

Ecology Proposes Interim Actions to Address Petroleum Contamination in Soil and Groundwater

The Department of Ecology is conducting a Remedial Investigation and Feasibility Study at the Airport Kwik Stop site located west of Highway 31 and north of Greenhouse Road in Ione, Pend Oreille County, Washington (see Fig. 1). Petroleum contamination is found in soil and groundwater at the Airport Kwik Stop, beneath the Cabin Grill, and on private properties of two other landowners. One property is located south of the Cabin Grill, and the other is north of Dewitt Road and east of Highway 31.



Airport Kwik Stop Site

Results of soil and groundwater sampling which are part of the ongoing Remedial Investigation and Feasibility Study indicate certain cleanup actions should be taken now to protect human health and the environment. These actions are called interim actions.

Ecology is proposing an interim action that would include a Soil Vapor Extraction System (SVE) to reduce petroleum concentrations in soil. A Work Plan outlining details of the proposed interim action is available for comment along with a State Environmental Policy Act (SEPA) Checklist and Determination of Non-Significance (DNS). The report with results of the SVE pilot test is also available for comment.

You are invited to:

- **Review** the Interim Action Work Plan, SEPA Checklist, DNS and SVE pilot test report. These documents are draft until Ecology considers public comments and makes any appropriate modifications.
- **Send** comments to Doug Ladwig of Ecology **July 31 through August 29, 2012**. Doug's contact information is in the box at the right.

Comments Accepted

July 31 through August 29, 2012

For **ADA accommodations** or documents in an alternate format, call Carol Bergin 509/329-3546 (voice), 711 (relay service), or 877-833-6341 (TTY).

Если вам нужна помощь на русском, звоните

Larissa Braaten 509/710-7552

Para asistencia en Español

Richelle Perez 360/407-7528

Submit Comments and Technical Questions

Doug Ladwig, Site Manager
WA Department of Ecology
4601 N. Monroe St.
Spokane, WA 99205-1295
509/329-3440 Doug.Ladwig@ecy.wa.gov

Public Involvement Questions

WA Department of Ecology
Carol Bergin, Public Involvement
See Ecology address above
509/329-3546 Carol.bergin@ecy.wa.gov

Document Review Locations

WA Department of Ecology
Kari Johnson, Public Disclosure
4601 N. Monroe St.
Spokane, WA 99205-1295
Call for an appointment 509/329-3415

Ione Public Library

Ione Community Center
200 Blackwell, Suite 1
P.O. Box 605 Ione, WA 99139
509/442-3030

Ecology's Toxics Cleanup Website
<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=4203>

Facility Site ID No. 32584416

Cleanup Site ID No. 4203

The Interim Action

Ecology proposes to install a Soil Vapor Extraction system (SVE) as an Interim Action at the site. The system will address petroleum related contamination in soil. The system also will reduce potential threats to domestic wells and the Pend Oreille River.

Work will include trenching and installation of the SVE system, removal of contaminated soil and transportation to a permitted off-site disposal facility, backfilling and repaving the excavation area.

Pilot Test Results for Soil Vapor Extraction System

An SVE system was tested at the Airport Kwik Stop to determine if it could successfully reduce the petroleum contamination in soil. An Air Sparge test also was conducted to evaluate reduction of contaminants in groundwater. These pilot tests were completed as part of the Remedial Investigation and Feasibility Study.

Three SVE tests were conducted. Two individual SVE wells were installed and tested using the SVE system and a third more comprehensive SVE test was completed combining materials from the two wells.

Test results conclude that the SVE system is effective for reducing petroleum product in soil. This SVE system could remove approximately 90 gallons of Total Petroleum Hydrocarbons (TPH) daily from soil above the water table.

The Pilot Test Report details how the SVE system worked. In summary, test wells were installed and connected to a blower. The blower applied a vacuum to the wells and pulled air from the soil into well screens. As air flowed through the soil it enhanced volatilization of the petroleum products in the vadose zone. (The vadose zone is soil that lies between the surface and the groundwater table.) The volatilized petroleum products were pulled into the SVE wells which removed them from the ground. To see an example of what an SVE system looks like please see Figure 2.

