPA Method 8270	MTCA-5 EPA Method 7471 and 6020
W-1	ND	NA	ND	Detected <sup>2</sup>	Detected <sup>3</sup>
W-2	Detected <sup>1</sup>	380	ND	ND	Detected
MTCA Water Cleanup levels (µg/L)	N/A	500	N/A	N/A	See Tables 3 and 4

#### Bold indicates concentrations exceeding the applicable MTCA Method A/B cleanup level

ND: Non-Detect, below reporting limit for each constituent

NA: Not Analyzed N/A: Not applicable

<sup>&</sup>lt;sup>1</sup> When treated with a silica gel treatment, results for W-2 became non-detect

<sup>&</sup>lt;sup>2</sup> Carbazole is detected at 0.629 μg/l, but this constituent does not have a cleanup level, an action level, or a maximum contaminant level for water

<sup>&</sup>lt;sup>3</sup> Detected total MTCA-5 metals are presented in Table 3, and detected dissolved MTCA-5 metals are presented in Table 4

### **Water Samples MTCA-5 Total Metals Laboratory Analytical Results**

Mottis Property: Sequim, Washington Sampled on June 6-7, 2023 Results Reported in µg/L for water (W-1 and W-2)

Sample ID	As Arsenic	Cd Cadmium	Cr Chromium	Pb Lead	Hg Mercury
W-1	1.71	ND	2.77	ND	ND
W-2	1.54	0.254	2.93	122	ND
MTCA Cleanup Levels Water (μg/L)	5 <sup>1</sup>	5	24,000	15	2

<sup>&</sup>lt;sup>1</sup> Method B Cancer

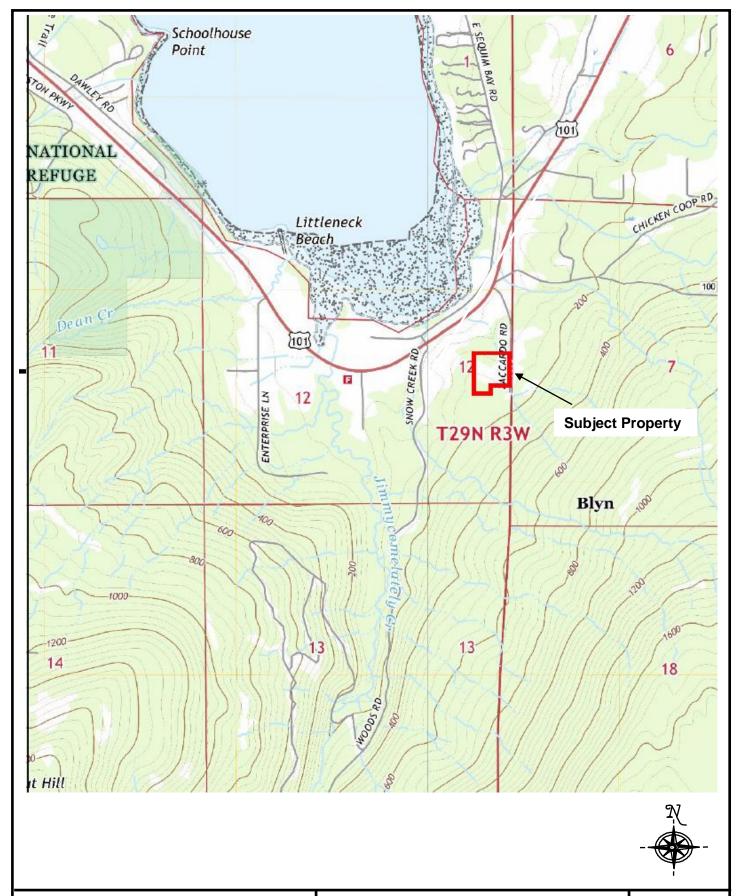
### **Water Samples MTCA-5 Dissolved Metals Laboratory Analytical Results**

Mottis Property: Sequim, Washington Sampled on June 6-7, 2023 Results Reported in µg/L for water (W-1 and W-2)

Sample ID	As Arsenic	Cd Cadmium	Cr Chromium	Pb Lead	Hg Mercury
W-1	1.61	ND	2.44	ND	ND
W-2	1.14	ND	0.838	6.91	ND
MTCA Cleanup Levels Water (μg/L)	5 <sup>1</sup>	5	24,000	15	2

<sup>&</sup>lt;sup>1</sup> Method B Cancer

### **FIGURES**

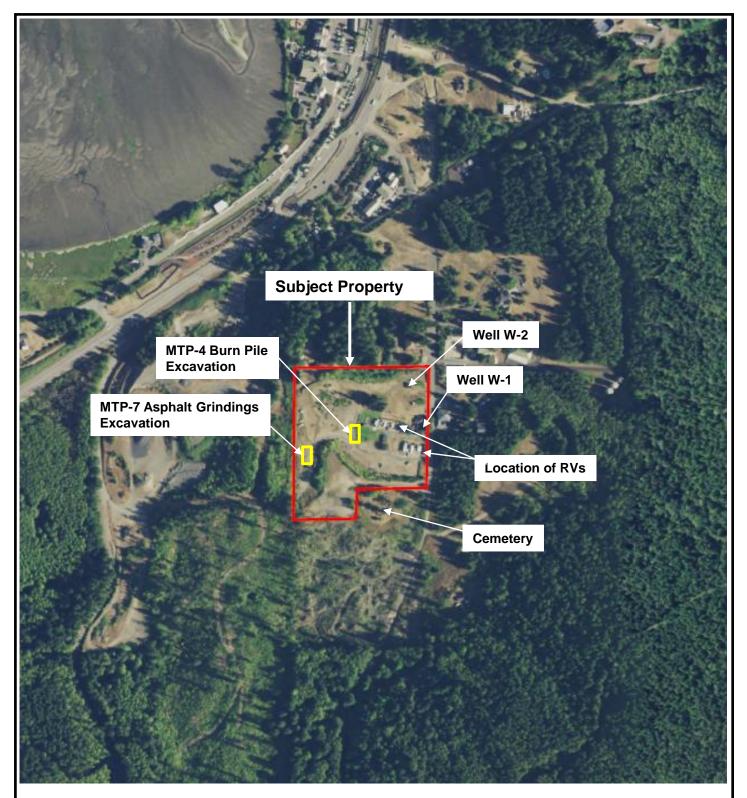




PROJECT NO. 711-007-197 June 6-7, 2023

### **Site Vicinity Map**

Mottis Property 290 Zaccardo Road Sequim, WA 98382 Figure

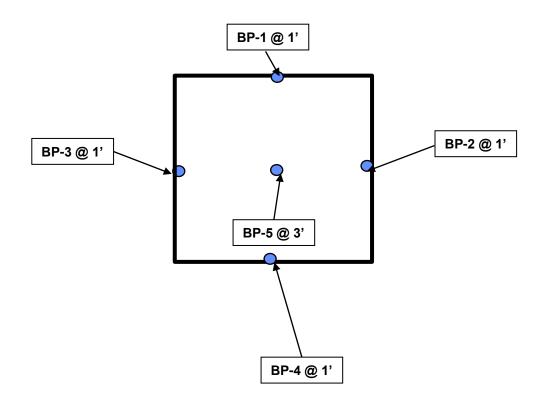




# ESA Associates, Inc.

**Remedial Excavation Locations** 

Mottis Property 290 Zaccardo Road Sequim, WA 98382 Figure



Scale: 1" = 5'

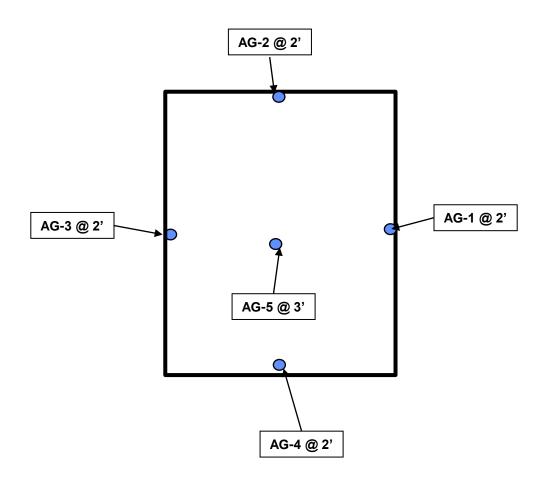
Non-Detect BTEX Confirmation Soil Sample Locations



# ESA Associates, Inc.

**Remediation Excavation MTP-4** 

Mottis Property 290 Zaccardo Road Blyn, Washington **FIGURE** 



Scale: 1" = 5'

 Non-Detect Petroleum hydrocarbons quantified as heavy oil and cPAHs Confirmation Soil Sample Locations



ESA Associates, Inc.

**Remediation Excavation MTP-7** 

Mottis Property 290 Zaccardo Road Blyn, Washington **FIGURE** 

## **APPENDICES**

### APPENDIX A

## **Clallam County Assessor Review**

#### SITE EXPLORATION METHODS

#### General

ESA Associates developed a health and safety plan for this project prior to the start of fieldwork. The health and safety plan included specifications for steel toe boots, hard hats, safety glasses, and protective clothing. For the protection of the crew, a photoionization detector (PID) was used to screen for the presence of volatile organic concentrations in the breathing zone during the excavation of the test pits. The PID was a Thermo Environmental Model 580B OVM, or equivalent, with a 10.5 ev lamp. The instrument was calibrated to 100 parts per million by volume (ppmv) with an isobutylene gas standard. The PID measures volatile organic compounds (VOCs) in the air in ppmv.

#### **Soil Sampling**

A tribal contractor performed the excavation at this site. A backhoe was used to excavate each test pit. All sampling equipment was steam cleaned prior to mobilization to reduce the potential for cross contamination. Discrete soil samples are obtained using a stainless steel spoon. The spoon was decontaminated between sampling intervals to reduce the potential for cross contamination.

Collected soil samples were evaluated for evidence of contamination by visible discoloration of the soil sample or VOCs detected by the PID. A portion of each soil sample was placed into a plastic zip-lock bag, and the vapors were drawn through the PID for qualitative screening of VOCs. The vapor readings were documented as the field screening results. A new plastic bag was used each time a sample was screened.

Field screening on soil samples collected during subsurface explorations provide a relative indication of the degree of contamination. Field screening consists of inspecting the soil for stains indicative of contamination. Visual screening is generally effective in detecting the presence of heavy hydrocarbons such as diesel fuel or when the contaminant concentrations are high. Water sheen screening is also an effective way to detect lighter hydrocarbons such as gasoline as well as the heavier end hydrocarbons such as hydraulic oil.

Water sheen screening involves placing soil in a pan of distilled water and observing the water surface for signs of sheen. Sheen classifications are as follows:

No Sheen (NS) No visible sheen

Slight Sheen (SS)

Light, colorless, dull sheen; spread is irregular, not rapid;

sheen dissipates rapidly

Moderate Sheen (MS)

Light to heavy sheen; may have some color/iridescence;

spread is irregular to flowing, may be rapid; few remaining areas of

no sheen on the water surface.

Heavy Sheen (HS) Heavy sheen with color/iridescence; spread is rapid; entire

water surface maybe covered with sheen.

Where analysis of the complete suite of volatile organics is required, the procedure for sampling soils will include steps that are commensurate with EPA Method 5035a as follows:

After a fresh surface of the solid material is exposed to the atmosphere, the subsample collection process (splitting the sample: one to submit and the other for screening purpose) was completed in the least amount of time in order to minimize the loss of VOCs due to volatilization. Removing a subsample from a material was done in the least amount of disruption as possible. Additionally, rough trimming of the sampling location's surface was considered if the material may have already lost VOCs or if contaminated by other waste, different soil strata, or vegetation. Removal of surface layers was accomplished by scraping the surface using a clean spatula, scoop, knife, or shovel.

Subsamples of the appropriate size for analysis were collected using a metal or rigid plastic coring tool. For example, coring tools for the purpose of transferring a subsample were made from disposable plastic syringes by cutting off the tapered front end and removing the rubber cap from the plunger. When inserting a clean coring tool into a fresh surface for sample collection, air was not be trapped behind the sample.

Soil samples were placed directly into laboratory-provided sample jars and sealed with a Teflon lined lid. The samples were then placed into an ice chest containing frozen "blue ice" for preservation. The sample was then forwarded to the analytical laboratory using proper Chain-of-Custody procedures. All soil sample containers were labeled with sample identification numbers, the date, and the sampler's name.

### APPENDIX B

## **Chemical Analytical Report**



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

ESA Associates, Inc.

Kristen Burgess 722 Prohaska Rd Friday Harbor, WA 98250

**RE: Mottis Property** 

Work Order Number: 2306083

June 20, 2023

#### **Attention Kristen Burgess:**

Fremont Analytical, Inc. received 15 sample(s) on 6/7/2023 for the analyses presented in the following report.

Diesel & Oil by NWTPH-Dx with Silica Gel Treatment
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.
Dissolved Mercury by EPA Method 245.1
Dissolved Metals by EPA Method 200.8
Hydrocarbon Identification by NWTPH-HCID
Mercury by EPA Method 245.1
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)
Sample Moisture (Percent Moisture)
Semivolatile Organic Compounds by EPA Method 8270E
Total Metals by EPA Method 200.8
Volatile Organic Compounds by EPA Method 8260D

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Revision v1



DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.3 for Environmental Testing ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Date: 06/20/2023

06/07/2023 8:07 AM

06/07/2023 8:07 AM



CLIENT: ESA Associates, Inc. Work Order Sample Summary

Project: Mottis Property
Work Order: 2306083

Lab Sample ID **Client Sample ID Date/Time Collected Date/Time Received** 2306083-001 AG-1 06/06/2023 10:35 AM 06/07/2023 8:07 AM AG-2 2306083-002 06/06/2023 10:40 AM 06/07/2023 8:07 AM 2306083-003 AG-3 06/06/2023 10:45 AM 06/07/2023 8:07 AM 2306083-004 AG-4 06/06/2023 10:50 AM 06/07/2023 8:07 AM 2306083-005 AG-5 06/06/2023 10:55 AM 06/07/2023 8:07 AM 2306083-006 BP-1 06/06/2023 11:35 AM 06/07/2023 8:07 AM BP-2 2306083-007 06/06/2023 11:40 AM 06/07/2023 8:07 AM 2306083-008 BP-3 06/06/2023 11:45 AM 06/07/2023 8:07 AM BP-4 2306083-009 06/06/2023 11:50 AM 06/07/2023 8:07 AM 2306083-010 BP-5 06/06/2023 11:55 AM 06/07/2023 8:07 AM SP-1 2306083-011 06/06/2023 12:00 PM 06/07/2023 8:07 AM W-1 06/07/2023 5:00 AM 06/07/2023 8:07 AM 2306083-012 W-2 2306083-013 06/07/2023 5:15 AM 06/07/2023 8:07 AM

05/31/2023 9:10 AM

05/31/2023 9:10 AM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

2306083-014

2306083-015

Trip Blank

Trip Blank



### **Case Narrative**

WO#: **2306083**Date: **6/20/2023** 

CLIENT: ESA Associates, Inc.
Project: Mottis Property

#### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

#### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

#### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



### **Qualifiers & Acronyms**

WO#: **2306083** 

Date Reported: 6/20/2023

#### Qualifiers:

- \* Flagged value is not within established control limits
- B Analyte detected in the associated Method Blank
- D Dilution was required
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- I Analyte with an internal standard that does not meet established acceptance criteria
- J Analyte detected below Reporting Limit
- N Tentatively Identified Compound (TIC)
- Q Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S Spike recovery outside accepted recovery limits
- ND Not detected at the Reporting Limit
- R High relative percent difference observed

#### Acronyms:

%Rec - Percent Recovery

**CCB - Continued Calibration Blank** 

**CCV - Continued Calibration Verification** 

DF - Dilution Factor

**DUP - Sample Duplicate** 

**HEM - Hexane Extractable Material** 

ICV - Initial Calibration Verification

LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate

MCL - Maximum Contaminant Level

MB or MBLANK - Method Blank

MDL - Method Detection Limit

MS/MSD - Matrix Spike / Matrix Spike Duplicate

PDS - Post Digestion Spike

Ref Val - Reference Value

REP - Sample Replicate

RL - Reporting Limit

RPD - Relative Percent Difference

SD - Serial Dilution

SGT - Silica Gel Treatment

SPK - Spike

Surr - Surrogate



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 10:35:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-001 **Matrix:** Soil

Analyses	Result	RL	Qual	Units DI		Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch	ID:	40589 Analyst: SK
Diesel Range Organics	ND	52.0		mg/Kg-dry	1	6/7/2023 11:12:11 PM
Heavy Oil	ND	104		mg/Kg-dry	1	6/7/2023 11:12:11 PM
Total Petroleum Hydrocarbons	ND	156		mg/Kg-dry	1	6/7/2023 11:12:11 PM
Surr: 2-Fluorobiphenyl	102	50 - 150		%Rec	1	6/7/2023 11:12:11 PM
Surr: o-Terphenyl	100	50 - 150		%Rec	1	6/7/2023 11:12:11 PM
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)				Batch	ID:	40586 Analyst: SH
Naphthalene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
2-Methylnaphthalene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
1-Methylnaphthalene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Acenaphthylene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Acenaphthene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Fluorene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Phenanthrene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Anthracene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Fluoranthene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Pyrene	ND	42.2		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Benz(a)anthracene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Chrysene	ND	21.1		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Benzo(b)fluoranthene	ND	26.4		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Benzo(k)fluoranthene	ND	26.4		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Benzo(a)pyrene	ND	31.6		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Indeno(1,2,3-cd)pyrene	ND	42.2		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Dibenz(a,h)anthracene	ND	52.7		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Benzo(g,h,i)perylene	ND	52.7		μg/Kg-dry	1	6/7/2023 11:44:26 PM
Surr: 2-Fluorobiphenyl	80.9	23.8 - 147		%Rec	1	6/7/2023 11:44:26 PM
Surr: Terphenyl-d14 (surr)	84.8	28.6 - 155		%Rec	1	6/7/2023 11:44:26 PM
Sample Moisture (Percent Mo	isture)			Batch	ID:	R84496 Analyst: MP
Percent Moisture	10.4	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 10:40:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-002 **Matrix:** Soil

Analyses	Result	Result RL Qual Units		DF	Date Analyzed	
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.			Batch	ID:	40589 Analyst: SK	
Diesel Range Organics	ND	51.6		mg/Kg-dry	1	6/7/2023 11:23:08 PM
Heavy Oil	ND	103		mg/Kg-dry	1	6/7/2023 11:23:08 PM
Total Petroleum Hydrocarbons	ND	155		mg/Kg-dry	1	6/7/2023 11:23:08 PM
Surr: 2-Fluorobiphenyl	100	50 - 150		%Rec	1	6/7/2023 11:23:08 PM
Surr: o-Terphenyl	99.8	50 - 150		%Rec	1	6/7/2023 11:23:08 PM
Polyaromatic Hydrocarbons b	y EPA Method	8270 (SIM)		Batch	ID:	40586 Analyst: SH
Naphthalene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
2-Methylnaphthalene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
1-Methylnaphthalene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Acenaphthylene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Acenaphthene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Fluorene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Phenanthrene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Anthracene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Fluoranthene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Pyrene	ND	44.2		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Benz(a)anthracene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Chrysene	ND	22.1		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Benzo(b)fluoranthene	ND	27.6		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Benzo(k)fluoranthene	ND	27.6		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Benzo(a)pyrene	ND	33.2		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Indeno(1,2,3-cd)pyrene	ND	44.2		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Dibenz(a,h)anthracene	ND	55.3		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Benzo(g,h,i)perylene	ND	55.3		μg/Kg-dry	1	6/8/2023 1:08:55 AM
Surr: 2-Fluorobiphenyl	80.5	23.8 - 147		%Rec	1	6/8/2023 1:08:55 AM
Surr: Terphenyl-d14 (surr)	82.9	28.6 - 155		%Rec	1	6/8/2023 1:08:55 AM
Sample Moisture (Percent Mo	<u>isture)</u>			Batch	ID:	R84496 Analyst: MP
Percent Moisture	11.1	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 10:45:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-003 **Matrix:** Soil

Analyses	Result	RL	Qual	Units DF		Date Analyzed
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.				Batch	ID:	40589 Analyst: SK
Diesel Range Organics	ND	51.2		mg/Kg-dry	1	6/7/2023 11:34:04 PM
Heavy Oil	ND	102		mg/Kg-dry	1	6/7/2023 11:34:04 PM
Total Petroleum Hydrocarbons	ND	154		mg/Kg-dry	1	6/7/2023 11:34:04 PM
Surr: 2-Fluorobiphenyl	100	50 - 150		%Rec	1	6/7/2023 11:34:04 PM
Surr: o-Terphenyl	100	50 - 150		%Rec	1	6/7/2023 11:34:04 PM
Polyaromatic Hydrocarbons b	y EPA Method 8	3270 (SIM)		Batch	ID:	40586 Analyst: SH
Naphthalene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
2-Methylnaphthalene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
1-Methylnaphthalene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Acenaphthylene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Acenaphthene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Fluorene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Phenanthrene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Anthracene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Fluoranthene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Pyrene	ND	42.9		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Benz(a)anthracene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Chrysene	ND	21.5		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Benzo(b)fluoranthene	ND	26.8		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Benzo(k)fluoranthene	ND	26.8		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Benzo(a)pyrene	ND	32.2		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Indeno(1,2,3-cd)pyrene	ND	42.9		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Dibenz(a,h)anthracene	ND	53.6		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Benzo(g,h,i)perylene	ND	53.6		μg/Kg-dry	1	6/8/2023 1:36:59 AM
Surr: 2-Fluorobiphenyl	82.6	23.8 - 147		%Rec	1	6/8/2023 1:36:59 AM
Surr: Terphenyl-d14 (surr)	87.3	28.6 - 155		%Rec	1	6/8/2023 1:36:59 AM
Sample Moisture (Percent Mo	isture)			Batch	ID:	R84496 Analyst: MP
Percent Moisture	10.1	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 10:50:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-004 **Matrix:** Soil

analyses	Result	sult RL Qual Units		DF	Da	Date Analyzed	
Diesel and Heavy Oil by NWT	PH-Dx/Dx Ext.			Batch	ID:	40589	Analyst: SK
Diesel Range Organics	ND	55.2		mg/Kg-dry	1	6/7/2	2023 11:45:03 PM
Heavy Oil	ND	110		mg/Kg-dry	1	6/7/2	2023 11:45:03 PM
Total Petroleum Hydrocarbons	ND	166		mg/Kg-dry	1	6/7/2	2023 11:45:03 PM
Surr: 2-Fluorobiphenyl	109	50 - 150		%Rec	1	6/7/2	2023 11:45:03 PM
Surr: o-Terphenyl	107	50 - 150		%Rec	1	6/7/2	2023 11:45:03 PM
Polyaromatic Hydrocarbons b	y EPA Method	8270 (SIM)		Batch	ID:	40586	Analyst: SH
Naphthalene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
2-Methylnaphthalene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
1-Methylnaphthalene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Acenaphthylene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Acenaphthene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Fluorene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Phenanthrene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Anthracene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Fluoranthene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Pyrene	ND	46.4		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Benz(a)anthracene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Chrysene	ND	23.2		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Benzo(b)fluoranthene	ND	29.0		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Benzo(k)fluoranthene	ND	29.0		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Benzo(a)pyrene	ND	34.8		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Indeno(1,2,3-cd)pyrene	ND	46.4		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Dibenz(a,h)anthracene	ND	58.0		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Benzo(g,h,i)perylene	ND	58.0		μg/Kg-dry	1	6/8/2	2023 2:05:04 AM
Surr: 2-Fluorobiphenyl	85.3	23.8 - 147		%Rec	1	6/8/2	2023 2:05:04 AM
Surr: Terphenyl-d14 (surr)	89.3	28.6 - 155		%Rec	1	6/8/2	2023 2:05:04 AM
Sample Moisture (Percent Mo	isture)			Batch	ID:	R84496	Analyst: MP
Percent Moisture	15.4	0.500		wt%	1	6/7/2	2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 10:55:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-005 **Matrix:** Soil

nalyses	Result	RL	RL Qual Units I		DF	- Da	Date Analyzed	
Diesel and Heavy Oil by NWT	PH-Dx/Dx Ext.			Batch	ID:	40589	Analyst: SK	
Diesel Range Organics	ND	51.2		mg/Kg-dry	1	6/7/2	2023 11:56:04 PM	
Heavy Oil	ND	102		mg/Kg-dry	1	6/7/2	2023 11:56:04 PM	
Total Petroleum Hydrocarbons	ND	154		mg/Kg-dry	1	6/7/2	2023 11:56:04 PM	
Surr: 2-Fluorobiphenyl	103	50 - 150		%Rec	1	6/7/2	2023 11:56:04 PM	
Surr: o-Terphenyl	102	50 - 150		%Rec	1	6/7/2	2023 11:56:04 PM	
Polyaromatic Hydrocarbons b	y EPA Method 8	8270 (SIM)		Batch	ID:	40586	Analyst: SH	
Naphthalene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
2-Methylnaphthalene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
1-Methylnaphthalene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Acenaphthylene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Acenaphthene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Fluorene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Phenanthrene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Anthracene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Fluoranthene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Pyrene	ND	41.2		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Benz(a)anthracene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Chrysene	ND	20.6		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Benzo(b)fluoranthene	ND	25.8		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Benzo(k)fluoranthene	ND	25.8		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Benzo(a)pyrene	ND	30.9		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Indeno(1,2,3-cd)pyrene	ND	41.2		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Dibenz(a,h)anthracene	ND	51.5		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Benzo(g,h,i)perylene	ND	51.5		μg/Kg-dry	1	6/8/2	2023 2:33:01 AM	
Surr: 2-Fluorobiphenyl	82.0	23.8 - 147		%Rec	1	6/8/2	2023 2:33:01 AM	
Surr: Terphenyl-d14 (surr)	84.8	28.6 - 155		%Rec	1	6/8/2	2023 2:33:01 AM	
Sample Moisture (Percent Mo	isture)			Batch	ID:	R84496	Analyst: MP	
Percent Moisture	9.44	0.500		wt%	1	6/7/2	2023 9:58:25 AM	



