

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

In the Matter of Remedial Action by:

Port of Anacortes

AGREED ORDER

No. DE 11346

RECEIVED

FEB 11 2016

TO: Port of Anacortes
100 Commercial Avenue
Anacortes, WA 98221

Department of Ecology
Toxics Cleanup Program

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I. INTRODUCTION

The mutual objective of the State of Washington, Department of Ecology (Ecology) and the Port of Anacortes (the Port) under this Agreed Order (Order) is to enable a remedial action to be selected for a facility where there has been a release or threatened release of hazardous substances. This Order requires the Port to conduct a Remedial Investigation/Feasibility Study (RI/FS) and develop a draft final Cleanup Action Plan (DCAP), addressing both upland and potential in-water contamination for the Quiet Cove Site. Ecology believes the actions required by this Order are in the public interest.

II. JURISDICTION

This Agreed Order is issued pursuant to the Model Toxics Control Act (MTCA), RCW 70.105D.050(1).

III. PARTIES BOUND

This Agreed Order shall apply to and be binding upon the Parties to this Order, their successors and assigns. The undersigned representative of each Party hereby certifies that he or she is fully authorized to enter into this Order and to execute and legally bind such Party to comply with this Order. The Port agrees to undertake all actions required by the terms and conditions of this Order. No change in ownership or corporate status shall alter the Port's responsibility under this Order. The Port shall provide a copy of this Order to all agents, contractors, and subcontractors retained to perform work required by this Order, and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Order.

IV. DEFINITIONS

Unless otherwise specified herein, the definitions set forth in Chapter 70.105D RCW and Chapter 173-340 WAC shall control the meanings of the terms in this Order.

A. Site: The Site is referred to as Quiet Cove and is generally located at 202 O Avenue, Anacortes. The Site is defined by the extent of contamination caused by the release of hazardous substances at the Site. Based upon factors currently known to Ecology, the Site is generally

described in the Site Diagram (Exhibit A). The Site constitutes a facility under RCW 70.105D.020(8).

B. Parties: Refers to the State of Washington, Department of Ecology and the Port of Anacortes.

C. Potentially Liable Person (PLP): Refers to the Port of Anacortes.

D. Agreed Order or Order: Refers to this Order and each of the exhibits to this Order. All exhibits are integral and enforceable parts of this Order. The terms “Agreed Order” or “Order” shall include all exhibits to this Order.

E. In-Water Area: Refers to the intertidal (areas exposed to air at low tide) and subtidal (areas always covered by water) areas associated with adjacent marine waters that may be included as part of the Site. The Remedial Investigation will determine if the Site contains an In-Water Area component.

F. Upland Area: Refers to areas of the Site that fall outside of the In-Water Area, as generally depicted in Exhibit A, Figure 2.

V. FINDINGS OF FACT

Ecology makes the following findings of fact, without any express or implied admissions of such facts by the Port:

A. The site is generally located between 2nd and 3rd Street west of O Avenue, at 202 O Avenue, Anacortes, Washington, 98221. The primary parcels include P55354, P55358, and P55359 and totals approximately 0.82 acres. The Site may extend across 2nd Street toward Curtis Wharf International Shipping Terminal and into the Guemes Channel to the Northwest. The Site is listed on the Department of Ecology’s Confirmed and Suspected Contaminated Sites List as Quiet Cove. The Facility Site ID No. is 20859 and the Cleanup Site ID is 12482.

B. The Site was historically used by Standard Oil Company as a terminal facility for bulk fuel and for bulk fuel storage as early as 1909, and included five steel oil tanks, filling shed, oil warehouse, oil staging area, associated piping, and an auto shed. All of these historical

structures were removed at some point, but no documentation has yet been discovered regarding when the removal occurred.

C. Current use of the Site includes use of existing buildings and pavement for storage.

D. The Port purchased the Upland Area of the Site in July 2013. The Port performed a Focused Site Investigation in 2014 as part of an Integrated Planning Grant to determine the presence of contamination. There is no evidence of a phase one environmental investigation at this Site. Thirty-five (35) soil samples were collected at depths ranging from 0-10 feet, with exceedances of MTCA Method A cleanup levels for unrestricted land use recorded for BTEX, TPH_{Gx}, TPH_{Dx}, and TPH_{Ox}. Three (3) soil samples were also collected at depths ranging from 2-6 feet, with exceedances of the MTCA Method A cleanup levels for unrestricted land use found for cPAHs, naphthalenes, and cadmium. Five (5) monitoring wells were placed around the Site to determine the nature and extent of groundwater contamination. The following groundwater exceedances of MTCA Method A cleanup levels for surface water were documented: TPH_{Dx}, TPH_{Ox}, and arsenic. Attached as Exhibit C is the Focused Site Investigation Results.

E. The following is a list of the environmental documents produced as part of the Focused Site Investigation:

- *Focused Site Investigation Plan*. Prepared by GeoEngineers, February 2014.
- *Quiet Cove Property – Preliminary Findings from Soil Investigation Memorandum*. Prepared by GeoEngineers, May 2014.
- *Quiet Cove and Curtis Wharf Cleanup and Redevelopment Strategy*. Prepared by Maul Foster & Alongi, Inc., GeoEngineers, and BST Associates, March 2015.

VI. ECOLOGY DETERMINATIONS

Ecology makes the following determinations, without any express or implied admissions of such determinations (and underlying facts) by the Port.

A. The Port is an “owner or operator” as defined in RCW 70.105D.020(22) of a “facility” as defined in RCW 70.105D.020(8).

B. Based upon all factors known to Ecology, a “release” or “threatened release” of “hazardous substance(s)” as defined in RCW 70.105D.020(32) and (13), respectively, has occurred at the Site.

C. Based upon credible evidence, Ecology issued a PLP status letter to the Port dated October 23, 2014, pursuant to RCW 70.105D.040, .020(26), and WAC 173-340-500. By letter dated October 27, 2014, the Port voluntarily waived its rights to notice and comment and accepted Ecology’s determination that the Port is a PLP under RCW 70.105D.040. On October 30, 2014 Ecology issued a final determination letter to the Port that it is a PLP under RCW 70.105D.040.

D. Pursuant to RCW 70.105D.030(1) and .050(1), Ecology may require PLPs to investigate or conduct other remedial actions with respect to any release or threatened release of hazardous substances, whenever it believes such action to be in the public interest. Based on the foregoing facts, Ecology believes the remedial actions required by this Order are in the public interest.

E. Under WAC 173-340-430, an interim action is a remedial action that is technically necessary to reduce a threat to human health or the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance, that corrects a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed, or that is needed to provide for completion of a site hazard assessment, remedial investigation/feasibility study, or design of a cleanup action plan. Either Party may propose an interim action under this Order. If the Parties are in agreement concerning the interim action, the Parties will follow the process in Section VII.H. If the Parties are not in agreement, Ecology reserves its authority to require interim action(s) under a separate order or other enforcement action under Chapter 70.105D RCW, or to undertake the interim action itself.

VII. WORK TO BE PERFORMED

Based on the Findings of Fact and Ecology Determinations, it is hereby ordered that the Port take the following remedial actions at the Site and that these actions be conducted in accordance with Chapter 173-340 WAC unless otherwise specifically provided for herein:

A. The Port shall conduct the remedial actions as fully described in Exhibit B, "Scope of Work and Schedule". Generally, the Port shall perform a Remedial Investigation and Feasibility Study (RI/FS), including the development of an RI/FS Work Plan and Report, and develop a draft Cleanup Action Plan (DCAP) for the Site

B. The performance of the RI/FS shall include, but not be limited to, the following tasks:

1. Develop an RI/FS work plan that includes a scope of work to delineate and quantify (i.e. identify levels of contamination) the potential contaminants in all media (i.e. soil, groundwater, surface water, and adjacent marine sediments). The work plan shall also address the proper handling of all wastes generated from the Site during the RI/FS (e.g. soil cuttings, groundwater development and purge water, excess sediment sample material, free-product, etc.). The RI/FS work plan shall address both the Upland Area and potential In-Water Area of the Site and summarize the past investigations.
2. Perform an RI/FS study pursuant to WAC 173-340-350 and 173-204-550. The Port shall provide Ecology with the results of the field investigation in the form of a Data Report Technical Memorandum so that a determination can be made with regard to whether additional investigation is required to fully define the nature and extent of contamination.
3. Prepare an RI/FS report pursuant to WAC 173-340-350 and 173-204-550.

C. Develop a DCAP for the Site pursuant to WAC 173-340-350 through -380 and WAC 173-204-550 through -575.

D. The Port shall perform the remedial actions required by this Order according to the schedule set forth in Exhibit B.

E. The Port shall submit to Ecology a progress report the first week of each month addressing the progress of RI/FS work during periods of field activity. Field activity includes any work conducted at the site (i.e. any on-site activities such as sampling, construction-related

activities, site visits, etc.). After the field activity work is complete, the Port shall submit to Ecology a quarterly progress report due the first week of the first month per quarter. All progress reports shall include work completed to date, problems encountered and how they were resolved, any supporting documentation, and work scheduled for the subsequent time period. Electronic submittals of progress reports are acceptable.

F. A sampling and analysis plan shall be submitted to Ecology, which includes QA/QC procedures, for Ecology's review and approval, and a health and safety plan, for Ecology's review and comment, are also required, as specified in Exhibit B, per WAC 173-340-350(7)(c)(iv).

G. All plans or other deliverables submitted by the Port for Ecology's review and approval under the Scope of Work and Schedule (Exhibit B) shall, upon Ecology's approval, become integral and enforceable parts of this Order.

H. If the Parties agree on an interim action under Section VI.E, the Port shall prepare and submit to Ecology an Interim Action Work Plan, including a scope of work and schedule, by the date determined by Ecology. Ecology will provide public notice and opportunity to comment on the Interim Action Work Plan in accordance with WAC 173-340-600(16). The Port shall not conduct the interim action until Ecology approves the Interim Action Work Plan. Upon approval by Ecology, the Interim Action Work Plan becomes an integral and enforceable part of this Order, and the Port is required to conduct the interim action in accordance with the approved Interim Action Work Plan.

I. If Ecology determines that the Port has failed to make sufficient progress or failed to implement the remedial action, in whole or in part, Ecology may, after notice to the Port, perform any or all portions of the remedial action or at Ecology's discretion allow the Port opportunity to correct. The Port shall reimburse Ecology for the costs of doing such work in accordance with Section VIII.A (Remedial Action Costs). Ecology reserves the right to enforce requirements of this Order under Section X (Enforcement).

J. Except where necessary to abate an emergency situation, the Port shall not perform any remedial actions at the Site outside those remedial actions required by this Order, unless Ecology concurs, in writing, with such additional remedial actions.

VIII. TERMS AND CONDITIONS

A. Remedial Action Costs

The Port shall pay to Ecology costs incurred by Ecology pursuant to this Order and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Site under Chapter 70.105D RCW, including remedial actions and Order preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the issuance of this Order. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). Ecology has accumulated \$2300.60 in remedial action costs related to this Site as of March 31, 2015. Payment for this amount shall be submitted within thirty (30) days of the effective date of this Order. For all costs incurred subsequent to March 31, 2015, the Port shall pay the required amount within thirty (30) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly.

In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency and/or, pursuant to RCW 70.105D.055, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

B. Designated Project Coordinators

The project coordinator for Ecology is:

Arianne Fernandez

Lands Cleanup Unit/HQ – Toxics Cleanup Program
P.O. Box 47600, Olympia, Washington 98504-7600
(360) 407-7209
afer461@ecy.wa.gov

The project coordinator for the Port is:

Becky Darden
Port of Anacortes
100 Commercial Avenue
Anacortes, Washington 98221-1560
(360) 299-1831 Direct Line
(360) 293-3134 Main Office
Becky@portofanacortes.com

Each project coordinator shall be responsible for overseeing the implementation of this Order. Ecology's project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and the Port, and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Order shall be directed through the project coordinators. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Order.

Any Party may change its respective project coordinator. Written notification shall be given to the other Party at least ten (10) calendar days prior to the change.

C. Performance

All geologic and hydrogeologic work performed pursuant to this Order shall be under the supervision and direction of a geologist or hydrogeologist licensed by the State of Washington or under the direct supervision of an engineer registered by the State of Washington, except as otherwise provided for by Chapters 18.43 and 18.220 RCW.

All engineering work performed pursuant to this Order shall be under the direct supervision of a professional engineer registered by the State of Washington, except as otherwise provided for by RCW 18.43.130.

All construction work performed pursuant to this Order shall be under the direct supervision of a professional engineer or a qualified technician under the direct supervision of a

professional engineer. The professional engineer must be registered by the State of Washington, except as otherwise provided for by RCW 18.43.130.

Any documents submitted containing geologic, hydrologic, or engineering work shall be under the seal of an appropriately licensed professional as required by Chapters 18.43 and 18.220 RCW.

