# APPENDIX A ENVIRONMENTAL COVENANT



6156256 COV Total Pages:69 Rec: \$321.50 Recorded in Clark County, WA 12/5/2023 3:02 PM PORT OF RIDGEFIELD

RETURN ADDRI	ESS
Port of	RIDGEFIELD

PO BOX 55 RIDGEFIELD, WA 98647

Please print neatly or type information **Document Title(s)** 

ENVIRONMENTAL COVENANT

**Reference Number(s) of related documents:** 

Grantor(s) (Last name, First name and Middle Initial)

PORT OF RIDGEFIELD

Grantee(s) (Last name, First name and Middle Initial)

Additional grantors on page

Additional Reference #'s on page

WA DEPARTMENT OF ECOLOGY

Additional grantees on page \_\_\_\_

Additional legal is on page

Legal Description: (abbreviated form: i.e. lot, block, plat or section township, range, quarter/quarter)

Jame Carety DLC

Assessor's Property Tax Parcel/Account Number

000- LAB

Additional parcel #'s on page

The Auditor/Recorder will rely on the information provided on this form. The staff will not read the document to verify the accuracy or completeness of the indexing information provided herein.

I am requesting an emergency nonstandard recording for an additional fee as provided in RCW 36.18.010. I understand that the recording process may cover up or otherwise obscure some part of the text of the original document.

Signature of Requesting

After Recording Return Original Signed Covenant to: Cameron Penner-Ash Toxics Cleanup Program Department of Ecology 300 Desmond Drive Southeast Lacey, WA 98503-1274

# **Environmental Covenant**

Grantor: Port of Ridgefield

**Grantee:** State of Washington, Department of Ecology (hereafter "Ecology") **Brief Legal Description:** James Carty Donation Land Claim No. 48 in Section 24, Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington and Arthur Quigley Donation Land Claim No. 38 and 50 in Section 24, Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington.

 Tax Parcel Nos.:
 068345-000, 067898-000, 067997-000, 067991-003, 067998-000, 067883-000, 068331-000, 067897-000, 219386-000, 068314-000, 068360-000, AND 068362-000

 Cross Reference:
 CONSENT DECREE NO. 13-2-03830-1

# RECITALS

**a.** This document is an environmental (restrictive) covenant (hereafter "Covenant") executed pursuant to the Model Toxics Control Act ("MTCA"), chapter 70.105D RCW, and Uniform Environmental Covenants Act ("UECA"), chapter 64.70 RCW.

**b.** The Property that is the subject of this Covenant is part or all of a site commonly known as **Pacific Wood Treating Corp, Ecology Facility Site Identification No. 1019.** The Property is legally described in Exhibit A, and illustrated in Exhibit B, both of which are attached (hereafter "Property"). If there are differences between these two Exhibits, the legal description in Exhibit A shall prevail.

**c.** The Property is the subject of remedial action conducted under MTCA. This Covenant is required because residual contamination remains on the Property after completion of remedial actions. Specifically, the following principal contaminants remain on the Property:

Medium	Principal Contaminants Present
Soil	Metals, polycyclic aromatic hydrocarbons (PAHs), pentachlorophenol,
	petroleum hydrocarbons, dioxins
Groundwater	Metals, PAHs, pentachlorophenol, petroleum hydrocarbons, volatile organic
	compounds

**d.** It is the purpose of this Covenant to restrict certain activities and uses of the Property to protect human health and the environment and the integrity of remedial actions conducted at the site. **This Covenant includes the following Exhibits:** 

# Exhibit A — Legal Description

# Exhibit B — Property Map

Exhibit C-1—Final Cap Overview

# Exhibit C-2—Areas with Potential Vapor Concern

Records describing the extent of residual contamination and remedial actions conducted are available through Ecology. **This includes the following documents:** 

- Former PWT site Remedial Investigation and Feasibility Study. Prepared for the Port of Ridgefield, by Maul Foster & Alongi, Inc., Vancouver, Washington. July 2013.
- Cleanup Action Plan, former Pacific Wood Treating Co. site. Prepared by Washington State Department of Ecology. November 2013.
- Construction Completion Report, Railroad Avenue. Prepared for the Port of Ridgefield, by Maul Foster & Alongi, Inc., Vancouver, Washington. January 2014.
- Cells 1, 2, 3, and 4 Interim Action Completion Report. Prepared for the Port of Ridgefield, by Maul Foster & Alongi, Inc., Vancouver, Washington. July 2021.
- Comprehensive Operations and Maintenance Plan, Former Pacific Wood Treating Co. Site. Prepared for the Port of Ridgefield, by Maul Foster & Alongi, Inc., Vancouver, Washington.

**e.** This Covenant grants Ecology certain rights under UECA and as specified in this Covenant. As a Holder of this Covenant under UECA, Ecology has an interest in real property, however, this is not an ownership interest which equates to liability under MTCA or the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 *et seq.* The rights of Ecology as an "agency" under UECA, other than its' right as a holder, are not an interest in real property.

**f.** Two PLPs are local governments. The Port of Ridgefield, as a port district organized pursuant to Title 53 Revised Code of Washington and the City of Ridgefield, as a non-charter code city organized pursuant to Title 35A of the Revised Code of Washington, have clear and distinct statutory powers and missions. In order to maximize grant and loan eligibility for Property site improvements, including but not limited to Brownfield Redevelopment Authority, and to efficiently exercise the statutory powers integral to reclaim the Site and reutilize it for the benefit of the community and the economy, a transfer, lease or exchange between them of any legal or equitable interest in the Property [hereinafter, "conveyance'] within and adjacent to the Property is in the best interest of the public. It is consistent with the purpose of this Covenant to allow such transfers, leases or exchanges among or between PLPs as long as the use restrictions protecting human health remain in effect and the uses do not undermine the integrity of the remedial activities as set forth in Section 1 of this Covenant.

## COVENANT

<u>PORT OF RIDGEFIELD</u>, as Grantor and <u>FEE SIMPLE</u> owner of the Property hereby grants to the Washington State Department of Ecology, and its successors and assignees, the following covenants. Furthermore, it is the intent of the Grantor that such covenants shall supersede any prior interests the GRANTOR has in the property and run with the land and be binding on all current and future owners of any portion of, or interest in, the Property.

# Section 1. General Restrictions and Requirements.

The following general restrictions and requirements shall apply to the Property:

**a.** Interference with Remedial Action. The Grantor shall not engage in any activity on the Property that may impact or interfere with the remedial action and any operation, maintenance, inspection or monitoring of that remedial action without prior written approval from Ecology.

**b. Protection of Human Health and the Environment**. The Grantor shall not engage in any activity on the Property that may threaten continued protection of human health or the environment without prior written approval from Ecology. This includes, but is not limited to, any activity that results in the release of residual contamination that was contained as a part of the remedial action or that exacerbates or creates a new exposure to residual contamination remaining on the Property.

c. Continued Compliance Required. Grantor shall not convey any interest in any portion of the Property without providing for the continued adequate and complete operation, maintenance and monitoring of remedial actions and continued compliance with this Covenant. Provided, however, due to the fact PLPs have executed and remain subject to the terms of this Covenant, a conveyance of any interest in the Property between or among PLPs shall be presumed to satisfy the requirement of an adequate and complete operation, maintenance and monitoring of remedial actions and complete operation, maintenance and monitoring of remedial actions and complete operation.

**d.** Leases. Grantor shall restrict any lease for any portion of the Property to uses and activities consistent with this Covenant and notify all lessees of the restrictions on the use of the Property.

e. Preservation of Reference Monuments. Grantor shall make a good faith effort to preserve any reference monuments and boundary markers used to define the areal extent of coverage of this Covenant. Should a monument or marker be damaged or destroyed, Grantor shall have it replaced by a licensed professional surveyor within 30 days of discovery of the damage or destruction.

# Section 2. Specific Prohibitions and Requirements.

In addition to the general restrictions in Section 1 of this Covenant, the following additional specific restrictions and requirements shall apply to the Property.

## a. Containment of Soil/Waste Materials.

The remedial action for the Property is based on containing contaminated soil under a cap as described in the Soil Management and Cap Maintenance Plan (SMCMP), which is an appendix to the Comprehensive Operations and Maintenance Plan, and includes the following:

Type of Use	Typical Section
Landscaping/green space:	
• <2 feet soil	• Geotextile as demarcation; no landscaping; impermeable surface required (e.g., pavement, impermeable liner to prevent infiltration, buildings)
• 2 to 3 feet soil or gravel	<ul> <li>Geotextile as demarcation layer; ground cover as outlined in the TEE (MFA, 2013); gravel surfaces, or additional as approved by Ecology; any grasses</li> </ul>
• 3 to 6 feet soil or gravel	<ul> <li>Geotextile as demarcation layer; shrubs or trees as outlined in TEE (MFA, 2013); gravel surfaces, or additional as approved by Ecology; any grasses</li> </ul>
• >6 feet soil	• No geotextile and no vegetation planting restrictions
Parking	Impermeable surface (min. thickness 3 inches) with clean subbase as necessary for construction
Building/structure	Slab-on-grade (min. thickness 3 inches) with subbase as necessary for construction
Sidewalk/pathway	Impermeable surface (min. thickness 2.5 inches) with clean subbase as necessary for construction or gravel surface with minimum 2 feet clean fill
NOTE:	
TEE = terrestrial ecological	evaluation.

The cap is located as illustrated in <u>Exhibit C-1</u>. The primary purpose of this cap is to minimize the potential for contact with contaminated soil. As such, the following restrictions shall apply within the area illustrated in <u>Exhibit C-1</u>:

- i. Activities that temporarily disturb the cap shall comply with the Ecology approved SMCMP for the Property.
- **ii.** Any activity on the Property that will compromise the integrity of the cap including: drilling; digging; piercing the cap with sampling device, post, stake or similar device; grading; excavation; installation of underground utilities; removal of the cap; or, application of loads in excess of the cap load bearing capacity, is prohibited without prior written approval by Ecology.
- iii. The Grantor shall report to Ecology within forty-eight (48) hours of the discovery of any damage to the cap. Unless an alternative plan has been approved by Ecology in writing, the Grantor shall promptly repair the damage and submit a report documenting this work to Ecology within thirty (30) days of completing the repairs.
- iv. The Grantor shall not alter or remove the existing structures on the Property in any manner that would expose contaminated soil, result in a release to the environment of contaminants, or create a new exposure pathway, without prior written approval of Ecology. Should the Grantor propose to remove all or a portion of the existing structures illustrated in <u>Exhibit C-1</u> so that access to the underlying contamination is feasible, Ecology may require treatment or removal of the underlying contaminated soil.

# Section 5. Modification or Termination.

**a.** Grantor must provide written notice and obtain approval from Ecology at least sixty (60) days in advance of any proposed activity or use of the Property in a manner that is inconsistent with this Covenant. For any proposal that is inconsistent with this Covenant and permanently modifies an activity or use restriction at the site:

i. Ecology must issue a public notice and provide an opportunity for the public to comment on the proposal; and

ii. If Ecology approves of the proposal, the Covenant must be amended to reflect the change before the activity or use can proceed.

**b.** If the conditions at the site requiring a Covenant have changed or no longer exist, then the Grantor may submit a request to Ecology that this Covenant be amended or terminated. Any amendment or termination of this Covenant must follow the procedures in MTCA and UECA and any rules promulgated under these chapters.

**c.** By signing this agreement, per RCW 64.70.100, the original signatories to this agreement, other than Ecology, agree to waive all rights to sign amendments to and termination of this Covenant.

# Section 6. Enforcement and Construction.

**a.** This Covenant is being freely and voluntarily granted by the Grantor.

**b.** Within ten (10) days of execution of this Covenant, Grantor shall provide Ecology with an original signed Covenant and proof of recording and a copy of the Covenant and proof of recording to others required by RCW 64.70.070.

c. Ecology shall be entitled to enforce the terms of this Covenant by resort to specific performance or legal process. All remedies available in this Covenant shall be in addition to any and all remedies at law or in equity, including MTCA and UECA. Enforcement of the terms of this Covenant shall be at the discretion of Ecology, and any forbearance, delay or omission to exercise its rights under this Covenant in the event of a breach of any term of this Covenant is not a waiver by Ecology of that term or of any subsequent breach of that term, or any other term in this Covenant, or of any rights of Ecology under this Covenant.

**d.** The Grantor shall be responsible for all costs associated with implementation of this Covenant. Furthermore, the Grantor, upon request by Ecology, shall be obligated to pay for Ecology's costs to process a request for any modification or termination of this Covenant and any approval required by this Covenant.

e. This Covenant shall be liberally construed to meet the intent of MTCA and UECA.

**f.** The provisions of this Covenant shall be severable. If any provision in this Covenant or its application to any person or circumstance is held invalid, the remainder of this Covenant or its application to any person or circumstance is not affected and shall continue in full force and effect as though such void provision had not been contained herein.

**g.** A heading used at the beginning of any section or paragraph or exhibit of this Covenant may be used to aid in the interpretation of that section or paragraph or exhibit but does not override the specific requirements in that section or paragraph.

The undersigned Grantor warrants he/she holds the title to the Property and has authority to execute this Covenant.

EXECUTED this <u>S</u> day of <u>woverneer</u> , 20**23**.

by: \_ RANDY MUELLER

Title: Chief Executive Officer

STATE OF Washington

### **REPRESENTATIVE ACKNOWLEDGEMENT**

On this  $\underline{8^{\text{M}}}$  day of <u>November</u>, 2023, I certify that <u>handy</u> <u>Muellen</u> personally appeared before me, acknowledged that **he/she** signed this instrument, on oath stated that **he/she** was authorized to execute this instrument, and acknowledged it as the Chief Executive Officer of the Port of Ridgefield to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.