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 11:35:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-006 **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds b	y EPA Method	8260D		Batch	ID:	40594 Analyst: KJ
Benzene	ND	0.00627		mg/Kg-dry	1	6/8/2023 5:42:15 PM
Toluene	ND	0.0108		mg/Kg-dry	1	6/8/2023 5:42:15 PM
Ethylbenzene	ND	0.00896		mg/Kg-dry	1	6/8/2023 5:42:15 PM
m,p-Xylene	ND	0.0179		mg/Kg-dry	1	6/8/2023 5:42:15 PM
o-Xylene	ND	0.00896		mg/Kg-dry	1	6/8/2023 5:42:15 PM
Surr: Dibromofluoromethane	101	80 - 120		%Rec	1	6/8/2023 5:42:15 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	6/8/2023 5:42:15 PM
Surr: 1-Bromo-4-fluorobenzene	99.2	80 - 120		%Rec	1	6/8/2023 5:42:15 PM
Sample Moisture (Percent Mois	sture)			Batch	ID:	R84496 Analyst: MP
Percent Moisture	3.43	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 11:40:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-007 **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by	EPA Method	8260D		Batch	ID:	40594 Analyst: KJ
Benzene	ND	0.00606		mg/Kg-dry	1	6/8/2023 6:42:35 PM
Toluene	ND	0.0104		mg/Kg-dry	1	6/8/2023 6:42:35 PM
Ethylbenzene	ND	0.00866		mg/Kg-dry	1	6/8/2023 6:42:35 PM
m,p-Xylene	ND	0.0173		mg/Kg-dry	1	6/8/2023 6:42:35 PM
o-Xylene	ND	0.00866		mg/Kg-dry	1	6/8/2023 6:42:35 PM
Surr: Dibromofluoromethane	98.2	80 - 120		%Rec	1	6/8/2023 6:42:35 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	6/8/2023 6:42:35 PM
Surr: 1-Bromo-4-fluorobenzene	100	80 - 120		%Rec	1	6/8/2023 6:42:35 PM
Sample Moisture (Percent Moist	ure)			Batch	ID:	R84496 Analyst: MP
Percent Moisture	3.20	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 11:45:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-008 **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds b	y EPA Method	8260D		Batch	ı ID: 4	40594 Analyst: KJ
Benzene	ND	0.0181		mg/Kg-dry	1	6/8/2023 7:12:44 PM
Toluene	ND	0.0310		mg/Kg-dry	1	6/8/2023 7:12:44 PM
Ethylbenzene	ND	0.0258		mg/Kg-dry	1	6/8/2023 7:12:44 PM
m,p-Xylene	ND	0.0516		mg/Kg-dry	1	6/8/2023 7:12:44 PM
o-Xylene	ND	0.0258		mg/Kg-dry	1	6/8/2023 7:12:44 PM
Surr: Dibromofluoromethane	97.3	80 - 120		%Rec	1	6/8/2023 7:12:44 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	6/8/2023 7:12:44 PM
Surr: 1-Bromo-4-fluorobenzene	103	80 - 120		%Rec	1	6/8/2023 7:12:44 PM
Sample Moisture (Percent Mois	ture)			Batch	ıID: I	R84496 Analyst: MP
Percent Moisture	6.95	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 11:50:00 AM

Project: Mottis Property

**Lab ID:** 2306083-009 **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by	/ EPA Method	8260D		Batch	ı ID:	40594 Analyst: KJ
Benzene	ND	0.00696		mg/Kg-dry	1	6/8/2023 7:42:54 PM
Toluene	ND	0.0119		mg/Kg-dry	1	6/8/2023 7:42:54 PM
Ethylbenzene	ND	0.00994		mg/Kg-dry	1	6/8/2023 7:42:54 PM
m,p-Xylene	ND	0.0199		mg/Kg-dry	1	6/8/2023 7:42:54 PM
o-Xylene	ND	0.00994		mg/Kg-dry	1	6/8/2023 7:42:54 PM
Surr: Dibromofluoromethane	97.6	80 - 120		%Rec	1	6/8/2023 7:42:54 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	6/8/2023 7:42:54 PM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	6/8/2023 7:42:54 PM
Sample Moisture (Percent Mois	ture)			Batch	ID:	R84496 Analyst: MP
Percent Moisture	6.91	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 11:55:00 AM

Project: Mottis Property

**Lab ID:** 2306083-010 **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by	/ EPA Method	8260D		Batch	ID:	40594 Analyst: KJ
Benzene	ND	0.00477		mg/Kg-dry	1	6/8/2023 8:13:04 PM
Toluene	ND	0.00817		mg/Kg-dry	1	6/8/2023 8:13:04 PM
Ethylbenzene	ND	0.00681		mg/Kg-dry	1	6/8/2023 8:13:04 PM
m,p-Xylene	ND	0.0136		mg/Kg-dry	1	6/8/2023 8:13:04 PM
o-Xylene	ND	0.00681		mg/Kg-dry	1	6/8/2023 8:13:04 PM
Surr: Dibromofluoromethane	98.1	80 - 120		%Rec	1	6/8/2023 8:13:04 PM
Surr: Toluene-d8	103	80 - 120		%Rec	1	6/8/2023 8:13:04 PM
Surr: 1-Bromo-4-fluorobenzene	102	80 - 120		%Rec	1	6/8/2023 8:13:04 PM
Sample Moisture (Percent Mois	ture)			Batch	ID:	R84496 Analyst: MP
Percent Moisture	5.80	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/6/2023 12:00:00 PM

**Project:** Mottis Property

**Lab ID:** 2306083-011 **Matrix:** Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds by	EPA Method	8260D		Batch	ı ID:	40594 Analyst: KJ
Benzene	ND	0.00565		mg/Kg-dry	1	6/8/2023 8:43:15 PM
Toluene	ND	0.00968		mg/Kg-dry	1	6/8/2023 8:43:15 PM
Ethylbenzene	ND	0.00807		mg/Kg-dry	1	6/8/2023 8:43:15 PM
m,p-Xylene	ND	0.0161		mg/Kg-dry	1	6/8/2023 8:43:15 PM
o-Xylene	ND	0.00807		mg/Kg-dry	1	6/8/2023 8:43:15 PM
Surr: Dibromofluoromethane	98.7	80 - 120		%Rec	1	6/8/2023 8:43:15 PM
Surr: Toluene-d8	102	80 - 120		%Rec	1	6/8/2023 8:43:15 PM
Surr: 1-Bromo-4-fluorobenzene	101	80 - 120		%Rec	1	6/8/2023 8:43:15 PM
Sample Moisture (Percent Moist	ture)			Batch	ı ID:	R84496 Analyst: MP
Percent Moisture	7.31	0.500		wt%	1	6/7/2023 9:58:25 AM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:00:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-012 **Matrix:** Water

Batch   ID:   40609   Analyst: / Analyst:	Client Sample ID: W-1 Analyses	Result	RL	Qual	Units	DF	- D:	Date Analyzed	
Gasoline	,				-			,	
Mineral Spirits	Hydrocarbon Identification by	NWTPH-HCID			Batc	h ID:	40609	Analyst: AP	
Rerosene	Gasoline	ND	237		μg/L	1	6/12	2/2023 2:37:42 PM	
Diesel (Fuel Oil)	Mineral Spirits	ND	237		μg/L	1	6/12	2/2023 2:37:42 PM	
Heavy Oil	Kerosene	ND	237		μg/L	1	6/12	2/2023 2:37:42 PM	
Mineral Oil	Diesel (Fuel Oil)	ND	237		μg/L	1	6/12	2/2023 2:37:42 PM	
Surr: 2-Fluorobiphenyl   53.1   50 - 150   %Rec   1   6/12/2023 2:37:42   E	Heavy Oil	ND	474		μg/L	1	6/12	2/2023 2:37:42 PM	
Surr: o-Terphenyl   66.4   50 - 150   %Rec   1   6/12/2023 2:37:42   F   Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)   Batch ID: 40704   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)   Batch ID: 40704   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)   Batch ID: 40704   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40704   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40704   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Batch ID: 40576   Analyst: S   Polyaromatic Hydrocarbons by EPA Method 8270   Polyaromatic Hydrocarbons by EPA	Mineral Oil	ND	474		μg/L	1	6/12	2/2023 2:37:42 PM	
Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)         Batch ID: 40704         Analyst: \$2.00           Benz(a)anthracene         ND 0.0797         μg/L 1         6/19/2023 10:25:23           Chrysene         ND 0.0797         μg/L 1         6/19/2023 10:25:23           Benzo(b)fluoranthene         ND 0.0797         μg/L 1         6/19/2023 10:25:23           Benzo(a)pyrene         ND 0.0797         μg/L 1         6/19/2023 10:25:23           Indeno(1,2,3-cd)pyrene         ND 0.0797         I μg/L 1         6/19/2023 10:25:23           Dibenz(a,h)anthracene         ND 0.0797         I μg/L 1         6/19/2023 10:25:23           Surr: 2-Fluorobiphenyl         69.6         31.1 - 114         %Rec 1         6/19/2023 10:25:23           NOTES:         I - Internal standards were outside of acceptance criteria. Result is an estimate.         Semivolatile Organic Compounds by EPA Method 8270E         Batch ID: 40576         Analyst: 0           Phenol         ND 0.299         μg/L 1         6/9/2023 6:27:00 PI         1,3-Dichlorobenzene         ND 0.996         μg/L 1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND 0.0996         μg/L 1         6/9/2023 6:27:00 PI         1,2-Dichlorobenzene         ND 0.0996         μg/L 1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND 0.0996	Surr: 2-Fluorobiphenyl	53.1	50 - 150		%Rec	1	6/12	2/2023 2:37:42 PM	
Benz(a)anthracene	Surr: o-Terphenyl	66.4	50 - 150		%Rec	1	6/12	2/2023 2:37:42 PM	
Chrysene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Benzo(b)fluoranthene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Benzo(a)pyrene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Benzo(a)pyrene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Dibenz(a,h)anthracene         ND         0.0797         I         μg/L         1         6/19/2023 10:25:23           Surr: 2-Fluorobiphenyl         69.6         31.1 - 114         %Rec         1         6/19/2023 10:25:23           Surr: Terphenyl-d14         84.1         32 - 137         %Rec         1         6/19/2023 10:25:23           NOTES:         I - Internal standards were outside of acceptance criteria. Result is an estimate.         Batch ID:         40576         Analyst: 0           Phenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           2-Chlorophenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         <	Polyaromatic Hydrocarbons b	y EPA Method	8270 (SIM)		Batc	h ID:	40704	Analyst: SH	
Chrysene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Benzo(b)fluoranthene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Benzo(a)pyrene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Benzo(a)pyrene         ND         0.0797         I         μg/L         1         6/19/2023 10:25:23           Dibenz(a,h)anthracene         ND         0.0797         I         μg/L         1         6/19/2023 10:25:23           Surr: 2-Fluorobiphenyl         69.6         31.1 - 114         %Rec         1         6/19/2023 10:25:23           Surr: Terphenyl-d14         84.1         32 - 137         %Rec         1         6/19/2023 10:25:23           NOTES:         I - Internal standards were outside of acceptance criteria. Result is an estimate.         Batch ID:         40576         Analyst: 0           Phenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           2-Chlorophenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,2-Dichloroben	Benz(a)anthracene	ND	0.0797		μg/L	1	6/19	9/2023 10:25:23 PM	
Benzo(b)fluoranthene   ND   0.0797   μg/L   1   6/19/2023 10:25:23		ND	0.0797		. •	1	6/19	9/2023 10:25:23 PM	
Benzo(k)fluoranthene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Benzo(a)pyrene         ND         0.0797         μg/L         1         6/19/2023 10:25:23           Indeno(1,2,3-cd)pyrene         ND         0.0797         I         μg/L         1         6/19/2023 10:25:23           Dibenz(a,h)anthracene         ND         0.0797         I         μg/L         1         6/19/2023 10:25:23           Surr: 2-Fluorobiphenyl         69.6         31.1 - 114         %Rec         1         6/19/2023 10:25:23           Surr: Terphenyl-d14         84.1         32 - 137         %Rec         1         6/19/2023 10:25:23           NOTES:         I - Internal standards were outside of acceptance criteria. Result is an estimate.         Semivolatile Organic Compounds by EPA Method 8270E         Batch ID:         40576         Analyst: 0           Phenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           2-Chlorophenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           1,4-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND         0.0996         μg/L         1<		ND	0.0797			1	6/19	9/2023 10:25:23 PM	
Benzo(a)pyrene   ND   0.0797   μg/L   1   6/19/2023 10:25:23   Indeno(1,2,3-cd)pyrene   ND   0.0797   I   μg/L   1   6/19/2023 10:25:23   Dibenz(a,h)anthracene   ND   0.0797   I   μg/L   1   6/19/2023 10:25:23   Surr: 2-Fluorobiphenyl   69.6   31.1 - 114   %Rec   1   6/19/2023 10:25:23   Surr: Terphenyl-d14   84.1   32 - 137   %Rec   1   6/19/2023 10:25:23   NOTES:   I - Internal standards were outside of acceptance criteria. Result is an estimate.   Semivolatile Organic Compounds by EPA Method 8270E   Batch ID:   40576   Analyst: (Δ   Δ   Δ   Δ   Δ   Δ   Δ   Δ   Δ   Δ	` '	ND	0.0797			1	6/19	9/2023 10:25:23 PM	
Indeno(1,2,3-cd)pyrene	Benzo(a)pyrene	ND	0.0797			1	6/19	9/2023 10:25:23 PM	
Dibenz(a,h)anthracene         ND         0.0797         I         μg/L         1         6/19/2023 10:25:23           Surr: 2-Fluorobiphenyl         69.6         31.1 - 114         %Rec         1         6/19/2023 10:25:23           Surr: Terphenyl-d14         84.1         32 - 137         %Rec         1         6/19/2023 10:25:23           NOTES:         I - Internal standards were outside of acceptance criteria. Result is an estimate.           Phenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           2-Chlorophenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,4-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           Benzyl alcohol         ND         0.398         μg/L         1         6/9/2023 6:27:00 PI           Bis(2-chloroethyl) ether         ND         0.398         μg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND		ND	0.0797	1		1	6/19	9/2023 10:25:23 PM	
Surr: 2-Fluorobiphenyl         69.6         31.1 - 114         %Rec         1         6/19/2023 10:25:23           Surr: Terphenyl-d14         84.1         32 - 137         %Rec         1         6/19/2023 10:25:23           NOTES:         I - Internal standards were outside of acceptance criteria. Result is an estimate.           Semivolatile Organic Compounds by EPA Method 8270E         Batch ID:         40576         Analyst: 0           Phenol         ND         0.299         µg/L         1         6/9/2023 6:27:00 PI           2-Chlorophenol         ND         0.299         µg/L         1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           1,4-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           Benzyl alcohol         ND         2.99         Q         µg/L         1         6/9/2023 6:27:00 PI           Bis(2-chloroethyl) ether         ND         0.398         µg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND         0.149 </td <td></td> <td>ND</td> <td>0.0797</td> <td>1</td> <td></td> <td>1</td> <td>6/19</td> <td>9/2023 10:25:23 PM</td>		ND	0.0797	1		1	6/19	9/2023 10:25:23 PM	
Surr: Terphenyl-d14         84.1         32 - 137         %Rec         1         6/19/2023 10:25:23           NOTES:           I - Internal standards were outside of acceptance criteria. Result is an estimate.           Semivolatile Organic Compounds by EPA Method 8270E         Batch ID: 40576 Analyst: 0           Phenol         ND         0.299         µg/L         1         6/9/2023 6:27:00 PI           2-Chlorophenol         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           1,4-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           Benzyl alcohol         ND         2.99         Q         µg/L         1         6/9/2023 6:27:00 PI           Bis(2-chloroethyl) ether         ND         0.398         µg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND         0.1499         µg/L<		69.6	31.1 - 114			1	6/19	9/2023 10:25:23 PM	
NOTES: I - Internal standards were outside of acceptance criteria. Result is an estimate.  Semivolatile Organic Compounds by EPA Method 8270E  Phenol  Phenol  ND  0.299  µg/L  1  6/9/2023 6:27:00 Pl 2-Chlorophenol  ND  0.0996  µg/L  1  6/9/2023 6:27:00 Pl 1,3-Dichlorobenzene  ND  0.0996  µg/L  1  6/9/2023 6:27:00 Pl 1,4-Dichlorobenzene  ND  0.0996  µg/L  1  6/9/2023 6:27:00 Pl 1,2-Dichlorobenzene  ND  0.398  µg/L  1  6/9/2023 6:27:00 Pl 16/9/2023 6:27:00 Pl 16/9/2023 6:27:00 Pl 17  1		84.1	32 - 137		%Rec	1	6/19	9/2023 10:25:23 PM	
Phenol									
Phenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           2-Chlorophenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,4-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           Benzyl alcohol         ND         2.99         Q         μg/L         1         6/9/2023 6:27:00 PI           Bis(2-chloroethyl) ether         ND         0.398         μg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND         0.199         μg/L         1         6/9/2023 6:27:00 PI           Hexachloroethane         ND         0.149         μg/L         1         6/9/2023 6:27:00 PI           N-nitrosodipropylamine         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           3&4-Methylphenol (m, p-cresol)         ND         0.498         μg/L         1         6/9/2023 6:27:00 PI           Nitrobenzene         ND         0.498	I - Internal standards were outside of ac	ceptance criteria. Res	sult is an estima	ate.					
2-Chlorophenol         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           1,3-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,4-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           1,2-Dichlorobenzene         ND         0.0996         μg/L         1         6/9/2023 6:27:00 PI           Benzyl alcohol         ND         2.99         Q         μg/L         1         6/9/2023 6:27:00 PI           Bis(2-chloroethyl) ether         ND         0.398         μg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND         0.199         μg/L         1         6/9/2023 6:27:00 PI           Hexachloroethane         ND         0.149         μg/L         1         6/9/2023 6:27:00 PI           N-nitrosodipropylamine         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           3&4-Methylphenol (m, p-cresol)         ND         0.996         μg/L         1         6/9/2023 6:27:00 PI           Nitrobenzene         ND         0.498         μg/L         1         6/9/2023 6:27:00 PI           Isophorone         ND         0	Semivolatile Organic Compou	nds by EPA Me	thod 8270E	į.	Batc	h ID:	40576	Analyst: CB	
2-Chlorophenol       ND       0.299       μg/L       1       6/9/2023 6:27:00 PI         1,3-Dichlorobenzene       ND       0.0996       μg/L       1       6/9/2023 6:27:00 PI         1,4-Dichlorobenzene       ND       0.0996       μg/L       1       6/9/2023 6:27:00 PI         1,2-Dichlorobenzene       ND       0.0996       μg/L       1       6/9/2023 6:27:00 PI         Benzyl alcohol       ND       2.99       Q       μg/L       1       6/9/2023 6:27:00 PI         Bis(2-chloroethyl) ether       ND       0.398       μg/L       1       6/9/2023 6:27:00 PI         2-Methylphenol (o-cresol)       ND       0.199       μg/L       1       6/9/2023 6:27:00 PI         Hexachloroethane       ND       0.149       μg/L       1       6/9/2023 6:27:00 PI         N-nitrosodipropylamine       ND       0.299       μg/L       1       6/9/2023 6:27:00 PI         3&4-Methylphenol (m, p-cresol)       ND       0.996       μg/L       1       6/9/2023 6:27:00 PI         Nitrobenzene       ND       0.498       μg/L       1       6/9/2023 6:27:00 PI         Isophorone       ND       0.299       μg/L       1       6/9/2023 6:27:00 PI	Phenol	ND	0.299		μg/L	1	6/9/	2023 6:27:00 PM	
1,3-Dichlorobenzene       ND       0.0996       μg/L       1       6/9/2023 6:27:00 PI         1,4-Dichlorobenzene       ND       0.0996       μg/L       1       6/9/2023 6:27:00 PI         1,2-Dichlorobenzene       ND       0.0996       μg/L       1       6/9/2023 6:27:00 PI         Benzyl alcohol       ND       2.99       Q       μg/L       1       6/9/2023 6:27:00 PI         Bis(2-chloroethyl) ether       ND       0.398       μg/L       1       6/9/2023 6:27:00 PI         2-Methylphenol (o-cresol)       ND       0.199       μg/L       1       6/9/2023 6:27:00 PI         Hexachloroethane       ND       0.149       μg/L       1       6/9/2023 6:27:00 PI         N-nitrosodipropylamine       ND       0.299       μg/L       1       6/9/2023 6:27:00 PI         3&4-Methylphenol (m, p-cresol)       ND       0.996       μg/L       1       6/9/2023 6:27:00 PI         Nitrobenzene       ND       0.498       μg/L       1       6/9/2023 6:27:00 PI         Isophorone       ND       0.299       μg/L       1       6/9/2023 6:27:00 PI	2-Chlorophenol	ND	0.299		μg/L	1	6/9/	2023 6:27:00 PM	
1,4-Dichlorobenzene       ND       0.0996       µg/L       1       6/9/2023 6:27:00 PI         1,2-Dichlorobenzene       ND       0.0996       µg/L       1       6/9/2023 6:27:00 PI         Benzyl alcohol       ND       2.99       Q       µg/L       1       6/9/2023 6:27:00 PI         Bis(2-chloroethyl) ether       ND       0.398       µg/L       1       6/9/2023 6:27:00 PI         2-Methylphenol (o-cresol)       ND       0.199       µg/L       1       6/9/2023 6:27:00 PI         Hexachloroethane       ND       0.149       µg/L       1       6/9/2023 6:27:00 PI         N-nitrosodipropylamine       ND       0.299       µg/L       1       6/9/2023 6:27:00 PI         3&4-Methylphenol (m, p-cresol)       ND       0.996       µg/L       1       6/9/2023 6:27:00 PI         Nitrobenzene       ND       0.498       µg/L       1       6/9/2023 6:27:00 PI         Isophorone       ND       0.299       µg/L       1       6/9/2023 6:27:00 PI	1,3-Dichlorobenzene	ND	0.0996			1	6/9/	2023 6:27:00 PM	
1,2-Dichlorobenzene         ND         0.0996         µg/L         1         6/9/2023 6:27:00 PI           Benzyl alcohol         ND         2.99         Q         µg/L         1         6/9/2023 6:27:00 PI           Bis(2-chloroethyl) ether         ND         0.398         µg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND         0.199         µg/L         1         6/9/2023 6:27:00 PI           Hexachloroethane         ND         0.149         µg/L         1         6/9/2023 6:27:00 PI           N-nitrosodipropylamine         ND         0.299         µg/L         1         6/9/2023 6:27:00 PI           3&4-Methylphenol (m, p-cresol)         ND         0.996         µg/L         1         6/9/2023 6:27:00 PI           Nitrobenzene         ND         0.498         µg/L         1         6/9/2023 6:27:00 PI           Isophorone         ND         0.299         µg/L         1         6/9/2023 6:27:00 PI		ND	0.0996			1	6/9/	2023 6:27:00 PM	
Benzyl alcohol         ND         2.99         Q         μg/L         1         6/9/2023 6:27:00 PI           Bis (2-chloroethyl) ether         ND         0.398         μg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND         0.199         μg/L         1         6/9/2023 6:27:00 PI           Hexachloroethane         ND         0.149         μg/L         1         6/9/2023 6:27:00 PI           N-nitrosodipropylamine         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           3&4-Methylphenol (m, p-cresol)         ND         0.996         μg/L         1         6/9/2023 6:27:00 PI           Nitrobenzene         ND         0.498         μg/L         1         6/9/2023 6:27:00 PI           Isophorone         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI	1,2-Dichlorobenzene	ND	0.0996			1	6/9/	2023 6:27:00 PM	
Bis(2-chloroethyl) ether         ND         0.398         μg/L         1         6/9/2023 6:27:00 PI           2-Methylphenol (o-cresol)         ND         0.199         μg/L         1         6/9/2023 6:27:00 PI           Hexachloroethane         ND         0.149         μg/L         1         6/9/2023 6:27:00 PI           N-nitrosodipropylamine         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           3&4-Methylphenol (m, p-cresol)         ND         0.996         μg/L         1         6/9/2023 6:27:00 PI           Nitrobenzene         ND         0.498         μg/L         1         6/9/2023 6:27:00 PI           Isophorone         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI	Benzyl alcohol	ND	2.99	Q		1	6/9/	2023 6:27:00 PM	
2-Methylphenol (o-cresol)       ND       0.199       µg/L       1       6/9/2023 6:27:00 PI         Hexachloroethane       ND       0.149       µg/L       1       6/9/2023 6:27:00 PI         N-nitrosodipropylamine       ND       0.299       µg/L       1       6/9/2023 6:27:00 PI         3&4-Methylphenol (m, p-cresol)       ND       0.996       µg/L       1       6/9/2023 6:27:00 PI         Nitrobenzene       ND       0.498       µg/L       1       6/9/2023 6:27:00 PI         Isophorone       ND       0.299       µg/L       1       6/9/2023 6:27:00 PI	Bis(2-chloroethyl) ether	ND	0.398			1	6/9/	2023 6:27:00 PM	
Hexachloroethane         ND         0.149         μg/L         1         6/9/2023 6:27:00 PI           N-nitrosodipropylamine         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           3&4-Methylphenol (m, p-cresol)         ND         0.996         μg/L         1         6/9/2023 6:27:00 PI           Nitrobenzene         ND         0.498         μg/L         1         6/9/2023 6:27:00 PI           Isophorone         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI						1	6/9/	2023 6:27:00 PM	
N-nitrosodipropylamine         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI           3&4-Methylphenol (m, p-cresol)         ND         0.996         μg/L         1         6/9/2023 6:27:00 PI           Nitrobenzene         ND         0.498         μg/L         1         6/9/2023 6:27:00 PI           Isophorone         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI		ND	0.149			1	6/9/	2023 6:27:00 PM	
3&4-Methylphenol (m, p-cresol) ND 0.996 μg/L 1 6/9/2023 6:27:00 PI Nitrobenzene ND 0.498 μg/L 1 6/9/2023 6:27:00 PI Isophorone ND 0.299 μg/L 1 6/9/2023 6:27:00 PI	N-nitrosodipropylamine					1	6/9/	2023 6:27:00 PM	
Nitrobenzene         ND         0.498         μg/L         1         6/9/2023 6:27:00 PI           Isophorone         ND         0.299         μg/L         1         6/9/2023 6:27:00 PI	3&4-Methylphenol (m, p-cresol)	ND	0.996			1	6/9/	2023 6:27:00 PM	
Isophorone ND 0.299 µg/L 1 6/9/2023 6:27:00 Pl			0.498			1	6/9/	2023 6:27:00 PM	
· · · · · · · · · · · · · · · · · · ·	Isophorone					1	6/9/	2023 6:27:00 PM	
1 reg - : 0/0/2020 012/100 1	2-Nitrophenol	ND	0.299		μg/L	1	6/9/	2023 6:27:00 PM	