The Port shall notify Ecology in writing of the identity of any engineer(s) and geologist(s), contractor(s) and subcontractor(s), and others to be used in carrying out the terms of this Order, in advance of their involvement at the Site.

D. Access

Ecology or any Ecology authorized representative shall have access to enter and freely move about all property at the Site that the Port either owns, controls, or has access rights to at all reasonable times for the purposes of, *inter alia*: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Order; reviewing the Port's progress in carrying out the terms of this Order; conducting such tests or collecting such samples as Ecology may deem necessary; using a camera, sound recording, or other documentary type equipment to record work done pursuant to this Order; and verifying the data submitted to Ecology by the Port. The Port shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by the Port where remedial activities or investigations will be performed pursuant to this Order. Ecology or any Ecology authorized representative shall give reasonable notice before entering any Site property owned or controlled by the Port unless an emergency prevents such notice. All persons who access the Site pursuant to this section shall comply with any applicable health and safety plan(s). Ecology employees and their representatives shall not be required to sign any liability release or waiver as a condition of Site property access.

E. Sampling, Data Submittal, and Availability

With respect to the implementation of this Order, the Port shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in

both printed and electronic formats in accordance with Section VII (Work to be Performed), Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

If requested by Ecology, the Port shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by the Port pursuant to implementation of this Order. The Port shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow the Port and/or its authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Order, provided that doing so does not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section VIII.D (Access), Ecology shall notify the Port prior to any sample collection activity unless an emergency prevents such notice.

In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under Chapter 173-50 RCW for the specific analyses to be conducted, unless otherwise approved by Ecology.

F. Public Participation

A Public Participation Plan is required for this Site. Ecology shall review any existing Public Participation Plan to determine its continued appropriateness and whether it requires amendment, or if no plan exists, Ecology shall develop a Public Participation Plan alone or in conjunction with the Port.

Ecology shall maintain the responsibility for public participation at the Site. However, the Port shall cooperate with Ecology, and shall:

1. If agreed to by Ecology, develop appropriate mailing lists and prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans, remedial investigation/feasibility study reports, cleanup action plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings.

2. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before major meetings with the interested public and local governments. Likewise, Ecology shall notify the Port prior to the issuance of all press releases and fact sheets, and before major meetings with the interested public and local governments. For all press releases, fact sheets, meetings, and other outreach efforts by the Port that do not receive prior Ecology approval, the Port shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

3. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions or as a presenter.

4. When requested by Ecology, arrange and/or continue information repositories to be located at the following locations:

- a. Anacortes Public Library
1220 10th St.
Anacortes, WA 98221
- b. Ecology's Headquarters Office
300 Desmond Drive
Lacey, WA 98503

At a minimum, copies of all public notices, fact sheets, and documents relating to public comment periods shall be promptly placed in these repositories. A copy of all documents related to this Site shall be maintained in the repository at Ecology's Headquarters Office in Lacey, Washington.

G. Retention of Records

During the pendency of this Order, and for ten (10) years from the date of completion of work performed pursuant to this Order, the Port shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Order and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, the Port shall make all records available to Ecology and allow access for review within a reasonable time.

Nothing in this Order is intended to waive any right the Port may have under applicable law to limit disclosure of documents protected by the attorney work-product privilege and/or the attorney-client privilege. If the Port withholds any requested records based on an assertion of privilege, the Port shall provide Ecology with a privilege log specifying the records withheld and the applicable privilege. No Site-related data collected pursuant to this Order shall be considered privileged.

H. Resolution of Disputes

1. In the event that the Port elects to invoke dispute resolution the Port must utilize the procedure set forth below.

a. Upon the triggering event (receipt of Ecology's project coordinator's written decision or an itemized billing statement), the Port has fourteen (14) calendar days within which to notify Ecology's project coordinator in writing of its dispute ("Informal Dispute Notice").

b. The Parties' project coordinators shall then confer in an effort to resolve the dispute informally. The Parties shall informally confer for up to fourteen (14) calendar days from receipt of the Informal Dispute Notice. If the project coordinators cannot resolve the dispute within those 14 calendar days, then within seven (7) calendar days following the close of the 14 day informal conference period Ecology's project coordinator shall issue a written decision ("Informal Dispute Decision") stating: the nature of the dispute; the Port's position with regard to the dispute; Ecology's position with regard to the dispute; and the extent of resolution reached by informal discussion.

c. The Port may then request regional management review of the dispute. This request ("Formal Dispute Notice") must be submitted in writing to the Headquarters Toxics Cleanup Section Manager within seven (7) calendar days of receipt of Ecology's Informal Dispute Decision. The Formal Dispute Notice shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.

d. The Section Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (“Decision on Dispute”) within thirty (30) calendar days of receipt of the Formal Dispute Notice. The Decision on Dispute shall be Ecology’s final decision on the disputed matter.

2. The Parties agree to only utilize the dispute resolution process in good faith and agree to expedite, to the extent possible, the dispute resolution process whenever it is used.

3. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Order, unless Ecology agrees in writing to a schedule extension.

4. In case of a dispute, failure to either proceed with the work required by this Order or timely invoke dispute resolution may result in Ecology’s determination that insufficient progress is being made in preparation of a deliverable, and may result in Ecology undertaking the work under Section VII. (Work to be Performed) or initiating enforcement under Section X (Enforcement).

I. Extension of Schedule

1. An extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

- a. The deadline that is sought to be extended;
- b. The length of the extension sought;
- c. The reason(s) for the extension; and
- d. Any related deadline or schedule that would be affected if the extension were granted.

2. The burden shall be on the Port to demonstrate to the satisfaction of Ecology that the request for such extension has been submitted in a timely fashion and that good cause exists for granting the extension. Good cause may include, but may not be limited to:

- a. Circumstances beyond the reasonable control and despite the due diligence of the Port including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by the Port;
- b. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty; or
- c. Endangerment as described in Section VIII.K (Endangerment).

However, neither increased costs of performance of the terms of this Order nor changed economic circumstances shall be considered circumstances beyond the reasonable control of the Port.

3. Ecology shall act upon any written request for extension in a timely fashion. Ecology shall give the Port written notification of any extensions granted pursuant to this Order. A requested extension shall not be effective until approved by Ecology. Unless the extension is a substantial change, it shall not be necessary to amend this Order pursuant to Section VIII.J (Amendment of Order) when a schedule extension is granted.

4. An extension shall only be granted for such period of time as Ecology determines is reasonable under the circumstances. Ecology may grant schedule extensions exceeding ninety (90) days only as a result of:

- a. Delays in the issuance of a necessary permit which was applied for in a timely manner;
- b. Other circumstances deemed exceptional or extraordinary by Ecology; or
- c. Endangerment as described in Section VIII.K (Endangerment).

J. Amendment of Order

The project coordinators may verbally agree to minor changes to the work to be performed without formally amending this Order. Minor changes will be documented in writing by Ecology within seven (7) days of verbal agreement.

Except as provided in Section VIII.L (Reservation of Rights), substantial changes to the work to be performed shall require formal amendment of this Order. This Order may only be

formally amended by the written consent of both Ecology and the Port. The Port shall submit a written request for amendment to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request for amendment is received. If the amendment to this Order represents a substantial change, Ecology will provide public notice and opportunity to comment. Reasons for the disapproval of a proposed amendment to this Order shall be stated in writing. If Ecology does not agree to a proposed amendment, the disagreement may be addressed through the dispute resolution procedures described in Section VIII.H (Resolution of Disputes).

K. Endangerment

In the event Ecology determines that any activity being performed at the Site under this Order is creating or has the potential to create a danger to human health or the environment on or surrounding the Site, Ecology may direct the Port to cease such activities for such period of time as it deems necessary to abate the danger. The Port shall immediately comply with such direction.

In the event the Port determines that any activity being performed at the Site under this Order is creating or has the potential to create a danger to human health or the environment, the Port may cease such activities. The Port shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after making such determination or ceasing such activities. Upon Ecology's direction, the Port shall provide Ecology with documentation of the basis for the determination or cessation of such activities. If Ecology disagrees with the Port's cessation of activities, it may direct the Port to resume such activities.

If Ecology concurs with or orders a work stoppage pursuant to this section, the Port's obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended in accordance with Section VIII.I (Extension of Schedule) for such period of time as Ecology determines is reasonable under the circumstances.

Nothing in this Order shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

L. Reservation of Rights

This Order is not a settlement under Chapter 70.105D RCW. Ecology's signature on this Order in no way constitutes a covenant not to sue or a compromise of any of Ecology's rights or authority. Ecology will not, however, bring an action against the Port to recover remedial action costs paid to and received by Ecology under this Order. In addition, Ecology will not take additional enforcement actions against the Port regarding remedial actions required by this Order, provided the Port complies with this Order.

Ecology nevertheless reserves its rights under RCW 70.105D, including the right to require additional or different remedial actions at the Site should it deem such actions necessary to protect human health and the environment, and to issue orders requiring such remedial actions. Ecology also reserves all rights regarding the injury to, destruction of, or loss of natural resources resulting from the release or threatened release of hazardous substances at the Site.

By entering into this Order, the Port does not admit to any liability for the Site. Although the Port is committing to conducting the work required by this Order under the terms of this Order, the Port expressly reserves all rights available under law, including but not limited to its rights regarding any future agency action not covered by the scope of this Order, the right to seek cost recovery or contribution against third parties, and the right to assert any defenses to liability in the event of enforcement.

M. Transfer of Interest in Property

No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by the Port without provision for continued implementation of all requirements of this Order and implementation of any remedial actions found to be necessary as a result of this Order.

Prior to the Port's transfer of any interest in all or any portion of the Site, and during the effective period of this Order, the Port shall provide a copy of this Order to any prospective

purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least thirty (30) days prior to any transfer, the Port shall notify Ecology of said transfer. Upon transfer of any interest, the Port shall notify all transferees of the restrictions on the activities and uses of the property under this Order and incorporate any such use restrictions into the transfer documents.

N. Compliance with Applicable Laws

1. All actions carried out by the Port pursuant to this Order shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70.105D.090. At this time, no federal, state, or local requirements have been identified as being applicable to the actions required by this Order.

2. Pursuant to RCW 70.105D.090(1), the Port is exempt from the procedural requirements of Chapters 70.94, 70.95, 70.105, 77.55, 90.48, and 90.58 RCW and of any laws requiring or authorizing local government permits or approvals. However, the Port shall comply with the substantive requirements of such permits or approvals. At this time, the following state or local permits or approvals have been identified as being potentially applicable but procedurally exempt under this section: Washington Department of Fish and Wildlife for conducting sediment sampling; and City of Anacortes for conducting upland investigation within the shoreline jurisdictional area and/or the City right-of-way.

The Port has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order. In the event either Ecology or the Port determines that additional permits or approvals addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under this Order, it shall promptly notify the other Party of its determination. Ecology shall determine whether Ecology or the Port shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, the Port shall promptly consult with the appropriate state and/or local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements that must be met by

the Port and on how the Port must meet those requirements. Ecology shall inform the Port in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Order. The Port shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

3. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70.105D.090(1) would result in the loss of approval from a federal agency that is necessary for the state to administer any federal law, the exemption shall not apply and the Port shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

O. Periodic Review

As remedial action, including groundwater monitoring, continues at the Site, the Parties agree to review the progress of remedial action at the Site, and to review the data accumulated as a result of monitoring the Site as often as is necessary and appropriate under the circumstances. At least every five (5) years after the initiation of cleanup action at the Site, the Parties shall meet to discuss the status of the Site and the need, if any, for further remedial action at the Site. At least ninety (90) days prior to each periodic review, the Port shall submit a report to Ecology that documents whether human health and the environment are being protected based on the factors set forth in WAC 173-340-420(4). Ecology reserves the right to require further remedial action at the Site under appropriate circumstances. This provision shall remain in effect for the duration of this Order.

P. Indemnification

The Port agrees, to the extent permitted by law, to indemnify and save and hold the State of Washington, its employees, and agents harmless from any and all claims or causes of action (1) for death or injuries to persons, or (2) for loss or damage to property, to the extent arising from or on account of acts or omissions of the Port, its officers, employees, agents, or contractors in entering into and implementing this Order. However, the Port shall not indemnify the State of

Washington nor save nor hold its employees and agents harmless from any claims or causes of action to the extent arising out of the negligent acts or omissions of the State of Washington, or the employees or agents of the State, in entering into or implementing this Order.

IX. SATISFACTION OF ORDER

The provisions of this Order shall be deemed satisfied upon the Port's receipt of written notification from Ecology that the Port has completed the remedial activity required by this Order, as amended by any modifications, and that the Port has complied with all other provisions of this Agreed Order.

X. ENFORCEMENT

Pursuant to RCW 70.105D.050, this Order may be enforced as follows:

A. The Attorney General may bring an action to enforce this Order in a state or federal court.

B. The Attorney General may seek, by filing an action, if necessary, to recover amounts spent by Ecology for investigative and remedial actions and orders related to the Site.