Wonder Baddurn Notary Public in and for the State of Washington

Residing at <u>Clark County</u> My appointment expires June 5, 2024 b. The Grantor covenants and agrees that it shall annually, or at another time as approved in writing by Ecology, inspect the cap down to the ordinary high-water line, and report within thirty (30) days of the inspection the condition of the cap and any changes to the cap that would impair its performance.

# c. Stormwater facilities.

To minimize the potential for mobilization of contaminants remaining in the soil/waste materials on the Property, no stormwater infiltration facilities or ponds shall be constructed on the Property unless approved by Ecology. All stormwater catch basins, conveyance systems, and other appurtenances located within this area shall be of water-tight construction.

# d. Vapor/gas controls.

The residual contamination on the Property includes volatile chemicals that may generate harmful vapors. As such, the following restrictions shall apply within the area of the Property illustrated in **Exhibit C-2** to minimize the potential for exposure to these vapors:

- i. Any building or other enclosed structure constructed within this area shall be constructed with a sealed foundation and with a vapors control system installed and maintained to prevent the migration of vapors into the building or structure.
- **ii.** Alternatively, soil gas characterization may be conducted to assess risk to human health. Ecology may approve construction without vapor mitigation if risk to human health is found to be acceptable.

# e. Groundwater Use.

The groundwater beneath the Property remains contaminated and shall not be extracted for any purpose other than temporary construction dewatering, investigation, monitoring or remediation. Drilling of a well for any water supply purpose is strictly prohibited. Groundwater extracted from the Property for any purpose shall be considered potentially contaminated and any discharge of this water shall be done in accordance with state and federal law.

# f. Monitoring.

Several groundwater monitoring wells are located on the Property to monitor the performance of the remedial action. The Grantor shall maintain clear access to these devices and protect them from damage. The Grantor shall report to Ecology within forty-eight (48) hours of the discovery of any damage to any monitoring device. Unless Ecology approves of an alternative plan in writing, the Grantor shall promptly repair the damage and submit a report documenting this work to Ecology within thirty (30) days of completing the repairs.

# Section 3. Access.

**a.** The Grantor shall maintain clear access to all remedial action components necessary to construct, operate, inspect, monitor and maintain the remedial action.

**b.** The Grantor freely and voluntarily grants Ecology and its authorized representatives, upon reasonable notice, the right to enter the Property at reasonable times to evaluate the effectiveness of this Covenant and associated remedial actions, and enforce compliance with this Covenant and those actions, including the right to take samples, inspect any remedial actions conducted on the Property, and to inspect related records.

**c.** No right of access or use by a third party to any portion of the Property is conveyed by this instrument.

# Section 4. Notice Requirements.

**a. Conveyance of Any Interest.** The Grantor, when conveying any interest <u>IN ANY PART OF</u> <u>THE PROPERTY</u>, including but not limited to title, easement, leases, and security or other interests, must:

- i. Provide written notice to Ecology of the intended conveyance at least thirty (30) days in advance of the conveyance.
- ii. Include in the conveying document a notice in substantially the following form, as well as a complete copy of this Covenant:

NOTICE: THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL COVENANT GRANTED TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY ON [\_\_\_\_] AND RECORDED WITH THE <u>CLARK</u> COUNTY AUDITOR UNDER RECORDING NUMBER [\_\_\_]. USES AND ACTIVITIES ON THIS PROPERTY MUST COMPLY WITH THAT COVENANT, A COMPLETE COPY OF WHICH IS ATTACHED TO THIS DOCUMENT.

iii. Unless otherwise agreed to in writing by Ecology, provide Ecology with a complete copy of the executed document within thirty (30) days of the date of execution of such document.

For purposes of this covenant, "Property" means the real property listed by tax parcel number and which is owned in fee simple title by the Port of Ridgefield.

**b. Reporting Violations.** Should the Grantor become aware of any violation of this Covenant, Grantor shall promptly report such violation in writing to Ecology.

c. Emergencies. For any emergency or significant change in site conditions due to Acts of Nature (for example, flood or fire) resulting in a violation of this Covenant, the Grantor is authorized to respond to such an event in accordance with state and federal law. The Grantor must notify Ecology in writing of the event and response actions planned or taken as soon as practical but no later than within 24 hours of the discovery of the event.

**d.** Notification procedure. Any required written notice, approval, reporting or other communication shall be personally delivered or sent by first class mail to the following persons Any change in this contact information shall be submitted in writing to all parties to this Covenant. Upon mutual agreement of the parties to this Covenant, an alternative to personal delivery or first class mail, such as e-mail or other electronic means, may be used for these communications.

Randy Mueller	Environmental Covenants Coordinator
Chief Executive Officer	Washington State Department of Ecology
Port of Ridgefield	Toxics Cleanup Program
111 West Division Street	P.O. Box 47600
Ridgefield, WA 98642	Olympia, WA 98504 – 7600
500.007.5075	(360) 407-6000
	ToxicsCleanupProgramHQ@ecy.wa.gov

The Department of Ecology, hereby accepts the status as GRANTEE and HOLDER of the above Environmental Covenant.

STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

by: Rebecca Lawson

Title: Southwest Regional Section Manager, Toxics Cleanup Program

Dated: 11/27/2023

# STATE ACKNOWLEDGMENT

STATE OF Thurston COUNTY OF

On this <u>274h</u> day of <u>November</u>, 20,23 I certify that <u>kebacca</u> law son personally appeared before me, acknowledged that **he/she** is the <u>SWRO Section Mgr</u>, <u>TCP</u> of the state agency that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed, for the uses and purposes therein mentioned, and on oath stated that **he/she** was authorized to execute said instrument for said state agency.



Notary Public in and for the State of Washington

Residing at Thurston County

My appointment expires 5 - 25 - 2024

# Exhibit A

# **LEGAL DESCRIPTION**

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COMPANY OF WASHINGTON, INC.

# EXHIBIT "A"

**Order No.:** 612887912

For <u>APN/Parcel ID(s)</u>: <u>067897000, 067998000, 067883000, 068314000, 068345000, 068362000,</u> 068360000, 219386000, 067997000, 067991003, 067898000 and 068331000

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# EXHIBIT "A"

(continued)

#### PARCEL I

A parcel of land in the Arthur Quigley Donation Land Claim No. 50 in the Southwest quarter of the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington bounded on the South by the North line of Mill Street, on the West by Lake River, on the North by the South line of Division Street and on the East by the Westerly line of the Union Pacific (UP) Railroad more particularly described as follows:

Beginning at the intersection of the Westerly line of the UP Railroad and the Northerly right of way line of Mill Street; thence South 77°57'15" West 221.65 feet to the line of ordinary high water on the right bank of Lake River; thence Northwesterly along the line of ordinary high water on the right bank of Lake River to a point on the South right of way line of Division Street that bears North 89°02'23" West 532.97 feet from the intersection of the South right of way line of Division Street and the Westerly line of the UP Railroad; thence South 89°02'23" East 532.97 feet to the intersection of the South right of way line of Division Street and the Westerly line of the UP Railroad; thence South 89°02'23" East 532.97 feet to the intersection of the South right of way line of Division Street with the Westerly line of the UP Railroad; thence South 00°32'12" East along the Westerly line of said UP Railroad a distance of 701.95 feet to the Northerly right of way line of said Mill Street and the point of beginning.

#### PARCEL II

A parcel of land in the James Carty Donation Land Claim No. 48 in the Southwest quarter of the Northeast quarter and the Northwest quarter of the Northeast quarter of Section 24 and the Southwest quarter of the Southeast quarter of Section 13 all in Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington bounded on the South by the North line of Division Street, on the West by Lake River and the Ridgefield Wildlife Refuge, on the North by the Ridgefield Wildlife Refuge and on the East by the Burlington Northern Santa Fe (BNSF) Railroad and the City of Ridgefield Sewage Treatment Plant, being more particularly described as follows:

Beginning at the intersection of the North line of Division Street and the West line of the BNSF Railroad; thence North 89°02'23" West along the North line of Division Street 43.44 feet to the true point of beginning; thence continuing along the North line of Division Street North 89°02'23" West 663.30 feet to the line of ordinary high water on the right bank of Lake River; thence Northwesterly along the line of ordinary high water on the right bank of Lake River to the South line of the North half of the James Carty Donation Land Claim; thence South 88°27'27" East 854.46 feet; thence North 00°27'23" West 462.67 feet; thence South 88°21'12" East 75.46 feet; thence North 00°32'12" West 1239.36 feet to the North line of the James Carty Donation Land Claim; thence South 88°37'47" East along said North line 250.05 feet to the West line of the BNSF Railroad; thence South 00°32'12" East 1290.92 feet to the Northeast corner of the City of Ridgefield Sewage Treatment Plant; thence South 89°36'55" West 198.18 feet; thence along the arc of a 324.00 foot radius, non-tangent curve concave to the West, the chord of which bears South 27°35'03" West 31.46 feet, through a central angle of 05°33'55" an arc distance of 31.47 feet; thence along the arc of a 270.00 foot curve concave to the East through a central angle of 28°03'33" an arc distance of 132.25 feet; thence South 02°18'27" West 95.00 feet; thence along the arc of a 270.00 foot radius curve concave to the East through a central angle of 26°08'48" an arc distance of 123.21 feet; thence along the arc of a 324.00 foot radius curve concave to the West through a central angle of 23°18'09" an arc distance of 131.77 feet; thence South 00°32'12" East 70.46 feet: thence South 88°27'27" East 114.74 feet: thence North 00°32'12" West 23.83 feet; thence South 87°25'49" East 93.08 feet to the Southeast corner of said sewage treatment plant and the West line of the BNSF Railroad; thence South 00°32'12" East along the West line of said BNSF Railroad 729.36 feet; thence along the arc of a 902.73 foot radius non-tangent curve concave to the West, the chord of which bears South 15°46'43" West 122.83 feet through a central angle of

# EXHIBIT "A"

(continued)

07°48'07" an arc distance of 122.92 feet; thence South 19°40'47" West 25.80 feet to the North line of Division Street and the true point of beginning.

#### PARCEL III

A parcel of land in the Arthur Quigley Donation Land Claim No. 50 in the Southwest quarter of the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington Bounded on the South by the North line of Mill Street, on the West by the East line of the Burlington Northern Santa Fe (BNSF) Railroad, on the North by the South line of Division Street and on the East by the Westerly line of Railroad Avenue, more particularly described as follows:

Beginning at the intersection of the South line of Division Street and the Easterly line of the BNSF Railroad; thence South 00°32'12" East along said Easterly line 134.98 feet; thence continuing along said Easterly right of way line of the BNSF Railroad along a spiral curve, defined by three (3) 33.00 foot chords (at centerline) the long chord at the Easterly right of way bears South 00°55'32" East 98.39 feet; thence continuing along the Easterly right of way line and the arc of a 2,814.93 foot radius curve concave to the East, the chord of which bears South 05°45'49" East 414.44 feet through a central angle of 08°26'36" an arc distance of 414.81 feet to the North right of way line of Mill Street; thence North 72°57'37" East along the North night of way line of Mill Street 30.20 feet to the West right of way line of Railroad Avenue; thence North 06°16'11" East along said West line 241.10 feet; thence continuing along said West line North 00°59'49" East 396.34 feet to the South right of way line of Division Street; thence North 89°02'23" West along said South line 53.93 feet to the Easterly line of the BNSF Railroad and the point of beginning.

#### PARCEL IV

A parcel of land in the Arthur Quigley Donation Land Claim No. 38 in the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington, described as follows:

Beginning at the intersection of the West line of the Burlington Northern Sante Fe Railroad (BNSF), formerly the Northern pacific Railroad and the centerline of Division Street as established April 5, 1906 in Book 5 of Roads at Page 341:

thence South 00°32'12" East along the West line of said BNSF Railroad 30.01 feet to the South line of Division Street and the True Point of Beginning;

thence North 89°02'23" West along the South line of said Division Street 150.05 feet to the West line of the Union Pacific Railroad (UPRR) formerly the Oregon and Washington Railroad (O&WRR) as described by deed recorded in Book 82 of Deeds at Page 498, records of said Clark County;

thence South 00°32'12" East along the West line of said UPRR 701.95 feet tot he North line of Mill Street (formerly Depot Street) as established as Frank Smith Road February 3, 1908;

thence North 77°57'15" East along the North line of said Mill Street 192.74 feet to the West line of said BNSF Railroad;

thence along the West line of said BNSF Railroad and the arc of a 2914.93 foot radius, non-tangent curve concave to the East (the chord of which bears North 05°42'11" West 424.11 feet) thru a central angle of 08°20'37" an arc distance of 424.48 feet to the Westerly extension of original PCC 742+79.3;

# (continued)

thence continuing along the West line of said BNSF Railroad defined by three 33 foot chords (at centerline), the offset long chord of which bears North 00°55'32" West 99.60 feet to Westerly extension of original PT 743+78.3;

thence continuing along the West line of said BNSF Railroad North 00°32'12" West 137.59 feet tot he South line of Division Street and the True Point of Beginning.