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:00:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-012 **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed		
Semivolatile Organic Compounds by EPA Method 8270E Batch ID: 40576 Analyst: CB								
2,4-Dimethylphenol	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM		
Bis(2-chloroethoxy)methane	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
2,4-Dichlorophenol	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM		
1,2,4-Trichlorobenzene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
Naphthalene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
4-Chloroaniline	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
Hexachlorobutadiene	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM		
4-Chloro-3-methylphenol	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM		
2-Methylnaphthalene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
1-Methylnaphthalene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
Hexachlorocyclopentadiene	ND	0.249	Q	μg/L	1	6/9/2023 6:27:00 PM		
2,4,6-Trichlorophenol	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM		
2,4,5-Trichlorophenol	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM		
2-Chloronaphthalene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
2-Nitroaniline	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM		
Acenaphthene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
Dimethyl phthalate	ND	1.20		μg/L	1	6/9/2023 6:27:00 PM		
2,6-Dinitrotoluene	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM		
Acenaphthylene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
2,4-Dinitrophenol	ND	1.49		μg/L	1	6/9/2023 6:27:00 PM		
Dibenzofuran	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
2,4-Dinitrotoluene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
4-Nitrophenol	ND	0.996	Q	μg/L	1	6/9/2023 6:27:00 PM		
Fluorene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
4-Chlorophenyl phenyl ether	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
Diethyl phthalate	ND	0.498		μg/L	1	6/9/2023 6:27:00 PM		
4,6-Dinitro-2-methylphenol	ND	2.49		μg/L	1	6/9/2023 6:27:00 PM		
4-Bromophenyl phenyl ether	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM		
Hexachlorobenzene	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM		
Pentachlorophenol	ND	0.598		μg/L	1	6/9/2023 6:27:00 PM		
Phenanthrene	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM		
Anthracene	ND	0.0996		μg/L	1	6/9/2023 6:27:00 PM		
Carbazole	0.629	0.199		μg/L	1	6/9/2023 6:27:00 PM		
Di-n-butyl phthalate	ND	1.99		μg/L	1	6/9/2023 6:27:00 PM		
Fluoranthene	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM		
Pyrene	ND	0.398		μg/L	1	6/9/2023 6:27:00 PM		
Butyl benzyl phthalate	ND	0.299		μg/L	1	6/9/2023 6:27:00 PM		
bis(2-Ethylhexyl)adipate	ND	0.747		μg/L	1	6/9/2023 6:27:00 PM		
Benz(a)anthracene	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM		



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:00:00 AM

Project: Mottis Property

**Lab ID:** 2306083-012 **Matrix:** Water

Client Sample ID: W-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Semivolatile Organic Compou	nds by EPA Me	thod 8270E		Batc	h ID: 4	40576 Analyst: CB
Chrysene	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM
Bis(2-ethylhexyl) phthalate	ND	0.996		μg/L	1	6/9/2023 6:27:00 PM
Di-n-octyl phthalate	ND	0.299		μg/L	1	6/9/2023 6:27:00 PM
Benzo(b)fluoranthene	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM
Benzo(k)fluoranthene	ND	0.199		μg/L	1	6/9/2023 6:27:00 PM
Benzo(a)pyrene	ND	0.149		μg/L	1	6/9/2023 6:27:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.199	1	μg/L	1	6/9/2023 6:27:00 PM
Dibenz(a,h)anthracene	ND	1.10	1	μg/L	1	6/9/2023 6:27:00 PM
Benzo(g,h,i)perylene	ND	0.996	1	μg/L	1	6/9/2023 6:27:00 PM
Surr: 2,4,6-Tribromophenol	52.3	24.4 - 158		%Rec	1	6/9/2023 6:27:00 PM
Surr: 2-Fluorobiphenyl	55.9	32.7 - 137		%Rec	1	6/9/2023 6:27:00 PM
Surr: Nitrobenzene-d5	44.3	24.4 - 139		%Rec	1	6/9/2023 6:27:00 PM
Surr: Phenol-d6	12.5	5 - 59		%Rec	1	6/9/2023 6:27:00 PM
Surr: p-Terphenyl	61.8	31.5 - 153		%Rec	1	6/9/2023 6:27:00 PM

#### NOTES:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Volatile Organic Compounds by E	anic Compounds by EPA Method 8260D				28 Analyst: KJ
Dichlorodifluoromethane (CFC-12)	ND	0.500	μg/L	1	6/9/2023 10:19:40 PM
Chloromethane	ND	0.750	μg/L	1	6/9/2023 10:19:40 PM
Vinyl chloride	ND	0.200	μg/L	1	6/9/2023 10:19:40 PM
Bromomethane	ND	3.00	μg/L	1	6/9/2023 10:19:40 PM
Trichlorofluoromethane (CFC-11)	ND	0.300	μg/L	1	6/9/2023 10:19:40 PM
Chloroethane	ND	1.00	μg/L	1	6/9/2023 10:19:40 PM
1,1-Dichloroethene	ND	0.500	μg/L	1	6/9/2023 10:19:40 PM
Acetone	ND	5.00	μg/L	1	6/12/2023 7:19:55 PM
Methylene chloride	ND	0.750	μg/L	1	6/9/2023 10:19:40 PM
trans-1,2-Dichloroethene	ND	0.350	μg/L	1	6/9/2023 10:19:40 PM
Methyl tert-butyl ether (MTBE)	ND	0.350	μg/L	1	6/9/2023 10:19:40 PM
1,1-Dichloroethane	ND	0.500	μg/L	1	6/9/2023 10:19:40 PM
cis-1,2-Dichloroethene	ND	0.500	μg/L	1	6/12/2023 7:19:55 PM
2-Butanone (MEK)	ND	1.50	μg/L	1	6/12/2023 7:19:55 PM
Chloroform	ND	0.500	μg/L	1	6/9/2023 10:19:40 PM
1,1,1-Trichloroethane (TCA)	ND	0.300	μg/L	1	6/9/2023 10:19:40 PM
1,1-Dichloropropene	ND	0.500	μg/L	1	6/9/2023 10:19:40 PM
Carbon tetrachloride	ND	0.300	μg/L	1	6/9/2023 10:19:40 PM
1,2-Dichloroethane (EDC)	ND	0.500	μg/L	1	6/9/2023 10:19:40 PM

I - Internal standards were outside of acceptance criteria. Result is an estimate.



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:00:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-012 **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds	by EPA Method 8	<u> 260D</u>		Batc	h ID: 40	0628 Analyst: KJ
Benzene	ND	0.440		μg/L	1	6/9/2023 10:19:40 PM
Trichloroethene (TCE)	ND	0.400		μg/L	1	6/12/2023 7:19:55 PM
1,2-Dichloropropane	ND	0.300		μg/L	1	6/9/2023 10:19:40 PM
Bromodichloromethane	ND	0.250		μg/L	1	6/9/2023 10:19:40 PM
Dibromomethane	ND	0.250		μg/L	1	6/9/2023 10:19:40 PM
cis-1,3-Dichloropropene	ND	0.350		μg/L	1	6/9/2023 10:19:40 PM
Toluene	ND	1.00		μg/L	1	6/9/2023 10:19:40 PM
trans-1,3-Dichloropropylene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
Methyl Isobutyl Ketone (MIBK)	ND	1.00		μg/L	1	6/12/2023 7:19:55 PM
1,1,2-Trichloroethane	ND	0.250		μg/L	1	6/9/2023 10:19:40 PM
1,3-Dichloropropane	ND	0.300		μg/L	1	6/9/2023 10:19:40 PM
Tetrachloroethene (PCE)	ND	0.350		μg/L	1	6/12/2023 7:19:55 PM
Dibromochloromethane	ND	0.300		μg/L	1	6/9/2023 10:19:40 PM
1,2-Dibromoethane (EDB)	ND	0.200		μg/L	1	6/9/2023 10:19:40 PM
2-Hexanone (MBK)	ND	1.25		μg/L	1	6/9/2023 10:19:40 PM
Chlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
1,1,1,2-Tetrachloroethane	ND	0.300		μg/L	1	6/9/2023 10:19:40 PM
Ethylbenzene	ND	0.400		μg/L	1	6/9/2023 10:19:40 PM
m,p-Xylene	ND	1.00			1	6/9/2023 10:19:40 PM
o-Xylene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
	ND ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
Styrene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
Isopropylbenzene Bromoform	ND	0.300	Q	μg/L	1	6/9/2023 10:19:40 PM
	ND ND	0.300	Q	μg/L	1	6/9/2023 10:19:40 PM
1,1,2,2-Tetrachloroethane	ND ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
n-Propylbenzene	ND ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
Bromobenzene	ND ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
1,3,5-Trimethylbenzene 2-Chlorotoluene	ND ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
4-Chlorotoluene	ND ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
	ND ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
tert-Butylbenzene	ND ND	0.400		μg/L	1	6/9/2023 10:19:40 PM
1,2,3-Trichloropropane				μg/L		
1,2,4-Trichlorobenzene	ND	0.750		μg/L	1	6/9/2023 10:19:40 PM
sec-Butylbenzene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
4-Isopropyltoluene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
1,3-Dichlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
1,4-Dichlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
n-Butylbenzene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
1,2-Dichlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:19:40 PM
1,2-Dibromo-3-chloropropane	ND	1.00		μg/L	1	6/12/2023 7:19:55 PM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:00:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-012 **Matrix:** Water

NI										
Client Sample ID: W-1 Analyses	Result	RL	Qual	Units	DF	. Da	ate Analyzed			
Volatile Organic Compounds by	EPA Method	8260D		Batc	h ID:	40628	Analyst: KJ			
1,2,4-Trimethylbenzene	ND	0.500		μg/L	1	6/9/	2023 10:19:40 PM			
Hexachloro-1,3-butadiene	ND	0.500		μg/L	1	6/9/	2023 10:19:40 PM			
Naphthalene	ND	1.25		μg/L	1	6/9/	2023 10:19:40 PM			
1,2,3-Trichlorobenzene	ND	0.700		μg/L	1	6/9/	2023 10:19:40 PM			
Surr: Dibromofluoromethane	107	80 - 120		%Rec	1	6/9/	2023 10:19:40 PM			
Surr: Toluene-d8	106	80 - 120		%Rec	1	6/9/	2023 10:19:40 PM			
Surr: 1-Bromo-4-fluorobenzene	103	80 - 120		%Rec	1	6/9/	2023 10:19:40 PM			
NOTES:										
Q - Associated calibration verification is be	elow acceptance crit	teria. Result ma	y be low-bia	sed.						
Mercury by EPA Method 245.1			Batc	h ID:	40578	Analyst: SLI				
Mercury	ND	0.100		μg/L	1	6/8/	2023 11:25:46 AM			
Dissolved Mercury by EPA Meth	od 245.1			Batc	h ID:	40577	Analyst: SLI			
Mercury	ND	0.100		μg/L	1	6/8/	2023 12:09:54 PM			
Dissolved Metals by EPA Metho	d 200.8			Batc	h ID:	40597	Analyst: JR			
Arsenic	1.61	0.500		μg/L	1	6/12	2/2023 3:18:00 PM			
Cadmium	ND	0.100		μg/L	1	6/12	2/2023 3:18:00 PM			
Chromium	2.44	0.750		μg/L	1	6/12	2/2023 3:18:00 PM			
Lead	ND	0.500		μg/L	1	6/12	2/2023 3:18:00 PM			
Total Metals by EPA Method 20	0.8			Batc	h ID:	40596	Analyst: JR			
Arsenic	1.71	0.500		μg/L	1	6/8/	2023 2:30:00 PM			
					4	6/0/				
Cadmium	ND	0.100		µq/L	1	0/0/.	2023 2:30:00 PM			
Cadmium Chromium	ND 2.77	0.100 0.750		μg/L μg/L	1		2023 2:30:00 PM 2023 2:30:00 PM			



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:15:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-013 **Matrix:** Water

Client Sample ID: W-2							
Analyses	Result	Result RL		Units	DF	D	ate Analyzed
Diesel and Heavy Oil by NWTP	H-Dx/Dx Ext.			Batc	h ID:	40609	Analyst: AP
Diesel Range Organics	380	94.3		μg/L	1	6/12	2/2023 2:59:34 PM
Heavy Oil	ND	94.3		μg/L	1	6/12	2/2023 2:59:34 PM
Total Petroleum Hydrocarbons	380	189		μg/L	1	6/12	2/2023 2:59:34 PM
Surr: 2-Fluorobiphenyl	77.5	50 - 150		%Rec	1	6/12	2/2023 2:59:34 PM
Surr: o-Terphenyl	99.7	50 - 150		%Rec	1	6/12	2/2023 2:59:34 PM
NOTES:							
Chromatographic pattern is not consister	nt with a petroleum s	tandard					
Diesel & Oil by NWTPH-Dx with	n Silica Gel Tre	atment		Batc	h ID:	40609	Analyst: AP
Diesel Range Organics	ND	94.3		μg/L	1	6/15	5/2023 3:32:13 PM
Heavy Oil	ND	94.3		μg/L	1		5/2023 3:32:13 PM
Total Petroleum Hydrocarbons	ND	189		μg/L	1		5/2023 3:32:13 PM
Surr: 2-Fluorobiphenyl	101	50 - 150		%Rec	1	6/15	5/2023 3:32:13 PM
Surr: o-Terphenyl	111	50 - 150		%Rec	1		5/2023 3:32:13 PM
Hydrocarbon Identification by	NWTPH-HCID			Batc	h ID:	40609	Analyst: AP
Gasoline	ND	236		μg/L	1	6/12	2/2023 2:59:34 PM
Mineral Spirits	ND	236		μg/L	1	6/12	2/2023 2:59:34 PM
Kerosene	ND	236		μg/L	1	6/12	2/2023 2:59:34 PM
Diesel (Fuel Oil)	DETECT	236		μg/L	1	6/12	2/2023 2:59:34 PM
Heavy Oil	ND	472		μg/L	1	6/12	2/2023 2:59:34 PM
Mineral Oil	ND	472		μg/L	1	6/12	2/2023 2:59:34 PM
Surr: 2-Fluorobiphenyl	77.5	50 - 150		%Rec	1	6/12	2/2023 2:59:34 PM
Surr: o-Terphenyl	99.7	50 - 150		%Rec	1	6/12	2/2023 2:59:34 PM
NOTES:							
Chromatographic pattern is not consister	nt with a petroleum s	tandard					
Polyaromatic Hydrocarbons by	EPA Method 8	3270 (SIM)		Batc	h ID:	40704	Analyst: SH
Benz(a)anthracene	ND	0.0797		μg/L	1	6/19	0/2023 11:21:08 PM
Chrysene	ND	0.0797		μg/L	1	6/19	9/2023 11:21:08 PM
Benzo(b)fluoranthene	ND	0.0797		μg/L	1	6/19	9/2023 11:21:08 PM
Benzo(k)fluoranthene	ND	0.0797		μg/L	1	6/19	0/2023 11:21:08 PM
Delizo(k)iluorariirierie	IND			. <del>-</del>			
Benzo(a)pyrene	ND	0.0797		μg/L	1	6/19	)/2023 11:21:08 PM
· ·				μg/L μg/L	1 1		0/2023 11:21:08 PM 0/2023 11:21:08 PM
Benzo(a)pyrene	ND	0.0797				6/19	



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:15:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-013 **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Polyaromatic Hydrocarbons b	y EPA Method 8	270 (SIM)		Batc	h ID:	40704 Analyst: SH
Surr: Terphenyl-d14	89.4	32 - 137		%Rec	1	6/19/2023 11:21:08 PM
Semivolatile Organic Compou	nds by EPA Met	<u>hod 8270E</u>		Batc	h ID:	40576 Analyst: CB
Phenol	ND	0.299		μg/L	1	6/9/2023 7:27:00 PM
2-Chlorophenol	ND	0.299		μg/L	1	6/9/2023 7:27:00 PM
1,3-Dichlorobenzene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
1,4-Dichlorobenzene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
1,2-Dichlorobenzene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
Benzyl alcohol	ND	2.99	Q	μg/L	1	6/9/2023 7:27:00 PM
Bis(2-chloroethyl) ether	ND	0.398		μg/L	1	6/9/2023 7:27:00 PM
2-Methylphenol (o-cresol)	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM
Hexachloroethane	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM
N-nitrosodipropylamine	ND	0.299		μg/L	1	6/9/2023 7:27:00 PM
3&4-Methylphenol (m, p-cresol)	ND	0.996		μg/L	1	6/9/2023 7:27:00 PM
Nitrobenzene	ND	0.498		μg/L	1	6/9/2023 7:27:00 PM
Isophorone	ND	0.299		μg/L	1	6/9/2023 7:27:00 PM
2-Nitrophenol	ND	0.299		μg/L	1	6/9/2023 7:27:00 PM
2,4-Dimethylphenol	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM
Bis(2-chloroethoxy)methane	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
2,4-Dichlorophenol	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM
1,2,4-Trichlorobenzene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
Naphthalene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
4-Chloroaniline	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
Hexachlorobutadiene	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM
4-Chloro-3-methylphenol	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM
2-Methylnaphthalene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
1-Methylnaphthalene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
Hexachlorocyclopentadiene	ND	0.249	Q	μg/L	1	6/9/2023 7:27:00 PM
2,4,6-Trichlorophenol	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM
2,4,5-Trichlorophenol	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM
2-Chloronaphthalene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
2-Nitroaniline	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM
Acenaphthene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
Dimethyl phthalate	ND	1.20		μg/L	1	6/9/2023 7:27:00 PM
2,6-Dinitrotoluene	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM
Acenaphthylene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
2,4-Dinitrophenol	ND	1.49		μg/L	1	6/9/2023 7:27:00 PM
Dibenzofuran	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM
		0.000		r3' =	•	3, 0, 2020