C. A liable party who refuses, without sufficient cause, to comply with any term of this Order will be liable for:

1. Up to three (3) times the amount of any costs incurred by the State of Washington as a result of its refusal to comply.


2. Civil penalties of up to twenty-five thousand dollars (\$25,000) per day for each day it refuses to comply.

D. This Order is not appealable to the Washington Pollution Control Hearings Board.

This Order may be reviewed only as provided under RCW 70.105D.060.


Effective date of this Order: 2/23/16

The Port of Anacortes



Daniel C. Worra

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY



Barry Rogowski

Model Agreed Order No. DE 11346
Page 21 of 21

Executive Director
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Headquarters Office
(360) 407-7226

EXHIBIT – A

QUIET COVE SITE SITE DIAGRAM

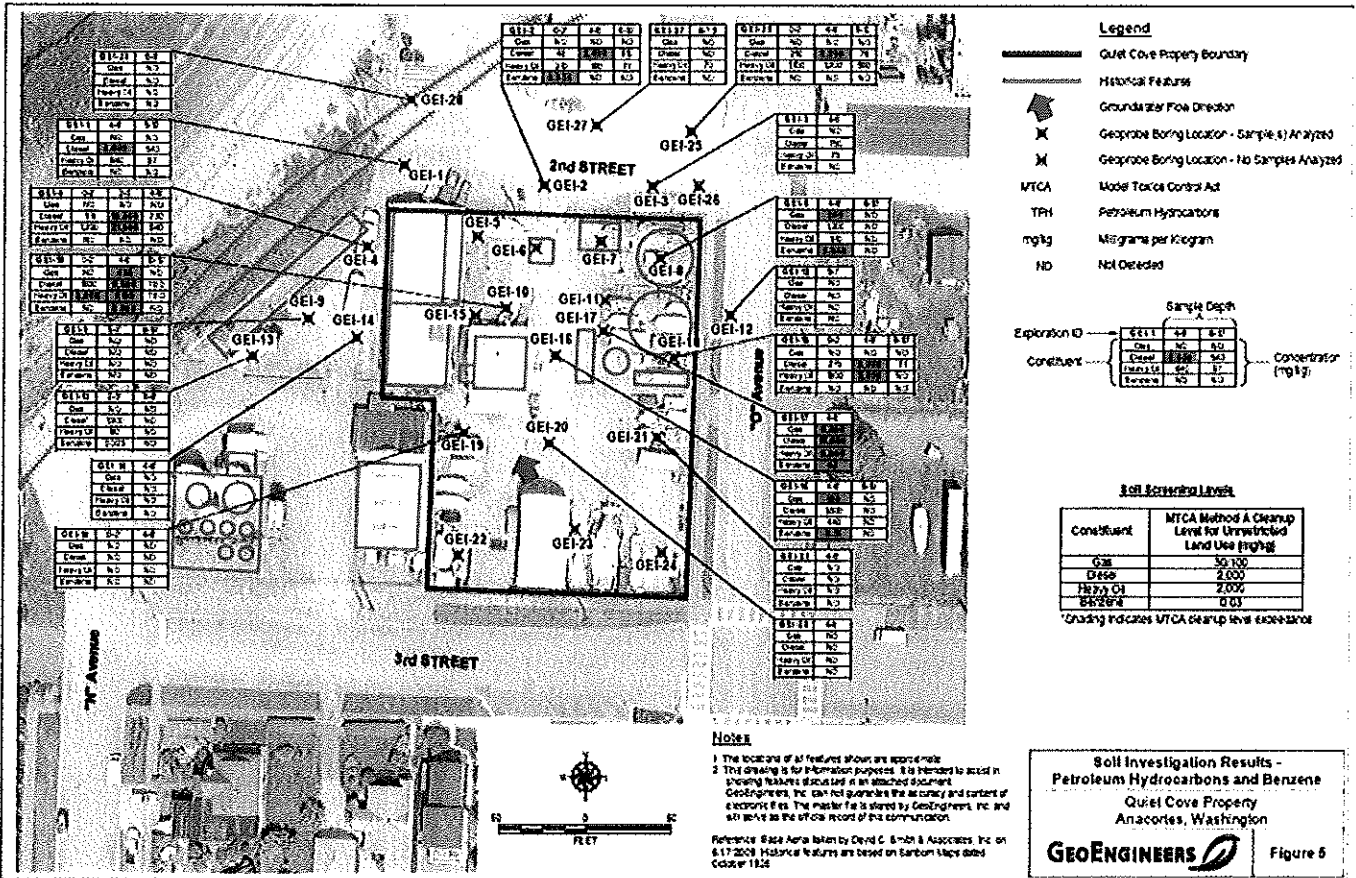


EXHIBIT – B

CHECKLIST FOR KEY PROJECT MEETING #2

THE REMEDIAL INVESTIGATION PLANNING MEETING

ATTENDANCE

THE ECOLOGY CLEANUP PROJECT MANAGER (CPM), THE PERSON OR PERSONS RESPONSIBLE FOR THE SITE CLEANUP (PLPs AND CONSULTANTS), PERSONS WHO ARE OR WILL BE INVOLVED IN DRAFTING THE REMEDIAL INVESTIGATION (RI) WORK PLANS, OTHER AGENCIES IF APPLICABLE.

IF ATTORNEYS FOR EITHER PLPs OR ECOLOGY ARE ATTENDING THIS (OR ANY) MEETING IT SHOULD BE COMMUNICATED TO OTHER PARTIES BEFORE THE MEETING. (THIS IS A STANDARD BUSINESS COURTESY.)

PURPOSE OF THIS MEETING

- PLAN THE REMEDIAL INVESTIGATION FIELD WORK.
- REVIEW SAMPLING AND ANALYSIS PLAN AND QUALITY ASSURANCE PROJECT PLAN REQUIREMENTS.
- ESTABLISH COMMUNICATIONS STRATEGY AROUND REVIEWING DATA.

AGENDA TOPICS (EXPAND AS NEEDED)

- BRING FORWARD THE CONCEPTUAL SITE MODEL BASED ON WHAT IS CURRENTLY KNOWN ABOUT THE SITE AND POTENTIAL EXPOSURE PATHWAYS.
- PLAN SITE VISIT(S) TO OBSERVE VISIBLE CHARACTERISTICS AND SURROUNDING AREAS. DETERMINE IF OFF-SITE CONTAMINATION SOURCES ARE KNOWN OR SUSPECTED.
- DISCUSS PLANNED FIELD ACTIVITIES INCLUDING AREAS TO BE INVESTIGATED, CHARACTERIZATION OBJECTIVES FOR EACH AREA, LOCATIONS AND SITING OF SAMPLING AND/OR OTHER DATA COLLECTION POINTS, FIELD METHODOLOGIES, FIELD DATA COLLECTION, FIELD CONTINGENCIES, LABORATORY ANALYSES AND DATA EVALUATION METHODS.
- IDENTIFY POTENTIAL INTERIM ACTIONS USING CURRENT KNOWLEDGE OF POTENTIAL SOURCES, EXPOSURE PATHWAYS AND IMMEDIATE THREATS TO HUMAN HEALTH AND THE ENVIRONMENT.
- DISCUSS SEPARATING OR COMBINING RI AND FS ACTIVITIES IF IT REDUCES COMPLEXITY OR ASSISTS IN RUNNING THE TWO FUNCTIONS IN PARALLEL. IDENTIFY WHERE RI AND FS ACTIVITIES CAN BE PERFORMED CONCURRENTLY TO PRODUCE AN RI/FS REPORT WITHIN 2 YEARS.
- DISCUSS SEPA PROCESS AND RESPONSIBILITIES.

REVIEW RI EXPECTATIONS

- THE ECOLOGY CPM MAY PARTICIPATE IN FIELD ACTIVITIES SO THAT DECISIONS ARE MADE IN REAL TIME AND WITH OBSERVATIONS AND DISCUSSION THROUGH THE DESIGNATED POINT OF CONTACT (POC).

QUIET COVE SITE
SCOPE OF WORK AND SCHEDULE

Pursuant to the Agreed Order to which this Scope of Work and Schedule is attached, the Port of Anacortes (Port) shall take the following remedial actions at the Quiet Cove Site (Site) and these actions shall be conducted in accordance with Chapters 173-340 and 173-204 WAC unless otherwise specifically provided herein.

The anticipated schedule for major project milestones and deliverables is outlined below. The final schedule will be determined by Ecology based on project progress and conditions. Documents become final upon written approval by Ecology.

A. Remedial Actions to be Performed

1. Preparation of a Remedial Investigation/Feasibility Study Work Plan.

The Port shall develop an RI/FS Work Plan (including draft, draft final (if necessary), and final versions) that includes a scope of work to delineate and quantify (i.e., identify the levels of contamination) the potential contaminants in all media (i.e., soil, groundwater, surface water, and adjacent marine sediments). The Work Plan shall also address the proper handling of all wastes generated from the Site during the RI/FS (e.g., soil cuttings, groundwater development and purge water, excess sediment sample material, free-product, etc.). Note that all draft documents for Ecology review may be submitted in redline strike-out format (preferably in Microsoft® WORD format) to facilitate the review. The RI/FS Work Plan shall meet the requirements of WAC 173-340-350 for upland areas and WAC 173-240-550 for in-water areas. The RI/FS Work Plan shall also evaluate whether an Interim Action is appropriate for the Site, following the requirements of WAC 173-340-430. An Interim Action may be identified and implemented at any point during

the RI/FS process, subject to the procedures in Section VI(E) and Section VII(H) of the Agreed Order.

a. Investigation of Site Background and Setting

This section of the RI/FS Work Plan shall include descriptions of the following, detailed as information is available:

(i) The property and site operational/industrial history (including current and previous ownership).

(ii) Historical sources and releases of contamination to upland and in-water areas (include a review of historical photos, Sanborn Maps, and available information on Site fill).

(iii) Current site conditions (including descriptions and mapping of surface features, stormwater features, topography, geology, soil and the vadose zone, surface water hydrology, hydrogeology, meteorology, and bathymetry of in-water areas including mean higher high water and mean lower low water contours).

(iv) Current and future land and water use, including both human and ecological uses and services.

(v) The terrestrial/aquatic ecological setting including a description of onsite and surrounding habitat types and conditions, ecological receptors, and potentially threatened/endangered species.

b. Previous Investigations

A summary of environmental investigations performed to date, including media sampled and types of analyses performed, both upland and in-water, shall be included in

the RI/FS Work Plan. In addition, this section should identify any data gaps that need to be filled to fully define the nature and extent of contamination/toxicity associated with all media of concern at the Site.

c. Development of Preliminary Conceptual Site Model (CSM)

The CSM should describe general release mechanisms from the potential primary sources of hazardous substances to secondary and tertiary sources, the exposure media and routes, and potential receptors, both human and ecological, upland and offshore. The CSM should reflect historical and current conditions as well as potential future development in assessing exposure pathways. In accordance with WAC 173-340-720(2), rationale should be included to substantiate that groundwater at the Site cannot be used, or has an extremely low probability to be used, for potable purposes (i.e. as viable drinking water aquifer).

d. Establishment of Screening Levels

Identify appropriate screening levels consistent with the exposure pathways and receptors (both human and ecological) identified in the CSM per WAC 173-340-700 through 173-340-760 and WAC 173-204-560. Note that the screening levels must consider all applicable pathways including direct contact (including inhalation); media transfer pathways (e.g. leaching to groundwater, groundwater migration to surface water, and sediment, etc.); and exposure by terrestrial and/or aquatic ecological and human receptors.

Sediment screening levels shall include both the chemical and biological standards of Chapter 173-204 WAC, and should take into account the presence of contaminants of concern identified in the CSM. Bioaccumulative pathways to higher trophic levels and human receptors must be considered, along with potential toxicity due to deleterious substances without chemical cleanup standards under SMS.

e. Evaluation of Existing Data and Identification of Preliminary Hazardous Substances

The existing analytical data should be plotted as accurately as possible on a base map using geo-referencing techniques to depict identified sources and areas where suspected releases have occurred. Review the prior sample locations with respect to identified sources and areas where suspected releases (e.g. outfalls, spills, dumping, leaks, etc.) have occurred. All of the existing analytical data collected at the Site should be evaluated in terms of data usability (analytical methods used to evaluate the effectiveness of a cleanup action shall comply with the requirements in WAC 173-340-830) and be screened against the screening levels identified based on the conceptual site model (CSM) for the Site (*see* Sections A.1.c and A.1.d above). Both non-detect and detected data should be included in the screening.