EXCEPT any portion, described as follows:

A parcel of land in the Arthur Quigley Donation Land Claim No. 50 in the Southwest quarter of the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington bounded on the South by the North line of Mill Street, on the West by Lake River, on the North by the South line of Division Street and on the East by the Westerly line of the Union Pacific (UP) Railroad more particularly described as follows:

Beginning at the intersection of the Westerly line of the UP Railroad and the Northerly right of way line of Mill Street; thence South 77°57'15" West 221.65 feet to the line of ordinary high water on the right bank of Lake River; thence Northwesterly along the line of ordinary high water on the right bank of Lake River to a point on the South right of way line of Division Street that bears North 89°02'23" West 532.97 feet from the intersection of the South right of way line of Division Street and the Westerly line of the UP Railroad; thence South 89°02'23" East 532.97 feet to the intersection of the South right of way line of Division Street and the Westerly line of the UP Railroad; thence South 89°02'23" East 532.97 feet to the intersection of the South right of way line of Division Street with the Westerly line of the UP Railroad; thence South 00°32'12" East along the Westerly line of said UP Railroad a distance of 701.95 feet to the Northerly right of way line of said Mill Street and the point of beginning.

PARCEL V

A parcel of land in the South half of the James Carty Donation Land Claim No. 48 in the Northwest quarter of the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian in Clark County Washington, described as follows:

Beginning at the intersection of the West line of the 100 foot wide right of way of the Burlington Northern Santa Fe Railroad (formerly the Northern Pacific Railway Company) and the centerline of Division Street; thence North 02°19'07" West along said West line 30.01 feet to the True Point of Beginning; thence continuing North 02°19'07" West along the West line of the said Burlington Northern Sante Fe Railroad 143.23 feet to the arc of a 902.73 foot radius non-tangent curve concave to the West; thence along the arc of said 902.73 foot radius non-tangent curve the chord of which bears South 13°59'48" West, through a central angle of 07°48'07" an arc distance of 122.92 feet; thence South 17°53'52" West 25.80 feet to a point on a line 30.00 feet North of and parallel with the centerline of Division Street; thence North 89°10'42" East along said parallel line 43.44 feet to the True point of Beginning.

EXCEPT any portion, described as follows:

### EXHIBIT "A"

(continued)

A parcel of land in the James Carty Donation Land Claim No. 48 in the Southwest quarter of the Northeast quarter and the Northwest quarter of the Northeast quarter of Section 24 and the Southwest quarter of the Southeast quarter of Section 13 all in Township 4 North, Range 1 West of the Willamette Meridian in Clark County, Washington bounded on the South by the North line of Division Street, on the West by Lake River and the Ridgefield Wildlife Refuge, on the North by the Ridgefield Wildlife Refuge and on the East by the Burlington Northern Santa Fe (BNSF) Railroad and the City of Ridgefield Sewage Treatment Plant, being more particularly described as follows:

Beginning at the intersection of the North line of Division Street and the West line of the BNSF Railroad; thence North 89°02'23" West along the North line of Division Street 43.44 feet to the true point of beginning; thence continuing along the North line of Division Street North 89°02'23" West 663.30 feet to the line of ordinary high water on the right bank of Lake River; thence Northwesterly along the line of ordinary high water on the right bank of Lake River to the South line of the North half of the James Carty Donation Land Claim; thence South 88°27'27" East 854.46 feet; thence North 00°27'23" West 462.67 feet; thence South 88°21'12" East 75.46 feet; thence North 00°32'12" West 1239.36 feet to the North line of the James Carty Donation Land Claim; thence South 88°37'47" East along said North line 250.05 feet to the West line of the BNSF Railroad; thence South 00°32'12" East 1290.92 feet to the Northeast corner of the City of Ridgefield Sewage Treatment Plant; thence South 89°36'55" West 198.18 feet; thence along the arc of a 324.00 foot radius, non-tangent curve concave to the West, the chord of which bears South 27°35'03" West 31.46 feet, through a central angle of 05°33'55" an arc distance of 31.47 feet; thence along the arc of a 270.00 foot curve concave to the East through a central angle of 28°03'33" an arc distance of 132.25 feet; thence South 02°18'27" West 95.00 feet; thence along the arc of a 270.00 foot radius curve concave to the East through a central angle of 26°08'48" an arc distance of 123.21 feet; thence along the arc of a 324.00 foot radius curve concave to the West through a central angle of 23°18'09" an arc distance of 131.77 feet; thence South 00°32'12" East 70.46 feet; thence South 88°27'27" East 114.74 feet; thence North 00°32'12" West 23.83 feet; thence South 87°25'49" East 93.08 feet to the Southeast corner of said sewage treatment plant and the West line of the BNSF Railroad; thence South 00°32'12" East along the West line of said BNSF Railroad 729.36 feet; thence along the arc of a 902.73 foot radius non-tangent curve concave to the West, the chord of which bears South 15°46'43" West 122.83 feet through a central angle of 07°48'07" an arc distance of 122.92 feet; thence South 19°40'47" West 25.80 feet to the North line of Division Street and the true point of beginning.

4978569 D 06/04/2013 12:59 PM Total Pages: 9 Rec Fee: \$80.00 CLARK COUNTY TITLE COMPANY SIMPLIFILE LC E-RECORDING eRecorded in Clark County, WA

# **RECORDING REQUESTED BY AND AFTER RECORDING RETURN TO:**

PORT OF RIDGEFIELD P. O. Box 55 Ridgefield, Washington 98642

Real Estate Excise Tax
Ch. 11 Rev. Laws 1951
EXEMPT //
Affd. # 694/18 Date 6/3/13
For Details of tax paid see
Affd. #
Doug Lasher
Clark County Treasurer
BY (KRH)
Deputy

Space Above Line for Recorder's Use Only

068331-000

2121-53

**QUITCLAIM DEED** 

1435664

UNION PACIFIC RAILROAD COMPANY, a Delaware corporation (formerly known as Southern Pacific Transportation Company, a Delaware corporation, successor in interest through merger with Union Pacific Railroad Company, a Utah corporation, successor in interest through merger with Oregon Short Line Railroad Company, successor in interest through merger with Oregon-Washington Railroad & Navigation Company), Grantor, in consideration of the sum of Ten Dollars (\$10.00), and other valuable consideration to it duly paid, the receipt whereof is hereby acknowledged, hereby quitclaims unto PORT OF RIDGEFIELD, a municipal special purpose district duly organized under the laws of the State of Washington, Grantee, whose address is P. O. Box 55, 111 West Division Street, Ridgefield, Washington 98642, and unto its successors and assigns forever, all of Grantor's right, title, interest, estate, claim and demand, both at law and in equity, of, in, and to the real estate (hereinafter, the "Property") situated in Ridgefield, Clark County, State of Washington, as more particularly described in Exhibit A, hereto attached and hereby made a part hereof, together with all afteracquired title of the Grantor therein.

LEGAL: Shif of James Carty Doncition land. #48 NW 904 NE EXCEPTING from this quitclaim and RESERVING unto Grantor, its successors

and assigns, forever, all minerals and all mineral rights of every kind and character now known to exist or hereafter discovered underlying the Property, including without limiting the generality of the foregoing, oil and gas and rights thereto, together with the sole, exclusive and perpetual rights to explore for, remove and dispose of said minerals by any means or methods suitable to the Grantor, its successors and assigns, but without entering upon or using the surface of the Property, and in such manner as not to damage the surface of the Property, or to interfere with the use thereof by the Grantee, its successors and assigns; PROVIDED, HOWEVER, that Grantor, its successors or assigns, without the prior written permission of Grantee, its successors or assigns, shall not conduct any mining activities of whatsoever nature above a plane five hundred feet (500') below the surface of the Property. The Property is transferred by Grantor subject to the following covenant, condition and restriction which Grantee by the acceptance of this Quitclaim Deed covenants for itself, its successors and assigns, faithfully to keep, observe and perform:

<u>Restriction on Use</u>. Grantee, its successors and assigns, may use the Property for industrial, office, retail-oriented commercial business (for example, shopping center, restaurant), transportation, parking and open space purposes, only, and for no other purposes whatsoever. Without limitation of the foregoing, the Property must not be used for any of the following purposes: (i) residential, (ii) lodgings or accommodations (including, without limitation, hotels, motels, boarding houses, dormitories, hospitals, nursing homes, or retirement centers), or (iii) child-care facilities, including, without limitation, schools, kindergartens, day-care centers, gymnasiums, athletic fields, picnic grounds or parks.

The foregoing covenant, condition and restriction shall run with the Property, the burden of which will be binding on the successors and assigns of Grantee, and the benefit of which will inure to the successors and assigns of Grantor. A breach of the foregoing covenant, condition and restriction, or the continuance thereof, may, at the option of Grantor, its successors or assigns, be enjoined, abated or remedied by appropriate proceedings.

General Allocation of Environmental Responsibility. With respect to any existing or future environmental contamination of the Property, from and after the date of delivery of this Deed, Grantee, at no cost to Grantor, agrees to be solely responsible for conducting any investigation, monitoring, remediation, removal, response or other action required by any governmental agency, court order, law or regulation or otherwise necessary to make the Property suitable for Grantee's use of the Property. Grantee, for itself, its successors and assigns, further covenants and agrees that Grantee will not bring any claim, suit, action, cause of action, or demand, whether in law or in equity, against Grantor, its affiliates, subsidiaries, agents, attorneys, employees, directors, officers, shareholders, successors and assigns, for any matter, cost or expense, incurred by Grantee after the time of delivery of this Deed to investigate or remediate the environmental condition of the Property existing at the time of delivery of this Deed; provided that such covenant does not apply to, and will not bar or limit Grantee's rights or remedies with respect to, any contamination or condition arising out of or relating to any migration, transfer or movement of any substance(s) off of or from the Property to any other property whether prior to, on or (with respect to any currently existing contamination or condition of the Property) after the date of delivery of this Deed. For the avoidance of doubt, the foregoing covenant does not apply to any condition of any property other than the Property (including, but not limited to any condition of any other property (including any surface or groundwater or sediments or other area or portion of such other property) related to or arising out of any migration or transfer of any substance(s) from the Property).

IN WITNESS WHEREOF, the Grantor has caused this deed to be duly executed as of the 3/5 day of May, 2013.

Attest:

# UNION PACIFIC RAILROAD COMPANY, a Delaware corporation

Assistant Secretary

By:	·	
Name:		
Title:		

(Seal)

Grantee hereby accepts this Deed and agrees for itself, its successors and assigns, to be bound by the covenants set forth herein.

Dated this  $31^{5+}$  day of May, 2013.

PORT OF RIDGEFIELD, a municipal special purpose district duly organized under the laws of the State of Washington

By: 🥻 GRENING Name: ZKE Title: CEO

IN WITNESS WHEREOF, the Grantor has caused this deed to be duly executed as of the 29 day of May, 2013.

Attest:

Assistant Secretary

(Seal)	MALLAG RAILAG	
Willing.	STATES STATES	
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	the standard and stand	•

# UNION PACIFIC RAILROAD COMPANY, a Delaware corporation

By: \_ Name: Assistant Vice President - Real Estate Title:

Grantee hereby accepts this Deed and agrees for itself, its successors and assigns, to be bound by the covenants set forth herein.

Dated this \_\_\_\_\_ day of May, 2013.

PORT OF RIDGEFIELD, a municipal special purpose district duly organized under the laws of the State of Washington

Ву:	
Name:	
Title:	 

# STATE OF NEBRASKA ) ) ss. COUNTY OF DOUGLAS )

On this <u>A</u> day of May, 2013, before me, Notary Public in and for said County and State, personally appeared Tony K. Love and Barbara Holder who are the Assistant Vice President-Real Estate and the Assistant Secretary, respectively, of Union Pacific Railroad Company, a Delaware corporation, and who are personally known to me (or proved to me on the basis of satisfactory evidence) to be the persons whose names are subscribed to in the within instrument, and acknowledged to me that they executed the same in their authorized capacities, and that by their signatures on the instrument the persons, or the entity upon behalf of which the persons acted, executed the instrument.

WITNESS my hand and official seal.

GENERAL NOTARY - State of Nebraska SUSAN HRONEK

(Seal)

# STATE OF WASHINGTON)) ss.COUNTY OF CLARK)

I, the undersigned, a Notary Public in and for the State of Washington, hereby certify that on this  $31^{57}$  day of May, 2013, personally appeared before me <u>Brent A. Grening</u>, <u>CEO</u> of the Port of Ridgefield, a municipal special purpose district duly organized under the laws of the State of Washington, to me known to be the person who executed the foregoing instrument, and acknowledged to me that he/she executed the within instrument pursuant as his/her free and voluntary act and deed, and the free and voluntary act and deed of said entity, for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal this day and year last above written.