The Air Sparge tests were not effective enough to be considered part of the interim action for addressing groundwater. However, as the sources of contaminants in soil are treated by the SVE system, groundwater generally improves. The Feasibility Study will further evaluate cleanup options for the site and recommend the best method for any contaminants that remain after the SVE system is run for a period of time.

State Environmental Policy Act (SEPA)

The State Environmental Policy Act, known as SEPA, requires government agencies to consider potential environmental impacts of a project before beginning the cleanup. A Determination of Non-Significance indicates the proposed actions will not have a probable significant adverse impact on the environment.

- After review of an environmental checklist and other site-specific information, Ecology determined the SVE Interim Action to address petroleum related product in soil will not have a probable significant adverse impact on the environment.
- The SVE Interim Action will benefit the environment by reducing petroleum product in soil, reducing the release of toxic chemicals from the site, and reducing exposure pathways.
- Therefore, Ecology has issued a Determination of Non-Significance (DNS).

Questions About Exposure

The Remedial Investigation is already evaluating potential exposure pathways for people, wildlife, and aquatic life at the site. The Interim Action will further reduce potential exposure concerns. During the Interim Action work, contractors will take extra precautions to reduce potential exposure risks to residents and the community.



Possible exposure pathways from the site include:

- Drinking contaminated groundwater or surface water.
- Skin contact with soil, surface water, or groundwater.
- Breathing contaminated air vapors.

The SVE Interim Action will improve soil and groundwater conditions at the site. The Feasibility Study will evaluate and recommend cleanup options for any contaminants remaining after the Interim Action is conducted.

Health-related questions may be directed to Matt Schanz at Northeast Tri County Health District 509/684-2262. Questions about public water systems may be directed to Tom Justus at Department of Health Office of Drinking Water 509/329-2119.

Additional Background

The properties that make up the site include the Airport Kwik Stop, the Cabin Grill, and vacant properties north, south and east of the Cabin Grill. The Airport Kwik Stop operated as a convenience store and historically sold gasoline and diesel. The business closed in 2012.

In 1994 underground storage tanks were removed and above ground storage tanks were used to store fuel. In 2008 a leak occurred in a pipe connection under the premium gas dispenser which resulted in spraying gasoline inside the dispenser. In 2010 and 2011 soil and groundwater samples taken from the site showed certain contaminants exceeded state standards.

During investigations to understand the source of the contamination, gasoline-range petroleum hydrocarbons and BTEX compounds were found in soil and groundwater beneath the Cabin Grill. The Cabin Grill installed filters on their tap water system to address the contaminants.

Soil and groundwater at private properties owned by two landowners are also being investigated. One property is located south of the Cabin Grill and the other is north of Dewitt Road and east of Highway 31.

Additionally, in 2008 two underground storage tanks (USTs) were removed at the Ione Airport. Soil contamination was discovered at that time. During follow-up investigations conducted in 2010 and 2011 soil and groundwater at the Ione Airport met state standards. The Ione Airport is currently not considered part of the Airport Kwik Stop site.

What Happens Next?

Ecology will review and respond to all comments about the proposed Interim Action Work Plan, SEPA Checklist, DNS, and SVE Pilot Test Report that are **submitted by August 29, 2012**. A written Responsiveness Summary will be prepared and sent to all commenters and placed on the website listed in the box on page 1.

Ecology will make modifications to the documents based on public comment if appropriate. If no changes are made, the documents will become final and the Interim Action will move forward. The Interim Action is anticipated to be completed in approximately 12 months from the start date.