Identify sampling points containing exceedances on a map, and discuss the adequacy of the reporting limits (i.e., Method Detection and Practical Quantification Limits) in terms of achieving the Site screening levels. Constituents exceeding the screening levels should be identified as preliminary indicator hazardous substances. Additionally, where no existing and or valid data is available, preliminary indicator hazardous substances will be identified based on historical site use.

f. RI Study Approach

This section of the RI/FS Work Plan shall provide an overview of the methods that will be used in conducting the RI for the Site. Based on the background information gathered and the evaluation of existing data, discuss by medium (e.g. soil, sediment, surface water, etc.) the data required to complete an RI for the Site. The RI approach shall be consistent with WAC 173-340-350 and WAC 173-204-550.

Identify data gaps and the overall approach for conducting the RI. The Sampling Analysis Plan (SAPs) (*see* Section A.1.h below) will provide the details on numbers and locations of samples for each medium and associated analytical or toxicity testing requirements. The RI field investigation will be designed to identify the full nature and extent of contaminants and toxic and bioaccumulative effects in upland and in-water areas.

The Port shall provide Ecology with the results of the field investigation in the form of a Data Report Technical Memorandum so that a determination can be made with regard to whether additional investigation is required to define the full nature and extent of contamination. The information provided to Ecology should describe the analytical results of the field activities including the identification of indicator hazardous substances, the affected media, preliminary cleanup levels, the extent of contamination (plotted on maps), and any data gaps that need to be filled to define the nature and extent of contamination, impacts to site habitat, and toxic/bioaccumulative effects. Note that the preliminary cleanup levels may be different than the screening levels used in the RI/FS Work Plan based on a better understanding of the CSM (e.g., contaminants in soil may not be impacting Site groundwater) for the Site. Additional field investigation (if necessary, based on initial results) will be conducted to further define the nature and extent of contamination and toxic/bioaccumulative effects based on findings during the initial investigation.

g. FS Approach

This section of the RI/FS Work Plan shall provide an overview of the methods that will be used in conducting the FS for the Site. The FS approach shall be consistent with WAC 173-340-350 and WAC 173-204-550 and should consist of the following sections:

- (i) **Establishment of Cleanup Levels, Points of Compliance, and Remediation Levels.**

The Port will work with Ecology to develop indicator hazardous substances, cleanup levels and points of compliance consistent with Model Toxics Control Act (MTCA) and Sediment Management Standards (SMS) regulations. The Port may also consider establishing potential remediation levels as defined per WAC 173-340-355. Cleanup levels, site boundaries, and site units for aquatic areas should be established in accordance with WAC 173-204-560 and -570.

(ii) Applicable or Relevant and Appropriate Requirements.

The FS should identify all applicable federal, state, and local requirements, including requirements to obtain necessary permits, to comply with applicable laws, except as provided in RCW 70.105D.090. The FS should also include information on actions to be taken to meet these requirements.

(iii) Delineation of Media Requiring Remedial Action.

Based on the results of the RI, determine areas and/or volumes of affected media to which remedial action objectives might be applied.

(iv) Development of Remedial Action Objectives.

Remedial action objectives are established on the basis of extent and magnitude of the contamination, the resources that are currently and potentially threatened, and the potential for human and ecological (both terrestrial and aquatic) exposures at the Site. The Remedial Action Objectives should provide general descriptions of what the Site cleanup is designed to accomplish. The FS approach section must clearly define a

basis and rationale for Remedial Action Objectives for each medium at the Site.

(v) **Screening and Evaluation of Cleanup Action Alternatives.**

A reasonable number and type of cleanup action alternatives should be evaluated, taking into account the characteristics and complexity of the Site, including current site conditions and physical constraints. Evaluation of cleanup action alternatives and the selection of a preferred cleanup alternative must meet the requirements of WAC 173-340-360, WAC 173-204-550, WAC 173-204-560 and WAC 173-204-570. A detailed evaluation of the following criteria should be included in the RI/FS report for each cleanup alternative:

- Compliance with cleanup standards and applicable laws
- Protection of human health
- Protection of the environment
- Provision for a reasonable restoration time frame
- Use of permanent solutions to the maximum extent practicable
- The degree to which recycling, reuse, and waste minimization are employed
- Potential habitat restoration (should sediment contamination be identified)

Short-term effectiveness

- Long-term effectiveness (Must include a recontamination evaluation)
- Net environmental benefit
- Implementability

- Provision for compliance monitoring
- Cost-effectiveness
- Prospective community acceptance

The remedial alternative that is judged to best satisfy the evaluation criteria will be identified. Justification for the selection will be provided, and the recommended remedial alternative further developed, in the RI/FS report.

h. Development of a Site-Specific Health and Safety Plan and

Sampling and Analysis Plan

The RI/FS Work Plan shall include a site-specific Health and Safety Plan (HSP), describing worker safety during the project will be developed in accordance with WAC 173-340-810, as well as a site-specific Sampling and Analysis Plan (SAP), which includes quality assurance/quality control requirements. An upland SAP and a sediment SAP, consistent with WAC 173-340-350(7)(c)(iv), shall be submitted to Ecology for review and approval prior to any sampling being conducted. The SAP should be based on the type, quality, and quantity of data necessary to support selection of a cleanup action. The SAP should provide the details on numbers and locations of samples for each media and the analytical requirements. The SAP shall conform to the requirements specified in WAC 173-340-820. Sediment sampling is also required under the Sediment Management Standards (SMS; Chapter 173-204 WAC) to fully investigate the nature and extent of potential marine sediment contamination released at the Site. In addition, any sampling of the marine sediments must be done in accordance with the SMS and the "Sediment Sampling and Analysis Plan Appendix," Ecology Publication No. 03-09-043.

i. Public Involvement

This section shall present the general process for public involvement (in accordance with WAC 173-340-600). See 'Section F. Public Participation' of the Order.

j. Project Management

This section shall discuss project staffing and coordination associated with the RI/FS activities for the Site. The organizational structure and responsibilities are designed to provide project control and quality assurance for the duration of the project.

k. Schedule & Reporting

This section should contain the schedule and reporting requirements for the RI/FS Work Plan as defined in this Agreed Order.

2. Data Report Technical Memorandum.

The Port shall provide Ecology with the results of the field investigation in the form of a Data Report Technical Memorandum so that a determination can be made with regard to whether additional investigation is required to fully define the nature and extent of contamination. The information provided to Ecology should describe the analytical results of the field activities, the affected media, the extent of contamination (plotted on maps and screened against preliminary cleanup levels (if appropriate), and identification of data gaps that need to be filled to complete the RI/FS with respect to the nature and extent of contamination and toxic/bioaccumulative effects.

3. Prepare Draft RI/FS Report.

A draft, draft final (if necessary), and final RI/FS report meeting the requirements of WAC 173-340-350, WAC 173-340-560, WAC 173-204-550 and WAC 173-204-560 shall be prepared and submitted to Ecology for review and approval. The RI/FS report

shall contain the results of the RI and will provide information regarding the full extent and magnitude of soil, groundwater, surface water, and/or adjacent marine sediment contamination including toxic and bioaccumulative effects. The FS portion of the report will present and evaluate cleanup action alternatives to address the identified contamination at the Site. Based on the evaluation of alternatives (WAC 173-340-350(8) and WAC 173-204-570), the FS will identify a preferred cleanup action alternative for the Site in compliance with WAC 173-340-360 and WAC 173-204-560.

4. Develop a Draft Cleanup Action Plan (CAP).

Upon Ecology approval of the RI/FS report, the Port shall prepare a draft and draft final CAP in accordance with WAC 173-340-380 and WAC 173-204-570. The draft CAP shall address the proposed cleanup action alternatives for the remediation of all impacted media in the upland and in-water portions of the Site, respectively, based on the results of the RI/FS. The draft CAP shall include a general description of the proposed cleanup actions along with the following sections:

- A general description of the proposed cleanup action and the rationale for selection, including results of any remedial technology pilot studies, if necessary.
- A summary of the other alternatives evaluated in the RI/FS.
- Identification and summary of the applicable local, state, and federal laws pertinent to the proposed cleanup.
- Identification of Cleanup standards and the points of compliance along with a rationale regarding their selection for each hazardous substance and for each medium of concern at the Site based on the results of the RI/FS.
- Descriptions of any institutional/engineering controls, if proposed.
- A preliminary schedule for implementation of field construction work and subsequent maintenance and monitoring.

B. Schedule

The Port shall perform the actions required by this Order according to the schedule below. The Port shall address Ecology comments on all deliverables through written responses. When Ecology provides comments in red-line strikeout format (i.e., comments made directly within the electronic version of the document), the Port may respond to those comments directly within the same electronic document. Ecology will strive to review documents within 45 calendar days of receipt from the Port. If Ecology determines additional time for review is necessary, it will attempt to notify the Port within 10 calendar days of the close of the 45 day deadline.

1. Project Schedule

RI/FS Work Plan
The Draft RI/FS Work Plan shall be submitted to Ecology within 120 calendar days of the effective date of this order.
The Final RI/FS Work Plan shall be submitted to Ecology within 90 calendar days of the receipt of Ecology's comments on the draft RI/FS Work Plan or the draft final RI/FS Work Plan (if it became necessary to produce). The Port shall confer with Ecology about its comments and the Port shall incorporate all of Ecology's final comments into the Final RI/FS Work Plan.
The total time for Ecology review of the RI/FS Work Plan is no more than 90 calendar days, unless Ecology determines that additional review time is necessary. Ecology will attempt to review and provide comments on the draft within 45 calendar days. Ecology will attempt to review and approve the final within 45 calendar days.
Field RI
Field RI activities shall be commenced within 60 calendar days of Ecology approval of the Final RI/FS work plan. It is recognized that sediment sampling will require a Corps permit and conditions of the permit will require sampling to be completed within the in-water work window that may fall outside of the specified 60 day period. Separate mobilizations and field schedules may be required to complete the Site investigation as approved by Ecology.
Data Report Technical Memorandum The field RI results shall be provided to Ecology 60 calendar days after the validation of all RI/FS analytical data.
Additional field RI activities (if needed) Additional field RI activities may be required to adequately delineate the nature and extent of contamination at the Site, and/or to conduct pilot testing of a remedial alternative. The scope, schedule, and submittal requirements for additional field RI activities shall be developed by the Port, and shall be submitted to Ecology for review and concurrence within 60 calendar days of Ecology's determination that the Data Report Technical Memorandum warrants additional RI activities.
RI/FS Report
The Draft RI/FS Report shall be submitted within 180 calendar days of Ecology approval of the Final RI/FS Work Plan. If Ecology review of the Data Report Technical Memorandum finds that significant data gaps have not been filled, at Ecology's discretion, the date of the Draft RI/FS Report submittal may be extended.
The Final RI/FS Report shall be submitted to Ecology within 45 calendar days from receipt of Ecology comments on the Draft RI/FS Report or draft final RI/FS Report (if it became necessary to produce) . The final RI/FS report will undergo a 30-

day public comment period. Ecology will complete a responsiveness summary to public comment on the final RI/FS Report before approving the document.
The total time for Ecology review of the RI Report is no more than 90 days, unless Ecology determines that additional review time is necessary. Ecology will attempt to review and provide comments on the draft within 45 calendar days. Ecology will attempt to review and approve the final within 45 calendar days.
Draft Cleanup Action Plan
The preliminary Draft Cleanup Action Plan shall be submitted within 120 calendar days after the RI/FS report is finalized.
The Final Draft Cleanup Action Plan shall be submitted within 60 calendar days from the date of issuance of Ecology comments to the preliminary Draft Cleanup Action Plan. The Final Draft Cleanup Action Plan will then undergo a 30-day public comment review period.
The total time for Ecology review of the Draft CAP is no more than 90 days, unless Ecology determines that additional review time is necessary. Ecology will attempt to review and provide comments on the draft within 45 calendar days. Ecology will attempt to review and approve the final within 45 calendar days.

2. Environmental Data Submittals

- All sampling data (including any historical data described in 'Section V. Findings of Fact' in the Agreed Order that is used in the RI for decision purposes) shall be submitted to Ecology in both printed (e.g. summarized in report tables) and electronic formats in accordance with Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements) and/or any subsequent procedures specified by Ecology for data submittal.
- Historical data that is used in the RI/FS Work Plan and/or RI/FS Report, to the extent available and determined to be suitable for cleanup action decision-making, shall be supplied to Ecology in electronic format (i.e. EIM) as part of the first draft RI/FS Work Plan deliverable.
- New data collected as part of the initial or first phase of the RI/FS, shall be supplied to Ecology in electronic format (i.e. EIM) 60 calendar days after the new data has been validated. Data collected as part of additional RI/FS activities shall also be supplied to Ecology in electronic format (i.e. EIM) 60 calendar days after the data has been validated.

Based on the work schedule presented above, the Port shall develop an overall cleanup schedule for the site starting from the RI/FS Work Plan to final cleanup construction and long-term compliance monitoring. The Port shall provide Ecology with an updated cleanup schedule when events are identified that may result in significant project schedule changes, or at a minimum, on April 1st and October 1st. It is important that Ecology maintains updated cleanup schedules for project planning, and for periodically updating the public, tribes, and resources/permitting agencies.