7-7-2013 mmission expires: JEANETTE LUDKA Notary Public in and for the State of Washington Residing at Clar

[SEAL]

# Union Pacific Railroad Company

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#### Clark County, Washington

## Exhibit "A"

A PARCEL OF LAND IN THE ARTHUR QUIGLEY DONATION LAND CLAIM #38 IN THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY, WASHINGTON DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST LINE OF THE BURLINGTON NORTHERN SANTE FE RAILROAD (BNSF), FORMERLY THE NORTHERN PACIFIC RAILROAD AND THE CENTERLINE OF DIVISION STREET AS ESTABLISHED APRIL 5, 1906 IN BOOK 5 OF ROADS AT PAGE 341;

THENCE SOUTH 00°32'12" EAST ALONG THE WEST LINE OF SAID BNSF RAILROAD 30.01 FEET TO THE SOUTH LINE OF DIVISION STREET AND THE TRUE POINT OF BEGINNING;

THENCE NORTH 89°02'23" WEST ALONG THE SOUTH LINE OF SAID DIVISION STREET 150.05 FEET TO THE WEST LINE OF THE UNION PACIFIC RAILROAD (UPRR) FORMERLY THE OREGON AND WASHINGTON RAILROAD (O&WRR) AS DESCRIBED BY DEED RECCORDED IN BOOK 82 OF DEEEDS AT PAGE 498, RECORDS OF SAID CLARK COUNTY;

THENCE SOUTH 00°32'12" EAST ALONG THE WEST LINE OF SAID UPRR 701.95 FEET TO THE NORTH LINE OF MILL STREET (FORMERLY DEPOT STREET) AS ESTABLISHED AS FRANK SMITH ROAD FEBRUARY 3, 1908;

THENCE NORTH 77°57'15" EAST ALONG THE NORTH LINE OF SAID MILL STREET 192.74 FEET TO THE WEST LINE OF SAID BNSF RAILROAD;

THENCE ALONG THE WEST LINE OF SAID BNSF RAILROAD AND THE ARC OF A 2914.93 FOOT RADIUS, NON-TANGENT CURVE CONCAVE TO THE EAST (THE CHORD OF WHICH BEARS NORTH 05°42'11" WEST 424.11 FEET) THRU A CENTRAL ANGLE OF 08°20'37" AN ARC DISTANCE OF 424.48 FEET TO WESTERLY EXTENSION OF ORIGINAL PCC 742+79.3;

THENCE CONTINUING ALONG THE WEST LINE OF SAID BNSF RAILROAD AND A 50 FOOT OFFSET FROM THE ORIGINAL CENTERLINE OF THE BNSF RAILROAD DEFINED BY THREE 33 FOOT CHORDS (AT CENTERLINE), THE OFFSET LONG CHORD OF WHICH BEARS NORTH 00°55'32" WEST 99.60 FEET TO WESTERLY EXTENSION OF ORIGINAL PT 743+78.3;

THENCE CONTINUING ALONG THE WEST LINE OF SAID BNSF RAILROAD NORTH 00°32'12" WEST 137.59 FEET TO THE SOUTH LINE OF DIVISION STREET AND THE TRUE POINT OF BEGINNING.

CONTAINING 2.50 ACRES, MORE OR LESS.

Union Pacific Railroad Co. Real Estate Department Omaha, NE.

LD 0212153 May 30, 2013

# BARBIERI & ASSOCIATES, INC.

PROFESSIONAL ENGINEERING & SURVEYING

7017 NE Highway 99, Suite 204 Vancouver, Washington 98665 (360) 695-1001

## TAX LOT 59 LEGAL DESCRIPTION

A PARCEL OF LAND IN THE SOUTH HALF OF THE JAMES CARTY DONATION LAND CLAIM # 48 IN THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 4 NORTH, RANGE 1 WEST OF THE WILLAMETTE MERIDIAN IN CLARK COUNTY WASHINGTON DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE WEST LINE OF THE 100 FOOT WIDE RIGHT OF WAY OF THE BURLINGTON NORTHERN SANTA FE RAILROAD (FORMERLY THE NORTHERN PACIFIC RAILWAY COMPANY) AND THE CENTERLINE OF DIVISION STREET; THENCE NORTH 02°19'07" WEST ALONG SAID WEST LINE 30.01 FEET TO THE **TRUE POINT OF BEGINNING**;

THENCE CONTINUING NORTH 02°19'07" WEST ALONG THE WEST LINE OF THE SAID BURLINGTON NORTHERN SANTE FE RAILROAD 143.23 FEET TO THE ARC OF A 902.73 FOOT RADIUS NON-TANGENT CURVE CONCAVE TO THE WEST; THENCE ALONG THE ARC OF SAID 902.73 FOOT RADIUS NON-TANGENT CURVE, THE CHORD OF WHICH BEARS SOUTH 13°59'48" WEST, THROUGH A CENTRAL ANGLE OF 07°48'07" AN ARC DISTANCE OF 122.92 FEET; THENCE SOUTH 17°53'52" WEST 25.80 FEET TO A POINT ON A LINE 30.00 FEET NORTH OF AND PARALLEL WITH THE CENTERLINE OF DIVISION STREET; THENCE NORTH 89°10'42" EAST ALONG SAID PARALLEL LINE 43.44 FEET TO THE **TRUE POINT OF BEGINNING**, CONTAINING 2830 SQUARE FEET (0.065 ACRES) MORE





PTR\_TL#59\_LEGAL



# Clark Auditor Tue Jun 04 12:43:18 PDT 2013 4978569 Page 9

Clark Auditor 12/5/2023 3:02 PM 6156256 Page:25/69



Clark Auditor 12/5/2023 3:02 PM 6156256 Page:26/69

#### EXHIBIT 'A'

#### DESCRIPTION:

The South 100 feet of thatc entain tract of land as recorded in Volume D-55, Page 450-B of Clark County deed records, which records described the total piece of real estate as being all of thatp arty and parcel of the South half of the Carty Donation Land Claim, Section 24, Township 4 North, Range 1 West of the Willamette Meridian, Clark County, Washington, more particularly described as follows:

The Point of Beginning is the point on the North line of the South half of the Carty Donation Land Claim 60 feetW esterly from the West right-of-way line of the Northern Pacific Railway; thence Southerly and parallel to said Railway right-of-way a distance of 300 feet; thence Westerly and parallel to the North line of the South half of the Carty Donation Land Claim a distance of 200 feet; thence Northerly and parallel to said Railway right-of-way a distance of 300 feet to a point on the North line of the South half of the Carty Donation Land Claim; thence Easterly, along said North line, a distance of 200 feet to the Point of Beginning.

> Fidelity National Title Insurance Company Order No.: V81111

Clark Auditor Mon Apr 19 16:08:17 PDT 2010 4658259 Page 2

Clark Auditor 12/5/2023 3:02 PM 6156256 Page:27/69

4500599 D RecFee - \$43.00 Pages: 2 - FIDELITY NATIONAL TITL Clark County, LA 10/10/2008 03:18	Æ
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AFTER RECORDING MAIL TO:

Port of Ridgefield 111 West Division

Ridgefield, WA 98642

Filed for Record at Request of:

LandAmerica Commercial Services

Real Estate Excise Tax
Ch. 11 Rev. Laws 1951
Affd. 630711Date 0.005 For details of tax paid see
Affd. #
Doug Lasher
Clark County Treasurer
By
Deputy
V72204

STATUTORY WARRANTY DEED

Assessor's Property Tax Parcel/Account Number: 067991-003 Legal Description (Abbreviated) : Ptn Sec 24 T4N R1E

THE GRANTOR Violet Simpson, who acquired title as V.P. Simpson, surviving spouse of Cleo A. Simpson, deceased for and in consideration of Ten Dollars and Other Good and Valuable Consideration in hand paid, conveys, and warrants to Port of Ridgefield, a municipal corporation the following described real estate, situated in the County of Clark, state of Washington:

#### SEE ATTACHED EXHIBIT "A"

Subject to : No exceptions.

# This deed is delivered in lieu of eminent domain proceedings being initiated.

Dated: October 8, 2008

islet Sumpson iolet Simnson

STATE OF Washington

COUNTY OF Clark

SS.

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I certify that I know or have satisfactory evidence that Violet Simpson is/are the person(s) who appeared before me, and said person(s) acknowledged that he/she/they signed this instrument and acknowledged it to be his/her/their free and voluntary act for the uses and purposes mentioned in this instrument.

Dated this <u>1</u> day of October, 2008

MARGARET M. NEIKIRK NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES JULY 10, 2011 

Name (typed or printed: Margaret M. Neikirk

Name (typed or printed: Margaret M. Neikirk NOTARY PUBLIC in and for the State of Washington

LPB-10(i) 7/97

#### EXHIBIT 'A'

#### DESCRIPTION:

That portion of the Northeast quarter of Section 24, Township 4 North, Range 1 East of the Willamette Meridian, Clark County, Washington, lying within the Aruther Quigley Donation Land Claim and within the corporate limits of the Town of Ridgefield, described as follows:

BEGINNING at a point 60 feet West of the Northwest corner of Lot 17, Block 3, Abrams Addition to the Town of Ridgefield, according to the plat thereof recorded in Volume C of Plats, page 47, records of said County, on the West line of A Street in said Addition; thence South along the West line of A Street to the North line of Depot Street in said Addition; thence Westerly along the North line of said Depot Street projected Westerly to the East line of the Northern Pacific Railway right-of-way; thence Northerly along the East line of said right-of-way to a point West of the point of beginning; thence East to the Point of Beginning.

EXCEPT that portion lying within A Street, S Railroad Avenue and Depot Street.

Fidelity National Title Insurance Company Order No.: V73808

Clark Auditor Fri Oct 10 15:18:15 PDT 2008 4500599 Page 2

Clark Auditor 12/5/2023 3:02 PM 6156256 Page:29/69

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AFTER RECORDING MAIL TO:

Port of Ridgefield, Laurie Olin

P. O.Box 55 111 West Division

Ridgefield, WA 98642

Filed for Record at Request of:

LandAmerica Commercial Services

Real Estate Excise Tax Ch. 11 Rev. Laws 1951
Affd. 63071UDate W.10.056
Affd. #
Clark County Treasurer Deputy
RRANTY DEED V73898

STATUTORY WARRANTY DEED

Assessor's Property Tax Parcel/Account Number: 067997-000 Legal Description (Abbreviated) : Ptn Sec 24 T4N R1W

THE GRANTOR Lois Boutwell, as her separate estate for and in consideration of Ten Dollars and Other Good and Valuable Consideration in hand paid, conveys, and warrants to Port of Ridgefield, a municipal corporation the following described real estate, situated in the County of Clark, state of Washington:

Subject to NONE

#### SEE ATTACHED EXHIBIT "A"

This deed is delivered in lieu of eminent domain proceedings being initiated.

Dated: October 8, 2008

ow E. Britwee

Lois Boutwell

STATE OF Washington } } SS. COUNTY OF Clark }

I certify that I know or have satisfactory evidence that Lois Boutwell is/are the person(s) who appeared before me, and said person(s) acknowledged that he/she/they signed this instrument and acknowledged it to be his/her/their free and voluntary act for the uses and purposes mentioned in this instrument.

Dated this 9 day of October 2008 Name (typed or printed): Margaret M. Neikirk WOTARY PUBLIC in and for the State of Washington Electron and the second and an and a second MARGARET M. NERVAR NOTARY PUBLIC STATE OF WASHING COV COMMISSION EXPIRES LPB-10(i) 7/97 JULY 19, 2011 

## EXHIBIT 'A'

#### DESCRIPTION:

That portion of the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian, Clark County, Washington, lying within the Aruther Quigley Donation Land Claim and within the corporate limits of the Town of Ridgefield, described as follows:

BEGINNING at a point 60 feet West of the Northwest corner of Lot 17, Block 3, Abrams Addition to the Town of Ridgefield, according to the plat thereof recorded in Volume C of Plats, page 47, records of said County, which Point of Beginning is on the West line of A Street as established in said plat, and running thence North along the West line of said A Street to the South line of Division Street; thence West along the South line of Division Street to the Eastern boundary of the Northern Pacific Railway right-of-way; thence Southerly along said Eastern boundary of the Northern Pacific Railway right-of-way to a point due West of the point of beginning; thence East to the Point of Beginning.

> Fidelity National Title Insurance Company Order No.: V73898

Clark Auditor Fri Oct 10 15:18:15 PDT 2008 4500598 Page 2

Clark Auditor 12/5/2023 3:02 PM 6156256 Page:31/69

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т.



 WHEN RECORDED RETURN TO:

 Name:
 Port of Ridgefield – Attn: Brent Grening

 Address:
 111 West Division Street

 City/State/Zip:
 Ridgefield, WA 98642

Persi Estate Excise Tax Ch. 17 F = 1 aws 1951 465 872 <u>. ද .</u> හා For Data@s of tor ; C



Fidelity National Title Company of Washington, Inc.

Order No. 01-02737-PN

#### STATUTORY WARRANTY DEED

The Grantor CITY OF RIDGEFIELD, a Washington non-charter code city, who acquired title as TOWN OF RIDGEFIELD

For and in consideration of TEN DOLLARS AND OTHER VALUABLE CONSIDERATION

in hand paid, conveys and warrants to **PORT OF RIDGEFIELD**, a Washington municipal corporation **CITY OF RIDGEFIELD**, a Washington non-charter code city

the following described real estate, situated in the County of CLARK, State of Washington:

#### SEE ATTACHED EXHIBIT "A" FOR LEGAL DESCRIPTION

SUBJECT TO: Taxes or assessments should this property be reclassified from its current tax exempt status; Easements and conditions as contained in instrument recorded June 11, 1959 in Book D55 page 450B; right title and interest or claims, if any of Pacific Wood Treating Corporation, its successors and/or assigns.

Tax Account Number: 067998-000 AND 067883-000 Abbreviated Legal: Ptn Sec 24, T4N R1WWM

DATED: June 28, 2000

CITY OF RIDGEFIELD	
BY: MBurtis	NUM SHOBO
BY:	AUTARI S
	TOF WASHING
STATE OF WASHINGTON	MICHARDON (C.
COUNTY OF CLARK	
On this $28$ day of $4124$ , 2000, I evidence that $40$ , $11$ , $11$ , $11$ , $12$ , $2000$ , I acting in their capacity as $42$ , $71/(11)/(12)/(12)/(12)/(12)/(12)/(12)/(12$	certify that I know or have satisfactory the person(s) who appeared before me, and on behalf of CITY OF hat (he/she/they) signed this instrument and of the City of Ridgefield for the uses and
<u> </u>	



# BOAT LAUNCH LEGAL

# THE NORTHERN 40 FEET AND THE EASTERLY 30 FEET OF THE FOLLOWING DESCRIBED PROPERTY SITUATED IN THE COUNTY OF CLARK, STATE OF WASHINGTON.