Work Order: 2306083 Date Reported: 6/20/2023

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:15:00 AM

Project: Mottis Property

**Lab ID:** 2306083-013 Matrix: Water

nalyses	Result	RL	Qual	Units	DF	Date Analyzed		
Semivolatile Organic Compo	unds by EPA Me	ethod 8270E		Batc	h ID: 40	576 Analyst: CE		
2,4-Dinitrotoluene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM		
4-Nitrophenol	ND	0.996	Q	μg/L	1	6/9/2023 7:27:00 PM		
Fluorene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM		
4-Chlorophenyl phenyl ether	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM		
Diethyl phthalate	ND	0.498		μg/L	1	6/9/2023 7:27:00 PM		
4,6-Dinitro-2-methylphenol	ND	2.49		μg/L	1	6/9/2023 7:27:00 PM		
4-Bromophenyl phenyl ether	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Hexachlorobenzene	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Pentachlorophenol	ND	0.598		μg/L	1	6/9/2023 7:27:00 PM		
Phenanthrene	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Anthracene	ND	0.0996		μg/L	1	6/9/2023 7:27:00 PM		
Carbazole	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Di-n-butyl phthalate	ND	1.99		μg/L	1	6/9/2023 7:27:00 PM		
Fluoranthene	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Pyrene	ND	0.398		μg/L	1	6/9/2023 7:27:00 PM		
Butyl benzyl phthalate	ND	0.299		μg/L	1	6/9/2023 7:27:00 PM		
bis(2-Ethylhexyl)adipate	ND	0.747		μg/L	1	6/9/2023 7:27:00 PM		
Benz(a)anthracene	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM		
Chrysene	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM		
Bis(2-ethylhexyl) phthalate	ND	0.996		μg/L	1	6/9/2023 7:27:00 PM		
Di-n-octyl phthalate	ND	0.299		μg/L	1	6/9/2023 7:27:00 PM		
Benzo(b)fluoranthene	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Benzo(k)fluoranthene	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Benzo(a)pyrene	ND	0.149		μg/L	1	6/9/2023 7:27:00 PM		
Indeno(1,2,3-cd)pyrene	ND	0.199		μg/L	1	6/9/2023 7:27:00 PM		
Dibenz(a,h)anthracene	ND	1.10		μg/L	1	6/9/2023 7:27:00 PM		
Benzo(g,h,i)perylene	ND	0.996		μg/L	1	6/9/2023 7:27:00 PM		
Surr: 2,4,6-Tribromophenol	59.6	24.4 - 158		%Rec	1	6/9/2023 7:27:00 PM		
Surr: 2-Fluorobiphenyl	61.0	32.7 - 137		%Rec	1	6/9/2023 7:27:00 PM		
Surr: Nitrobenzene-d5	45.8	24.4 - 139		%Rec	1	6/9/2023 7:27:00 PM		
Surr: Phenol-d6	11.4	5 - 59		%Rec	1	6/9/2023 7:27:00 PM		
Surr: p-Terphenyl	63.5	31.5 - 153		%Rec	1	6/9/2023 7:27:00 PM		
NOTES:								

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Volatile Organic Compounds by	Organic Compounds by EPA Method 8260D		Batch	1D: 4(	0628 Analyst: KJ
Dichlorodifluoromethane (CFC-12)	ND	0.500	μg/L	1	6/9/2023 10:49:52 PM
Chloromethane	ND	0.750	μg/L	1	6/9/2023 10:49:52 PM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:15:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-013 **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Volatile Organic Compounds b	y EPA Method 8	260D		Batc	h ID: 40	628 Analyst: KJ
Vinyl chloride	ND	0.200		μg/L	1	6/9/2023 10:49:52 PM
Bromomethane	ND	3.00		μg/L	1	6/9/2023 10:49:52 PM
Trichlorofluoromethane (CFC-11)	ND	0.300		μg/L	1	6/9/2023 10:49:52 PM
Chloroethane	ND	1.00		μg/L	1	6/9/2023 10:49:52 PM
1,1-Dichloroethene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
Acetone	ND	5.00		μg/L	1	6/12/2023 7:50:04 PM
Methylene chloride	ND	0.750		μg/L	1	6/9/2023 10:49:52 PM
trans-1,2-Dichloroethene	ND	0.350		μg/L	1	6/9/2023 10:49:52 PM
Methyl tert-butyl ether (MTBE)	ND	0.350		μg/L	1	6/9/2023 10:49:52 PM
1,1-Dichloroethane	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
cis-1,2-Dichloroethene	ND	0.500		μg/L	1	6/12/2023 7:50:04 PM
2-Butanone (MEK)	ND	1.50		μg/L	1	6/12/2023 7:50:04 PM
Chloroform	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
1,1,1-Trichloroethane (TCA)	ND	0.300		μg/L	1	6/9/2023 10:49:52 PM
1,1-Dichloropropene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
Carbon tetrachloride	ND	0.300		μg/L	1	6/9/2023 10:49:52 PM
1,2-Dichloroethane (EDC)	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
Benzene	ND	0.440		μg/L	1	6/9/2023 10:49:52 PM
Trichloroethene (TCE)	ND	0.400		μg/L	1	6/9/2023 10:49:52 PM
1,2-Dichloropropane	ND	0.300		μg/L	1	6/9/2023 10:49:52 PM
Bromodichloromethane	ND	0.250		μg/L	1	6/9/2023 10:49:52 PM
Dibromomethane	ND	0.250		μg/L	1	6/9/2023 10:49:52 PM
cis-1,3-Dichloropropene	ND	0.350		μg/L	1	6/9/2023 10:49:52 PM
Toluene	ND	1.00		μg/L	1	6/9/2023 10:49:52 PM
trans-1,3-Dichloropropylene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
Methyl Isobutyl Ketone (MIBK)	ND	1.00		μg/L	1	6/12/2023 7:50:04 PM
1,1,2-Trichloroethane	ND	0.250		μg/L	1	6/9/2023 10:49:52 PM
1,3-Dichloropropane	ND	0.300		μg/L	1	6/9/2023 10:49:52 PM
Tetrachloroethene (PCE)	ND	0.350		μg/L	1	6/12/2023 7:50:04 PM
Dibromochloromethane	ND	0.300		μg/L	1	6/9/2023 10:49:52 PM
1,2-Dibromoethane (EDB)	ND	0.200		μg/L	1	6/9/2023 10:49:52 PM
2-Hexanone (MBK)	ND	1.25		μg/L	1	6/9/2023 10:49:52 PM
Chlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
1,1,1,2-Tetrachloroethane	ND	0.300		μg/L	1	6/9/2023 10:49:52 PM
Ethylbenzene	ND	0.400		μg/L	1	6/9/2023 10:49:52 PM
m,p-Xylene	ND	1.00		μg/L	1	6/9/2023 10:49:52 PM
o-Xylene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
Styrene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM
Isopropylbenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM



Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:15:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-013 **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Date Analyzed	
Volatile Organic Compounds by	EPA Method	8260D		Batc	h ID:	40628 Analyst: KJ	J	
Bromoform	ND	0.300	Q	μg/L	1	6/9/2023 10:49:52 PM	Л	
1,1,2,2-Tetrachloroethane	ND	0.200		μg/L	1	6/9/2023 10:49:52 PM	Л	
n-Propylbenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
Bromobenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
1,3,5-Trimethylbenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
2-Chlorotoluene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
4-Chlorotoluene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
tert-Butylbenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
1,2,3-Trichloropropane	ND	0.400		μg/L	1	6/9/2023 10:49:52 PM	Л	
1,2,4-Trichlorobenzene	ND	0.750		μg/L	1	6/9/2023 10:49:52 PM	Л	
sec-Butylbenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
4-Isopropyltoluene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
1,3-Dichlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
1,4-Dichlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
n-Butylbenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
1,2-Dichlorobenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
1,2-Dibromo-3-chloropropane	ND	1.00		μg/L	1	6/12/2023 7:50:04 PM	Л	
1,2,4-Trimethylbenzene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
Hexachloro-1,3-butadiene	ND	0.500		μg/L	1	6/9/2023 10:49:52 PM	Л	
Naphthalene	ND	1.25		μg/L	1	6/9/2023 10:49:52 PN	Л	
1,2,3-Trichlorobenzene	ND	0.700		μg/L	1	6/9/2023 10:49:52 PN	Л	
Surr: Dibromofluoromethane	104	80 - 120		%Rec	1	6/9/2023 10:49:52 PN	Л	
Surr: Toluene-d8	105	80 - 120		%Rec	1	6/9/2023 10:49:52 PN	Л	
Surr: 1-Bromo-4-fluorobenzene NOTES:	104	80 - 120		%Rec	1	6/9/2023 10:49:52 PM	Λ	
Q - Associated calibration verification is be	elow acceptance crit	teria. Result ma	ay be low-bia	sed.				
Mercury by EPA Method 245.1				Batc	h ID:	40578 Analyst: SL	_L	
Mercury	ND	0.100		μg/L	1	6/8/2023 11:27:28 AM	Л	
Dissolved Mercury by EPA Meth	od 245.1			Batc	h ID:	40577 Analyst: SL	_L	
Mercury	ND	0.100		μg/L	1	6/8/2023 12:11:36 PM	Л	
Dissolved Metals by EPA Metho	d 200.8			Batc	h ID:	40597 Analyst: JR	₹	
Arsenic	1.14	0.500		μg/L	1	6/12/2023 3:23:00 PM	Л	
Cadmium	ND	0.100		μg/L	1	6/12/2023 3:23:00 PM	Л	



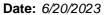
Work Order: **2306083**Date Reported: **6/20/2023** 

Client: ESA Associates, Inc. Collection Date: 6/7/2023 5:15:00 AM

**Project:** Mottis Property

**Lab ID:** 2306083-013 **Matrix:** Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Dissolved Metals by EPA Metal	nod 200.8			Bato	h ID: 4(	0597 Analyst: JR
Chromium	0.838	0.750		μg/L	1	6/12/2023 3:23:00 PM
Lead	6.91	0.500		μg/L	1	6/12/2023 3:23:00 PM
Total Metals by EPA Method	200.8			Bato	h ID: 4(	0596 Analyst: JR
Arsenic	1.54	0.500		μg/L	1	6/8/2023 2:33:00 PM
Cadmium	0.254	0.100		μg/L	1	6/8/2023 2:33:00 PM
Chromium	2.93	0.750		μg/L	1	6/8/2023 2:33:00 PM
Lead	122	0.500		μg/L	1	6/8/2023 2:33:00 PM





# **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

#### **Dissolved Metals by EPA Method 200.8**

Project: Mottis Prop	erty						DIS	ssoived iviet	als by EF	A MELITOC	ı 200.
Sample ID: <b>MB-40597</b>	SampType: MBLK			Units: µg/L		Prep Date	e: <b>6/8/202</b>	3	RunNo: 845	571	
Client ID: MBLKW	Batch ID: 40597					Analysis Date	e: <b>6/12/20</b>	23	SeqNo: <b>176</b>	6365	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									
Cadmium	ND	0.100									
Chromium	ND	0.750									
Lead	ND	0.500									
Sample ID: <b>2306080-002BDUP</b>	SampType: <b>DUP</b>			Units: µg/L		Prep Date	e: <b>6/8/202</b>	3	RunNo: 845	571	
Client ID: BATCH	Batch ID: 40597					Analysis Date	e: <b>6/12/20</b>	23	SeqNo: 176	6368	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	86.3	0.500						85.84	0.481	30	
Cadmium	ND	0.100						0		30	
Chromium	ND	0.750						0		30	
Lead	ND	0.500						0		30	
Sample ID: <b>2306080-002BMS</b>	SampType: <b>MS</b>			Units: µg/L		Prep Date	e: <b>6/8/202</b>	3	RunNo: 845	571	
Client ID: BATCH	Batch ID: 40597					Analysis Date	e: <b>6/12/20</b>	23	SeqNo: 176	6369	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	184	0.500	100.0	85.84	97.8	70	130				
Cadmium	5.16	0.100	5.000	0	103	70	130				
Chromium	96.3	0.750	100.0	0.2210	96.0	70	130				
Lead	49.7	0.500	50.00	0	99.4	70	130				
Sample ID: <b>2306083-012EMS</b>	SampType: <b>MS</b>			Units: µg/L		Prep Date	e: <b>6/8/202</b>	3	RunNo: 845	571	
Client ID: W-1	Batch ID: 40597					Analysis Date	e: <b>6/12/20</b>	23	SeqNo: <b>176</b>	66377	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	101	0.500	100.0	1.612	99.6	70	130				
Cadmium	4.74	0.100	5.000	0.008000	94.6	70	130				
Chromium	96.5	0.750	100.0	2.440	94.1	70	130				

Revision v1 Page 28 of 68



Work Order: 2306083

Project:

**QC SUMMARY REPORT** 

**CLIENT:** ESA Associates, Inc.

Mottis Property

**Dissolved Metals by EPA Method 200.8** 

Client ID: W-1 Batch ID: 40597 Analysis Date: 6/12/2023 SeqNo: 1766377

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

Lead 50.3 0.500 50.00 0.08600 100 70 130

Sample ID: MB-40583 FB SampType: MBLK Units: µg/L Prep Date: 6/8/2023 RunNo: 84571

Client ID: **MBLKW** Batch ID: **40597** Analysis Date: **6/12/2023** SeqNo: **1766379** 

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

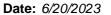
 Arsenic
 ND
 0.500

 Cadmium
 ND
 0.100

 Chromium
 ND
 0.750

 Lead
 ND
 0.500

Revision v1 Page 29 of 68





**QC SUMMARY REPORT** 

CLIENT: ESA Associates, Inc.

Project: Mottis Property

**Total Metals by EPA Method 200.8** 

Sample ID: MB-40596	SampType: MBLK			Units: µg/L		Prep Da	te: <b>6/8/202</b>	23	RunNo: 845	550	
Client ID: MBLKW	Batch ID: 40596					Analysis Da	te: <b>6/8/202</b>	23	SeqNo: 176	55069	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									
Cadmium	ND	0.100									
Chromium	ND	0.750									
Lead	ND	0.500									

Sample ID: 2305542-005ADUP	SampType: <b>DUP</b>			Units: µg/L		Prep Da	ite: 6/8/202	:3	RunNo: 845	550	
Client ID: BATCH	Batch ID: 40596					Analysis Da	te: 6/8/202	3	SeqNo: 176	65072	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500						0		30	
Cadmium	ND	0.100						0.1540	97.6	30	R
Chromium	ND	0.750						0		30	
Lead	ND	0.500						0		30	
NOTES:											

#### NOTES:

R - High RPD due to low analyte concentration. In this range, high RPD's may be expected.

Sample ID: 2305542-005AMS	SampType: MS			Units: µg/L		Prep Dat	e: <b>6/8/2023</b>	RunNo: <b>84550</b>	
Client ID: BATCH	Batch ID: 40596					Analysis Dat	e: <b>6/8/2023</b>	SeqNo: 1765073	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Arsenic	108	0.500	100.0	0.3260	107	70	130		
Cadmium	5.29	0.100	5.000	0.1540	103	70	130		
Chromium	111	0.750	100.0	0.1400	111	70	130		
Lead	55.5	0.500	50.00	0	111	70	130		
Sample ID: <b>2306083-013DMS</b>	SampType: <b>MS</b>			Units: µg/L		Prep Dat	re: <b>6/8/2023</b>	RunNo: <b>84550</b>	
Client ID: W-2	Batch ID: 40596					Analysis Dat	e: <b>6/8/2023</b>	SeqNo: <b>1765091</b>	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Arsenic	106	0.500	100.0	1.544	105	70	130		
Cadmium	5.52	0.100	5.000	0.2540	105	70	130		

Revision v1 Page 30 of 68



Work Order: 2306083

**CLIENT:** 

Arsenic

Cadmium

Chromium

Lead

ESA Associates, Inc.

103

5.31

109

54.4

0.500

0.100

0.750

0.500

Project: Mottis Property

### **QC SUMMARY REPORT**

**Total Metals by EPA Method 200.8** 

· · · · · · · · · · · · · · · · · · ·											
Sample ID: 2306083-013DMS	SampType: MS			Units: µg/L		Prep Da	te: 6/8/202	23	RunNo: 84	550	
Client ID: W-2	Batch ID: 40596					Analysis Da	te: <b>6/8/202</b>	23	SeqNo: 176	65091	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	110	0.750	100.0	2.930	107	70	130				
Lead	174	0.500	50.00	122.2	103	70	130				
Sample ID: LCS-40596	SampType: <b>LCS</b>			Units: µg/L		Prep Da	te: <b>6/8/202</b>	23	RunNo: 84	550	
Client ID: LCSW	Batch ID: 40596					Analysis Da	te: <b>6/8/202</b>	23	SeqNo: <b>176</b>	65260	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

0

0

0

0

103

106

109

109

85

85

85

85

115

115

115

115

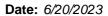
100.0

5.000

100.0

50.00

Page 31 of 68 Revision v1





**CLIENT:** ESA Associates, Inc.

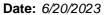
**Project:** Mottis Property

# **QC SUMMARY REPORT**

**Mercury by EPA Method 245.1** 

Project: Mottis Prop	erty								, ,		
Sample ID: <b>MB-40578</b>	SampType: MBLK			Units: µg/L		Prep Date	e: <b>6/7/202</b> :	3	RunNo: 845	537	
Client ID: MBLKW	Batch ID: 40578					Analysis Date	e: <b>6/8/202</b> :	3	SeqNo: 176	64828	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.100									
Sample ID: LCS-40578	SampType: LCS			Units: µg/L		Prep Date	e: <b>6/7/202</b> :	3	RunNo: 845	537	
Client ID: LCSW	Batch ID: 40578					Analysis Date	e: <b>6/8/202</b> :	3	SeqNo: 176	64829	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.10	0.100	1.000	0	110	85	115				
Sample ID: <b>2306080-004ADUP</b>	SampType: <b>DUP</b>			Units: µg/L		Prep Date	e: <b>6/7/202</b> :	3	RunNo: 845	537	
Client ID: BATCH	Batch ID: 40578					Analysis Date	e: <b>6/8/202</b> :	3	SeqNo: <b>176</b>	64835	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.100						0		20	
Sample ID: <b>2306080-004AMS</b>	SampType: MS			Units: µg/L		Prep Date	e: <b>6/7/202</b> :	3	RunNo: 845	537	
Client ID: BATCH	Batch ID: 40578					Analysis Date	e: <b>6/8/202</b> :	3	SeqNo: <b>176</b>	64836	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.04	0.100	1.000	0	104	70	130				
Sample ID: <b>2306080-004AMSD</b>	SampType: MSD			Units: µg/L		Prep Date	e: <b>6/7/202</b> :	3	RunNo: 845	537	
Client ID: BATCH	Batch ID: 40578					Analysis Date	e: <b>6/8/202</b> :	3	SeqNo: 176	64837	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.07	0.100	1.000	0	107	70	130	1.040	2.84	20	

Revision v1 Page 32 of 68





# **QC SUMMARY REPORT**

# **CLIENT:** ESA Associates, Inc.

#### **Dissolved Mercury by EPA Method 245.1**

Project:	Mottis Prop	perty						DISSO	olved Merc	ury by EP	A Method	1 245.1
Sample ID:	MB-40577	SampType: MBLK			Units: µg/L		Prep Date	6/7/2023	3	RunNo: 84	i38	
Client ID:	MBLKW	Batch ID: 40577					Analysis Date	6/8/2023	3	SeqNo: 176	64928	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.100									
Sample ID:	LCS-40577	SampType: LCS			Units: µg/L		Prep Date	6/7/2023	3	RunNo: 84	i38	
Client ID:	LCSW	Batch ID: 40577					Analysis Date	6/8/2023	3	SeqNo: <b>176</b>	64929	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury NOTES:		1.17	0.100	1.000	0	117	85	115				S
S - Outly	ring spike recovery obs	erved (high bias). Samples	are non-det	ect; result me	ets QC requirement	is.						
Sample ID:	2306080-001BDUP	SampType: <b>DUP</b>			Units: µg/L		Prep Date	6/7/2023	3	RunNo: 845	38	
Client ID:	BATCH	Batch ID: 40577					Analysis Date	6/8/2023	3	SeqNo: <b>176</b>	64937	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.100						0		20	
Sample ID:	2306080-001BMS	SampType: MS			Units: µg/L		Prep Date	6/7/2023	3	RunNo: 845	i38	
Client ID:	ВАТСН	Batch ID: 40577					Analysis Date	6/8/2023	3	SeqNo: <b>176</b>	64940	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		1.09	0.100	1.000	0	109	70	130				
Sample ID:	2306080-001BMSD	SampType: MSD			Units: µg/L		Prep Date	6/7/2023	3	RunNo: 84	538	
Client ID:	BATCH	Batch ID: 40577					Analysis Date	6/8/2023	3	SeqNo: <b>176</b>	64941	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit I	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		1.09	0.100	1.000	0	109	70	130	1.090	0	20	

Revision v1 Page 33 of 68



Work Order: 2306083

Project:

**QC SUMMARY REPORT** 

**CLIENT:** ESA Associates, Inc.

Mottis Property

**Dissolved Mercury by EPA Method 245.1** 

Sample ID: MB-40570FB SampType: MBLK Units: µg/L Prep Date: 6/7/2023 RunNo: 84538

Client ID: **MBLKW** Batch ID: **40577** Analysis Date: **6/8/2023** SeqNo: **1764946** 

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

Mercury ND 0.100

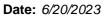
Sample ID: MB-40583FB SampType: MBLK Units: µg/L Prep Date: 6/7/2023 RunNo: 84538

Client ID: MBLKW Batch ID: 40577 Analysis Date: 6/8/2023 SeqNo: 1764949

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

Mercury ND 0.100

Revision v1 Page 34 of 68





# **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.

Project: Mottis Property

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Project: Mottis Prope	епу								O		
Sample ID: <b>MB-40589</b>	SampType: MBLK					3	RunNo: 845	530			
Client ID: MBLKS	Batch ID: 40589					Analysis Date	e: 6/7/202	3	SeqNo: <b>176</b>	64537	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	10.0		10.00		100	50	150				
Surr: o-Terphenyl	9.91		10.00		99.1	50	150				
Sample ID: LCS-40589	SampType: <b>LCS</b>			Units: mg/Kg		Prep Date	e: 6/7/202	3	RunNo: 845	530	
Client ID: LCSS	Batch ID: 40589					Analysis Date	e: <b>6/7/202</b>	3	SeqNo: <b>176</b>	64538	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	504	150	500.0	0	101	81.4	125				
Surr: 2-Fluorobiphenyl	9.57		10.00		95.7	50	150				
Surr: o-Terphenyl	11.9		10.00		119	50	150				
Sample ID: <b>2306071-001AMS</b>	SampType: <b>MS</b>			Units: mg/Kg-	dry	Prep Date	e: 6/7/202	3	RunNo: 845	530	
Client ID: BATCH	Batch ID: 40589					Analysis Date	e: 6/7/202	3	SeqNo: <b>176</b>	64542	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	530	160	532.7	0	99.5	50.8	149				
Surr: 2-Fluorobiphenyl	8.40		10.65		78.8	50	150				
Surr: o-Terphenyl	11.4		10.65		107	50	150				
Sample ID: <b>2306071-001AMSD</b>	SampType: <b>MSD</b>			Units: mg/Kg-	dry	Prep Date	e: 6/7/202	3	RunNo: 845	530	
Client ID: BATCH	Batch ID: 40589					Analysis Date	e: 6/7/202	3	SeqNo: <b>176</b>	64543	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	538	161	535.3	0	101	50.8	149	530.2	1.54	30	
	9.85		10.71		92.0	50	150		0		
Surr: 2-Fluorobiphenyl	9.65		10.7 1		92.0	50	150		U		

Revision v1 Page 35 of 68



Work Order: 2306083

Project:

# **QC SUMMARY REPORT**

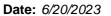
**CLIENT:** ESA Associates, Inc.