C. Progress Reports

The Port shall submit to Ecology a progress report the first week of each month addressing the progress of RI/FS work during periods of field activity until such time as the Port has completed the work required in the RI/FS Work Plan. For the remaining time period, the Port shall submit to Ecology a quarterly report due the first week of the first month per quarter. The progress report shall include work completed to date, problems encountered and how they were resolved, any supporting documentation, and work scheduled for the subsequent time period. Electronic submittals of progress reports are acceptable.

EXHIBIT – C

QUIET COVE SITE
FOCUSED SITE INVESTIGATION RESULTS

**Focused Environmental Site Investigation
Data Report**

Quiet Cove Property
Anacortes, Washington

for
Port of Anacortes

October 20, 2014



**Focused Environmental Site Investigation
Data Report**

**Quiet Cove Property
Anacortes, Washington**

for
Port of Anacortes

October 20, 2014

GEOENGINEERS 

**Plaza 600 Building
600 Stewart Street, Suite 1700
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206.728.2674**

**Focused Environmental Site Investigation
Data Report**

**Quiet Cove Property
Anacortes, Washington**

File No. 5147-024-01

October 20, 2014


Prepared for:

Port of Anacortes
100 Commercial Avenue
Anacortes, Washington 98221


Attention: Jenkins Dossen

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BIL ALK)

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GEOENGINEERS 

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1.0 INTRODUCTION

The Port of Anacortes (Port) received an Integrated Planning Grant (IPG) from Washington State Department of Ecology (Ecology) to support planning for cleaning up the site and redevelopment of the Quiet Cove Property (Site) for commercial and/or industrial use. A focused environmental investigation of the Site was conducted by the Port as part of the Integrated Planning Grant.

This Focused Environmental Site Investigation Data Report has been prepared for the Quiet Cove property on behalf of the Port. The purpose of this focused site investigation is to complete a cursory, planning-level environmental evaluation of the Site to identify potential environmental issues that need to be addressed as part of the property redevelopment. This report summarizes the results of soil and groundwater sampling and analysis activities that were completed at the Site and characterizes the nature and extent of the hazardous substance contamination.

1.1 Focused Site Investigation Objectives

The primary objective of the focused environmental investigation is to complete a planning-level study of the Site in support of the potential cleanup and redevelopment of the Site under the IPG. The focused environmental investigation sampling and analysis data serves as a basis to determine if soil or groundwater contamination resulting from historical uses of the property is present. Specific objectives for the focused site investigation include:

- Review results of historical site plans and environmental investigations adjacent to the property that were obtained during the Site study to focus the field sampling on areas with the greatest potential for contamination.
- Collect soil and groundwater field and analytical data to determine the presence and extent of contamination at the Site that is the result of historical site uses.

2.0 BACKGROUND

This section describes the physical description and characteristics of the Site and summarizes the Site history including previous investigations completed adjacent to the Site.

2.1 Site Description

The Quiet Cove property is located at 202 O Avenue (Figure 1) and is part of the Port's plans to expand and improve the Curtis Wharf International Shipping Terminal. The Site is currently used as a storage yard for boats, recreational vehicles and other items and contains several buildings. The majority of the ground surface of the Site is paved.

2.2 Site History

Historical maps and aerial photos were reviewed to determine previous uses of the Site. The October 1925 Sandborn Map shows the northern portion of the Site was operated by the Standard Oil Company. The Port also received a copy of Standard Oil Company Site plans dated May 31, 1921. Figure 2 provides the approximate location of historical structures on and adjacent to the Site. From about the early 1920s until at least 1971 (the date when fuel operations ceased is unknown) the Site

was used as a bulk fuel storage facility. Five steel oil tanks of unknown capacity and an oil pump house were located in the northeast portion of the Site. Historical structures located in the northwest portion of the Site included a filling shed, an office and oil warehouse, an oil staging area and an "autos" shed. The southern portion of the Site was primarily vacant as indicated by the October 1925 Sanborn Map and 1921 Site Plan. A former railroad track and a structure used for coal storage were located west of the Site in the vicinity of the adjacent property currently owned by the Port. The property located to the southwest of the Site is currently owned by Texaco/Reisner and was used as a bulk fuel facility in 1925, consistent with its current use. An aerial photo from 1971 generally confirms the historic structures located on the Site as indicated by the October 1925 Sanborn Map, but the coal shed located west of the Site was not present in 1971.

2.3. Previous Investigations and Cleanup Adjacent to the Property

Previous investigations have not been conducted for the Quiet Cove property, but the City of Anacortes provided documents to the Port for investigations that were conducted adjacent to the Site. Summaries of these investigations and results are summarized below.

2.3.1. Results of Soil and Groundwater Sampling, Former Anacortes Terminal, Corner of 3rd Street and N-Avenue (May 26, 2000)

ThermoReteo completed a soil and groundwater investigation to characterize the type and extent of petroleum contamination located within the N-Avenue right-of-way directly adjacent to the Quiet Cove property to the west. The study was completed because the City of Anacortes was developing a public beach access and parking area. The investigation methods and results included:

- Soil samples were collected using geoprobe drilling methods at six locations (see Figure 3). Soil was field screened and selected samples were collected for chemical analysis of petroleum hydrocarbons. Soil analytical results showed detections of petroleum hydrocarbons at locations B1, B2, B3, B4 and B5 ranging from 4 to 8 feet below ground surface.
- Groundwater was collected from temporary well screen at three of the soil boring locations (B1, B2 and B3) and analyzed for petroleum hydrocarbons (see Figure 3). Analytical results found detections of petroleum hydrocarbons in each groundwater sample.
- Shallow soil samples were collected using hand auger at 13 locations in the beach area (see Figure 3). Samples were field screened and selected samples were collected for chemical analysis of petroleum hydrocarbons. Analytical results found detected concentrations of petroleum hydrocarbons at locations HA-1, HA-2, HA-11 and HA-12.

2.3.2. Removal of Contaminated Soils From the N-Avenue Right-of-Way, Reisner Petroleum Terminal, Corner of 3rd Street and N-Avenue (May 16, 2001)

Cleanup activities were completed in March 2001 to remove contaminated soil and underground petroleum piping originating from the Reisner Property within the N-Avenue right-of-way. Figure 3 shows the approximate locations and extent of excavation and piping removal. Petroleum piping filled with diesel and kerosene (in separate lines) were capped and removed. Extensive corrosion of the piping was noted during piping removal. Petroleum hydrocarbon contamination was also noted in portions of the piping trench. Contaminated soils from the trench were stockpiled and transported for off-site treatment and disposal. After the piping was removed a total of approximately 580 tons of petroleum contaminated soil was excavated and transported for thermal treatment and disposal. During excavation a 4-inch

diameter metal pipeline was encountered that ran parallel to the shoreline of the Guemes Channel and extended into the Port of Anacortes property. The metal line was maintained in place during excavation because the ownership and location of the pipe could not be verified. During excavation activities approximately 1,500 gallons of water were removed from the excavation, placed in a temporary storage tank and transported for treatment and disposal. Clean backfill material was placed and compacted to construct the parking area for the N-Avenue beach area.

Confirmation samples were collected and analyzed from the sidewalls and bottom of the excavation and results confirmed that petroleum contamination was removed from the excavation bottom and from the south, east and west sidewalls.

2.4. Geology and Hydrogeology

The United States Geological Survey (USGS) map of the Bellingham Quadrangle (Lapen, 2000) was reviewed for geologic information in the vicinity of the Site. Mapped soils in the vicinity of the property include both glacial and non-glacial processes that have occurred during the last 12,000 years. Surface soil deposits are identified as artificial fill and recessional marine (glaciomarine) drift from the Everson interstade of the Fraser glaciation.

Based on previous environmental investigations at nearby locations and this Focused Site Investigation, soil at the Site consists of fill material overlying glaciomarine deposits. Fill deposits consist primarily of fine to coarse sand with gravel and varying silt content. The underlying glaciomarine deposits consist primarily of unsorted, unstratified silt and clay with varying amounts of sands and gravels. The inferred groundwater flow is to the northwest and may be locally affected by tidal intrusion of salt water from Guemes Channel.

3.0 FIELD AND ANALYTICAL METHODS

A focused environmental site investigation was completed to determine the presence of petroleum contamination at the Quiet Cove Property. Soil and groundwater was field screened, sampled and submitted for laboratory analysis consistent with the Focused Site Investigation Plan (GeoEngineers, 2014). The following sections summarize the field activities completed and analytical methods used for the focused site investigation.

3.1. Soil Sampling

A direct-push soil investigation was completed to identify potentially contaminated soil at the Site. Continuous soil cores were obtained from direct-push borings using 2.0- to 2.5-inch diameter sampling rods with acetate liners. The drilling rods were driven with a pneumatic hammer in five foot intervals. Drilling activities were monitored continuously by a technical representative from GeoEngineers who observed and classified the soil encountered and prepare a detailed boring log. Soil samples obtained from the borings were visually classified in general accordance with American Society of Testing and Materials (ASTM) D-2488. The samples also were evaluated for the potential presence of hydrocarbon- and volatile organic compound (VOC) contamination using field screening techniques that include water shreen tests and photoionization (PID) measurements. Observations of soil and groundwater conditions and soil field screening results for each exploration were recorded and documented in field boring logs.

Soil samples were submitted to OnSite Environmental Inc. (OnSite), an Ecology-certified laboratory, for analysis of selected contaminants. In general, three sample intervals were collected at each soil boring location for potential chemical analyses including:

- Sample collected from the fill layer above the water table;
- Sample collected at the water table; and
- Sample collected from native soil at fill/native interface.

In general, samples were collected in 1-foot or 2-foot intervals to provide sufficient material for chemical analysis.

3.2. Monitoring Well Installation and Development

Drilling and construction of the monitoring wells was completed by a Washington State licensed driller in accordance with the Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 WAC). Installation of the monitoring wells was observed by a GeoEngineers representative who maintained a detailed log of the materials and depths of the wells. Monitoring well borings were completed using a hollow-stem auger drilling rig. Documentation of soil lithology and construction of the monitoring wells was documented in boring logs. Upon completion, each monitoring well was surveyed to obtain the elevation of the top of well casing to determine groundwater elevation. Prior to sampling, each monitoring well was developed to remove water introduced into the well during drilling (if any), stabilize the filter pack and formation materials surrounding the well screen and restore the hydraulic connection between the well screen and the surrounding soil.

3.3. Groundwater Sampling

Groundwater samples were obtained using low-flow/low-turbidity sampling techniques to minimize the suspension of sediment in the samples. Groundwater samples were collected from monitoring wells using a peristaltic pump and disposable polyethylene tubing. Groundwater was pumped at approximately 0.5 liter per minute using a peristaltic pump attached to tubing placed within the screened interval. A Horiba U-22 water quality measuring system with a flow-through-cell was used to monitor the following water quality parameters during purging: electrical conductivity, dissolved oxygen, pH, salinity, total dissolved solids, turbidity, oxidation-reduction potential and temperature. Purging was complete when ambient groundwater conditions varied by less than 10 percent on three consecutive measurements. The stabilized field measurements were documented in the field log. Following well purging, the flow through cell was disconnected and groundwater samples were collected in laboratory-prepared containers. The samples were placed into a cooler with ice and logged on the chain-of-custody using the procedures described in the Quality Assurance Project Plan (QAPP) included as an appendix to the Focused Site Investigation Plan.

4.0 SCREENING LEVELS

Soil and groundwater data collected during the site characterization were evaluated against soil and groundwater screening levels to delineate the extent of detected contamination.

4.1. Soil Screening Levels

For the purposes of this planning-level Focused Site Investigation, soil screening levels will be conservatively based on unrestricted land use. The soil screening levels were selected from Model Toxics Control Act (MTCOA) Method A and Method B Soil Cleanup Levels (WAC 173-340-704 and -705). In general, the lowest applicable soil criteria were identified as the screening level for comparison to soil analytical results.

4.2. Groundwater Screening Levels

Groundwater at the Site is not used for drinking water at this time and is not a reasonable future source of drinking water due to its proximity to marine waters and likely brackish nature. MTCOA Method A Groundwater Cleanup Levels were identified as the screening levels for comparison to groundwater analytical results.

5.0 FOCUSED SOIL AND GROUNDWATER INVESTIGATION RESULTS

5.1. Focused Soil Investigation Results

5.1.1. Soil Field Screening Results

Subsurface soil conditions were evaluated by completing direct-push borings GEI-1 through GEI-28 between March 31 and April 2, 2014. Borings were completed and sampled utilizing field procedures described in the Focused Site Investigation Plan dated February 24, 2014. Subsurface conditions encountered during soil sampling generally consist of fill material ranging from silt sand to coarse sand with gravel overlying marine deposits consisting of silt. Exploration logs are provided in Attachment 1.