BEGINNING 462.0 feet North and 2026.3 feet West of the Quarter Section corner on the East line of Section 24, Township 4 North, Range 1 West of the Willamette Meridian, said point being at the intersection of the extension of the North line of the proposed County Road with deep water line in Lake River; running thence North 76°10' East along the North side of said road 147.6 feet; thence North 13°50' West 147.6 feet; thence South 76°10' West 147.6 feet to deep water line; thence South 13°50' East along deep water line 147.6 feet to the place of beginning, containing one-half ½ acre.

# BOAT LAUNCH LEGAL 2

Beginning 462 feet North and 2025.3 feet West of the section corner on East line of Section 24, Township 4 North, Range 1 West of the Willamette Meridian, said point being at intersection of extension of North line of proposed County Road; with deep water line in Lake River; thence N. 76°10' East along North side of said Road 147.6 feet; thence North 13°50' West 147.6 feet; thence South 76°10' West 147.6 feet to deep water line; thence South 13°50' East along deep water line 147.6 feet to beginning, containing <sup>1</sup>/<sub>2</sub> acre.

EXCEPT: The North 40 feet when measured at right angles to North line of the following described tract: beginning at a point 462 feet North and 202025.3 feet West of 4 Section corner on East line of Section 24, Township 4 North, Range 1 West of the Willamette Meridian, said point being at intersection of the extension of North line of proposed County Road, with the deep water in Lake River; thence East 76°10' East along North line of said road 147.6 feet; thence North 13°50' West 147.6 feet; thence South 76°10' West 147.6 feet to deep water line; thence South 13°50' East along deep water line 147.6 feet to beginning, containing 1/8 acre.

ALSO: The East 30 feet of the above described tract for right of way purposes only. Tract conveyed containing 21/100 acre.

# EXHIBIT "B"

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FILED	FOR RECOR	D AT REQUEST OF	Recpt. #26410	70 Date 3-1	an U-902	
Port of	Ridgefield, W	Vashington	Sec. 81, see Atd. No.	a laster		
c/o E.J. PO Box	Schmitz 55		Clark Sol	y casher inty Treasurer		
Ridgefie	eld, WA 986	42	By de to			
	BAN	KRUPTCY TRUSTI QUITCLAIM OF 1	EE'S QUITCL FIXTURES OF	AIM OF LE	ASE AND	
GRAN	ITOR:	Robert K. Morrow bankruptcy estate of Bankruptcy Court	, Inc., in its cap of Pacific Wood for the District o	acity as chapte Treating Corp of Oregon, Cau	er 7 trustee fo oration, Unite se No. 393-34	r the ed States 766-P7
GRAN	ITEE:	Port of Ridgefield				
TRUE ACTU	AND JAL					
CONS	IDERATIC	DN: \$250,000.00 and o	ther valuable co	nsideration		
DATE	:	March <u>/</u> , 1994				
descri	Grantor co bed as follo	onveys and quitclaims to ows:	o Grantee all of	the grantor's i	nterest in the	property
	The Lease into betwee on Decem Auditor's modificati Washingto January 7, (collective	e, including all amendment the Port of Ridgefie ber 5, 1963, recorded file File No. G 374500 and tons, or assignments, er on and Niedermeyer-Ma , 1964 under Clark Cou- ly the "Lease").	ents, modification end, Washington January 7, 1964 In the Lease, inclu- tered into betwee artin Co on Dece anty Auditor's F	ons, or assignment and Niederment under Clark C uding all ament en the Port of ember 24, 196 ile No. G 374	nents, entered yer-Martin Co county idments, Ridgefield, 3, recorded 501	5.
1964.	1. Th	e Lease was assigned b	y Niedermeyer-l	Martin Co. to	PWT on Sept	ember 4,
	2. Th	e Lease was modified o	on the following	dates:		
	a.	September 11, 196	54 under Clark C	County Auditor	's File No. G	405344;
	b.	January 27, 1965	under Clark Cou	nty Auditor's	File No. G 40	06343;
	c.	July 8, 1966 under	r Clark County A	Auditor's File	No. G 45745	9; 0 <b>7</b> 2
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- d. February 13, 1967 under Clark County Auditor's File No. G 478014;
- e. May 21, 1968 under Clark County Auditor's File No. G 515983;
- f. June 9, 1969 under Clark County Auditor's File No. G 537579;
- g. October 20, 1976 under Clark County Auditor's File No. G 743318.

The real property affected includes the following:

The South 100 feet of that certain tract of land owned by the Lessor as recorded in D-55 page 450-B of Clark County deed records, which records described the total piece of real estate as being all of that part and parcel of the South half of the Carty Donation Land Claim Section 24, Township 4 North, Range 1 West of the Willamette Meridian more particularly described as follows:

The point of beginning is the point on the North line of the South half of the Carty Donation Land Claim 60 feet Westerly from the West right of way line of the Northern Pacific Railway; thence Southerly and parallel to said Railway right of way a distance of 300 feet; thence Westerly and parallel to the North line of the South half of the Carty Donation Land Claim a distance of 200 feet; thence Northerly and parallel to said railway right of way a distance of 300 feet to said railway right of the Carty Donation Land Claim; thence Basterly along said North line a distance of 200 feet to the point of beginning; being 1.38 acres, more or less.

#### PARCEL I

00-10-94

That certain portion of the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian, being more particularly described as follows:

Beginning at a point that is 1728.15 feet West and North 3<sup>•</sup> 15<sup>•</sup> West 528.88 feet from the quarter corner on the East boundary line of said Section 24, said point also being on the Northerly right of way line of Mill Street, and running thence North 3<sup>•</sup> 15<sup>•</sup> West 734.56 feet to the center of Division Street; thence North 89<sup>•</sup> 10<sup>•</sup> 30<sup>°</sup> East along said center line, 120.01 feet; thence North 10<sup>•</sup> 07<sup>•</sup> 45<sup>°</sup> East 240.48 feet to the Southeast corner of that certain tract conveyed to Washington Refining Company deed recorded in Book 203, page 485, Clark County Deed records; thence South 87<sup>•</sup> 41<sup>•</sup> 45<sup>°</sup> West 200.00 feet; thence North 2<sup>•</sup> 18<sup>•</sup> 15<sup>°</sup> West 200.00 feet; thence North 87<sup>•</sup> 41<sup>•</sup> 45<sup>°</sup> East 240.00 feet; thence North 2<sup>•</sup> 18<sup>•</sup> 15<sup>°</sup> West corner of said Refining Company tract and Westerly right of way line of the Northern Pacific Railway; thence North 2<sup>•</sup> 18<sup>•</sup> 15<sup>°</sup> West,

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along said railway, 406.27 feet; thence South 89' 45' West 260.00 feet; thence North 2' 18' 15" West 200.00 feet to the North line of the South half of the James Carty Donation Land Claim; thence South 89' 45' West, along the North line, 319.57 feet; thence South 14' 23' 53" East 1078.04 feet to the center line of the aforementioned Division Street; thence South 89' 10' 30" West 66.36 feet; thence South 0' 49' 30" East 90.00 feet; thence South 89' 10' 30" West 225.64 feet; thence South 26' 24' 15" East 407.96 feet; thence North 63' 35' 45" East 25.00 feet; thence South 26' 24' 15" East 205.58 feet to the Northerly line of that certain tract conveyed to Clark County by deed recorded in Book 207, page 357, Clark County deed records; thence along said tract North 76' 10' East 60.33 feet; thence South 13' 50' East 147.60 feet to the Northerly line of Mill Street; thence North 76' 10' East 128.58 feet to the point of beginning;

EXCEPT Division Street right of way and also easements for existing roads, railroad spurs, and electric transmission lines.

#### PARCEL II

That certain portion of the Northeast quarter of Section 24, Township 4 North, Range 1 West of the Willamette Meridian, being more particularly described as follows:

Beginning at a point which is 1164.60 feet North and 2272.09 feet West from the quarter corner on the East Boundary line of said Section 24; thence South 89° 10' 30" West 252.09 feet to the center of Lake River; thence South 26° 24' 15" East 132.79 feet along the center of Lake River; thence South 87° 24' 15" East 260.00 feet; thence North 26° 24' 15" West 150.00 feet to the point of beginning.

#### PARCEL III

The following described real estate situated in the County of Clark; State of Washington, to wit:

Beginning at a point in Lake River 16 chains North and 6.27 chains West of the Southwest corner of Carty Sr. Donation Land Claim in Section 24, Township 4 North, Range 1 West of the Willamette Meridian; thence East 669 feet to a point which is 597.5 feet West of the West line of the Northern Pacific Railway Right of Way; thence South 14<sup>•</sup> East 1081 feet to the center line of Division Street as extended easterly same being the south line of said Donation Land Claim said point of intersection being 360 feet West of the west line of said railway right of way and 417.4 feet west of the center line of the east tract of said railway company; thence west 458.9 feet, more or less, to

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the west corner of said Donation Land Claim now located in Lake River; thence northwesterly following meanders of the Lake River to beginning; together with the exclusive use and occupancy of tidelands and water front abutting said premises, subject only to Lessors' right to reasonably inspect and to maintain the same;

EXCEPT Division Street right of way and also easements for existing public roads and railroad spurs.

#### KASPER TRACT

That certain portion of Section 24, Township 4 North, Range 1 West of the Willamette Meridian, being more particularly described as follows:

Beginning at a point that is North 462.00 feet and West 2026.30 feet from the quarter corner on the East boundary of said Section 24, said point also being the Southwest corner of that certain tract conveyed to Clark County, Washington, by deed recorded in Book 207, page 357, deed records of said County, and running thence South 76°10' West 138.4 feet to the center of Lake River; thence North 26°24'15" West 684.52 feet; thence South 87°24'15" East 260.00 feet; thence South 26°24'15" East 257.96 feet; thence North 63°35'45" East 25.00 feet; thence South 26°24'15" East 205.58 feet to the Northerly line of the aforementioned Clark County tract; thence South 76°10' West 87.27 feet; thence South 13°50' East 147.60 feet to the point of beginning.

#### PARCEL V

That portion of the South 1/2 of the James Carty D. L. C., lying within Section 24, Township 4 North, Range 1 West, Willamette Meridian, in Clark County, Washington described as follows:

Beginning at the intersection of the North line of the South 1/2 of said Carty D. L. C., with the West line of the Northern Pacific Railway right of way; thence West along the North line of the South 1/2 of said Carty D. L. C. 60 feet; thence South parallel with the West line of said right of way 200 feet more or less, to the North line of that tract described under that certain lease recorded under Auditor's File No. G 374501; thence East parallel with the North line of the South 1/2 of said Carty D. L. C. 60 feet to the West line of said Northern Pacific Railway right of way; thence North along the West line of said right of way 200 feet more or less to the point of beginning.

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#### SUBJECT TO:

Easements for sewer recorded under Auditor's File No. G 264451 and for railroad spur tracts recorded under Auditor's File No. G 374561.

This quitclaim deed also conveys to Grantee all after-acquired title of Grantor in and to the above-described real property.

The real property, including all improvements thereon and appurtenances as further described on attached Exhibit 1, is conveyed "AS IS" and without representation or warranty, express or implied, and by recording this deed, Grantee accepts the property in that condition.

ROBERT K. MORROW, INC., Trustee Bv Robert K. Morrow, President

SS.

STATE OF OREGON

County of Multnomah

10-10-44

Dune Notary Public for Oregon My Commission Expires: 12-20-95



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#### **BUILDING 1**

#### **<u>OUANTITY</u>** <u>DESCRIPTION</u>

Buss Sje 30 X 5 Type 66 Planer .30" Cap S/N 5420

Western 5,000 Lb. Cap. Model WP 5060 Platform Scale, 4' X 4' Platform S/N LA6

Moak 8" Jointer, 8' Pony Bed, 13" Width S/N 8968

12' X 18" Hot Press Machine, 2 HP Hyd. Pump; Remote Control Panel

A Frame w/Loadstar 1000 Lb. Cap. Elect. Hoist

Shepard Niles 2000 Lb. Cap. Elect. Hoist w/Bridge, Pendant Control

50 Ft. Bridge Crane w/Hoist

#### **BUILDING 1A**

Vert. Pump Ass'y 20 HP

#### **BUTLDING 2**

Chamfer Machine Round Stock Unit #381 48" Cap (not in use)

2' X 50' Gravity Roller Conveyor, 2' on Center, 31/2" Roll Diameter.

Mereen Johnson Model 424 DC Rip Saw 9 Blade on Arbor, Infeed & Outfeed Table S/N MJ 1913

Yates American C99 4" X 6" 5 Head Moulder 25 HP Top, (2) 5 HP Top & Bottom Heads, (2) 10 HP Side Heads, Vari Drive Feed Motor S/N B2698

14w' X 301' 6 Belt Transfer Moulder to Cut Off Saws w/Wood & Metal Structure, Motor Drive

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#### 1 - EXHIBIT 1 TO TRUSTEE'S QUIT CLAIM OF LEASEHOLD & FIXTURES

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#### **DESCRIPTION**

12" X 15' Portable Inclined Belt Conveyor, H & T Drums, Motor Drives

1 Ton Cap. Bridge Cranes, 8' Span X 80 L/F 1 Ton Loadstar Hoists & Pendant Controls

#### **BUILDING 3**

Timesaver Model 325-2HDTBA Top & Bottom Belt Sanders, (2) 75 HP Arbor Motors, Belt Feeds, Hyd. Driven, 7<sup>1</sup>/<sub>2</sub> HP Hyd. Pump S/N 11148

1/2 Ton Jib Crane Wall Mounted w/1/2 Ton Elect. Hoist

Cut up Line Consisting of (2) Mid-Oregon 2 X 8 Chop Saws, Lumber Gauges & Steps, Motor Drives, 30 Ft. (2 Sections) All Steel 5 Strand Infeed Chain, 78 RT & Link Chain, Motor Drive, 12' X 30' Waste Wood Belt Conveyor & 16" X 20' Belt Conveyor to 20' Dia Rotary Sort Table Motor Drives

Infra-Pak Model SP2 Plastic Wrap Machine, 4' X 4' Rotary Table S/N 801558T

Root Model DL100 Horiz. Dowel Boring Machine w/Motor S/N 740

Cemco 22 Head Multi Drilling Machine 27 Feet Bed Length, Motor Drives

Cemco 27 Head Multi Drilling Machine 20 Ft. Total Bed Length 15 HP Motor Drive.