Mottis Property

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2306087-001ADUP	SampType: <b>DUP</b>			Units: mg/Kg	g-dry	Prep Da	te: <b>6/7/202</b>	23	RunNo: <b>84530</b>			
Client ID: BATCH	Batch ID: 40589					Analysis Da	te: <b>6/8/202</b>	23	SeqNo: <b>17</b> 0	64550		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Diesel Range Organics	ND	57.8						0		30		
Heavy Oil	ND	116						0		30		
Total Petroleum Hydrocarbons	ND	173						0		30		
Surr: 2-Fluorobiphenyl	11.1		11.55		96.2	50	150		0			
Surr: o-Terphenyl	11.2		11.55		96.7	50	150		0			

Revision v1 Page 36 of 68





# **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.

Project: Mottis Property

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

<b>Project:</b> Mottis Prop	erty								<b>,</b>		
Sample ID: <b>MB-40609</b>	SampType: MBLK			Units: µg/L		Prep Da	te: <b>6/9/202</b>	3	RunNo: 840	621	
Client ID: MBLKW	Batch ID: 40609					Analysis Da	te: <b>6/12/20</b>	23	SeqNo: <b>17</b> 0	66265	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	95.2									
Heavy Oil	ND	95.2									
Total Petroleum Hydrocarbons	ND	190									
Surr: 2-Fluorobiphenyl	18.8		23.81		78.8	50	150				
Surr: o-Terphenyl	22.1		23.81		92.8	50	150				
Sample ID: LCS-40609	SampType: <b>LCS</b>			Units: µg/L		Prep Da	te: <b>6/9/202</b>	3	RunNo: 84	621	
Client ID: LCSW	Batch ID: 40609					Analysis Da	te: <b>6/12/20</b>	23	SeqNo: <b>17</b> 0	66266	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	723	191	1,192	0	60.7	48	113				
Surr: 2-Fluorobiphenyl	12.9		23.85		54.3	50	150				
Surr: o-Terphenyl	22.0		23.85		92.1	50	150				
Sample ID: LCSD-40609	SampType: <b>LCSD</b>			Units: µg/L		Prep Da	te: <b>6/9/202</b>	3	RunNo: 840	621	
Client ID: LCSW02	Batch ID: 40609					Analysis Da	te: <b>6/12/20</b>	23	SeqNo: <b>17</b> 0	66267	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	844	191	1,194	0	70.7	48	113	723.3	15.4	30	
Surr: 2-Fluorobiphenyl	16.0		23.88		67.1	50	150		0		
Surr: o-Terphenyl	25.4		23.88		106	50	150		0		
Sample ID: <b>2306083-012BDUP</b>	SampType: <b>DUP</b>			Units: µg/L		Prep Da	te: <b>6/9/202</b>	3	RunNo: 840	621	
Client ID: W-1	Batch ID: 40609					Analysis Da	te: <b>6/12/20</b>	23	SeqNo: <b>17</b> 0	66607	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	812	94.8						196.6	122	30	R
Heavy Oil	ND	94.8						0		30	
T D	812	190						196.6	122	30	R
Total Petroleum Hydrocarbons	012	100						100.0	122	30	

Revision v1 Page 37 of 68



Work Order: 2306083

**QC SUMMARY REPORT** 

CLIENT: ESA Associates, Inc. Mottis Property

Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2306083-012BDUP	SampType: <b>DUP</b>			Units: µg/L		Prep Da	te: <b>6/9/202</b>	3	RunNo: 846	621	
Client ID: W-1	Batch ID: 40609					Analysis Da	te: <b>6/12/20</b> 2	23	SeqNo: 176	6607	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: o-Terphenyl	28.5		23.69		121	50	150		0		

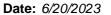
NOTES:

Project:

R - High RPD observed.

Chromatographic pattern is not consistent with a petroleum standard

Page 38 of 68 Revision v1





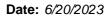
# **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

#### Diesel & Oil by NWTPH-Dx with Silica Gel Treatment

<b>Project:</b> Mottis Prop	perty					Diesei &	Oll by NW	I PH-DX	with Silica	Gerre	atmen
Sample ID: <b>MB-40609</b>	SampType: MBLK			Units: µg/L		Prep Date	e: <b>6/9/2023</b>		RunNo: <b>847</b>	<b>725</b>	
Client ID: MBLKW	Batch ID: 40609					Analysis Date	e: <b>6/15/2023</b>		SeqNo: <b>176</b>	8173	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RF	PD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics	ND	95.2									
Heavy Oil	ND	95.2									
Total Petroleum Hydrocarbons	ND	190									
Surr: 2-Fluorobiphenyl	21.8		23.81		91.7	50	150				
Surr: o-Terphenyl	25.5		23.81		107	50	150				
Sample ID: LCS-40609	SampType: <b>LCS</b>			Units: µg/L		Prep Date	e: <b>6/9/2023</b>		RunNo: 847		-
Client ID: LCSW	Batch ID: 40609					Analysis Date	e: <b>6/15/2023</b>		SeqNo: <b>176</b>	8174	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit RF	PD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,160	191	1,192	0	97.2	57	124				
Surr: 2-Fluorobiphenyl	23.8		23.85		99.8	50	150				
Surr: o-Terphenyl	32.1		23.85		135	50	150				
Sample ID: LCSD-40609	SampType: <b>LCSD</b>			Units: µg/L		Prep Date	e: <b>6/9/2023</b>		RunNo: 847		-
Client ID: LCSW02	Batch ID: 40609					Analysis Date	e: <b>6/15/2023</b>		SeqNo: 176	8175	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit Rf	PD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	1,180	191	1,194	0	99.1	57	124	1,159	2.13	30	
Surr: 2-Fluorobiphenyl	25.1		23.88		105	50	150		0		

Revision v1 Page 39 of 68





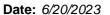
### **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

### **Hydrocarbon Identification by NWTPH-HCID**

Project: Mottis Prop	епу										
Sample ID: <b>MB-40609</b>	SampType: MBLK			Units: µg/L		Prep Dat	e: <b>6/9/202</b>	23	RunNo: 846	642	
Client ID: MBLKW	Batch ID: 40609					Analysis Dat	e: <b>6/12/2</b> 0	)23	SeqNo: <b>176</b>	66758	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	238									
Mineral Spirits	ND	238									
Kerosene	ND	238									
Diesel (Fuel Oil)	ND	238									
Heavy Oil	ND	476									
Mineral Oil	ND	476									
Surr: 2-Fluorobiphenyl	18.8		23.81		78.8	50	150				
Surr: o-Terphenyl	22.1		23.81		92.8	50	150				
Sample ID: LCS-40609	SampType: <b>LCS</b>			Units: µg/L		Prep Dat	e: <b>6/9/202</b>	23	RunNo: 846	642	
Client ID: LCSW	Batch ID: 40609					Analysis Dat	e: <b>6/12/2</b> 0	)23	SeqNo: 176	66759	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	723	238	1,192	0	60.7	45.7	115				
Surr: 2-Fluorobiphenyl	12.9		23.85		54.3	50	150				
Surr: o-Terphenyl	22.0		23.85		92.1	50	150				
Sample ID: LCSD-40609	SampType: <b>LCSD</b>			Units: μg/L		Prep Dat	e: <b>6/9/202</b>	<u></u> !3	RunNo: 846	642	
Client ID: LCSW02	Batch ID: 40609					Analysis Dat	e: <b>6/12/2</b> 0	)23	SeqNo: 176	66760	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Total Petroleum Hydrocarbons	844	239	1,194	0	70.7	45.7	115	723.3	15.4	30	
Surr: 2-Fluorobiphenyl	16.0		23.88		67.1	50	150		0		
Surr: o-Terphenyl	25.4		23.88		106	50	150		0		

Revision v1 Page 40 of 68





### **QC SUMMARY REPORT**

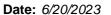
CLIENT: ESA Associates, Inc.
Project: Mottis Property

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-40586	SampType: MBLK			Units: µg/Kg		Prep Date:	6/7/202	23	RunNo: 845	521	
Client ID: MBLKS	Batch ID: 40586					Analysis Date:	6/7/202	23	SeqNo: <b>176</b>	64446	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit Hi	ghLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	20.0									
2-Methylnaphthalene	ND	20.0									
1-Methylnaphthalene	ND	20.0									
Acenaphthene	ND	20.0									
Acenaphthylene	ND	20.0									
Phenanthrene	ND	20.0									
Fluorene	ND	20.0									
Anthracene	ND	20.0									
Fluoranthene	ND	20.0									
Pyrene	ND	40.0									
Benz(a)anthracene	ND	20.0									
Chrysene	ND	20.0									
Benzo(b)fluoranthene	ND	25.0									
Benzo(k)fluoranthene	ND	25.0									
Benzo(a)pyrene	ND	30.0									
Indeno(1,2,3-cd)pyrene	ND	40.0									
Dibenz(a,h)anthracene	ND	50.0									
Benzo(g,h,i)perylene	ND	50.0									
Surr: 2-Fluorobiphenyl	832		1,000		83.2	23.8	147				
Surr: Terphenyl-d14 (surr)	873		1,000		87.3	28.6	155				

Sample ID: LCS-40586	SampType: LCS			Units: µg/Kg				23	RunNo: 84		
Client ID: LCSS	Batch ID: 40586				Analysis Date: 6/7/2023				SeqNo: <b>17</b> 6	64447	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1,890	20.0	2,000	0	94.3	58.3	115				
2-Methylnaphthalene	1,840	20.0	2,000	0	92.0	57.2	115				
1-Methylnaphthalene	1,920	20.0	2,000	0	95.9	55.9	114				
Acenaphthene	1,850	20.0	2,000	0	92.6	55.4	118				
Acenaphthylene	2,010	20.0	2,000	0	101	55.2	117				
Phenanthrene	1,870	20.0	2,000	0	93.3	55.9	118				

Revision v1 Page 41 of 68





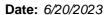
### **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: LCS-40586	SampType: LCS			Units: µg/Kg		Prep Da	te: 6/7/202	23	RunNo: 845	521	
Client ID: LCSS	Batch ID: 40586					Analysis Da	te: <b>6/7/202</b>	23	SeqNo: <b>176</b>	64447	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	1,920	20.0	2,000	0	96.1	57.2	119				
Anthracene	1,890	20.0	2,000	0	94.7	55.3	120				
Fluoranthene	1,920	20.0	2,000	0	96.2	56.7	123				
Pyrene	1,930	40.0	2,000	0	96.6	57.6	123				
Benz(a)anthracene	1,950	20.0	2,000	0	97.4	59.8	131				
Chrysene	1,880	20.0	2,000	0	93.8	54.1	116				
Benzo(b)fluoranthene	1,870	25.0	2,000	0	93.7	56.7	123				
Benzo(k)fluoranthene	1,800	25.0	2,000	0	90.2	54.9	119				
Benzo(a)pyrene	1,870	30.0	2,000	0	93.7	54.7	121				
Indeno(1,2,3-cd)pyrene	1,880	40.0	2,000	0	93.9	57.1	119				
Dibenz(a,h)anthracene	1,880	50.0	2,000	0	93.8	57.2	117				
Benzo(g,h,i)perylene	1,850	50.0	2,000	0	92.4	52.9	115				
Surr: 2-Fluorobiphenyl	917		1,000		91.7	23.8	147				
Surr: Terphenyl-d14 (surr)	930		1,000		93.0	28.6	155				
						Duan Da		12	Devide 04		
Sample ID: 2306083-001AMS	SampType: MS			Units: µg/Kg-	dry	Prep Da	te: 6/7/202	<u> </u>	RunNo: <b>84</b> 5	21	
Sample ID: 2306083-001AMS  Client ID: AG-1	SampType: MS Batch ID: 40586			Units: µg/Kg-	-	Analysis Da			SeqNo: 176		
		RL	SPK value	Units: µg/Kg-	-	Analysis Da	te: <b>6/8/202</b>				Qual
Client ID: AG-1	Batch ID: 40586	RL 21.3	SPK value			Analysis Da	te: <b>6/8/202</b>	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte	Batch ID: 40586 Result			SPK Ref Val	%REC	Analysis Da	te: 6/8/202 HighLimit	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte Naphthalene	Batch ID: 40586  Result  2,010	21.3	2,131	SPK Ref Val	%REC 94.3	Analysis Da LowLimit 46.1	te: <b>6/8/202</b> HighLimit 106	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte Naphthalene 2-Methylnaphthalene	Batch ID: 40586  Result  2,010 1,960	21.3 21.3	2,131 2,131	SPK Ref Val  0 0	%REC 94.3 91.8	Analysis Da LowLimit 46.1 45.7	te: <b>6/8/202</b> HighLimit 106 105	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte  Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene	Batch ID: 40586  Result  2,010 1,960 2,050	21.3 21.3 21.3	2,131 2,131 2,131	SPK Ref Val  0 0 0	%REC 94.3 91.8 96.1	Analysis Da LowLimit 46.1 45.7 45.1	te: <b>6/8/202</b> HighLimit 106 105	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte  Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene Acenaphthene	Batch ID: 40586  Result  2,010 1,960 2,050 1,980	21.3 21.3 21.3 21.3	2,131 2,131 2,131 2,131	SPK Ref Val  0 0 0 0	%REC 94.3 91.8 96.1 92.7	Analysis Da LowLimit 46.1 45.7 45.1 42.2	HighLimit 106 105 105 109	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte  Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene Acenaphthene Acenaphthylene	Batch ID: 40586  Result  2,010 1,960 2,050 1,980 2,120	21.3 21.3 21.3 21.3 21.3	2,131 2,131 2,131 2,131 2,131	SPK Ref Val  0 0 0 0 0 0	%REC 94.3 91.8 96.1 92.7 99.5	Analysis Da LowLimit 46.1 45.7 45.1 42.2 44	HighLimit  106 105 109 108	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte  Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene Acenaphthene Acenaphthylene Phenanthrene	Batch ID: 40586  Result  2,010 1,960 2,050 1,980 2,120 1,980	21.3 21.3 21.3 21.3 21.3 21.3	2,131 2,131 2,131 2,131 2,131 2,131	SPK Ref Val  0 0 0 0 0 0 0 0	%REC 94.3 91.8 96.1 92.7 99.5 93.0	Analysis Da LowLimit 46.1 45.7 45.1 42.2 44 41.3	te: 6/8/202 HighLimit 106 105 105 109 108 110	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte  Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene Acenaphthene Acenaphthylene Phenanthrene Fluorene	Batch ID: 40586  Result  2,010 1,960 2,050 1,980 2,120 1,980 2,020	21.3 21.3 21.3 21.3 21.3 21.3 21.3	2,131 2,131 2,131 2,131 2,131 2,131 2,131	SPK Ref Val  0 0 0 0 0 0 0 0	%REC 94.3 91.8 96.1 92.7 99.5 93.0 94.6	Analysis Da LowLimit 46.1 45.7 45.1 42.2 44 41.3 44.8	HighLimit  106 105 109 108 110 111	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte  Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene Acenaphthene Acenaphthylene Phenanthrene Fluorene Anthracene	Batch ID: 40586  Result  2,010 1,960 2,050 1,980 2,120 1,980 2,020 2,000	21.3 21.3 21.3 21.3 21.3 21.3 21.3 21.3	2,131 2,131 2,131 2,131 2,131 2,131 2,131 2,131	SPK Ref Val  0 0 0 0 0 0 0 0 0 0	%REC 94.3 91.8 96.1 92.7 99.5 93.0 94.6 93.7	Analysis Da LowLimit 46.1 45.7 45.1 42.2 44 41.3 44.8 41	te: 6/8/202 HighLimit 106 105 109 108 110 111 113	23	SeqNo: 176	64449	Qual
Client ID: AG-1 Analyte  Naphthalene 2-Methylnaphthalene 1-Methylnaphthalene Acenaphthene Acenaphthylene Phenanthrene Fluorene Anthracene Fluoranthene	Batch ID: 40586  Result  2,010 1,960 2,050 1,980 2,120 1,980 2,020 2,000 2,030	21.3 21.3 21.3 21.3 21.3 21.3 21.3 21.3	2,131 2,131 2,131 2,131 2,131 2,131 2,131 2,131 2,131	SPK Ref Val  0 0 0 0 0 0 0 0 0 0 0 0	%REC 94.3 91.8 96.1 92.7 99.5 93.0 94.6 93.7 95.1	Analysis Da LowLimit 46.1 45.7 45.1 42.2 44 41.3 44.8 41 43.8	te: 6/8/202 HighLimit 106 105 109 108 110 111 113	23	SeqNo: 176	64449	Qual

Revision v1 Page 42 of 68





### **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2306083-001AMS	SampType: MS			Units: µg/Kg-dry Prep Date: 6/7/2023			3	RunNo: 84	521		
Client ID: AG-1	Batch ID: 40586				Analysis Date: 6/8/2023				SeqNo: <b>176</b>	64449	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(b)fluoranthene	2,040	26.6	2,131	0	95.8	42.7	117				
Benzo(k)fluoranthene	1,880	26.6	2,131	0	88.3	39.4	112				
Benzo(a)pyrene	2,020	32.0	2,131	0	94.9	39.8	111				
Indeno(1,2,3-cd)pyrene	2,060	42.6	2,131	0	96.5	36.6	111				
Dibenz(a,h)anthracene	2,040	53.3	2,131	0	96.0	38.5	106				
Benzo(g,h,i)perylene	2,030	53.3	2,131	0	95.2	28.8	109				
Surr: 2-Fluorobiphenyl	961		1,065		90.2	23.8	147				
Surr: Terphenyl-d14 (surr)	958		1,065		89.9	28.6	155				

Sample ID: 2306083-001AMSD	SampType: MSD			Units: µg/K	g-dry	Prep Da	te: <b>6/7/202</b>	3	RunNo: 845	521	
Client ID: AG-1	Batch ID: 40586					Analysis Da	te: <b>6/8/202</b>	3	SeqNo: <b>176</b>	4450	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	2,000	21.0	2,101	0	95.0	46.1	106	2,010	0.679	30	
2-Methylnaphthalene	1,950	21.0	2,101	0	92.7	45.7	105	1,957	0.487	30	
1-Methylnaphthalene	2,030	21.0	2,101	0	96.8	45.1	105	2,047	0.632	30	
Acenaphthene	1,970	21.0	2,101	0	93.7	42.2	109	1,976	0.366	30	
Acenaphthylene	2,120	21.0	2,101	0	101	44	108	2,120	0.226	30	
Phenanthrene	1,960	21.0	2,101	0	93.4	41.3	110	1,981	1.01	30	
Fluorene	2,020	21.0	2,101	0	96.4	44.8	111	2,017	0.388	30	
Anthracene	1,990	21.0	2,101	0	94.5	41	113	1,996	0.518	30	
Fluoranthene	2,030	21.0	2,101	0	96.7	43.8	115	2,027	0.161	30	
Pyrene	2,020	42.0	2,101	0	96.0	44.3	112	2,014	0.176	30	
Benz(a)anthracene	2,040	21.0	2,101	0	97.0	47.4	115	2,006	1.55	30	
Chrysene	1,990	21.0	2,101	0	94.8	41.5	108	1,977	0.762	30	
Benzo(b)fluoranthene	2,020	26.3	2,101	0	96.2	42.7	117	2,042	0.984	30	
Benzo(k)fluoranthene	1,850	26.3	2,101	0	88.3	39.4	112	1,882	1.44	30	
Benzo(a)pyrene	1,980	31.5	2,101	0	94.5	39.8	111	2,022	1.88	30	
Indeno(1,2,3-cd)pyrene	2,000	42.0	2,101	0	95.0	36.6	111	2,057	3.01	30	
Dibenz(a,h)anthracene	1,980	52.5	2,101	0	94.5	38.5	106	2,045	2.96	30	
Benzo(g,h,i)perylene	1,960	52.5	2,101	0	93.3	28.8	109	2,030	3.49	30	

Revision v1 Page 43 of 68



Work Order: 2306083

Project:

### **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2306083-001AMSD	SampType: MSD	Units: µg/Kg-dry			-dry	Prep Da	te: <b>6/7/202</b>	3	RunNo: <b>84521</b>		
Client ID: AG-1	Batch ID: 40586			Analysis Date: 6/8/2023					SeqNo: <b>1764450</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2-Fluorobiphenyl	958		1,050		91.2	23.8	147		0		
Surr: Terphenyl-d14 (surr)	961		1,050		91.4	28.6	155		0		

Revision v1 Page 44 of 68



Work Order: 2306083

Project:

### **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

#### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: MB-40704	SampType: MBLK					23	RunNo: 847	787			
Client ID: MBLKW	Batch ID: 40704					Analysis Dat	te: <b>6/19/20</b>	23	SeqNo: <b>176</b>	69349	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	ND	0.0800									
Chrysene	ND	0.0800									
Benzo(b)fluoranthene	ND	0.0800									
Benzo(k)fluoranthene	ND	0.0800									
Benzo(a)pyrene	ND	0.0800									
Indeno(1,2,3-cd)pyrene	ND	0.0800									
Dibenz(a,h)anthracene	ND	0.0800									
Surr: 2,4,6-Tribromophenol	4.97		4.000		124	31.3	143				
Surr: 2-Fluorobiphenyl	2.30		2.000		115	31.1	114				S
Surr: Terphenyl-d14	2.90		2.000		145	32	137				S
NOTES:											

S - Outlying surrogate recovery(ies) observed (high bias). Sample is non-detect; result meets QC requirements.

Sample ID: LCS-40704	SampType: LCS					Prep Da	te: <b>6/20/20</b>	)23	RunNo: 84	787	
Client ID: LCSW	Batch ID: 40704					Analysis Da	te: <b>6/19/2</b> 0	)23	SeqNo: <b>17</b> 0	69350	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	3.42	0.0800	4.000	0	85.5	48	123				
Chrysene	3.40	0.0800	4.000	0	85.1	45.2	105				
Benzo(b)fluoranthene	3.46	0.0800	4.000	0	86.6	46.2	111				
Benzo(k)fluoranthene	3.31	0.0800	4.000	0	82.8	44.5	105				
Benzo(a)pyrene	3.28	0.0800	4.000	0	81.9	41.6	108				
Indeno(1,2,3-cd)pyrene	3.38	0.0800	4.000	0	84.6	39.2	105				
Dibenz(a,h)anthracene	3.28	0.0800	4.000	0	82.1	35.2	105				
Surr: 2,4,6-Tribromophenol	5.18		4.000		129	31.3	143				
Surr: 2-Fluorobiphenyl	2.41		2.000		121	31.1	114				S
Surr: Terphenyl-d14	2.76		2.000		138	32	137				S
NOTES:											

NOTES:

Revision v1 Page 45 of 68

S - Outlying surrogate recovery(ies) observed.



Work Order: 2306083

Project:

### **QC SUMMARY REPORT**

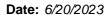
**CLIENT:** ESA Associates, Inc.