Soil sampling cores were screened in the field for evidence of petroleum hydrocarbons and VOCs. Field screening results indicated evidence of petroleum contamination at multiple soil sampling locations throughout the northern part of the investigation area including some locations where petroleum product was observed in subsurface soil. The exploration logs (Attachment 1) provide results of field screening including sheen and headspace vapor testing results. Figure 4 summarizes the results of field screening for each soil boring location.

5.1.2. Soil Chemical Analytical Results

Soil samples were collected consistent with procedures detailed in the Focused Site Investigation Plan (GeoEngineers, 2014) and submitted to OnSite located in Redmond, Washington for analysis of one or more contaminants of potential concern (COPCs). Soil samples were selected for analysis based on field screening results and location relative to potential sources of contamination. A total of 35 soil samples were selected for analysis for one or more COPCs. Gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons and BETX (benzene, ethylbenzene, toluene and xylene) analyses were performed on all 35 soil samples. Three samples with field screening evidence of petroleum contamination were selected for analysis of additional COPCs including carcinogenic polycyclic aromatic hydrocarbons (CPAHs), naphthalenes, halogenated volatile organic compounds (HVOCs), n-hexane, methyl tertiary-butyl ether (MTBE), metals (arsenic, cadmium, chromium, mercury and lead) and polychlorinated biphenyls (PCBs). The objective of these analyses was to determine the general composition of the petroleum contaminated soil in accordance with MTCOA testing requirements for petroleum releases (WAC 173-340-900, Table B30-1). Tables 1 through 4 summarize the chemical analytical results for the soil analyses

completed. Figure 5 summarizes the chemical analytical results for gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons and BETX (benzene, ethylbenzene, toluene and xylene) analyses. Figure 6 summarizes the chemical analytical results for rest of the COPCS. Analytical results are compared to screening levels detailed in the Focused Site Investigation Plan.

Results show evidence of gasoline-, diesel-, and heavy oil-range petroleum hydrocarbons and benzene contamination in soil throughout the northern area of the Site where the former fuel facility and petroleum storage tanks were located and to the north and west of the former tank farm facility. Ethylbenzene, toluene and xylene were detected at concentrations greater than the screening level in one of 95 samples analyzed. Carcinogenic PAHs (cPAHs) and naphthalene exceeded the screening level in all of the three samples that were analyzed and cadmium exceeded screening levels in one of three samples analyzed. All other analytes were either not detected or detected at concentrations less than their associated screening levels in soil samples submitted for chemical analysis. Laboratory method reporting limits (MRLs) for all analytes were below the associated screening levels with the exception of HVOCs 1,2-dibromoethane (EDB), methylene chloride, tetrachloroethene, and trichloroethene.

Laboratory analytical results are presented in Attachment 2 and a Data Validation Report is included in Attachment 3.

5.1.3. Deviations from Focused Site Investigation Plan for Soil Investigation

The Focused Site Investigation Plan identified Tier 1 and Tier 2 soil sampling locations to provide an approach for determining soil samples for analysis. Based on the results of field screening, deviations were made from the Focused Site Investigation Plan to maximize the use of the data collected during the soil investigation for the purposes of the Integrated Planning Grant. Deviations from the Focused Site Investigation Plan include the following:

- Four (4) additional soil borings were completed (GEI-26 through -29) in 2nd Street right-of-way to improve characterization of the extent of contamination to the north of the Site. GEI-25, GEI-27 and GEI-28 were analyzed for petroleum hydrocarbons and GEI-25 was analyzed for the additional contaminants of potential concern.
- Analysis of soil samples was modified based on results of field screening to delineate the lateral extent of petroleum contamination at the Site. Deviations to the analysis of soil samples include:
 - Representative samples were selected for analysis at locations within the highly contaminated area based on field screening (i.e. locations where product was observed). Tier 1 locations GEI-6, GEI-7 and GEI-15 were not analyzed, but Tier 2 location GEI-10 was analyzed.
 - Tier 2 locations located on the edge of the contaminated area based on field screening were selected for analysis to define the extent of contamination including locations GEI-1, GEI-3, GEI-18, GEI-20 and GEI-21.
 - Tier 1 and Tier 2 locations in the southern portion of the Site that did not show any evidence of contamination were not analyzed including Tier 1 location GEI-24.

5.2. Focused Groundwater Investigation Results

5.2.1. Monitoring Well Installation and Development

The monitoring well locations were determined after review of the soil analytical results and were approved by Ecology prior to installation. Five monitoring wells (MW-1 through MW-5) were installed on June 23 and 24, 2014 in accordance with field procedures described in the Focused Site Investigation Plan. Each monitoring well was developed on June 25 and 28, 2014 prior to sampling.

5.2.2. Groundwater Flow Direction

On August 7, 2014 water levels were collected from each monitoring well during low tide to evaluate the groundwater flow direction. Figure 7 provides the groundwater elevations measured at each monitoring well and presents the estimated groundwater flow direction based on the field measurement data. In general groundwater at the Site flows to the northwest towards Guemes Channel. A concrete bulkhead exists at Curtis Wharf to the north of the Site and may be influencing groundwater flow by forcing water to the west and east of the bulkhead towards Guemes Channel or north along O Avenue, respectively.

5.2.3. Groundwater Chemical Analytical Results

Groundwater samples were collected from five monitoring wells (MW-1 through MW-5) on July 1, 2014 consistent with procedures detailed in the Focused Site Investigation Plan (GeoEngineers, 2014) and submitted to OnSite for analysis of one or more COPCs. Consistent with the soil analytical results, gasoline, diesel, and heavy oil-range petroleum hydrocarbons and BETX (benzene, ethylbenzene, toluene and xylene) analyses were performed on groundwater samples collected from each monitoring well. Groundwater samples obtained from an upgradient well (MW-5) and downgradient well (MW-3) were also analyzed for COPCs including cPAHs, naphthalenes, HVOCs, total and dissolved metals (arsenic, cadmium, chromium, mercury and lead) and PCBs. Chemical analytical results for the groundwater analyses completed are tabulated in Tables 5 through 8 and presented on Figure 8. Analytical results are compared to screening levels detailed in the Focused Site Investigation Plan.

Diesel and/or heavy oil-range petroleum hydrocarbons were detected at concentrations greater than the screening level in groundwater samples obtained from each monitoring well. Total and dissolved arsenic were detected in the groundwater sample obtained from the upgradient monitoring well MW-5 at concentrations greater than the screening level. All other analytes were either not detected or detected at concentrations less than their associated screening levels in groundwater samples submitted for chemical analysis. Laboratory MRLs for all analytes were below the associated screening levels with the exception of HVOC 1,2-dibromoethane (EDB).

Laboratory analytical results are presented in Attachment 2 and a Data Validation Report is included in Attachment 3.

6.0 NATURE AND EXTENT OF CONTAMINATION

The results of the Focused Site Investigation indicate that petroleum-related contamination related to historical use exists in soil and groundwater in the northern portion of the Site. Currently the Site is not on Ecology's hazardous sites list, but as required by MTCA, the Port notified Ecology that contaminated media was encountered at the Quiet Cove Site during the Focused Site Investigation.

The Focused Site Investigation did not fully identify the extent of soil or groundwater contamination at the Site and data gaps exist including the extent to which the downgradient marine sediments may be impacted. The soil and groundwater analytical results provide information to describe the general extent of contamination. Additional investigation is likely to be required to fully define the extent of contamination.

Sampling locations and concentration exceedances over screening levels for soil is shown on Figures 5 and 6. Contaminants of potential concern were identified in soil located primarily above the water level (between 4 and 6 feet below the ground surface [bgs]) and in some near surface soil (0 to 2 feet bgs) at concentrations exceeding screening levels for unrestricted land use. Figure 5 shows the approximate extent of petroleum hydrocarbon contamination at the Site. The extent of petroleum contamination in soil to the north of the Site along O Avenue (north of location GEI-25) and along the Guemes Channel shoreline will require additional investigation.

Contaminants of concern in soil based on results of the Focused Site Investigation include:

- Gasoline-, diesel- and heavy oil-range petroleum hydrocarbons;
- Volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene and xylenes (BTEX);
- Polycyclic aromatic hydrocarbons (PAHs) including naphthalenes and total carcinogenic PAHs (CPAHs); and
- Metals including cadmium.

Monitoring well locations and concentration exceedances over MTCA Method A for groundwater is shown in Figure 8. Contaminants of potential concern were identified in groundwater throughout the Site at concentrations exceeding MTCA Method A levels for unrestricted land use and are generally consistent with the soil contamination identified at the Site with the exception of arsenic in the upgradient well. Arsenic was not detected in Site soil thus suggesting that the arsenic detections at the site may be the result of a separate and off-site source. This contamination slightly upgradient of the Site is likely due to tidal influence. Additional investigation will be required to fully define the extent of groundwater contamination at the Site.

Contaminants of concern in groundwater based on the results of the Focused Site Investigation include:

- Diesel- and heavy oil-range petroleum hydrocarbons; and
- Arsenic.

The Focused Site Investigation did not include sampling or analysis of the marine sediment located to the west of to the Site. Future investigation will be required to fully define the extent of contamination in the sediment adjacent to the Site.

7.0 LIMITATIONS

We have prepared this Focused Site Investigation Data Report for the exclusive use of the Port of Anacortes and their authorized agents for the project site. Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

8.0 REFERENCES

GeoEngineers. 2014. Focused Site Investigation Plan; Quiet Cove Property; Anacortes, Washington. Prepared for Port of Anacortes. February 6, 2014.

Lapen, Thomas J. 2000. "Geologic Map of the Bellingham 1:100,000 Quadrangle, Washington". Washington State Department of Natural Resources, Division of Geology and Earth Resources. December 2000.

TABLE

Table 1
Summary of Soil Chemical Analytical Data - Petroleum Hydrocarbons and VOCs
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Depth	Sample Date	Field Screening		Petroleum Hydrocarbons ¹ (mg/kg)			VOCs ² (mg/kg)					Methyl Tertiary Butyl Ether (MTBE)
			Hexon	Hydrocarbon Vapor (ppm)	Distillate Range ⁴	Distillate Range ⁴	Heavy Oil Range ⁴	Benzene	Toluene	Ethylbenzene	Xylenes	n-Heptane	
GH-1-3-033114	4-8 feet	03/31/14	NS	155	7.4 U	6,800	840	0.02 U	0.074 U	0.24	0.84	-	-
GH-3-6-033114	8-10 feet	03/31/14	NS	<1	1.8 U	840	87	0.02 U	0.078 U	0.078 U	0.078 U	-	-
GH-5-1-033114	0-2 feet	03/31/14	NS	<1	5.4 U	48	210	0.055	0.059	0.21	0.31	-	-
GH-2-8-033114	4-6 feet	03/31/14	NS	255	1.7 U	2,400	440	0.02 U	0.077 U	0.077 U	0.077 U	-	-
GH-2-8-033114	8-10 feet	03/31/14	NS	53	3.8 U	830	77	0.02 U	0.038 U	0.038 U	0.038 U	-	-
GH-3-3-033114	8-10 feet	03/31/14	NS	124	1.8 U	780	73	0.02 U	0.078 U	0.30	0.91	-	-
GH-4-1-040114	0-2 feet	04/01/14	NS	<1	3.3 U	170	1,200	0.02 U	0.033 U	0.033 U	0.033 U	-	-
GH-4-2-040114	2-3 feet	04/01/14	NS	7	8.9 U	18,000	21,000	0.02 U	0.089 U	0.089 U	0.089 U	0.069 U	0.085 U
GH-4-3-040114	4-6 feet	04/01/14	NS	<1	9.3 U	730	840	0.02 U	0.093 U	0.093 U	0.093 U	-	-
GH-5-3-033114	4-6 feet	03/31/14	NS	252	260	1,200	810	0.048	0.11 U	0.24	0.28	-	-
GH-5-6-033114	8-10 feet	03/31/14	NS	<1	3.3 U	29 U	58 U	0.02 U	0.033 U	0.033 U	0.033 U	-	-
GH-9-3-040114	5-7 feet	04/01/14	NS	5	5.0 U	30 U	89 U	0.02 U	0.05 U	0.05 U	0.05 U	-	-
GH-9-6-040114	8-10 feet	04/01/14	NS	<1	4.8 U	29 U	59 U	0.02 U	0.048 U	0.048 U	0.048 U	-	-
GH-10-1-033114	0-2 feet	03/31/14	NS	<1	3.3 U	1,800	1,600	0.02 U	0.033 U	0.033 U	0.033 U	-	-
GH-10-3-033114	4-6 feet	03/31/14	NS	123	420	1,800	8,100	0.048	0.083 U	0.21	0.83	0.083 U	0.059 U
GH-10-6-033114	8-10 feet	03/31/14	NS	<1	8.3 U	780	780	0.02 U	0.083 U	0.083 U	0.083 U	-	-
GH-12-3-040114	5-7 feet	04/01/14	NS	<1	3.5 U	29 U	58 U	0.02 U	0.035 U	0.035 U	0.035 U	-	-
GH-12-2-040114	2-3 feet	04/01/14	NS	582	9.4 U	1,900	80	0.023	0.094 U	0.29	0.71	-	-
GH-13-4-040114	6-8 feet	04/01/14	NS	2	3.7 U	30 U	89 U	0.02 U	0.037 U	0.037 U	0.037 U	-	-
GH-14-3-040114	4-6 feet	04/01/14	NS	<1	5.2 U	34 U	88 U	0.02 U	0.052 U	0.052 U	0.052 U	-	-
GH-16-3-033114	4-6 feet	03/31/14	NS	198	160	1,600	440	0.11	0.43 U	0.83	0.88	-	-
GH-16-5-033114	8-10 feet	03/31/14	NS	<1	5.4 U	30 U	89 U	0.02 U	0.054 U	0.054 U	0.054 U	-	-
GH-17-3-033114	4-6 feet	03/31/14	NS	>1,000	1,400	18,000	2,000	0.2	1.8	180	383	-	-
GH-18-1-033114	0-2 feet	03/31/14	NS	<1	3.2 U	170	1,300	0.02 U	0.032 U	0.032 U	0.032 U	-	-
Soil Screening Level ³					30/100	2,000	2,000	0.03	1	8	8	4,800 ⁵	0.1