14" x 8' Belt Conveyor & G.H. Motor

23" X 14' Belt Conveyor w/G.H. Motor

Northfield Model X36AF Uni-Point Radial Arm Saw, Motor Feed & Discharge Conveyors

Mereen Johnson Double End Tenoner, Saw Cape & Tenon Motors, Scissor Lift & Pump, Opening to 10 Ft. Cap S/N 5438

25 HP 2 Stage Piston Type Air Compressor w/4' X 16' Horiz. Air Receiver Tank, General air Dryer 275 SCFM

CONTRACTOR CONTRACTOR DE C

#### 2 - EXHIBIT 1 TO TRUSTEE'S QUIT CLAIM OF LEASEHOLD & FIXTURES

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QUANTITY

### **DESCRIPTION**

#### **BUILDING #5**

Irvington Sticker Stacker S/N 7409 Consisting of 20 Ft. 6 Strand Infeed Transfer to Breakdown Hoist 20 Ft. 6 Arm all Steel Breakdown Hoist to Stacker, Motor & Brake, 16 Ft. 6 Strand Transfer to Stacker 12" Outfeed Waste Wood Belt Conveyor 6 Arm Fork Type Lowering Lumber Placement w/Manual Sticker Placement, 25 Ft. 6 Strand Outfeed Transfer 78 Chain, Motor Drives and Controls.

#### PLANER BUILDING

20 Ft. 4 Arm All Steel Planer Breakdown Hoist w/Motor Brake, 26 Ft. 4 Strand Infeed Transfer to Hoist 78 Chain, Drive Motor, 18" X 20' Waste Wood Belt Conveyor to Yard & 3' X 5' Scissor Lift Stacking Unit, 7 Ft. 5 Strand Hoist to Planer Feed Table Transfer, & Motor Drives

Yates-American A62 6" X 15" 8 knife Planer/Matcher w/Profiles 80 HP Top, 40 HP Bottom 50 HP Top & Bottom Profile Motors, Side Head Motors, D.C. Feed Motor, 36" X 23' Sgl Cone Pine-Apple Feed Table, 4" Spiral Rolls, D.C. Feed Motor 18" X 12' Planer Refuse Conveyor & 18" X 40 Ft. Planer Outfeed Table, Motor Drives Controls

55 Ft. 6 Strand Planer & Trim Saw Landing Table to Greenchair, 138 Camelback Chain, Steel Races & 72 Ft. 5 Strand Planer Greenchair, 4" Rolltop Chain, Steel Races, Drive Shaft & 5KK G.H. Motor

Hula Saw Area Consisting of (2) Hyd. Operated Trim Saws ea. w/Arlon Motors, I-M 3' X 8' 4 Roll Sweed, 25 Ft. 6 Strand Landing Table Planer, 78 RT Chain, 12" X 30' Cut Stock Outfeed Belt Conveyor, Hyd. Pump, 18" X 27' & 18" X 25' Outfeed Refuse Belt Conveyors Motor Drives

3 Saw 18" Dia. Blades Trim Saw, Arlor Motors w/36" X 7' Slow Down Belt From Planer, 20 Ft. 7 Strand Infeed Transfer to Trimmer, 78 RT Chain, 12" X 25' Outfeed Refuse Belt Conveyor, 26" Sweed & 24" X 25' Outfeed Cut Stock Belt Conveyor to Greenchain Motor Drives

24" X 45' Refuse Belt Conveyor to Yard from Saw Area, H & T Drums, Motor Drive to 24" X 36' Cleated Incline Belt Conveyor to Yard, Motor Drives

Yates-American P24 30" Timber Sizer 50 HP Motor Drive (2) Southworth Model LS6 3' X 5' Infeed Scissor Lifts, 28" X 12' Infeed Rollcase & 28"

## 0727

#### 3 - EXHIBIT 1 TO TRUSTEE'S QUIT CLAIM OF LEASEHOLD & FIXTURES

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#### **<u>QUANTITY</u>** <u>DESCRIPTION</u>

X 33' Infeed Pineapple Rollcase to Sizer, Single Cone, (7) 8" Dia. Chain Driven Rolls. 30" X 40' Outfeed Rollcase to 6 Ft. 7 Strand Landing Table, all Steel, 138 Camelback Chain, Motor Drives

FAC FAB Steel Strap Package Bander Model C PL S/N 4327 w/48" X 28' Infeed Rollcase, (10) 12" Dia. Rolls, (2) 5 HP Baldor Horiz. Drills, 10 HP Hyd. Pump, Bumpers, Stanley Strapping Unit 54" X 20' & 54" X 15' Outfeed, Rollcases

#### PLANER BUILDING GRINDING ROOM

Hanchett 48 DN Knife Grinder w/Motor & Coolant S/N 7818

Michigan MI-48 Knife Grinder, 48" Cap., Coolant & Motor S/N 699

#### **INCISOR BUILDING**

4 Sided Incisor S/N 2598 w/(4) 8" Dia X 16" Incisor Rolls, Hyd. drives, 20 HP Hyd. Pump, 18 Ft. 4 Strand Infeed Transfer, 81 X Chain, (3) 4,000 Lb. cap Scissor Lifts, 8" x 14' Infeed Rollcase (10) 8" Chain Drive Rolls, 18" X 20' Outfeed Rollcase 912) 8" Chain Driven Rolls, 7' 7 Strand Landing Table from Incisor, 138 Camelback Chain, & 20 Ft. 4 Strand Outfeed Transfer to Yard, Motor Drives

4 Sided Incisor w/(4) 16" Dia X 24" Incisor Rolls, (2) 5 HP Motors, 16 Ft 3 Strand Infeed Transfer, 78 Chain, (3) 4,000 Lb. Cap Hyd Scissor Lifts 24" X 30' Infeed Rollcase w/(11) 6" Dia Chain Driven Rolls, 24" X 40' Outfeed Rollcase (12) Dia. Chain Driven Rolls, 20 Ft. 3 Strand Outfeed Transfer to Yard, 78 Chain Motor Drives

Greenlee 8 Ft. Dual Saw Trimmer, 20 HP Arbor Motor, Pass thru Lug Type Transfer, 20 Ft. 2 Strand All Steel Feed Transfer, 78 Chain, 18 Ft. 2 Strand Infeed Transfer 81 X Chain, 24" X 8' Waste Wood Belt Conveyor, Motor drives (not in use)

#### TRUCK SHOP

Lube Dispensing Wait

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4 - EXHIBIT 1 TO TRUSTEE'S QUIT CLAIM OF LEASEHOLD & FIXTURES

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#### **QUANTITY**

#### **DESCRIPTION**

#### PRESSURE TREATING AREA

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Pressure Treating Process Equipment Consisting of: (6) Retorts 6' Dia in Varying Lengths, (6) Condensate Tanks, (12) Ass't Hot Tanks, (2) 75 HP Vacuum Pumps, (2) Surge Tanks, Tank Form, Main Receiver Tanks, (2) Air Receiver Tank, (2) Water/Chemical Gravity Separators, (2) Batei Mix Tanks, Continental Stand-by Boiler, Gas/Oil; 20,085 BMTU/HR 200 HP Quincy Air Compressor Model QNW740A, General Air Dryer Model MWP200, Pumps, Valves & Piping

#### POLE PEELING AREA

Consisting of (2) 40 Ft. 3 Strand Infeed Log Hauls 84 Chain, Motor to Reducers, Augustine Mfg. Co. Pole Peeler (2) 12" Peeling Leads, Insizing Head, Rubber Tired Drives & Hold-Down Rolls, (4) Carriages, 30' 7 Strand Outfeed Transfer 24" X 10', 24" X 25' Infeed Chain Transfers to Twin Shaft, Hog, (2) 50 HP, Arlor Motors 24" X 15' Inclined & 15" X 50' Refuse Conveyor Hog to Chip Bin. Carothers 24 Unit All Bolted Steel Chip Bin Hyd. Gates, 10 HP Air Compressor, Hyd. Pump, Controls & Elects.

Pole Lathe Operation Consisting of Rail Mtd. 10" Pole Tapering Head, Turning Carriages, Rail, 100 Ft. Refuse Belt Conveyor, 81X Chain, Mtr. Drive & 35 Ft. Incline Chain Transfer, 5 HP Hyd Pump, Mtr. Drives.

#### <u>KILNS</u>

8' X 118" Concrete Block Steam Fired Kiln w/7Doors, (2) 50 HP Exhausters, (70) Sq. Tubing Kiln Carts All Steel, Chart Recorders, Piping, Valves & Controls

Moore 4 Door 2 Tracks ea. 2 Section 65' X 100' Fabricated All Bolted Steel Dry Kilns w/Exhausters, Rail, Chart Recorders & Controls

#### **BOILER AREA**

Consisting of Montgomery 24" X 36" Blo-Hog, 100 HP Motor Drive, 17 Ft. 6 Chain Hog Fuel Boiler Infeed Transfer & 20 Ft. Infeed Transfer, 78 Chain, 60 Ft. Net Silo Infeed Pit Conveyor H110 Chain, & 120' 1" X 6" Link Chain Infeed Transfer to (2) Wet Silos, 35' X 30' All Bolted Steel

#### 5 - EXHIBIT 1 TO TRUSTEE'S QUIT CLAIM OF LEASEHOLD & FIXTURES

#### OUANTITY

### **DESCRIPTION**

Wet Silo Cone Bottom & 12" X 40' X 12" X 56' Silo to Boiler Feed Works Transfers, Western Waste Fuel Fired Boiler, Wastewater Filter, 4800 SF Bolted Steel Boiler Building, Ash Recovery System 2 Blowers, (2) Peerless 20 All Bolted Steel Chip Bins, Clark Model 606 Bag House, Blowers, Recycling Dust Hopper Blowpipe

#### WASTEWATER TREATMENT

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16' Dia X 18'h Mixing Tanks w/Agitators, 8' Dia + 15'h, (2) 12' Dia X 40'h, 12' X 35', 12' X 25', 18' X 15', 4' X 7', 8'X 10', 6' X 27' Tanks & Culligan Water Treatment System, 4 Section Clarifier, Pumps, Valves & Piping

Electrolytic Stripping Unit w/Welders Tank, Mixer, & Conveyors

#### PUMP HOUSE

Fire Protection Pumping System Consisting of 200 HP, 2000 GPM Vert. Pump, 2000 GPM Vert Pump w/Cummins Diesel Engine, 10 hp Aux. Vert. Pump, Diesel Fuel Tank, Controllers Piping & Valves

Baltimore Aircoil Evaporation Condenser Model 4256-01 S/N 6633-80, (2) Vert. Pump Units, 20 HP, 2 Insulated Tanks Piping & Valves

Ace 10,000 gal. Fuel Tanks w/(2) Tokheim Fuel Pumps

Custom Built Plywood Turner, Motorized

Special Purpose Drill & Cut up Line Consisting of Custom 5 HP Vert. Drill, 30" Dia Radial Arm Saw, 7½ HP Motors, 14" X 20' Gravity Rollcase, 12" X 30' Waste Wood Belt Conveyor, Scrap Hoppers, Motor Drives

Toledo Model 2692 Platform Scale, 40,000 Lb. Cap., Single Beam, 10' X 10' Platform S/N 503240

LOT Electric Equipt. Consisting of Motor Control Centers, disconnects, Magnetics, Circuit Breakers, Motor Starters, Elect. Wiring & Conduit throughout Mill Complex (Electrical directly related to the buildings was not considered in this appraisal)

EXHIBIT 1 TO TRUSTEE'S QUIT CLAIM OF LEASEHOLD & FIXTURES

) U.S. BANKRUPTCY COURT DISTRICT OF OREGON Stephen Werts, OSBA 74337 Attorney at Law FEB 1 0 1994 3200 U.S. Bancorp Tower 111 SW Fifth Avenue 1 -Portland, OR 97204-3688 TERENCE H. DUNN, CLERK (503), 228-3200 <mark>2</mark> ر. ; \* DEPUTY BY Ri: 123 Certified is the a true and contact copy at original find in my office. 133 Dated IN THE UNITED STATES BANKRUPTCY COURT FOR THE DISTRICT OF OREGON Députy ₿y CORPORATION, Case No. 393-34766-P7 ORDER AUTHORIZING TRUSTEE TO SELL PROPERTY FREE AND 「「「「「「「「」」」 CLEAR OF LIENS (SELECT REAL Debtor. **9**e AND PERSONAL PROPERTY) 1 10 Robert K. Morrow, Inc., Trustee of Pacific Wood Treating 11 Corporation, filed a motion for authority to sell property free 12 and clear of liens certain real and personal property described in the motion of the Port of Ridgefield. Clark County filed a 13. precautionary objection asking that the proceeds be impressed 14 15 with its claimed lien for taxes. The notice allowed for submission of competing bids. The Trustee advised the court that 16 17 no bids were received. After notice and hearing held January 26, 18 1994, at which Robert K. Morrow, Stephen Werts (telephonically), Mark Reeve, Bronson Potter, and Gregg Johnson appeared, and the 19 court having considered the stipulation of Robert K. Morrow, 20 21 Inc. and the Clark County Treasurer relating to Clark County's 22 tax lien and the court being fully advised, 23 IT IS HEREBY ORDERED that the Trustee is authorized to sell 24 ORDER AUTHORIZING TRUSTEE TO 0731 SELL PROPERTY FREE AND CLEAR OF LIENS (Real/Personal Property) - 1 CLARK COUNTY PROSECUTING ATTORNEY 1200 FRANKLIN P:O BOX 5000 VANCOUVER, WASHINGTON 98668-5000 (206) 699-2261 مرکز کا کو ایک ایک کار میکند. ایک تو میکند کار با ایک ایک میکند ایک ایک کار میکند. ایک ایک کار میکند ایک کار م