Mottis Property

### Polyaromatic Hydrocarbons by EPA Method 8270 (SIM)

Sample ID: 2306083-012CMS	SampType: MS			Units: µg/L				23	RunNo: <b>84787</b>		
Client ID: W-1	Batch ID: 40704				Analysis Date: 6/19/2023			23	SeqNo: <b>176</b>	9352	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benz(a)anthracene	3.23	0.0796	3.981	0	81.2	46.6	120				
Chrysene	3.14	0.0796	3.981	0	78.9	43.8	101				
Benzo(b)fluoranthene	2.85	0.0796	3.981	0	71.5	37.9	108				
Benzo(k)fluoranthene	2.35	0.0796	3.981	0	59.0	32.5	103				
Benzo(a)pyrene	2.51	0.0796	3.981	0	63.2	31.1	118				
Indeno(1,2,3-cd)pyrene	3.63	0.0796	3.981	0	91.1	22	105				
Dibenz(a,h)anthracene	3.30	0.0796	3.981	0	82.8	13.7	110				
Surr: 2-Fluorobiphenyl	1.64		1.991		82.4	31.1	114				
Surr: Terphenyl-d14	1.62		1.991		81.4	32	137				

Revision v1 Page 46 of 68





Project:

### **QC SUMMARY REPORT**

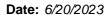
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: <b>MB-40576</b>	SampType: MBLK			Units: µg/L		Prep Da	ite: 6/6/202	23	RunNo: 847	702	
Client ID: MBLKW	Batch ID: 40576					Analysis Da	ate: <b>6/7/20</b> 2	23	SeqNo: <b>17</b> (	67775	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	0.300									
2-Chlorophenol	ND	0.300									
1,3-Dichlorobenzene	ND	0.100									
1,4-Dichlorobenzene	ND	0.100									
1,2-Dichlorobenzene	ND	0.100									
Benzyl alcohol	ND	3.00									Q
Bis(2-chloroethyl) ether	ND	0.400									
2-Methylphenol (o-cresol)	ND	0.200									
Hexachloroethane	ND	0.150									
N-nitrosodipropylamine	ND	0.300									
3&4-Methylphenol (m, p-cresol)	ND	1.00									
Nitrobenzene	ND	0.500									
Isophorone	ND	0.300									
2-Nitrophenol	ND	0.300									
2,4-Dimethylphenol	ND	0.150									
Bis(2-chloroethoxy)methane	ND	0.100									
2,4-Dichlorophenol	ND	0.150									
1,2,4-Trichlorobenzene	ND	0.100									
Naphthalene	ND	0.100									
4-Chloroaniline	ND	0.100									
Hexachlorobutadiene	ND	0.150									
4-Chloro-3-methylphenol	ND	0.200									
2-Methylnaphthalene	ND	0.100									
1-Methylnaphthalene	ND	0.100									
Hexachlorocyclopentadiene	ND	0.250									
2,4,6-Trichlorophenol	ND	0.200									
2,4,5-Trichlorophenol	ND	0.200									
2-Chloronaphthalene	ND	0.100									
2-Nitroaniline	ND	0.150									
Acenaphthene	ND	0.100									
Dimethyl phthalate	ND	1.20									
2,6-Dinitrotoluene	ND	0.150									
											47

Revision v1 Page 47 of 68





Project:

### **QC SUMMARY REPORT**

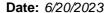
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: <b>MB-40576</b>	SampType: MBLK	Units: μg/L Prep Date: 6/6/2023				23	RunNo: <b>847</b>	702			
Client ID: MBLKW	Batch ID: 40576					Analysis Da	ite: 6/7/202	23	SeqNo: <b>176</b>	67775	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthylene	ND	0.100									
2,4-Dinitrophenol	ND	1.50									
Dibenzofuran	ND	0.100									
2,4-Dinitrotoluene	ND	0.100									
4-Nitrophenol	ND	1.00									
Fluorene	ND	0.100									
4-Chlorophenyl phenyl ether	ND	0.100									
Diethyl phthalate	ND	0.500									
4,6-Dinitro-2-methylphenol	ND	2.50									
4-Bromophenyl phenyl ether	ND	0.200									
Hexachlorobenzene	ND	0.200									
Pentachlorophenol	ND	0.600									
Phenanthrene	ND	0.200									
Anthracene	ND	0.100									
Carbazole	ND	0.200									
Di-n-butyl phthalate	ND	2.00									
Fluoranthene	ND	0.200									
Pyrene	ND	0.400									
Butyl benzyl phthalate	ND	0.300									
bis(2-Ethylhexyl)adipate	ND	0.750									
Benz(a)anthracene	ND	0.150									
Chrysene	ND	0.150									
Bis(2-ethylhexyl) phthalate	ND	1.00									
Di-n-octyl phthalate	ND	0.300									
Benzo(b)fluoranthene	ND	0.200									
Benzo(k)fluoranthene	ND	0.200									
Benzo(a)pyrene	ND	0.150									
Indeno(1,2,3-cd)pyrene	ND	0.200									
Dibenz(a,h)anthracene	ND	1.10									
Benzo(g,h,i)perylene	ND	1.00									
Surr: 2,4,6-Tribromophenol	3.52		4.000		88.1	24.4	158				
Surr: 2-Fluorobiphenyl	1.81		2.000		90.6	32.7	137				

Revision v1 Page 48 of 68





### **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

### Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: <b>MB-40576</b>	SampType: MBLK			Units: µg/L		Prep Da	te: <b>6/6/202</b>	23	RunNo: 847	702	
Client ID: MBLKW	Batch ID: 40576	Analysis Date					te: <b>6/7/202</b>	23	SeqNo: 176	67775	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	1.62		2.000		81.1	24.4	139				
Surr: Phenol-d6	0.847		4.000		21.2	5	59				
Surr: p-Terphenyl	2.16		2.000		108	31.5	153				
NOTES.											

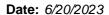
NOTES:

Project:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: LCS-40576	SampType: LCS			Units: µg/L		Prep Da	te: <b>6/6/202</b>	3	RunNo: <b>847</b>	02	
Client ID: LCSW	Batch ID: 40576					Analysis Da	te: <b>6/7/202</b>	3	SeqNo: <b>176</b>	7776	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	0.672	0.300	4.000	0	16.8	5.84	46				
2-Chlorophenol	2.07	0.300	4.000	0	51.8	8.92	101				
1,3-Dichlorobenzene	2.34	0.100	4.000	0	58.5	16.1	95.4				
1,4-Dichlorobenzene	2.45	0.100	4.000	0	61.3	15.1	99.3				
1,2-Dichlorobenzene	2.41	0.100	4.000	0	60.2	34.8	88.2				
Benzyl alcohol	0.380	3.00	4.000	0	9.50	5	95.7				
Bis(2-chloroethyl) ether	2.77	0.400	4.000	0	69.2	16.4	105				
2-Methylphenol (o-cresol)	1.73	0.200	4.000	0	43.4	5.58	95.5				
Hexachloroethane	2.37	0.150	4.000	0	59.2	12.3	98.2				
N-nitrosodipropylamine	2.79	0.300	4.000	0	69.8	18.8	111				
3&4-Methylphenol (m, p-cresol)	1.84	1.00	4.000	0	46.0	6.02	84.1				
Nitrobenzene	2.80	0.500	4.000	0	70.0	19.1	113				
Isophorone	3.05	0.300	4.000	0	76.3	22.9	117				
2-Nitrophenol	2.60	0.300	4.000	0	65.0	16.4	119				
2,4-Dimethylphenol	2.13	0.150	4.000	0	53.4	8.19	108				
Bis(2-chloroethoxy)methane	2.90	0.100	4.000	0	72.4	20	109				
2,4-Dichlorophenol	2.65	0.150	4.000	0	66.3	22.1	117				
1,2,4-Trichlorobenzene	2.56	0.100	4.000	0	64.1	21.9	102				
Naphthalene	2.69	0.100	4.000	0	67.1	22.4	104				
4-Chloroaniline	2.72	0.100	4.000	0	67.9	12	108				
Hexachlorobutadiene	2.47	0.150	4.000	0	61.7	16.6	101				
4-Chloro-3-methylphenol	3.23	0.200	4.000	0	80.8	18.3	120				

Revision v1 Page 49 of 68





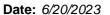
### **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-40576	SampType: LCS			Units: µg/L		Prep Da	te: <b>6/6/202</b>	RunNo: <b>84702</b>			
Client ID: LCSW	Batch ID: 40576					Analysis Dat	te: <b>6/7/202</b>	3	SeqNo: <b>176</b>	7776	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	2.68	0.100	4.000	0	67.0	23.3	108				
1-Methylnaphthalene	2.90	0.100	4.000	0	72.6	24	106				
Hexachlorocyclopentadiene	2.08	0.250	4.000	0	51.9	5	116				
2,4,6-Trichlorophenol	2.94	0.200	4.000	0	73.5	25.5	118				
2,4,5-Trichlorophenol	2.81	0.200	4.000	0	70.3	23	124				
2-Chloronaphthalene	2.81	0.100	4.000	0	70.3	23.5	107				
2-Nitroaniline	3.27	0.150	4.000	0	81.7	24.8	126				
Acenaphthene	2.98	0.100	4.000	0	74.6	28.2	111				
Dimethyl phthalate	3.42	1.20	4.000	0	85.4	36.5	117				
2,6-Dinitrotoluene	3.40	0.150	4.000	0	85.0	30.9	123				
Acenaphthylene	3.17	0.100	4.000	0	79.1	28	109				
2,4-Dinitrophenol	1.39	1.50	8.000	0	17.4	5	138				
Dibenzofuran	2.96	0.100	4.000	0	74.1	27.6	110				
2,4-Dinitrotoluene	3.24	0.100	4.000	0	81.1	29.1	128				
4-Nitrophenol	1.20	1.00	4.000	0	30.1	5	74.6				
Fluorene	3.11	0.100	4.000	0	77.7	28	113				
4-Chlorophenyl phenyl ether	3.08	0.100	4.000	0	77.1	29.2	112				
Diethyl phthalate	3.29	0.500	4.000	0	82.2	30.7	118				
4,6-Dinitro-2-methylphenol	1.61	2.50	4.000	0	40.2	7.46	136				
4-Bromophenyl phenyl ether	3.13	0.200	4.000	0	78.3	30	116				
Hexachlorobenzene	3.01	0.200	4.000	0	75.2	29.3	116				
Pentachlorophenol	2.36	0.600	4.000	0	59.1	5	133				
Phenanthrene	3.33	0.200	4.000	0	83.3	31	116				
Anthracene	3.08	0.100	4.000	0	76.9	27.2	114				
Carbazole	3.47	0.200	4.000	0	86.9	35.2	124				
Di-n-butyl phthalate	3.60	2.00	4.000	0	90.0	36.9	131				
Fluoranthene	3.37	0.200	4.000	0	84.4	32.5	122				
Pyrene	3.34	0.400	4.000	0	83.6	32.3	122				
Butyl benzyl phthalate	3.38	0.300	4.000	0	84.5	40	131				
bis(2-Ethylhexyl)adipate	3.22	0.750	4.000	0	80.5	34.2	126				
Benz(a)anthracene	3.31	0.150	4.000	0	82.7	24.5	140				
Chrysene	3.40	0.150	4.000	0	85.0	35.8	115				

Revision v1 Page 50 of 68





### **QC SUMMARY REPORT**

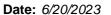
CLIENT: ESA Associates, Inc.
Project: Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: LCS-40576	SampType: <b>LCS</b>			,					RunNo: 847	RunNo: <b>84702</b>			
Client ID: LCSW	Batch ID: 40576					Analysis Da	te: <b>6/7/202</b>	23	SeqNo: <b>176</b>	67776			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Bis(2-ethylhexyl) phthalate	3.38	1.00	4.000	0	84.4	28.5	129						
Di-n-octyl phthalate	3.26	0.300	4.000	0	81.6	32.1	133						
Benzo(b)fluoranthene	3.35	0.200	4.000	0	83.8	39.6	122						
Benzo(k)fluoranthene	3.36	0.200	4.000	0	84.1	46	111						
Benzo(a)pyrene	3.25	0.150	4.000	0	81.1	29.9	117						
Indeno(1,2,3-cd)pyrene	3.47	0.200	4.000	0	86.9	31.7	137						
Dibenz(a,h)anthracene	3.53	1.10	4.000	0	88.4	38.1	130						
Benzo(g,h,i)perylene	3.21	1.00	4.000	0	80.3	25.2	131						
Surr: 2,4,6-Tribromophenol	3.69		4.000		92.1	24.4	158						
Surr: 2-Fluorobiphenyl	1.71		2.000		85.5	32.7	137						
Surr: Nitrobenzene-d5	1.59		2.000		79.7	24.4	139						
Surr: Phenol-d6	0.912		4.000		22.8	5	59						
Surr: p-Terphenyl	2.03		2.000		101	31.5	153						

Sample ID: 2306055-001BDUP	SampType: <b>DUP</b>			Units: µg/L		Prep Da	te: 6/6/202	23	RunNo: <b>84702</b>		
Client ID: BATCH	Batch ID: 40576					Analysis Da	ite: 6/7/202	23	SeqNo: <b>17</b> 0	67778	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	ND	0.297						0		50	
2-Chlorophenol	ND	0.297						0		50	
1,3-Dichlorobenzene	ND	0.0990						0		50	
1,4-Dichlorobenzene	ND	0.0990						0		50	
1,2-Dichlorobenzene	ND	0.0990						0		50	
Benzyl alcohol	ND	2.97						0		50	Q
Bis(2-chloroethyl) ether	ND	0.396						0		50	
2-Methylphenol (o-cresol)	ND	0.198						0		50	
Hexachloroethane	ND	0.148						0		50	
N-nitrosodipropylamine	ND	0.297						0		50	
3&4-Methylphenol (m, p-cresol)	ND	0.990						0		50	
Nitrobenzene	ND	0.495						0		50	
Isophorone	ND	0.297						0		50	

Revision v1 Page 51 of 68





Project:

### **QC SUMMARY REPORT**

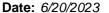
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: <b>2306055-001BDUP</b>	SampType: <b>DUP</b>			Units: µg/L		Prep Da	te: <b>6/6/202</b>	23	RunNo: 847	702	
Client ID: BATCH	Batch ID: 40576					Analysis Da	te: <b>6/7/202</b>	23	SeqNo: <b>176</b>	67778	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Nitrophenol	ND	0.297						0		50	
2,4-Dimethylphenol	ND	0.148						0		50	
Bis(2-chloroethoxy)methane	ND	0.0990						0		50	
2,4-Dichlorophenol	ND	0.148						0		50	
1,2,4-Trichlorobenzene	ND	0.0990						0		50	
Naphthalene	ND	0.0990						0		50	
4-Chloroaniline	ND	0.0990						0		50	
Hexachlorobutadiene	ND	0.148						0		50	
4-Chloro-3-methylphenol	ND	0.198						0		50	
2-Methylnaphthalene	ND	0.0990						0		50	
1-Methylnaphthalene	ND	0.0990						0		50	
Hexachlorocyclopentadiene	ND	0.247						0		50	
2,4,6-Trichlorophenol	ND	0.198						0		50	
2,4,5-Trichlorophenol	ND	0.198						0		50	
2-Chloronaphthalene	ND	0.0990						0		50	
2-Nitroaniline	ND	0.148						0		50	
Acenaphthene	ND	0.0990						0		50	
Dimethyl phthalate	ND	1.19						0		50	
2,6-Dinitrotoluene	ND	0.148						0		50	
Acenaphthylene	ND	0.0990						0		50	
2,4-Dinitrophenol	ND	1.48						0		50	
Dibenzofuran	ND	0.0990						0		50	
2,4-Dinitrotoluene	ND	0.0990						0		50	
4-Nitrophenol	ND	0.990						0		50	
Fluorene	ND	0.0990						0		50	
4-Chlorophenyl phenyl ether	ND	0.0990						0		50	
Diethyl phthalate	ND	0.495						0		50	
4,6-Dinitro-2-methylphenol	ND	2.47						0		50	
4-Bromophenyl phenyl ether	ND	0.198						0		50	
Hexachlorobenzene	ND	0.198						0		50	
Pentachlorophenol	ND	0.594						0		50	
Phenanthrene	ND	0.198						0		50	

Revision v1 Page 52 of 68





Project:

### **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

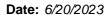
### Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2306055-001BDUP	SampType: <b>DUP</b>			Units: µg/L		Prep Dat	e: <b>6/6/202</b>	23	RunNo: 847	702	
Client ID: BATCH	Batch ID: 40576					Analysis Dat	e: <b>6/7/202</b>	23	SeqNo: <b>176</b>	67778	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Anthracene	ND	0.0990						0		50	
Carbazole	ND	0.198						0		50	
Di-n-butyl phthalate	ND	1.98						0		50	
Fluoranthene	ND	0.198						0		50	
Pyrene	ND	0.396						0		50	
Butyl benzyl phthalate	ND	0.297						0		50	
bis(2-Ethylhexyl)adipate	ND	0.742						0		50	
Benz(a)anthracene	ND	0.148						0		50	
Chrysene	ND	0.148						0		50	
Bis(2-ethylhexyl) phthalate	ND	0.990						0		50	
Di-n-octyl phthalate	ND	0.297						0		50	
Benzo(b)fluoranthene	ND	0.198						0		50	
Benzo(k)fluoranthene	ND	0.198						0		50	
Benzo(a)pyrene	ND	0.148						0		50	
Indeno(1,2,3-cd)pyrene	ND	0.198						0		50	
Dibenz(a,h)anthracene	ND	1.09						0		50	
Benzo(g,h,i)perylene	ND	0.990						0		50	
Surr: 2,4,6-Tribromophenol	2.70		3.959		68.2	24.4	158		0		
Surr: 2-Fluorobiphenyl	1.71		1.980		86.1	32.7	137		0		
Surr: Nitrobenzene-d5	1.59		1.980		80.5	24.4	139		0		
Surr: Phenol-d6	0.811		3.959		20.5	5	59		0		
Surr: p-Terphenyl	1.45		1.980		73.4	31.5	153		0		
NOTES:											

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2306083-012CMS	SampType: MS Units: µ					Prep Da	te: <b>6/7/202</b>	23	RunNo: <b>84702</b>		
Client ID: W-1	Batch ID: 40576					Analysis Da	te: <b>6/9/202</b>	SeqNo: <b>1767782</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	0.627	0.299	3.981	0	15.7	5	56.3				
2-Chlorophenol	2.07	0.299	3.981	0	52.1	6.57	101				
1,3-Dichlorobenzene	2.45	0.0995	3.981	0	61.6	6.89	109				

Revision v1 Page 53 of 68





Project:

### **QC SUMMARY REPORT**

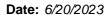
**CLIENT:** ESA Associates, Inc.

Mottis Property

# Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2306083-012CMS	SampType: MS			Units: µg/L		Prep Dat	te: <b>6/7/202</b>	:3	RunNo: <b>84702</b>			
Client ID: W-1	Batch ID: 40576					Analysis Dat	te: <b>6/9/202</b>	3	SeqNo: <b>176</b>	37782		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,4-Dichlorobenzene	2.58	0.0995	3.981	0	64.9	5.92	112					
1,2-Dichlorobenzene	2.64	0.0995	3.981	0	66.3	30.1	101					
Benzyl alcohol	0.136	2.99	3.981	0	3.41	5	116				S	
Bis(2-chloroethyl) ether	2.83	0.398	3.981	0	71.1	5.18	119					
2-Methylphenol (o-cresol)	1.59	0.199	3.981	0	39.8	5	108					
Hexachloroethane	2.43	0.149	3.981	0	61.0	8.4	108					
N-nitrosodipropylamine	3.24	0.299	3.981	0	81.3	10.7	131					
3&4-Methylphenol (m, p-cresol)	1.79	0.995	3.981	0	45.0	5	105					
Nitrobenzene	3.74	0.498	3.981	0	94.1	8.88	146					
Isophorone	3.31	0.299	3.981	0	83.0	14.1	131					
2-Nitrophenol	4.40	0.299	3.981	0	110	19.3	130					
2,4-Dimethylphenol	2.32	0.149	3.981	0	58.2	5	124					
Bis(2-chloroethoxy)methane	3.06	0.0995	3.981	0	77.0	7.7	130					
2,4-Dichlorophenol	2.85	0.149	3.981	0	71.5	12.6	126					
1,2,4-Trichlorobenzene	2.82	0.0995	3.981	0	70.9	9.25	115					
Naphthalene	3.06	0.0995	3.981	0	77.0	9.54	119					
4-Chloroaniline	0.724	0.0995	3.981	0	18.2	5	86.7					
Hexachlorobutadiene	2.96	0.149	3.981	0	74.4	5.13	114					
4-Chloro-3-methylphenol	3.85	0.199	3.981	0	96.6	10.1	131					
2-Methylnaphthalene	3.06	0.0995	3.981	0	77.0	11.4	123					
1-Methylnaphthalene	3.28	0.0995	3.981	0	82.4	6.35	126					
Hexachlorocyclopentadiene	1.01	0.249	3.981	0	25.4	5	123					
2,4,6-Trichlorophenol	2.93	0.199	3.981	0	73.5	13.2	129					
2,4,5-Trichlorophenol	3.38	0.199	3.981	0	84.8	17.4	136					
2-Chloronaphthalene	3.15	0.0995	3.981	0	79.1	11.9	127					
2-Nitroaniline	2.14	0.149	3.981	0	53.7	5	133					
Acenaphthene	3.35	0.0995	3.981	0	84.0	9.46	128					
Dimethyl phthalate	3.74	1.19	3.981	0	94.0	13.7	144					
2,6-Dinitrotoluene	3.69	0.149	3.981	0	92.8	17.5	142					
Acenaphthylene	1.64	0.0995	3.981	0	41.3	10.1	125					
2,4-Dinitrophenol	6.00	1.49	7.962	0	75.3	6.89	125					
Dibenzofuran	3.29	0.0995	3.981	0.05598	81.1	9.22	132					

Revision v1 Page 54 of 68





## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

## Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2306083-012CMS	SampType: MS			Units: µg/L		Prep Dat	te: <b>6/7/202</b>	:3	RunNo: 847	702	
Client ID: W-1	Batch ID: 40576					Analysis Da	te: <b>6/9/202</b>	3	SeqNo: 170	67782	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	3.77	0.0995	3.981	0	94.7	13.5	144				
4-Nitrophenol	1.43	0.995	3.981	0	36.0	5	98.5				
Fluorene	3.36	0.0995	3.981	0	84.3	9.89	133				
4-Chlorophenyl phenyl ether	3.40	0.0995	3.981	0	85.4	11.1	135				
Diethyl phthalate	3.71	0.498	3.981	0	93.3	14.6	138				
4,6-Dinitro-2-methylphenol	3.01	2.49	3.981	0	75.6	12.3	142				
4-Bromophenyl phenyl ether	3.29	0.199	3.981	0	82.7	10.7	138				
Hexachlorobenzene	3.15	0.199	3.981	0	79.2	9.12	134				
Pentachlorophenol	3.05	0.597	3.981	0	76.7	5	143				
Phenanthrene	3.35	0.199	3.981	0	84.0	8.86	133				
Anthracene	3.17	0.0995	3.981	0	79.7	7.01	126				
Carbazole	3.43	0.199	3.981	0.6294	70.4	10.5	144				
Di-n-butyl phthalate	3.83	1.99	3.981	0	96.3	15.1	146				
Fluoranthene	3.35	0.199	3.981	0	84.2	10.5	138				
Pyrene	3.32	0.398	3.981	0	83.4	10.7	134				
Butyl benzyl phthalate	3.16	0.299	3.981	0	79.3	19.9	151				
bis(2-Ethylhexyl)adipate	1.77	0.746	3.981	0	44.3	14.4	132				
Benz(a)anthracene	2.94	0.149	3.981	0	73.7	6.64	133				
Chrysene	3.01	0.149	3.981	0	75.7	6.28	135				
Bis(2-ethylhexyl) phthalate	1.91	0.995	3.981	0	47.9	5	130				
Di-n-octyl phthalate	1.72	0.299	3.981	0	43.1	7.17	137				
Benzo(b)fluoranthene	2.78	0.199	3.981	0	69.8	24	136				
Benzo(k)fluoranthene	2.41	0.199	3.981	0	60.6	20.9	141				
Benzo(a)pyrene	2.58	0.149	3.981	0	64.7	5	132				
Indeno(1,2,3-cd)pyrene	3.96	0.199	3.981	0	99.4	6.53	133				
Dibenz(a,h)anthracene	3.97	1.09	3.981	0	99.7	13.7	133				
Benzo(g,h,i)perylene	3.63	0.995	3.981	0	91.2	7.26	127				
Surr: 2,4,6-Tribromophenol	2.11		3.981	-	52.9	24.4	158				
Surr: 2-Fluorobiphenyl	1.20		1.991		60.3	32.7	137				
Surr: Nitrobenzene-d5	1.05		1.991		52.8	24.4	139				
Surr: Phenol-d6	0.617		3.981		15.5	5	59				
Surr: p-Terphenyl	1.08		1.991		54.4	31.5	153				

Revision v1 Page 55 of 68

Date: 6/20/2023



Work Order: 2306083

**QC SUMMARY REPORT** 

**CLIENT:** ESA Associates, Inc.

Mottis Property

Semivolatile Organic Compounds by EPA Method 8270E

Sample ID: 2306083-012CMS SampType: MS Units: μg/L Prep Date: 6/7/2023 RunNo: 84702

Client ID: W-1 Batch ID: 40576 Analysis Date: 6/9/2023 SeqNo: 1767782

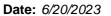
Analyte Result RL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

#### NOTES:

Project:

S - Outlying spike recoveries were associated with this sample.