Sample Identification	Sample Depth	Sample Date	Field Screening		Petroleum Hydrocarbons ¹ (µg/kg)			VOCs ² (mg/kg)					
			Shoe A	Headspace Vapor (ppm)	Gas Oil Range	Diesel Range	Heavy Oil Range	Ethylene	Toluene	Ethylbenzene	Xylenes	n-Heptane	Methyl Tertiary Butyl Ether (MTBE)
GL18-3-033114	4-6 feet	03/31/14	NS	24	4.0 U	2,800	2,800	0.02 U	0.04 U	0.33	0.23	-	-
GL18-6-033114	8-10 feet	03/31/14	NS	<1	3.6 U	71	61 U	0.02 U	0.038 U	0.038 U	0.038 U	-	-
GL19-1-040114	0-2 feet	04/01/14	NS	<1	4.0 U	29 U	56 U	0.02 U	0.04 U	0.04 U	0.04 U	-	-
GL19-3-040114	4-6 feet	04/01/14	NS	<1	3.6 U	29 U	58 U	0.02 U	0.038 U	0.038 U	0.038 U	-	-
GL20-3-040114	4-6 feet	04/01/14	NS	<1	3.5 U	29 U	59 U	0.02 U	0.038 U	0.039 U	0.039 U	-	-
GL21-3-040114	4-6 feet	04/01/14	NS	<1	5.8 U	29 U	59 U	0.02 U	0.038 U	0.038 U	0.038 U	-	-
GL25-1-040114	0-2 feet	04/01/14	NS	<1	3.3 U	260	1,100	0.02 U	0.033 U	0.033 U	0.042	-	-
GL25-3-040114	4-6 feet	04/01/14	NS	32	3.5 U	4,800	1,200	0.02 U	0.039 U	0.26	0.18	0.074	0.048 U
GL25-6-040114	8-10 feet	04/01/14	NS	<1	1.7 U	78	580	0.033 U	0.17 U	0.17 U	0.17 U	-	-
GL27-3-040214	6-7.5 feet	04/02/14	NS	<1	4.5 U	32 U	84 U	0.02 U	0.049 U	0.049 U	0.049 U	-	-
GL28-4-040214	8-8 feet	04/02/14	NS	<1	4.0 U	29 U	58 U	0.02 U	0.04 U	0.04 U	0.04 U	-	-
Soil Screening Level ³					50/100	2,000	2,000	0.03	?	6	9	4,900 ⁴	0.1

Notes:

- ¹ Analyzed using Institute of Petroleum Hydrocarbon (IPIHT) 94 or MATPH-06.
- ² Analyzed using Environmental Protection Agency (EPA) Method 8260B/8260C.
- ³ Model Toxics Control Act (MTEA) Method A Cleanup Level for unsaturated hydrocarbon.
- ⁴ Screening level for n-Heptane is the MTEA Method B Cleanup Level for non-halogenated compounds.
- ⁵ Screening level for EDC is the MTEA Method B Cleanup Level for carcinogenic compounds.
- NS = Neely Street
- mg/kg = 100 µg/m³ at 100 ppm
- NI = no issue
- SS = slight issue
- U = not detected above the laboratory reporting limit
- VOCs = volatile organic compounds
- Red text indicates compound was detected.
- Green shading indicates that the compound was detected at a concentration greater than the screening level.



Table 2
Summary of Soil Chemical Analytical Data - HVOCs¹
 Quiet Cove Property
 Anacortes, Washington

HVOCs (µg/kg)	Screening Level ²	Sample ID, Depth and Date		
		GEI-4-2-040114	GEI-10-3-033114	GEI-25-3-040114
		2-3 feet 04/01/14	4-6 feet 03/31/14	4-6 feet 04/01/14
1,1,1,2-Tetrachloroethane	NE	65 U	45 U	37 U
1,1,1-Trichloroethane	2000	65 U	45 U	37 U
1,1,2,2-Tetrachloroethane	NE	65 U	45 U	37 U
1,1,2-Trichloroethane	NE	65 U	45 U	37 U
1,1-Dichloroethane	NE	65 U	45 U	37 U
1,1-Dichloroethene	NE	65 U	45 U	37 U
1,1-Dichloropropane	NE	65 U	45 U	37 U
1,2,3-Trichlorobenzene	NE	65 U	45 U	37 U
1,2,3-Trichloropropane	NE	65 U	45 U	37 U
1,2,4-Trichlorobenzene	NE	65 U	45 U	37 U
1,2-Dibromo-3-Chloropropane	NE	330 U	250 U	190 U
1,2-dibromoethane (EDB)	5	65 U	45 U	37 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	NE	65 U	45 U	37 U
1,2-Dichloroethane (EDC)	NE	65 U	45 U	37 U
1,2-Dichloropropane	NE	65 U	45 U	37 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	NE	65 U	45 U	37 U
1,3-Dichloropropane	NE	65 U	45 U	37 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	NE	65 U	45 U	37 U
2,2-Dichloropropane	NE	65 U	45 U	37 U
2-Chloroethyl vinyl ether	NE	520 U	360 U	290 U
2-Chlorotoluene	NE	65 U	45 U	37 U
4-Chlorotoluene	NE	65 U	45 U	37 U
Bromobenzene	NE	65 U	45 U	37 U
Bromochloromethane	NE	65 U	45 U	37 U
Bromodichloromethane	NE	65 U	45 U	37 U
Bromoforn (Tetrabromomethane)	NE	65 U	45 U	37 U
Bromomethane	NE	65 U	45 U	37 U
Carbon Tetrachloride	NE	65 U	45 U	37 U
Chlorobenzene	NE	65 U	45 U	37 U
Chloroethane	NE	330 U	250 U	190 U
Chloroform	NE	65 U	45 U	37 U
Chloromethane	NE	420 U	290 U	240 U
cis-1,2-Dichloroethene	NE	65 U	45 U	37 U
Cis-1,3-Dichloropropane	NE	65 U	45 U	37 U
Dibromochloromethane	NE	65 U	45 U	37 U
Dibromomethane	NE	65 U	45 U	37 U
Dichlorodifluoromethane (CFC 12)	NE	65 U	45 U	37 U
Methyl Isocide (Isocyanomethane)	NE	330 U	250 U	190 U
Methylene Chloride	20	330 U	250 U	190 U
Tetrachloroethane	50	65 U	45 U	37 U

HVOCs (µg/Kg)	Screening Level ²	Sample ID, Depth and Date		
		GEI-4-2-040114	GEI-10-3-033114	GEI-25-3-040114
		2-3 feet	4-6 feet	4-6 feet
		04/01/14	03/31/14	04/01/14
Trans 1,2-Dichloroethene	NE	65 U	45 U	37 U
Trans 1,3-Dichloropropene	NE	65 U	45 U	37 U
Trichloroethene	30	65 U	45 U	37 U
Trichlorofluoromethane (CFC-113)	NE	65 U	45 U	37 U
Vinyl Chloride	NE	65 U	45 U	37 U

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8260B/8260C.

² Model Toxic Control Act (MTRCA) Method A Cleanup Level for unretarded leachate.

HVOCs = Halogenated volatile organic compounds.

NE = not established.

U = not detected above the laboratory reporting limit.

µg/Kg = micrograms per kilogram.

Blue shading indicates that the laboratory reporting limit was greater than the screening level.

Table 3
Summary of Soil Chemical Analytical Data - Naphthalenes and cPAHs
 Quiet Cove Property
 Anacortes, Washington

Sample ID and Location	Sample Depth	Sample Date	Naphthalenes ¹ (mg/kg)	cPAHs ² (mg/kg)							
				Benzo(a) anthracene	Chrysene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd) pyrene	Benzo(g,h) anthracene	Total cPAHs-TEQ ³
GEI-4-2-040114	2-3 feet	04/01/14	27.4 Y	0.77	1.2	0.22	0.18 U	0.18	0.18 U	0.18 U	0.82 Y
GEI-10-3-033114	4-6 feet	03/31/14	18.8 Y	3.90	2.80	2.40	1.10	3.00	1.30	0.68	3.97 Y
GEI-25-3-040114	4-6 feet	04/01/14	9.8 Y	0.19	0.20	0.08	0.05	0.11	0.08	0.059 U	0.16 Y
Soil Screening Level ⁴			5	See TEQ							0.1

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8317 (EPA).

² Total carcinogenic Polycyclic Aromatic Hydrocarbon (cPAH) calculated using toxic equivalency (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one-half of the detection limit for those compounds.

³ Model Toxic Control Act (MTOCA) Method A Cleanup Level for unrestricted land use.

cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons.

mg/kg = milligrams per kilogram

Y = total concentration

U = not detected above the laboratory reporting limit

Blank for indicator compound was detected

Green shading indicates that the compound was detected at or below the screening level

Table 4
Summary of Soil Chemical Analytical Data - PCBs and Metals
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Depth	Sample Date	PCBs ¹ (mg/kg)	Metals ² (mg/kg)				
				Arsenic	Cadmium	Chromium ³	Lead	Mercury
GEI 4 2-040114	2-3 feet	04/01/14	0.068 UT	14 U	2.4	13	79	0.34 U
GEI 10 3-033114	4-6 feet	03/21/14	0.059 UT	12 U	0.59 U	34	13	0.29 U
GEI 25 3-040114	4-6 feet	04/01/14	0.062 UT	12 U	0.62 U	52	17	0.31 U
Soil Screening Level ⁴			1	20	2	2,000	250	2

Notes:

- ¹ Analyzed using Environmental Protection Agency (EPA) Method 8283A.
- ² Analyzed using EPA Method 8210C/7411B.
- ³ Reported as total chromium.
- ⁴ Model Toxics Control Act (MTOX) Method A (Group 1) for unrestricted land use.
- mg/kg = milligrams per kilogram
- PCBs = polychlorinated biphenyls
- U = not detected above the laboratory reporting limit
- UT = not detected for the total PCBs
- Bold font indicates compound was detected.**
- Green shading indicates that the compound was detected at a concentration greater than the screening level.**

Table 5
Summary of Groundwater Chemical Analytical Data - Petroleum Hydrocarbons and VOCs
 Quiet Cove Property
 Anacortes, Washington

Sample Identification	Sample Date	Petroleum Hydrocarbons ¹ (µg/l)			VOCs ² (µg/l)					
		Gasoline-Range	Diesel-Range	Heavy Oil-Range	Benzene	Toluene	Ethylbenzene	Xylenes	n-Hexane	Methyl Tertiary-Butyl Ether (MTBE)
QGMW 1 7.1.14	07/01/14	100 U	880	410 U	1 U	1 U	1 U	1 U	-	-
QGMW 2 7.1.14	07/01/14	110	2,100 J	980	1 U	1 U	1 U	1 U	-	-
QGMW 3 7.1.14	07/01/14	480	2,600 J	700	0.2 U	1 U	0.49	1.56	-	-
QGMW 3 SUP 7.1.14	07/01/14	630	2,400 J	840	1 U	1 U	1 U	2.8	-	0.2 U
QGMW 4 7.1.14	07/01/14	610	2,800 J	410 U	1 U	1 U	1 U	1 U	-	-
QGMW 5 7.1.14	07/01/14	440	2,800 J	450 U	0.2 U	1 U	0.2 U	0.22	-	0.2 U
Groundwater Screening Level ³		800/1000	500	500	5	1000	700	1000	NE	20

Notes:
¹ Analyzed using Northwest Total Petroleum Hydrocarbon (NWTPH) G or M01PH-G.
² Analyzed using Environmental Protection Agency (EPA) Method 8260B/GS60C.
³ Model Toxics Control Act (MTOCA) Method A Cleanup Level for unrestricted land use.
 J = estimated value
 NE = not established
 U = not detected above the laboratory reporting limit
 µg/l = micrograms per liter
 VOCs = Volatile Organic Compounds
 Bold text indicates compound was detected
 Green shading indicates that the compound was detected at concentrations greater than the screening level.