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) ) the real and personal property identified in the motion and notice free and clear of liens. Provided, that from the proceeds 1 of the sale the Trustee shall make disbursement to the Clark 2 County Treasurer for taxes which are secured by valid tax liens. 3 The taxes which are secured by a valid tax lien include the 1992 4. and 1993 real property taxes (land value only which total 5 \$5,134.76) together with the prorated amount of the 1994 real 6 property taxes. The other proceeds realized by the sale of the 7 property shall be distributed to secured creditors which have duly perfected secured interest in the assets sold, and the 9 balance after payment of such claims shall be retained in the 10 l trustee's trust account until distributed pursuant to applicable 11 provisions of the United States Bankruptcy code. 12 13 Bv: Elizabeth L. Perris Judge 14 Submitted by: 15 1 PRESTON THORGRIMSON SHIDLER 21 16 GATES & ELLIS FILED FOR RECORD 17 CLARK CO. WASH Weil TRANSAMERICA TITLE INSURANCE CO 18 Sterle Stephén Werts, OSBA 74337, MAR 10 3 51 PH '94 WSBA 3283, Attorney for Trustee 19 AUDITUR 20 cc: R Morrow ELIZABETH A. LUCE G Johnson **21**¦ E Bronson Potter U.S. Trustee 22 0732 Stephen Werts 23 24. ORDER AUTHORIZING TRUSTEE TO SELL PROPERTY FREE AND CLEAR OF LIENS (Real/Personal Property) - 2 CLARK COLINTY PROSECUTING ATTORNEY 1200 FRANKLIN P.O. BOX 5000 VANCOUVER, WASHINGTON 98666-5000 (206) 699-2261 Contraction of the second second states of the second second

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•			Bool Estate Direc Inn (U		
		9403100278	364194 Date 3/10/94		
	FILED FOR RECORI	AT REQUEST OF	For details of tax paid see		
	AND WHEN RECOR	DED RETURN TO:	Affil # Doug Lasher		
	c/o E.J. Schmitz	B	Clark County Treasurer		
	PO Box 55 Ridgefield, WA 9864	2	By C. One Depty		
		BANKRUPTCY TRUSTEE	'S DEED		
	GRANTOR:	Robert K. Morrow, Inc., in its capa	city as chapter 7 trustee for the		
		bankruptcy estate of Pacific Wood 1 Bankruptcy Court for the District of	Treating Corporation, United States Oregon, Case No. 393-34766-P7		
	GRANTEE:	Port of Ridgefield			
	TRUE AND				
	ACTUAL CONSIDERATION	N: \$10.00 and other valuable considera	tion.		
	DATE:	March /, 1994			
	Grantor con property described	aveys and quitclaims to Grantee all of t as follows:	he grantor's interest in the real		
	That portion 24, Townsh follows:	n of the James Carty Donation Land Cl nip 4 North, Range 1 West of the Willa	laim No. 48 lying within Section mette Meridian, described as		
	BEGINNIN Land Claim line with th established records of	IG at a point on the North line of the S a that is South 89° 45' West 185.0 feet we Westerly line of the Northern Pacific 100 feet in width by instrument record said County; thence South 89° 45' West	bouth half of said Carty Donation from the intersection of said North Railway Co's right of way, as ed in Book 7, at Page 594, deed st, along said North line, 75.0 feet		
	to the Northwest corner of the tract conveyed to the Town of Ridgefield by deed recorded under Auditor's File No. G 264451; thence South 2 <sup>*</sup> 18' 15" East, along the Westerly line of said Town of Ridgefield tract, a distance of 200.0 feet; thence North 89 <sup>*</sup> 45' East, parallel with the North line of the South half of said Carty Donation Land Claim, a distance of 200.0 feet to the Easterly line of said Town of Ridgefield tract: thence North 2 <sup>*</sup> 18' 15" West, along said Town of Ridgefield tract; thence				
	North 2° 1 West, para Claim; a d Westerly li Beginning.	8' 15" West, along said Easterly line, 2 llel with the North line of the South ha istance of 125.0 feet; thence North 2' ne of said railway right of way, a dista	38.0 feet; thence South 89° 45' If of said Carty Donation Land 18' 15" West, parallel with the nce of 162.0 feet to the Point of		
	This quitch	aim deed also conveys to Grantee all af	ter-acquired title of Grantor in and		
	to the above-descr	ibed real property.	0716		
			0110		

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The real property, including all improvements thereon and appurtenances thereto, is conveyed "AS IS" and without representation or warranty, express or implied, and by recording this deed, Grantee accepts the property in that condition.

ROBERT K. MORROW, INC., Trustee

By Robert K. Morrow, President

STATE OF OREGON

) ) ss.

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DD-10-94

County of Multnomah

This instrument was acknowledged before me on March  $\lfloor$ , 1994, by Robert K. Morrow as president of Robert K. Morrow, Inc., in its capacity as trustee for the bankruptcy estate of Pacific Wood Treating Corporation, United States Bankruptcy Court for District of Oregon, Case No. 393-34766-P7.

> Notary Public for Oregon My Commission Expires: 12-20-95

OFFICIAL SEAL JANET Z. DUNCAN NOTARY PUBLIC-OREGON COMMISSION NO. 010913 NY COMMISSION EXPIRES DEC. 20, 1995

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) -7 U.S. BANKRUPTCY COURT DISTRICT OF OREGON a the second FILED Stephen Werts, OSBA 74337 Attorney at Law FEB 1 0 1994 3200 U.S. Bancorp Tower 111 SW Fifth Avenue 2)... F(5)33/228-3200 TERENCE H. DUNN, CLERK DEPLITY Certified to be a true and correct copy of original filed in my office. R: 123 133 <u>,</u> are Court IN THE UNITED STATES BANKRUPTCY COURT FOR THE DISTRICT OF OREGON Depaty FIZNOS s:p <sup>2</sup> γμου RACIFIC WOOD TREATING Case No. 393-34766-P7 CORPORATION, ORDER AUTHORIZING TRUSTEE 8, TO SELL PROPERTY FREE AND CLEAR OF LIENS (SELECT REAL Debtor. 9. AND PERSONAL PROPERTY) Robert K. Morrow, Inc., Trustee of Pacific Wood Treating 10 Corporation, filed a motion for authority to sell property free 11 and clear of liens certain real and personal property described 12 in the motion of the Port of Ridgefield. Clark County filed a 13 precautionary objection asking that the proceeds be impressed 14 15 with its claimed lien for taxes. The notice allowed for submission of competing bids. The Trustee advised the court that 16 17 no bids were received. After notice and hearing held January 26, 18 1994, at which Robert K. Morrow, Stephen Werts (telephonically), 19 Mark Reeve, Bronson Potter, and Gregg Johnson appeared, and the 20 court having considered the stipulation of Robert K. Morrow, Inc. and the Clark County Treasurer relating to Clark County's 21 22 tax lien and the court being fully advised, IT IS HEREBY ORDERED that the Trustee is authorized to sell 23 24. ORDER AUTHORIZING TRUSTEE TO 0718 SELL PROPERTY FREE AND CLEAR OF LIENS (Real/Personal Property) - 1 CLARK COUNTY PROSECUTING ATTORNEY 1200 FRANKLIN P.O. BOX 5000 VANCOUVER, WASHINGTON 98666-5000 (206) 699-2261 مستعلما والمراجع بالمراجع المراجع والمتحد والمتحد والمحاف والمراجع والمراجع والمراجع Sec. 14.

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a Street Charge • • ) ١ the real and personal property identified in the motion and notice free and clear of liens. Provided, that from the proceeds 1 of the sale the Trustee shall make disbursement to the Clark 2 County Treasurer for taxes which are secured by valid tax liens. 3. The taxes which are secured by a valid tax lien include the 1992 4] and 1993 real property taxes (land value only which total 5 \$5,134.76) together with the prorated amount of the 1994 real 6 property taxes. The other proceeds realized by the sale of the 7 property shall be distributed to secured creditors which have 8. duly perfected secured interest in the assets sold, and the 9<sup>3</sup> balance after payment of such claims shall be retained in the 10 trustee's trust account until distributed pursuant to applicable 11 1 provisions of the United States Bankruptcy code. 12 13 Bv: Judge Ellizabeth L. Perris 14 Submitted by: 15 PRESTON THORGRIMSON SHIDLER 16 H GATES & ELLIS 17 Weil Sterl FILED FOR RECORD CLARK CO. WASH 18 Stephén Werts, OSBA 74337, WSBA 3283, Attorney for Trustee **19**% TRANSAMERICA TITLE INSURANCE CO. Mar 10 3 50 PH '94 20 R Morrow cc: G Johnson 21 AUDITICA. E Bronson Potter ELUZABETH A LUNCE U.S. Trustee 22 Stephen Werts 23 j 0719 24 ORDER AUTHORIZING TRUSTEE TO SELL PROPERTY FREE AND CLEAR OF LIENS (Real/Personal Property) - 2 CLARK COUNTY PROSECUTING ATTORNEY 1200 FHANKLIN PO. BOX 5000 VANCOUVER, WASHINGTON 98666-5000 (206) 699-2261 ىلىغىنىتىلىدى - يەركىمانى ئىرىكى بەركىكى بىلەر بىلەر ئالىكە ئەكرىمە بىلار مىكىيى بىلەر بىلەر بىلەر ي and the second second second in the second second

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#### **BANKRUPTCY TRUSTEE'S DEED**

Robert K. Morrow, Inc., in its capacity as chapter 7 trustee for the GRAN FOR: bankruptcy estate of Pacific Wood Treating Corporation, United States Bankruptcy Court for the District of Oregon, Case No. 393-34766-P7

GRANTEE: Port of Ridgefield

TRUE AND ACTUAL CONSIDERATION: \$10.00 and other valuable consideration.

March /, 1994 DATE:

Grantor conveys and quitclaims to Grantee all of the grantor's interest in the real property described as follows:

That portion of the James Carty Donation Land Claim in Section 24, Township 4 North, Range 1 East of the Willamette Meridian, described as follows:

Beginning at a point that is 897.00 feet, more or less, South and 1656.8 feet, more or less, West of the Northeast corner of said Section 24; said point being the Northeast corner of that certain tract conveyed to Washington Refining Company, by deed recorded under auditor's file No. C 85856; thence Westerly a distance of 200.00 feet to the Northwest corner of said Washington Refining Company tract; thence Southerly 200.00 feet to the Southwest corner of said Washington Refining Company tract; thence Easterly 200.00 feet to the Southeast corner of said Washington Refining Company tract; thence Northerly 200.00 feet to the point of beginning.

Together with those certain easements for railroad right of way and roadway purposes as described in Volume 203, Page 485, records of Clark County, Washington.

This quitclaim deed also conveys to Grantee all after-acquired title of Grantor in and to the above-described real property.

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The real property, including all improvements thereon and appurtenances thereto, is conveyed "AS IS" and without representation or warranty, express or implied, and by recording this deed, Grantee accepts the property in that condition.

ROBERT K. MORROW, INC., Trustee

By Robert K. Morrow, President

STATE OF OREGON

) ) ss.

)

County of Multnomah

HP-01-00

This instrument was acknowledged before me on March  $\underline{\ }$ , 1994, by Robert K. Morrow as president of Robert K. Morrow, Inc., in its capacity as trustee for the bankruptcy estate of Pacific Wood Treating Corporation, United States Bankruptcy Court for District of Oregon, Case No. 393-34766-P7.

> Notary Public for Oregon My Commission Expires: 12-20-95



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1 مالية الصليماني ١ U.S. BANKRUPTCY COURT DISTRICT OF OREGON FILED Stephen Werts, OSBA 74337 Attorney at Law 3200 U.S. Bancorp Tower FEB 1 0 1994 111 SW Fifth Avenue Portland, OR 97204-3688 TERENCE H. DUNN, CLERK DEPUTY Ri: 123 Certified to be a true and correct copy of original filed in my office. 133 IN THE UNITED STATES BANKRUPTCY COURT Stopper Deputy FOR THE DISTRICT OF OREGON Case No. 393-34766-P7 ORDER AUTHORIZING TRUSTEE TO SELL PROPERTY FREE AND Debtor. CLEAR OF LIENS (SELECT REAL 9 AND PERSONAL PROPERTY) Robert K. Morrow, Inc., Trustee of Pacific Wood Treating 10: Corporation, filed a motion for authority to sell property free 11 12 and clear of liens certain real and personal property described in the motion of the Port of Ridgefield. Clark County filed a 13 precautionary objection asking that the proceeds be impressed 14 with its claimed lien for taxes. The notice allowed for 15 submission of competing bids. The Trustee advised the court that 16 17 no bids were received. After notice and hearing held January 26, 1994, at which Robert K. Morrow, Stephen Werts (telephonically), 18 Mark Reeve, Bronson Potter, and Gregg Johnson appeared, and the 19 03-10-94 court having considered the stipulation of Robert K. Morrow, 20 Inc. and the Clark County Treasurer relating to Clark County's 21 tax lien and the court being fully advised, 22 IT IS HEREBY ORDERED that the Trustee is authorized to sell 23 24 ORDER AUTHORIZING TRUSTEE TO 07 SELL PROPERTY FREE AND CLEAR OF LIENS (Real/Personal Property) - 1 CLARK COUNTY PROSECUTING ATTORNEY 1200 FRANKLIN PO BOX 5000 VANCOUVER, WASHINGTON 98666-5000 (206) 699-2261 المستعم الروار جا usila sina dan . . .