Revision v1 Page 56 of 68





## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

Project: Wollis Proper	ıy							•			
Sample ID: LCS-40594	SampType: LCS			Units: µg/L		Prep Dat	e: <b>6/8/202</b>	3	RunNo: 84	564	
Client ID: LCSS	Batch ID: 40594					Analysis Dat	e: <b>6/8/202</b>	3	SeqNo: <b>17</b> 0	65377	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.976	0.0175	1.000	0	97.6	80	120				
Toluene	0.971	0.0300	1.000	0	97.1	80	120				
Ethylbenzene	0.979	0.0250	1.000	0	97.9	80	120				
m,p-Xylene	1.97	0.0500	2.000	0	98.4	80	120				
o-Xylene	0.957	0.0250	1.000	0	95.7	80	120				
Surr: Dibromofluoromethane	1.30		1.250		104	80	120				
Surr: Toluene-d8	1.31		1.250		105	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.19		1.250		95.2	80	120				
Sample ID: <b>MB-40594</b>	SampType: MBLK			Units: mg/Kg		Prep Dat	e: <b>6/8/202</b>	3	RunNo: 84	564	
Client ID: MBLKS	Batch ID: 40594					Analysis Dat	e: <b>6/8/202</b>	3	SeqNo: 170	65375	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0175									
Toluene	ND	0.0300									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.28		1.250		102	80	120				
Surr: Toluene-d8	1.29		1.250		103	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.25		1.250		100	80	120				
Sample ID: <b>2306083-006BDUP</b>	SampType: <b>DUP</b>			Units: mg/Kg-	dry	Prep Dat	e: <b>6/8/202</b>	3	RunNo: 84	564	
Client ID: BP-1	Batch ID: 40594					Analysis Dat	e: <b>6/8/202</b>	3	SeqNo: 170	65711	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.00627						0		30	
Toluene	ND	0.0108						0		30	
Eth. dh.a.a.a.a		0.00000						0		0.0	
Ethylbenzene	ND	0.00896						0		30	
m,p-Xylene	ND ND	0.00896						0		30	

Revision v1 Page 57 of 68

Date: 6/20/2023



Work Order: 2306083

## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

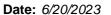
Sample ID: 2306083-006BDUP	SampType: <b>DUP</b>			Units: mg/l	Kg-dry	Prep Da	te: <b>6/8/202</b>	3	RunNo: 84	564	
Client ID: BP-1	Batch ID: 40594					Analysis Da	te: <b>6/8/202</b>	3	SeqNo: 176	55711	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.440		0.4480		98.3	80	120		0		
Surr: Toluene-d8	0.457		0.4480		102	80	120		0		
Surr: 1-Bromo-4-fluorobenzene	0.451		0.4480		101	80	120		0		

Sample ID: 2306046-001BMS	SampType: MS			Units: mg/k	<b>(</b> g-dry	Prep Da	te: <b>6/8/202</b>	3	RunNo: 845	564	
Client ID: BATCH	Batch ID: 40594					Analysis Da	te: <b>6/8/202</b>	3	SeqNo: <b>176</b>	55717	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.736	0.0191	1.090	0	67.5	72.5	137				S
Toluene	0.709	0.0327	1.090	0	65.1	76.2	133				S
Ethylbenzene	0.685	0.0273	1.090	0	62.8	74.4	135				S
m,p-Xylene	1.40	0.0545	2.181	0	64.1	76.2	131				S
o-Xylene	0.746	0.0273	1.090	0	68.4	75.7	134				S
Surr: Dibromofluoromethane	1.33		1.363		97.4	80	120				
Surr: Toluene-d8	1.41		1.363		104	80	120				
Surr: 1-Bromo-4-fluorobenzene	1.32		1.363		97.1	80	120				

#### NOTES:

Revision v1 Page 58 of 68

S - Outlying spike recoveries were associated with this sample.





Project:

## **QC SUMMARY REPORT**

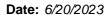
**CLIENT:** ESA Associates, Inc.

Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-40628	SampType: MBLK			Units: µg/L		Prep Da	te: <b>6/12/2</b> 0	)23	RunNo: 840	652	
Client ID: MBLKW	Batch ID: 40628					Analysis Da	te: <b>6/13/2</b> 0	23	SeqNo: <b>17</b> 0	67064	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.500									Q
Chloromethane	ND	0.750									Q
Vinyl chloride	ND	0.200									Q
Bromomethane	ND	3.00									Q
Trichlorofluoromethane (CFC-11)	ND	0.300									Q
Chloroethane	ND	1.00									Q
1,1-Dichloroethene	ND	0.500									Q
Acetone	ND	5.00									
Methylene chloride	ND	0.750									Q
trans-1,2-Dichloroethene	ND	0.350									Q
Methyl tert-butyl ether (MTBE)	ND	0.350									Q
1,1-Dichloroethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.500									
2-Butanone (MEK)	ND	1.50									
Chloroform	ND	0.500									
1,1,1-Trichloroethane (TCA)	ND	0.300									
1,1-Dichloropropene	ND	0.500									Q
Carbon tetrachloride	ND	0.300									Q
1,2-Dichloroethane (EDC)	ND	0.500									
Benzene	ND	0.440									Q
Trichloroethene (TCE)	ND	0.400									Q
1,2-Dichloropropane	ND	0.300									
Bromodichloromethane	ND	0.250									
Dibromomethane	ND	0.250									
cis-1,3-Dichloropropene	ND	0.350									
Toluene	ND	1.00									
trans-1,3-Dichloropropylene	ND	0.500									
Methyl Isobutyl Ketone (MIBK)	ND	1.00									
1,1,2-Trichloroethane	ND	0.250									
1,3-Dichloropropane	ND	0.300									
Tetrachloroethene (PCE)	ND	0.350									
Dibromochloromethane	ND	0.300									
											<b>50</b> (

Revision v1 Page 59 of 68





Project:

## **QC SUMMARY REPORT**

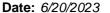
**CLIENT:** ESA Associates, Inc.

Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: <b>MB-40628</b>	SampType: MBLK			Units: µg/L		Prep Da	ate: <b>6/12/</b>	2023	RunNo: 846	652	
Client ID: MBLKW	Batch ID: 40628					Analysis Da	ate: <b>6/13/</b>	2023	SeqNo: <b>17</b> 6	67064	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLim	t RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	0.200									
2-Hexanone (MBK)	ND	1.25									
Chlorobenzene	ND	0.500									
1,1,1,2-Tetrachloroethane	ND	0.300									Q
Ethylbenzene	ND	0.400									
m,p-Xylene	ND	1.00									
o-Xylene	ND	0.500									
Styrene	ND	0.500									
Isopropylbenzene	ND	0.500									
Bromoform	ND	0.300									Q
1,1,2,2-Tetrachloroethane	ND	0.200									Q
n-Propylbenzene	ND	0.500									
Bromobenzene	ND	0.500									
1,3,5-Trimethylbenzene	ND	0.500									
2-Chlorotoluene	ND	0.500									
4-Chlorotoluene	ND	0.500									
tert-Butylbenzene	ND	0.500									
1,2,3-Trichloropropane	ND	0.400									Q
1,2,4-Trichlorobenzene	ND	0.750									
sec-Butylbenzene	ND	0.500									
4-Isopropyltoluene	ND	0.500									
1,3-Dichlorobenzene	ND	0.500									
1,4-Dichlorobenzene	ND	0.500									
n-Butylbenzene	ND	0.500									
1,2-Dichlorobenzene	ND	0.500									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2,4-Trimethylbenzene	ND	0.500									
Hexachloro-1,3-butadiene	ND	0.500									
Naphthalene	ND	1.25									
1,2,3-Trichlorobenzene	ND	0.700									
Surr: Dibromofluoromethane	25.8		25.00		103	80	12	)			
Surr: Toluene-d8	27.6		25.00		110	80	12	)			

Revision v1 Page 60 of 68





## **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: MB-40628	SampType: MBLK			Units: µg/L		Prep Da	te: <b>6/12/20</b>	23	RunNo: 846	552	
Client ID: MBLKW	Batch ID: 40628					Analysis Da	te: <b>6/13/20</b>	23	SeqNo: 176	67064	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	80	120				

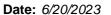
NOTES:

Project:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: 2306158-001ADUP	SampType: <b>DUP</b>			Units: µg/L		Prep Da	te: <b>6/12/2</b> 0	)23	RunNo: 846	552	•
Client ID: BATCH	Batch ID: 40628					Analysis Da	te: <b>6/13/2</b> 0	)23	SeqNo: <b>176</b>	67065	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	ND	0.500						0		30	Q
Chloromethane	ND	0.750						0		30	Q
Vinyl chloride	ND	0.200						0		30	Q
Bromomethane	ND	3.00						0		30	Q
Trichlorofluoromethane (CFC-11)	ND	0.300						0		30	Q
Chloroethane	ND	1.00						0		30	Q
1,1-Dichloroethene	ND	0.500						0		30	Q
Acetone	5.50	5.00						5.410	1.63	30	
Methylene chloride	ND	0.750						0		30	Q
trans-1,2-Dichloroethene	ND	0.350						0		30	Q
Methyl tert-butyl ether (MTBE)	ND	0.350						0		30	Q
1,1-Dichloroethane	ND	0.500						0		30	
cis-1,2-Dichloroethene	ND	0.500						0		30	
2-Butanone (MEK)	ND	1.50						0		30	
Chloroform	ND	0.500						0		30	
1,1,1-Trichloroethane (TCA)	ND	0.300						0		30	
1,1-Dichloropropene	ND	0.500						0		30	Q
Carbon tetrachloride	ND	0.300						0		30	Q
1,2-Dichloroethane (EDC)	ND	0.500						0		30	
Benzene	ND	0.440						0		30	Q
Trichloroethene (TCE)	ND	0.400						0		30	Q
1,2-Dichloropropane	ND	0.300						0		30	
Bromodichloromethane	ND	0.250						0		30	
Dibromomethane	ND	0.250						0		30	

Revision v1 Page 61 of 68





Project:

## **QC SUMMARY REPORT**

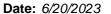
**CLIENT:** ESA Associates, Inc.

Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: 2306158-001ADUP	SampType: <b>DUP</b>			Units: µg/L		Prep Da	te: <b>6/12/2</b> 0	)23	RunNo: <b>846</b>	552	
Client ID: BATCH	Batch ID: 40628					Analysis Da	te: <b>6/13/2</b> 0	)23	SeqNo: <b>176</b>	7065	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.350						0		30	
Toluene	ND	1.00						0		30	
trans-1,3-Dichloropropylene	ND	0.500						0		30	
Methyl Isobutyl Ketone (MIBK)	ND	1.00						0		30	
1,1,2-Trichloroethane	ND	0.250						0		30	
1,3-Dichloropropane	ND	0.300						0		30	
Tetrachloroethene (PCE)	ND	0.350						0		30	
Dibromochloromethane	ND	0.300						0		30	
1,2-Dibromoethane (EDB)	ND	0.200						0		30	
2-Hexanone (MBK)	ND	1.25						0		30	
Chlorobenzene	ND	0.500						0		30	
1,1,1,2-Tetrachloroethane	ND	0.300						0		30	Q
Ethylbenzene	ND	0.400						0		30	
m,p-Xylene	ND	1.00						0		30	
o-Xylene	ND	0.500						0		30	
Styrene	ND	0.500						0		30	
Isopropylbenzene	ND	0.500						0		30	
Bromoform	ND	0.300						0		30	Q
1,1,2,2-Tetrachloroethane	ND	0.200						0		30	Q
n-Propylbenzene	ND	0.500						0		30	
Bromobenzene	ND	0.500						0		30	
1,3,5-Trimethylbenzene	ND	0.500						0		30	
2-Chlorotoluene	ND	0.500						0		30	
4-Chlorotoluene	ND	0.500						0		30	
tert-Butylbenzene	ND	0.500						0		30	
1,2,3-Trichloropropane	ND	0.400						0		30	Q
1,2,4-Trichlorobenzene	ND	0.750						0		30	
sec-Butylbenzene	ND	0.500						0		30	
4-Isopropyltoluene	ND	0.500						0		30	
1,3-Dichlorobenzene	ND	0.500						0		30	
1,4-Dichlorobenzene	ND	0.500						0		30	
n-Butylbenzene	ND	0.500						0		30	

Revision v1 Page 62 of 68





## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.

Mottis Property

#### **Volatile Organic Compounds by EPA Method 8260D**

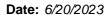
Sample ID: 2306158-001ADUP	SampType: <b>DUP</b>			Units: µg/L	ug/L Prep Date: 6/12/2023 Analysis Date: 6/13/2023				RunNo: 846	552	
Client ID: BATCH	Batch ID: 40628					Analysis Da	te: <b>6/13/2</b> 0	)23	SeqNo: <b>176</b>	7065	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	0.500						0		30	
1,2-Dibromo-3-chloropropane	ND	1.00						0		30	
1,2,4-Trimethylbenzene	ND	0.500						0		30	
Hexachloro-1,3-butadiene	ND	0.500						0		30	
Naphthalene	ND	1.25						0		30	
1,2,3-Trichlorobenzene	ND	0.700						0		30	
Surr: Dibromofluoromethane	25.8		25.00		103	80	120		0		
Surr: Toluene-d8	27.3		25.00		109	80	120		0		
Surr: 1-Bromo-4-fluorobenzene NOTES:	24.6		25.00		98.4	80	120		0		

Project:

Q - Associated calibration verification is below acceptance criteria. Result may be low-biased.

Sample ID: LCS-40628	SampType: LCS			Units: µg/L		Prep Dat	e: <b>6/12/20</b>	23	RunNo: <b>846</b>	552	
Client ID: LCSW	Batch ID: 40628					Analysis Dat	e: <b>6/14/20</b>	23	SeqNo: <b>176</b>	67267	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dichlorodifluoromethane (CFC-12)	20.9	0.500	20.00	0	104	80	120				
Chloromethane	22.0	0.750	20.00	0	110	80	120				
Vinyl chloride	21.4	0.200	20.00	0	107	80	120				
Bromomethane	22.8	3.00	20.00	0	114	80	120				
Trichlorofluoromethane (CFC-11)	19.9	0.300	20.00	0	99.3	80	120				
Chloroethane	22.3	1.00	20.00	0	112	80	120				
1,1-Dichloroethene	20.2	0.500	20.00	0	101	80	120				
Acetone	45.4	5.00	50.00	0	90.7	80	120				
Methylene chloride	21.9	0.750	20.00	0	110	80	120				
trans-1,2-Dichloroethene	21.1	0.350	20.00	0	106	80	120				
Methyl tert-butyl ether (MTBE)	21.1	0.350	20.00	0	105	80	120				
1,1-Dichloroethane	22.5	0.500	20.00	0	113	80	120				
cis-1,2-Dichloroethene	21.7	0.500	20.00	0	109	80	120				
2-Butanone (MEK)	45.7	1.50	50.00	0	91.5	80	120				
Chloroform	22.2	0.500	20.00	0	111	80	120				
1,1,1-Trichloroethane (TCA)	20.4	0.300	20.00	0	102	80	120				

Page 63 of 68 Revision v1





## **QC SUMMARY REPORT**

CLIENT: ESA Associates, Inc.
Project: Mottis Property

## **Volatile Organic Compounds by EPA Method 8260D**

Sample ID: LCS-40628	SampType: LCS			Units: µg/L		Prep Da	te: <b>6/12/20</b>	23	RunNo: <b>846</b>	652	
Client ID: LCSW	Batch ID: 40628					Analysis Da	te: <b>6/14/2</b> 0	23	SeqNo: <b>176</b>	67267	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloropropene	20.3	0.500	20.00	0	102	80	120				
Carbon tetrachloride	20.1	0.300	20.00	0	100	80	120				
1,2-Dichloroethane (EDC)	22.3	0.500	20.00	0	112	80	120				
Benzene	21.2	0.440	20.00	0	106	80	120				
Trichloroethene (TCE)	21.2	0.400	20.00	0	106	80	120				
1,2-Dichloropropane	21.6	0.300	20.00	0	108	80	120				
Bromodichloromethane	21.5	0.250	20.00	0	108	80	120				
Dibromomethane	21.6	0.250	20.00	0	108	80	120				
cis-1,3-Dichloropropene	20.7	0.350	20.00	0	104	80	120				
Toluene	21.5	1.00	20.00	0	108	80	120				
trans-1,3-Dichloropropylene	19.5	0.500	20.00	0	97.3	80	120				
Methyl Isobutyl Ketone (MIBK)	48.9	1.00	50.00	0	97.7	80	120				
1,1,2-Trichloroethane	19.6	0.250	20.00	0	97.9	80	120				
1,3-Dichloropropane	20.9	0.300	20.00	0	105	80	120				
Tetrachloroethene (PCE)	19.3	0.350	20.00	0	96.3	80	120				
Dibromochloromethane	18.8	0.300	20.00	0	94.2	80	120				
1,2-Dibromoethane (EDB)	19.9	0.200	20.00	0	99.7	80	120				
2-Hexanone (MBK)	50.8	1.25	50.00	0	102	80	120				
Chlorobenzene	18.8	0.500	20.00	0	94.2	80	120				
1,1,1,2-Tetrachloroethane	16.9	0.300	20.00	0	84.7	80	120				
Ethylbenzene	19.4	0.400	20.00	0	96.8	80	120				
m,p-Xylene	38.1	1.00	40.00	0	95.2	80	120				
o-Xylene	19.2	0.500	20.00	0	96.0	80	120				
Styrene	19.1	0.500	20.00	0	95.6	80	120				
Isopropylbenzene	18.8	0.500	20.00	0	94.2	80	120				
Bromoform	16.6	0.300	20.00	0	83.1	80	120				
1,1,2,2-Tetrachloroethane	16.3	0.200	20.00	0	81.4	80	120				
n-Propylbenzene	19.6	0.500	20.00	0	97.9	80	120				
Bromobenzene	18.1	0.500	20.00	0	90.4	80	120				
1,3,5-Trimethylbenzene	18.8	0.500	20.00	0	94.2	80	120				
2-Chlorotoluene	18.8	0.500	20.00	0	94.1	80	120				
4-Chlorotoluene	19.4	0.500	20.00	0	97.2	80	120				

Revision v1 Page 64 of 68

Date: 6/20/2023



Work Order: 2306083

## **QC SUMMARY REPORT**

**CLIENT:** ESA Associates, Inc.

## **Volatile Organic Compounds by EPA Method 8260D**

Project: Mottis Property Volatile Organic Compounds by EPA Method 826								8260D			
Sample ID: LCS-40628 SampType: LCS				Units: µg/L	Units: µg/L		Prep Date: 6/12/2023		RunNo: 846	RunNo: <b>84652</b>	
Client ID: LCSW	Batch ID: 40628					Analysis Dat	e: <b>6/14/20</b>	23	SeqNo: <b>176</b>	67267	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
tert-Butylbenzene	18.6	0.500	20.00	0	92.8	80	120				
1,2,3-Trichloropropane	21.2	0.400	20.00	0	106	80	120				
1,2,4-Trichlorobenzene	18.7	0.750	20.00	0	93.7	80	120				
sec-Butylbenzene	18.6	0.500	20.00	0	92.8	80	120				
4-Isopropyltoluene	18.5	0.500	20.00	0	92.6	80	120				
1,3-Dichlorobenzene	18.9	0.500	20.00	0	94.4	80	120				
1,4-Dichlorobenzene	19.1	0.500	20.00	0	95.7	80	120				
n-Butylbenzene	19.7	0.500	20.00	0	98.6	80	120				
1,2-Dichlorobenzene	19.1	0.500	20.00	0	95.4	80	120				
1,2-Dibromo-3-chloropropane	17.8	1.00	20.00	0	88.9	80	120				
1,2,4-Trimethylbenzene	19.1	0.500	20.00	0	95.3	80	120				
Hexachloro-1,3-butadiene	17.7	0.500	20.00	0	88.5	80	120				
Naphthalene	18.1	1.25	20.00	0	90.6	80	120				
1,2,3-Trichlorobenzene	19.0	0.700	20.00	0	95.2	80	120				
Surr: Dibromofluoromethane	27.0		25.00		108	80	120				
Surr: Toluene-d8	28.3		25.00		113	80	120				
Surr: 1-Bromo-4-fluorobenzene	24.6		25.00		98.3	80	120				

Page 65 of 68 Revision v1



## Sample Log-In Check List

Clie	ent Name:	ESA				Work Orc	ler Number	: 2306083		
Log	gged by:	Clare Grig	gs			Date Rec	eived:	6/7/2023	8:07:00 AM	
Chai	n of Custo	ody								
1. 1	s Chain of C	ustody comp	lete?			Yes	✓	No $\square$	Not Present	
2. H	2. How was the sample delivered?									
Log I	<u>In</u>									
<ol> <li>Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)</li> </ol>						Yes [		No $\square$	Not Present <b>✓</b>	
4. V	4. Was an attempt made to cool the samples?						✓	No 🗌	na 🗆	
5. V	5. Were all items received at a temperature of >2°C to 6°C *						<b>✓</b>	No 🗌	na 🗆	
6. S	Sample(s) in p	oroper contai	ner(s)?			Yes		No 🗸		
7. S	Sufficient sam	ple volume f	or indicated test(s)	)?		Yes	<b>✓</b>	No $\square$		
8. A	re samples p	properly pres	erved?			Yes	✓	No $\square$		
9. V	Vas preserva	tive added to	bottles?			Yes		No 🗸	NA $\square$	
10. ls	s there heads	space in the	VOA vials?			Yes		No 🗸	NA $\square$	
11. D	Did all sample	es containers	arrive in good cor	dition(unbro	ken)?	Yes		No 🗸		
12. <sup>D</sup>	oes paperwo	ork match bo	ttle labels?			Yes	✓	No $\square$		
13. A	Are matrices of	correctly ider	ntified on Chain of	Custody?		Yes	<b>✓</b>	No 🗌		
14. ls	s it clear wha	t analyses w	ere requested?			Yes	<b>✓</b>	No $\square$		
15. V	Vere all holdi	ng times able	e to be met?			Yes	✓	No $\square$		
<u>Spec</u>	cial Handl	ing (if app	olicable)							
16.	Was client n	otified of all	discrepancies with	this order?		Yes	✓	No $\square$	NA $\square$	
	Person	Notified:	Kristen Burgess		Date			6/7/2023		
	By Who	om:	Clare Griggs		Via:	eMai	I 🗌 Phor	ne 🗌 Fax	☐ In Person	
	Regard	ing:	One of the VOAs	for BP-4 red	ceived bro	ken. Soil v	olume rece	ived in HCl	VOAs for BP-3.	
	Client I	nstructions:								
17.	Additional re	marks:								•
Item I	<u>Information</u>									
		Item #		Temp ⁰C						
	Sample			3.9						