Table 6
Summary of Groundwater Chemical Analytical Data - HVOCs¹
 Quiet Cove Property
 Anacortes, Washington

HVOCs (µg/l)	Screening Level ²	Sample ID and Date					
		QCMW-1 7.1.14	QCMW-2 7.1.14	QCMW-3 7.1.14	QCMW-3 DUP 7.1.14	QCMW-4 7.1.14	QCMW-5 7.1.14
		07/01/14	07/01/14	07/01/14	07/01/14	07/01/14	07/01/14
1,1,1,2-Tetrachloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1,1-Trichloroethane	200	-	-	0.2 U	-	-	0.2 U
1,1,2,2-Tetrachloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1,2-Trichloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1-Dichloroethane	NE	-	-	0.2 U	-	-	0.2 U
1,1-Dichloroethene	NE	-	-	0.2 U	-	-	0.2 U
1,1-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
1,2,3-Trichlorobenzene	NE	-	-	0.2 U	-	-	0.2 U
1,2,3-Trichloropropane	NE	-	-	0.2 U	-	-	0.2 U
1,2,4-Trichlorobenzene	NE	-	-	0.2 U	-	-	0.2 U
1,2-Dibromo-3-Chloropropane	NE	-	-	1 U	-	-	1 U
1,2-Dibromoethane (EDB)	0.01	-	-	0.2 U	-	-	0.2 U
1,2-Dichlorobenzene (o-Dichlorobenzene)	NE	-	-	0.2 U	-	-	0.2 U
1,2-Dichloroethane (EDC)	5	-	-	0.2 U	-	-	0.2 U
1,2-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
1,3-Dichlorobenzene (m-Dichlorobenzene)	NE	-	-	0.2 U	-	-	0.2 U
1,3-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
1,4-Dichlorobenzene (p-Dichlorobenzene)	NE	-	-	0.2 U	-	-	0.2 U
2,2-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
2-Chloroethyl vinyl ether	NE	-	-	1 U	-	-	1 U
2-Chloroethane	NE	-	-	0.2 U	-	-	0.2 U
4-Chloroethane	NE	-	-	0.2 U	-	-	0.2 U
Bromobenzene	NE	-	-	0.2 U	-	-	0.2 U
Bromochloroethane	NE	-	-	0.2 U	-	-	0.2 U
Bromodichloroethane	NE	-	-	0.2 U	-	-	0.2 U
Bromoform (Tribromomethane)	NE	-	-	1 U	-	-	1 U
Bromomethane	NE	-	-	0.2 U	-	-	0.2 U
Carbon Tetrachloride	NE	-	-	0.2 U	-	-	0.2 U
Chlorobenzene	NE	-	-	0.2 U	-	-	0.2 U
Chloroethane	NE	-	-	1 U	-	-	1 U
Chloroform	NE	-	-	0.2 U	-	-	0.2 U
Chloroethene	NE	-	-	1 U	-	-	1 U
o-1,2-Dichloroethane	NE	-	-	0.2 U	-	-	0.2 U
o-1,3-Dichloropropane	NE	-	-	0.2 U	-	-	0.2 U
Dibromodichloroethane	NE	-	-	0.2 U	-	-	0.2 U
Dibromomethane	NE	-	-	0.2 U	-	-	0.2 U
Dichlorodifluoromethane (CF2Cl2)	NE	-	-	0.28 U	-	-	0.28 U
Methyl Iodide (Iodomethane)	NE	-	-	1 U	-	-	1 U
Methylene Chloride	5	-	-	1 U	-	-	1 U
Tetrachloroethane	5	-	-	0.2 U	-	-	0.2 U

HVCs (µg/l)	Screening Level ²	Sample ID and Date					
		QC MW-1 Y.1.14	QC MW-2 Y.1.14	QC MW-3 Y.1.14	QC MW-3 DUP-Y.1.14	QC MW-4 Y.1.14	QC MW-5 Y.1.14
		07/01/14	07/01/14	07/01/14	07/01/14	07/01/14	07/01/14
Trans-1,2-Dichloroethane	NE	-	-	0.2 U	-	-	0.2 U
Trans-1,3-Dichloropropene	NE	-	-	0.2 U	-	-	0.2 U
Tribromoethane	S	-	-	0.2 U	-	-	0.2 U
Trichloroethylene (EFC-11)	NE	-	-	0.2 U	-	-	0.2 U
Vinyl Chloride	0.2	-	-	0.2 U	-	-	0.2 U

Notes:

¹ Analyzed using Environmental Protection Agency (EPA) Method 8260a/8260c.

² Model Toxics Control Act (MICA) Method A Cleanup Level for unrestricted land use.

HVCs = Halogenated volatile organic compounds.

NE = not established.

U = not detected above the laboratory reporting limit.

µg/l = micrograms per liter.

Bold text: Indicates compound was detected.

U: Indicates that the laboratory reporting limit was greater than the screening level.

Table 7
Summary of Groundwater Chemical Analytical Data - Naphthalenes and cPAHs
Quiet Cove Property
Anacortes, Washington

Sample Identification	Sample Date	Naphthalenes ¹ (µg/l)	cPAHs ¹ (µg/l)							Total cPAHs - TEQ ²
			Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Benzo(e)pyrene	Benzo(a,h)anthracene	
QC-MW-1-7-14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-2-7-14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-3-7-14	07/01/14	66	0.015	0.017	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0094 U	0.0083 T
QC-MW-3-DUP-7-14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-4-7-14	07/01/14	-	-	-	-	-	-	-	-	-
QC-MW-5-7-14	07/01/14	18.8	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0095 U	0.0072 UT
Groundwater Screening Level ³		160	See TEQ							0.1

Notes:

- ¹ Analyzed using Environmental Protection Agency (EPA) Method 8270SM.
 - ² Total carcinogenic Polycyclic Aromatic Hydrocarbon (cPAH) calculated using toxic equivalent (TEQ) methodology relative to benzo(a)pyrene. cPAHs that were not detected were assigned a value of one-half of the detection limit for these concentrations.
 - ³ Model Toxic Concentration (MTCM) Method A Cleanup Level for unrestricted use area.
- cPAHs = Carcinogenic Polycyclic Aromatic Hydrocarbons
 T = Total concentration
 U = Not detected above the laboratory reporting limit.
 µg/l = micrograms per liter
 Bold font indicates compound was detected

Table B
Summary of Groundwater Chemical Analytical Data - PCBs and Metals
Quiet Cove Property
Anacortes, Washington

Sample Identification	Sample Date	PCBs ¹ ng/l ²	Metals ³ µg/l ²											
			Total					Dissolved						
			Arsenic	Cadmium	Chromium ⁴	Lead	Mercury	Arsenic	Cadmium	Chromium ⁴	Lead	Mercury		
QC-MW-1-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	-	-
QC-MW-2-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	-	-
QC-MW-3-7.1.14	07/01/14	0.64 U	4.9	4.4 U	23	1.3 U	0.5 U	4.5	4 U	10 U	1 U	0.5 U		
QC-MW-3-DUH-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	-	-
QC-MW-4-7.1.14	07/01/14	-	-	-	-	-	-	-	-	-	-	-	-	-
QC-MW-5-7.1.14	07/01/14	0.254 U	2.6	4.4 U	48	7.2	0.5 U	4.6	4 U	10 U	1 U	0.5 U		
Groundwater Screening Level ⁵		0.1	5	5	50	15	2	5	5	50	15	2		

Notes:

- ¹ Analyzed using Environmental Protection Agency (EPA) Method 8260A.
- ² Analyzed using EPA Method 8210C/7471E.
- ³ Reported as total chromium.
- ⁴ Metal Toxic Control Act (MTCRA) Method A Cleanup Level for unrestricted land use.

PCBs = Polychlorinated Biphenyls

U = not detected at the laboratory reporting limit

µg/l = micrograms per liter

UT = not detected for the total PCBs

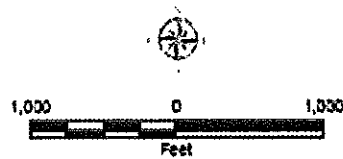
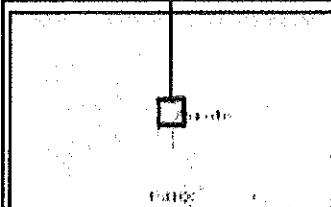
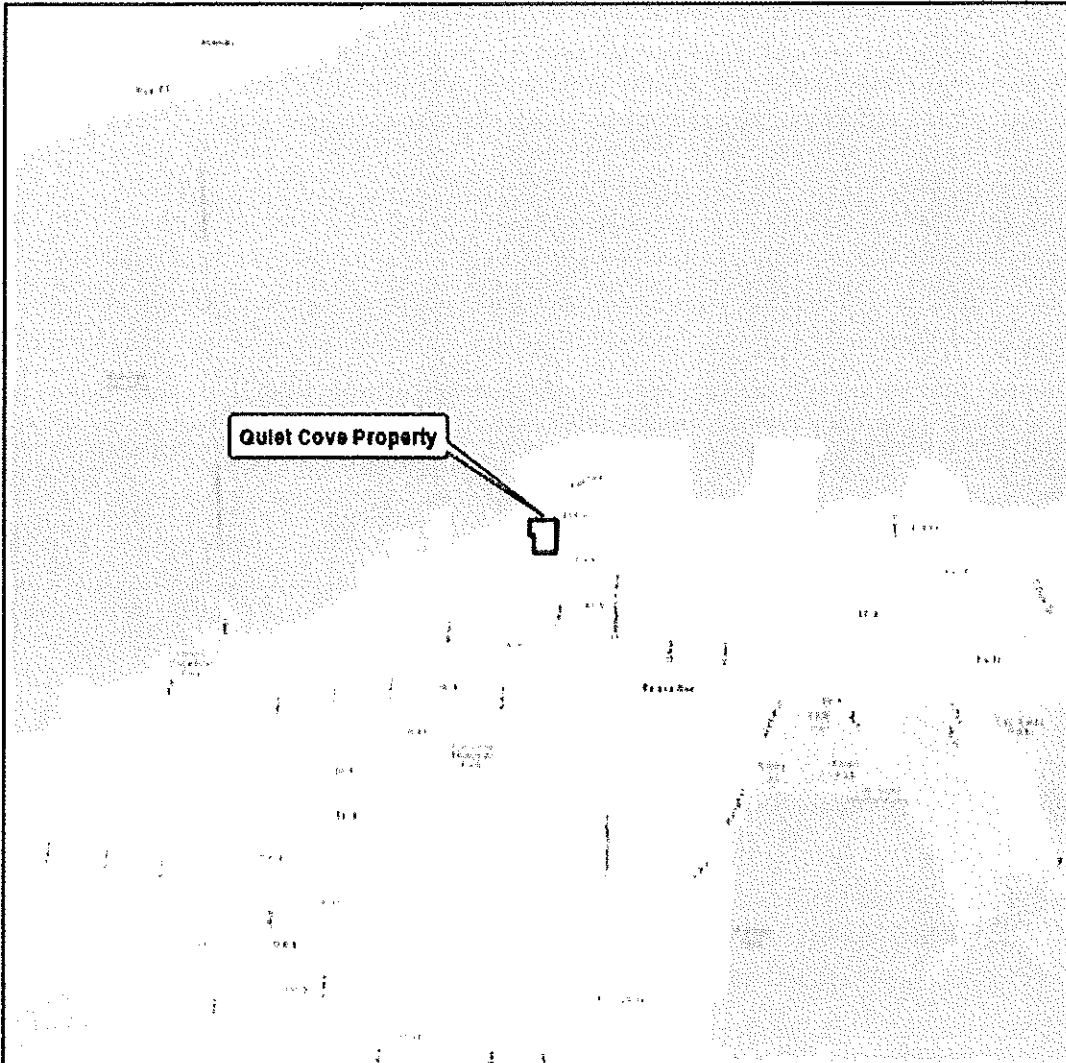
Bold font indicates compound was detected.

Shaded font indicates that the compound was detected at a concentration greater than the screening level.

FIGURE 1

Map Fileloc: 1:2500014 MGA


Office: Redmond Path:C:\Users\mugund\Desktop\Map\Map.mxd



Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in locating features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of the information.
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Data Sources: ESRI Data & Maps, Street Data 2012
 Traverse Method: Zone 10 N North, North American Datum 1983
 North arrow oriented to grid north

Vicinity Map	
Quiet Cove Property Anacortes, Washington	
GEOENGINEERS 	Figure 1