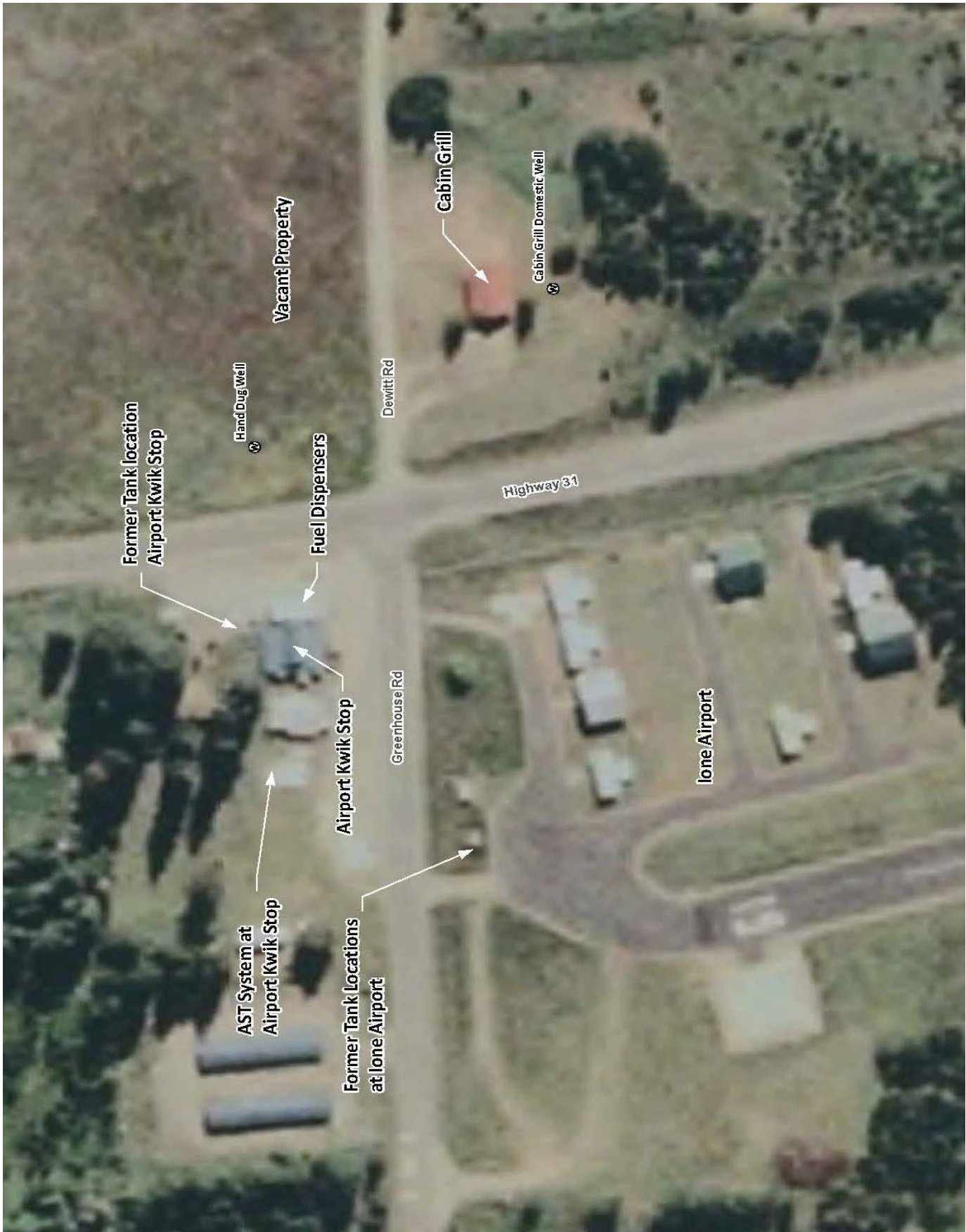
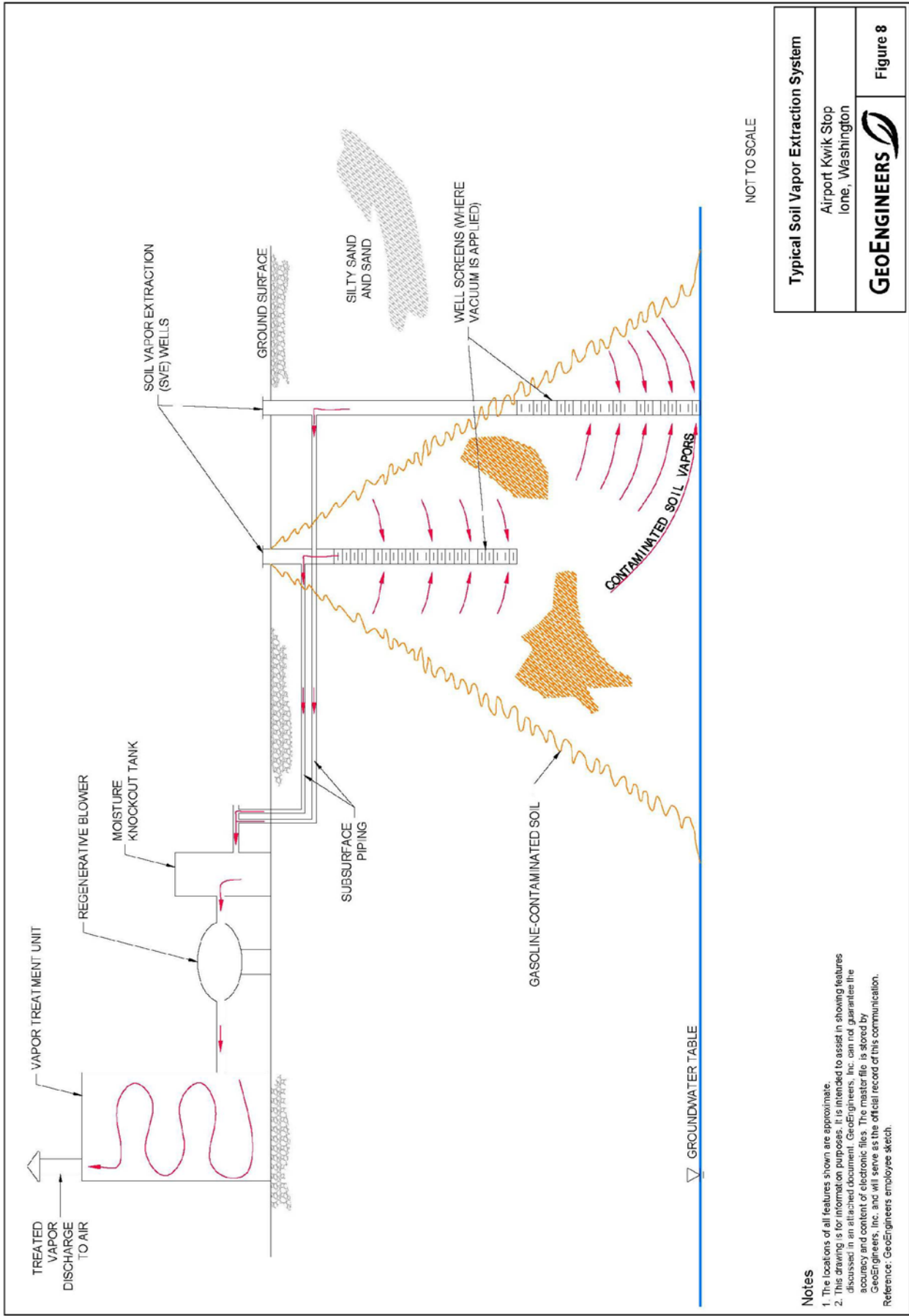


Figure 1



NOT TO SCALE

Typical Soil Vapor Extraction System

Airport Kwik Stop
Ione, Washington



Figure 8

Notes

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication. Reference: GeoEngineers employee sketch.

Figure 2



DEPARTMENT OF
ECOLOGY
State of Washington
4601 N. Monroe
Spokane, WA 99205-1295

Airport Kwik Stop Site
Interim Actions for SVE System and SEPA
Comments Accepted
July 31 through August 29, 2012