<sup>\*</sup> Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Page 68 of 68

Relinquished (Signature)

**Print Name** 

Date/Time

Received (Signature)

**Print Name** 

Date/Time

☐ Same Day

(specify)

## APPENDIX C

## **Remedial Excavation Field Logs**

## Test Pit Log-BP

Project NO: 711-007-197	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: June 6, 2023	Test Pit: BP (Burn Pile)
Operator: ESA Associates	Completion Date: June 6, 2023
Total Depth: 3'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth	Sample	Field			
BGS	ID	Sheen	PID	Sample Description	Lithology
1	BP-1	NS	0	Bwn fine to course sand w/ occ gravel	SP-SM
1	BP-2	NS	0	Bwn silty fine sand w/ occ gravel	SP-SM
1	BP-3	NS	0	Bwn silty fine sand w/ occ gravel	SP-SM
1	BP-4	NS	0	Bwn silty fine sand w/ trace gravel	SP-SM
3'	BP-5	NS	0	Bwn silty fine sand w/ trace gravel	SP-SM


## Test Pit Log-AG

Project NO: 711-007-197	Client: Jamestown S'Klallam Tribe
Location: Sequim, WA	Subcontractor: RED
Start Date: June 6, 2023	Test Pit: AG(Asphalt Grindings)
Operator: ESA Associates	Completion Date: June 6, 2023
Total Depth: 3'	Rig Type: Track mounted excavator
Water Level: No Water	Surface Elevation: N/A
MP Elevation: N/A	Logged By: Kara Burgess

Depth BGS	Sample ID	Field Sheen	PID	Sample Description	Lithology
2'	AG-1	NS	0	Bwn silty fine sand w/ occ gravel	SP-SM
2'	AG-2	NS	0	Bwn silty fine sand w/ occ gravel	SP-SM
2'	AG-3	NS	0	Bwn silty fine sand w/ occ gravel	SP-SM
2'	AG-4	NS	0	Bwn silty fine sand w/ occ gravel	SP-SM
3'	AG-5	NS	0	Dark bwn silty fine sand	SP-SM
				·	
	ļ				
	<del> </del>				
					1
	<del> </del>				1
	ļ.			<u> </u>	

## APPENDIX D

## **Lewis County Weight Ticket**

## APPENDIX E

Well Log W-2

WATER WELL REPORT Start Card No. STATE OF WASHINGTON Water Right Permit No. ALL 279 (1) OWNER: Name MOTTIS GREG Address 290 ZACCARDO RD. SEQUIM, WA 98382-(2) LOCATION OF WELL: County CLALLAM - NW 1/4 SE 1/4 Sec 12 T 29 N., R 3 WM (2a) STREET ADDRESS OF WELL (or nearest address) SAME (3) PROPOSED USE: DOMESTIC (10) WELL LOG (4) TYPE OF WORK: Owner's Number of well Formation: Describe by color, character, size of material (If more than one) | and structure, and show thickness of aquifers and the kind Method: ROTARY NEW WELL | and nature of the material in each stratum penetrated, with ========| at least one entry for each change in formation. Diameter of well 6 inches (5) DIMENSIONS: Drilled 281 ft. Depth of completed well 130 ft. MATERIAL ======== BROWN SAND 0 4 (6) CONSTRUCTION DETAILS: BROWN SAND&CLAY 36 Casing installed: 6 " Dia. from 01 ft. to 201 ft. | BROWN CLAY 85 36 " Dia. from ft. to ft. BROWN HARDPAN WELDED 85 " Dia. from ft. to ft. | COMPACTED GRAVL SAND WATER BEARING 122 135 HARDPAN GRAY 135 186 GRAY CLAY 186 201 | SOFT SHALE Type of perforator used MILL CUT 128/ SIZE of perforations in. by ft. to 135 ft. 100 perforations from 120 perforations from ft. to ft. perforations from ft. to Screens: NO Manufacturer's Name Type Model No. from ft. to Gravel packed: NO Size of gravel
Gravel placed from ft to

Gravel placed from ft to

Surface seal: YES To what don't slot size ft. Diam. Material used in seal BENTONITE Did any strata contain unusable water? NO Type of water? Depth of strata RECEIVED Method of sealing strata off NONE JUL 2 4 2008 Type NONE H.P. Land-surface elevation (8) WATER LEVELS: above mean sea level ... ft. Washington State Static level 107 ft. below top of well Date 06/16/06
Artesian Pressure lbs. per square inch Date Department of Ecology Artesian water controlled by NOT, ARTESIAN Completed 06/16/06\_ Work started 06/13/06 (9) WELL TESTS: Drawdown is amount water level is lowered below | WELL CONSTRUCTOR CERTIFICATION: I constructed and/or accept responsibility for constatic level. struction of this well, and its compliance with all Was a pump test made? NO If yes, by whom? ft. drawdown after hrs. Washington well construction standards. Materials used gal./min with and the information reported above are true to my best knowledge and belief. Recovery data Time Water Level Time Water Level Time Water Level | NAME LOUIE'S WELL DRILLING INC (Person, firm, or corporation) (Type or print)

Date of test / / Date of test //
Bailer test gal/min. ft. drawdown after hrs. | [SIGNED]

Air test 5 gal/min. w/ stem set at 120 ft. for 2 hrs. |

Artesian flow g.p.m. Date | Contractor's

Temperature of water Was a chemical analysis made? NO | Registration No. LOUIEWD137PW

ADDRESS 368 S BARR BD PORTANGELES

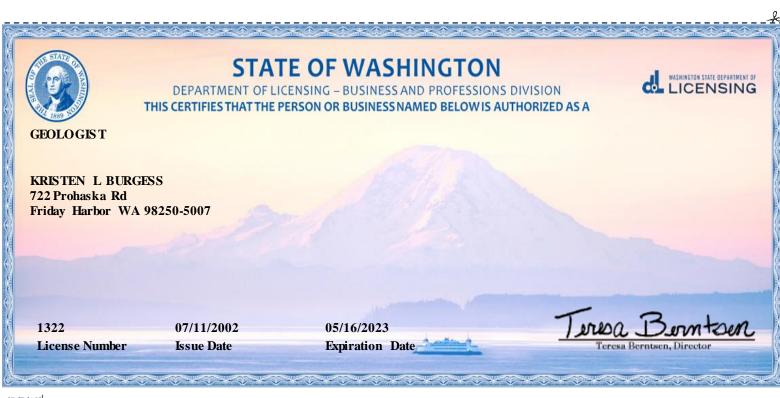
## APPENDIX F

## **Qualifications of Environmental Professional**



Kristen L Burgess 722 Prohaska Rd Friday Harbor WA 98250-5007





## **APPENDIX G**

## **Application for Authorization to Use**

## APPLICATION FOR AUTHORIZATION TO USE

Remediation Report 290 Zaccardo Road Sequim, WA 98382

## ESA ASSOCIATES' PROJECT NUMBER: 711-007-197

June 21, 2023

TO:	ESA Associates, Inc. 722 Prohaska Road Friday Harbor, Washington 98	250
FRO	M:	
	cant here the use(s) contemplated]	hereby applies for permission to:
	e purpose(s) of: here why you wish to do what is contemplate	ed as set forth above]
Inc. is strictly Associately withh	s the copyright owner and that un y prohibited without the expre- ciates' client. Applicant understar	t the above identified report prepared by ESA Associates, nauthorized use or copying of the above identified report is ss written permission of ESA Associates, Inc. and ESA and that ESA Associates and/or ESA Associates' client, may discretion, or grant such permission upon such terms and
Dated	1:	Applicant
		by
		•,

Appendix F - Sampling and Analysis Plan - Phase III - Remediation

# Sampling and Analysis Plan

Remediation Mottis Property: 290 Zaccardo Road, Blyn, WA

Title	Printed Name	Signature	Date	
Jamestown S'Klalla	m Ann Jagger			
Tribal Housing Manager				
Jamestown S'Klalla	m Robert Knapp			
Tribal Env. Planni	ng			
Manager				
CEO ESA Associates, Inc	Kristen Burgess			
Jamestown S'Klalla	m Jenna Ziogas			
Tribe Tribal Respon	se			
Coordinator				

Kristen Burgess 6-02-2023

June 2, 2023 ESA Associates File No.711-007-197

Mr. Robert Knapp Environmental Planning Manager Jamestown S'Klallam Tribe 1033 Old Blyn Highway Sequim, WA

SUBJECT: Sampling and Analysis Plan
For the Mottis Property Remediation
290 Zaccardo Road
Sequim, Washington

Dear Mr. Knapp:

We have prepared a site-specific Sampling and Analysis Plan (SAP) for the Mottis property. All sampling performed under this SAP will be performed by field personnel with training in soil sampling protocol. This site-specific SAP contains the summary of reporting requirements and project schedule. This site-specific SAP has incorporated Standard Operating Procedures (SOPs) that are presented in the Jamestown S'Klallam Tribe's 2021 Quality Assurance Project Plan (QAPP) for Tribal assessment activities as follows:

- Sample collection procedures
- Field documentation procedures
- Management procedures for investigation-derived wastes
- Field equipment calibration and analysis
- Decontamination procedures
- Soil classification
- The number and type of QC samples to be collected and submitted for analysis
- Analytical Methods
- Analytical QC Requirements
- Reporting requirements
- Special safety or cautionary information

Please refer to the Tribal QAPP for a complete description of the SOPs. Refer to Appendix A for sampling containers, preservation, and holding times for samples.

#### Site Specific Sampling and Analysis Plan

ESA Associates, Inc. (ESA Associates) is pleased to present this SAP to remediate a burn pile and delineate asphalt grindings disposal and to collect soil samples at the subject property known as the Mottis Property located at 290 Zaccardo Road in Blyn, Washington. The primary goals of this soil sampling event are to: 1) provide valid data of known and documented quality to characterize the soil associated with the remediation of a burn pile on the western portion of the subject property; and 2) delineate (potentially remediate) the deposition of asphalt grindings in the southwestern portion of the subject property.

#### Site History and Description

Our 2023 Phase I ESA of the Mottis Property did reveal current RECs associated with the subject property. There was extensive excavation on the subject property, as well as deposits of fill material. Our aerial photographic review indicated that the subject property has received large volumes of fill material from at least 2005 to the present day. We measured two distinct areas of fill material on the western and southwestern portions of the subject property. The western portion of fill material measures 267 feet by 258 feet in plan dimensions, and based on field observations, is at least three feet thick and in some places as much as 10 feet thick. The southwestern portion of the subject property has a fill area measuring 113 feet by 264 feet in plan dimensions, and based on field observations, measures from one foot to three feet thick. We have used the most conservative measurements to calculate the estimate of 10,000 cubic yards of imported material onto the subject property.

We also encountered the following data gap that requires a phase II ESA to rule out possible petroleum releases to the subsurface soil as follows: 1) there is no documentation of removing the heating oil tank associated with the heating system identified in the Clallam County records. The oil heating source may have been an underground storage tank or an above ground storage tank. Our historical review and site observations did not reveal an above ground storage tank, therefore, further exploration around the perimeter of the home is necessary to determine whether a UST is located near the home and requires removal or a UST was located near the home and has been removed.

Further investigation or corrective action is needed in order to ensure that the property meets requirements at 24 CFR 58.5(i)(2) or 50.3(i) for the proposed HUD assisted use. We recommended a Phase II ESA on the subject property to determine whether the fill material could affect the health and safety of occupants or conflict with the intended utilization of the

property. We also recommended exploring the northern side of the home for a possible underground heating oil storage tank.

ESA associates mobilized to the subject property on May 2, 2023 to direct the excavation of 11 test pits in areas of concern noted above. All soil samples were analyzed for one or more of the following: petroleum hydrocarbons, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), carcinogenic Poly Aromatic Hydrocarbons (cPAHs), and Washington State Department of Ecology's (Ecology's) Model Toxics Control Act (MTCA)-5 metals.

Chemical analytical results indicated that one area of concern (MTP-4) of the eleven areas of concern contained the **VOC** (benzene) in the soil at a concentration above the MTCA Method A cleanup level. The area contained other VOCs (acetone, toluene, ethylbenzene, and styrene) at concentrations below the respective MTCA Method A cleanup levels. This area also contained SVOCs (naphthalene, phenanthrene, and bis (2-ethylhexyl) phalate) at concentrations below the respective MTCA Method A/B cleanup levels. cPAHs were not detected in this area at concentrations above the laboratory detection limits. Petroleum hydrocarbons quantified as heavy oil were detected in the area MTP-4 at a concentration of 512 milligrams per kilogram (mg/kg), which is below the MTCA Method A cleanup level of 2,000 mg/kg. The concentrations of the MTCA-5 metals from area MTP-4 were consistent with the natural Washington State background levels for these metals.

The area of concern (MTP-7) was excavated in the southwestern portion of the subject property where two feet of asphalt grindings were buried. The soil sample from (MTP-7) contained petroleum hydrocarbons quantified as heavy oil at a concentration of 1,160 mg/kg, which is below the MTCA Method A cleanup level of 2,000 mg/kg. This soil sample also contained cPAHs, benz(a)anthracene and benzo(a)pyrene) at concentrations below the MTCA Method A cleanup level. VOCs were not detected in this area at concentrations above the laboratory detection limits. The concentrations of the MTCA-5 metals from area MTP-7 were consistent with the natural Washington State background levels for these metals.

Based on the chemical analytical results, benzene, is present in the soil at concentrations above the MTCA Method A cleanup level in the burn pit located in the western portion of the subject property. An area 10 feet by 10 feet in plan dimensions and reaching a total depth of two feet bgs requires remediation. Based on these measurements, ten tons of contaminated soil will require removal and disposal at an appropriate facility.

One additional area of concern was discovered where asphalt grindings have been buried on the southwestern portion of the subject property. Petroleum hydrocarbons and cPAHs were detected beneath a two foot layer of asphalt grindings found just below the surface. Ecology does not regulate asphalt grindings as a solid waste when it is recycled back into new asphalt pavement and roads under specific conditions. If these conditions are not met (such as is the case on the subject property), then asphalt grindings are solid waste and subject to Ecology's solid waste regulations. Asphalt grindings may pose a risk to the environment because of potential exposure to the carcinogenic compounds contained in the asphalt binder. Also the heavy oil present in the asphalt grindings have the potential to leach into the underlying soils. For this reason, and based on the data we collected from the test pit (MTP-7), we recommended a removal of the asphalt grindings to minimize the potential release of these fine particles into the environment.

It was estimated (at a minimum) that approximately 10 tons of asphalt grindings are present at the subject property. The lateral extent of the asphalt grindings is not know at this time as delineation of discovered buried waste was not a part of this project's scope of work. ESA Associates recommended delineating the extent of the buried asphalt grindings prior to removal activities.

This site-specific SAP may not initially identify all possible field conditions. In the event of changing field conditions, the scope of sampling activities and parameters measured will be modified as needed. This may include the collection of additional samples and analysis of additional chemicals parameters that were not anticipated in this site-specific SAP. Any changes or alterations to the site-specific SAP will be reported in the final report submitted to the Tribe upon the completion of the remedial activities.

#### Proposed Scope of Work

ESA Associates understands that a burn pile must be remediated and a subsurface disposal of asphalt grindings must be assessed and delineated within the fill material on the southwestern portion of the subject property.

The surface soils will be screened with a Photoionization Detector (PID) and observed for any obvious burned debris, soil staining and fuel releases. The surface soils will also be screened using sheen testing at two sampling locations based on our initial field screening results as depicted on Figure 1.

A trackhoe will be used to excavate the soil within the burn material in one foot intervals to the final depth of three feet below ground surface (bgs). A trackhoe will also be used to excavate the soil in the area of identified asphalt grinding deposition. The asphalt will be excavated and temporarily stored at the edge of the excavation on 6 mil visqueen sheeting. The excavator will be directed by an ESA Associates' licensed geologist. The remedial excavations will be placed in areas of identified concern and confirmed by chemical analysis.

The sampling locations will be strategically placed to document the current soil conditions and to further define the impacts of possible contaminants at the two know locations (burn pile and asphalt grindings). If data collected from sampling locations indicates additional soil sampling is warranted, ESA Associates will collect more soil samples and archive them until we have authorization from the Tribe to perform additional analyses. If the vertical extent of any petroleum hydrocarbon release requires further delineation, then soil samples will be collected at one foot intervals to depths between 5 and 10 feet bgs. Soil samples screened and evaluated during this remediation will be logged using the Unified Soil Classification System by an ESA Associates' Senior geologist.

#### **Pre-field Activities**

As required by the Occupational Health and Safety Administration (OSHA) "Hazardous Waste Operations and Emergency Response" guidelines, ESA Associates will prepare a site specific Health and Safety Plan (HASP). At a minimum, the HASP will define the proposed activities, describe physical and chemical hazards that may be associated with the work, provide a map to the nearest emergency medical facility, and include material safety data sheets for any hazardous chemicals that will be used or produced during the work. A copy of the HASP will be available onsite at all times during field work. The field staff and contractors performing field activities will review the HASP prior to beginning field operations at the site. Refer to Figure 2 for site control measures.

Prior to mobilizing, ESA Associates will notify One Call Utility Notification Service to alert the utility companies in the area of the scheduled work and to mark all underground utilities in accordance with State of Washington requirements. In addition, ESA Associates may subcontract with a private utility locating contractor to mark private underground utilities near the proposed well locations. All appropriate access agreements and permits will be acquired and followed during field activities.

#### Soil Sampling and Analysis

Soil samples will be collected from each remedial excavation on one-foot intervals for lithological description and hydrocarbon vapor screening using a portable PID. At least one soil sample from each sidewall and the base will be sent to a certified laboratory for analysis to confirm that the final limits of the remedial excavation do not contain identified contaminants above the respective MTCA Method A cleanup levels. All soil samples collected below the water table (if present) will be archived by the laboratory for further analysis. At least five soil samples will be analyzed from each remediated area.

The soil samples will be sent to the laboratory under Chain of Custody (CoC) procedures for analysis of one or more of the following: Petroleum hydrocarbons by the Washington State Department of Ecology's (Ecology's) NWTPH-dx for petroleum hydrocarbons quantified as diesel, carcinogenic Poly Aromatic Hydrocarbons (cPAHs) by EPA Method 8270, and VOCs (Benzene) by EPA Method 8260D. These analyses were chosen to characterize the known contaminants that were associated with two areas on the subject property (burn pile and asphalt grindings).

#### **Drinking Water Sampling and Analysis**

Two water samples will be collected from the on-site drinking water wells. The samples will be collected at the first draw in the morning. The water samples will be analyzed for total petroleum hydrocarbons by HCID screen, MTCA-5 metals, SVOCs, and VOCs. The Washington State Model Toxics Control Act (MTCA) will be followed for this SAP. Labels documenting sample number, well identification, collection date and time, type of sample and type of preservative (if applicable) are affixed to each sample. The samples are then placed into an ice-filled cooler for delivery under CoC to a laboratory certified to perform the specified tests by the State of Washington as specified above.

#### Disposal of Contaminated Soil Samples

Contaminated soil generated during the field activities may be retained on-site in an appropriate visqueen lined berm for future disposal. Analytical results will be used for waste profiling and disposal. After profiling, ESA Associates will arrange for the transport and disposal of the impacted materials. If groundwater is encountered at the site, ESA Associates will notify the Tribe prior to extraction and removal from the site. We do not anticipate encountering groundwater at the site.

#### Project Members, Their Responsibilities, and Contact Information

Kristen Burgess is the project manager for this assessment (425-870-8481)

Kara Burgess is the field assistant for this assessment (425-239-1951)

RED, Inc. is the excavator operator for this assessment (360-870-4442)

Fremont Analytical, Inc. is the Ecology Certified Laboratory for this assessment (206-352-3790)

#### Report

Following the completion of these remedial activities, ESA Associates will submit a report documenting the findings of the investigation. The report will include soil sampling remedial excavation, soil analytical results, CoC documentation, conclusions, and recommendations, as necessary.

#### Name of Persons To Whom the Data Are To Be Reported

The results of the chemical analytical data, our draft and final reports will be submitted to the following Jamestown S'Klallam Tribal Staff:

Robert Knapp, Environmental Planning Manager for the Jamestown S'Klallam Tribe: 360-681-4666

Jenna Ziogas, Environmental Program Specialist for the Jamestown S'Klallam Tribe: 360-681-4620

#### Project schedule

Fieldwork is anticipated to begin following the Tribe's review of this SAP. We anticipate receipt of draft laboratory results approximately one week after sample submittal. We will prepare a draft report approximately two weeks after receipt of the chemical analytical data, and a final report one week after your approval of the draft. Given this schedule, we anticipate providing a final report within four weeks of project authorization, for the described scope of services. Additionally, we will keep you informed of conditions as they develop and will provide periodic verbal summary reports during our work.

Limitations

The proposed scope of services is intended to provide soil sampling on the property as requested

by the Jamestown S'Klallam Tribe. However, this soil sampling event is not designed to identify

all potential concerns or to eliminate all risk associated with the subject property. Even the most

rigorous of professional assessments may fail to identify all existing conditions. This sampling

event will not provide a guarantee regarding all site contamination and may not generate

sufficient data to accurately define the lateral and vertical extent of contamination if present.

This assessment will not include other services not specifically described in the scope of services

presented above.

The report may be used only by the client and funding agencies, and only for the purposes stated,

within a reasonable time from its issuance. Land use, site conditions (both on site and off site) or

other factors may change over time, and additional work may be required with the passage of

time. Any party other than the client who wishes to use the assessment report shall notify ESA

Associates of such intended use by executing the "Application for Authorization to Use" which

will follow the report as an Appendix. Based on the intended use of the report, ESA Associates

may require that additional work be performed and that an updated report be issued. Non-

compliance with any of these requirements by the client or anyone else will release ESA

Associates from any liability resulting from the use of the report by any unauthorized party. No

warranty, express or implied, is made.

Closing

We appreciate the opportunity to submit this SAP. If you have any questions, comments, or

require additional information, please contact the undersigned at (425) 870-8481.

Respectfully submitted,

ESA ASSOCIATES, INC.

Kristen Burgess

Kristen Burgess

President, ESA Associates, Inc.



**Locations of Remediations** 



# ESA Assocíates, Inc.

PROJECT NO. 711-007-197

June 2, 2023

## **Remediation Locations**

Mottis Property 290 Zaccardo Road Sequim, WA 98382 Figure

1