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#### BANKRUPTCY TRUSTEE'S DEED

GRANTOR:

Robert K. Morrow, Inc., in its capacity as chapter 7 trustee for the bankruptcy estate of Pacific Wood Treating Corporation, United States Bankruptcy Court for the District of Oregon, Case No. 393-34766-P7

GRANTEE: Port of Ridgefield

TRUE AND ACTUAL

CONSIDERATION: \$10.00 and other valuable consideration.

DATE: March / , 1994

Grantor conveys and quitclaims to Grantee all of the grantor's interest in the real property described as follows:

That portion of the James Carty Donation Land Claim No. 48 in Section 24, Township 4 North, Range 1 West of the Willamette Meridian, described as follows:

BEGINNING at a point in the intersection of the North boundary line of the James Carty Claim No. 48 and the Westerly right of way boundary line of the Northern Pacific Railway from which point the Northwest corner of said Claim No. 48 bears North 89° 32' West 28.094 chains distant; thence with said Westerly boundary line South 2° 11' East, 25.692 chains; thence South 89° 52' West, 4.924 chains; thence North 2° 11' West, 7.000 chains; thence East 1.141 chains; thence North 2° 11' West, 18.734 chains; thence South 89° 32' East, 3.788 chains to the Place of Beginning;

EXCEPTING therefrom the following described tract:

BEGINNING at a point of intersection of the Westerly line of the Northern Pacific Railway Company's right of way as established 100 feet in width by instrument recorded in Book 7, at Page 594, deed records of said County, with the North line of the South half of said Carty Donation Land Claim; thence 89° 45' West, along said North line, 185.00 feet; thence North 2' 18' 15" West, parallel with the Westerly line of said Railway right of way, a distance of 118.00 feet; thence North 89° 45' East, 185.00 feet to the Westerly line of said railway right of way; thence South 2' 18' 15" East, along said Westerly line, 118.00 feet to the Point of Beginning.

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	This quitclaim deed also conveys to Grantee all after-acquired title of Grantor in and to the above-described real property.
	The real property, including all improvements thereon and appurtenances thereto, is conveyed "AS IS" and without representation or warranty, express or implied, and by recording this deed, Grantee accepts the property in that condition.
	ROBERT K. MORROW, INC., Trustee
	By:
	Robert K. Morrow, President
	STATE OF OPEGON
	) ss.
	County of Mulmoman )
	This instrument was acknowledged before me on March, 1994, by Robert K. Morrow as president of Robert K. Morrow, Inc., in its capacity as trustee for the
	District of Oregon, Case No. 393-34766-P7.
	Notary Public for Oregon
	My Commission Expires: (2-20-34
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This map/plat is being furnished as an aid in locating the herein described Land in relation to adjoining streets, natural boundaries and other land, and is not a survey of the land depicted. Except to the extent a policy of title insurance is expressly modified by endorsement, if any, the Company does not insure dimensions, distances, location of easements, acreage or other matters shown thereon.



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## Exhibit B

## **PROPERTY MAP**

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## Exhibit C

## MAPS ILLUSTRATING LOCATION OF RESTRICTIONS

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## Exhibit D

## SUBORDINATION AGREEMENT

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## SUBORDINATION AGREEMENT

KNOW ALL PERSONS, That the City of Ridgefield, the owner and holder of that certain Division Street Right of Way subject to this Environmental Covenant and identified as such in Exhibit B of this document, , does hereby agree that said Right of Way shall be subordinate to the interest of the State of Washington, Department of Ecology, under the Environmental (restrictive) Covenant dated October 12, 2023, as executed by the Port of Ridgefield as Grantor and the State of Washington, Department of Ecology, as Grantee, and recorded in Clark County, Washington under Auditor's File Number

by: <u>Mire Stuart</u> Title: <u>City Manager</u> Dated: <u>October</u> 13, 2023

## **REPRESENTATIVE ACKNOWLEDGEMENT** STATE OF WAShington COUNTY OF CAPLIC

On this 13 day of OCTOBER, 2013 I certify that Studen Studen personally appeared before me, acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument, and acknowledged it as City Manager of the City of Ridgefield to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.



Notary Public in and for the State of Washington Residing at CLARK COUNTY My appointment expires 1-31-26

## SUBORDINATION AGREEMENT

KNOW ALL PERSONS, that Clark Public Utilities, the owner and holder of that certain easement bearing the date the 17<sup>th</sup> day of September, 1930, executed by Ridgefield Lumber Company and recorded in the office of the County Auditor of Clark County, State of Washington, on February 5<sup>th</sup>, 1931, under Auditor's File Number D 864, and that certain easement bearing the date the 30<sup>th</sup> day of April, 1959, executed by Ridgefield Port District and recorded in the office of the County Auditor of Clark County, State of Washington, on May 1st, 1959, under Auditor's File Number G 261365 and does hereby agree that said Instruments shall be subordinate to the interest of the State of Washington, Department of Ecology (the "Department"), under the Environmental Covenant between the Department and the Port of Ridgefield, which has been recorded in Clark County, Washington under Auditor's File Number \_\_\_\_\_.

by:/Johń Eldridge /ritle: General Counsel Dated: October, 24, 2023

## **REPRESENTATIVE ACKNOWLEDGEMENT**

STATE OF WASHINGTON COUNTY OF CLARK

On this 24 of October, 2023, I certify that personally appeared before me, acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument, and acknowledged it as the General Counsel of Clark Public Utilities to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.

Melia Marnae

Notary Public in and for the State of Washington Residing at  $\underline{VUACUACK} W a$ My appointment expires  $\underline{5:5.2026}$ 

MARGARET ANDERSON Notary Public State of Washington Commission Number 172210 My Commission Expires 05-05-2026

# **APPENDIX B** SOIL MANAGEMENT AND CAP MAINTENANCE



- B-1 SOIL MANAGEMENT AND CAP MAINTENANCE PLAN, FORMER PACIFIC WOOD TREATING CO. SITE FACILITY ID 1019, CLEANUP SITE ID 3020
- B-2 SOIL MANAGEMENT AND CAP MAINTENANCE PLAN, RAILROAD OVERPASS PROPERTY
- B-3 ANNUAL PROTECTIVE CAP MONITORING FORMS 2017 TO 2022
# **APPENDIX B-1**

SOIL MANAGEMENT AND CAP MAINTENANCE PLAN, FORMER PACIFIC WOOD TREATING CO. SITE FACILITY ID 1019, CLEANUP SITE ID 3020



# SOIL MANAGEMENT AND CAP MAINTENANCE PLAN

FORMER PACIFIC WOOD TREATING CO. SITE FACILITY ID 1019, CLEANUP SITE ID 3020



Prepared for PORT OF RIDGEFIELD

RIDGEFIELD, WASHINGTON June 9, 2021 Project No. 9003.01.55

Prepared by Maul Foster & Alongi, Inc. 109 East 13th Street, Vancouver, WA 98660

#### SOIL MANAGEMENT AND CAP MAINTENANCE PLAN

FORMER PACIFIC WOOD TREATING CO. SITE FACILITY ID 1019, CLEANUP SITE ID 3020 The material and data in this report were prepared under the supervision and direction of the undersigned.

MAUL FOSTER & ALONGI, INC.

Phil Wiescher, PhD Senior Environmental Scientist

and ethy

Josh Elliott, PE Senior Engineer

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#### APPENDIX E

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#### APPENDIX F

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DRAWINGS

RECORD DRAWINGS

BNSF	Burlington Northern-Santa Fe Railway
CAMU	corrective action management unit
CFR	Code of Federal Regulations
the City	City of Ridgefield
CUL	cleanup level
CWM	Chemical Waste Management
DEQ	Oregon Department of Environmental Quality
dioxins	chlorinated dibenzo-p-dioxins and dibenzofurans
Ecology	Washington State Department of Ecology
HAZWOPER	Hazardous Waste Operations and Emergency Response
IHS	indicator hazardous substance
impacted soil	soil that may contain listed wood-preserving wastes from
-	the former PWT operations
LRIS	Lake River Industrial Site
MFA	Maul Foster & Alongi, Inc.
MTCA	Model Toxics Control Act
OSHA	Occupational Safety and Health Act
РАН	polycyclic aromatic hydrocarbon
Port	Port of Ridgefield
the Property	Port-owned portions of the LRIS, Railroad Avenue
	property, Port Marina property, and Railroad Overpass
	property
PWT	Pacific Wood Treating Co.
RCRA	Resource Conservation and Recovery Act
RI/FS	remedial investigation and feasibility study
SAP	Sampling and Analysis Plan
SMCMP	Soil Management and Cap Maintenance Plan
TEE	terrestrial ecological evaluation
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation
WWTP	wastewater treatment plant

# INTRODUCTION

This Soil Management and Cap Maintenance Plan (SMCMP) governs Port of Ridgefield (Port)-owned properties that have an environmental cap. A cap is designed as a protective structure to prevent human and ecological exposure to chemicals that remain in soil below the cap. All activities conducted where an environmental cap is present must be managed in a manner that preserves the cap structure and integrity and prevents exposure to contamination in underlying soil.

Maul Foster & Alongi, Inc. (MFA) has prepared this SMCMP on behalf of the Port for Port-owned properties at the former Pacific Wood Treating Co. (PWT) site in Ridgefield, Washington (Figure 1-1). The four Port properties are collectively referred to in this plan as the Property and are known separately as Port-owned portions of the Lake River Industrial Site (LRIS) (also known as Miller's Landing), the Railroad Avenue property, the Port Marina property, and the Railroad Overpass property (see Figure 1-2). Information pertaining to the soil management, cap description, and cap maintenance for the Railroad Overpass property is provided in a separate SMCMP (MFA, 2014). A wastewater treatment plant (WWTP) on the LRIS that is owned by the City of Ridgefield (the City) is not included in this plan's definition of the Property.

This SMCMP has been prepared in accordance with the requirements of Washington Administrative Code (WAC) 173-340-440 and related provisions of the November 2007 update of the Washington State Model Toxics Control Act (MTCA). This document addresses soil management procedures in the event of future development or any condition in which the protective cap is breached. This document will also address monitoring and maintenance procedures associated with the Property's protective cap.

### 1.1 Purpose of Soil Management and Cap Maintenance Plan

The purpose of this SMCMP is to provide guidance for all future property activities during which a breach of the protective cap could occur and to provide guidance for monitoring and maintenance associated with the protective cap.

### 1.2 Property Description

The Property is located in section 24, township 4 north, range 1 west of the Willamette Meridian, and consists of the following three areas:

- The LRIS encompasses approximately 40 acres and is located at 111 West Division Street, Ridgefield, Washington; see Figure 1-2. The LRIS is currently zoned for mixed waterfront use, but historically was zoned industrial. The LRIS comprises four areas designated as "Cells" (1, 2, 3, and 4) and the City WWTP.
- The LRIS is bordered to the east by the Burlington Northern-Santa Fe Railway (BNSF) railroad tracks. Cell 1 is bordered to the west and south by Cell 2 and to the north by the

City's WWTP. Cell 2 lies in the central portion of the LRIS and is bordered by Cell 4 and the Ridgefield National Wildlife Refuge to the north, by Cell 3 to the south, and by Lake River to the west. Cell 3 is bordered by Cell 2 to the north, Lake River to the west, and the Port Marina property and Mill Street to the south. Cell 4 is bordered by the Ridgefield National Wildlife Refuge to the west and north and the City WWTP and Cell 2 to the south.

- Currently, the City WWTP does not fall under the requirements of this SMCMP. The City WWTP lies within the Cell 2 boundary (see Figure 1-2); the requirements of this SMCMP would extend to the WWTP area in the event that (1) property ownership changed to Port ownership, or (2) development activities that disturb soil were conducted in this area.
- The Railroad Avenue property is east of Cell 3 and the BNSF railroad tracks. This property is bordered to the north, east, and south by residential areas.
- The Port Marina property is southwest of Cell 3 and is bordered to the west by Lake River, to the south by Mill Street, and to the north and east by Cell 3.
- The Railroad Overpass property is south of the Port Marina property and is bordered to the west and south by McCuddy's Marina and to the east by BNSF railroad tracks. As indicated above, a separate soil management plan was developed for this property (MFA, 2014).

# 2 PROJECT ROLES AND RESPONSIBILITIES

The roles and responsibilities for management of the Property are listed below. The individuals identified below may change, and it is the responsibility of the party performing work to obtain up-to-date information.

### 2.1 Port of Ridgefield

The Port is the current owner of the Property. As long as the Port holds ownership, the Port will be considered the generator of all wastes removed from the Property. If ownership of the Property changes, waste generation allocation will change to the current property owner. It is the Port (or current owner) that will ultimately determine whether excavated material is managed on site or off site, with the assistance and approval of the Washington State Department of Ecology (Ecology). The Port, as long as it is an owner of the Property, must maintain records as specified in Section 6.6 and must provide these records to any subsequent property owner. The current environmental projects manager is Penny Hughes, (360) 887-3873.

### 2.2 Maul Foster & Alongi, Inc.

MFA is the environmental consultant and engineer for the project. MFA has performed and will continue to perform technical analysis and evaluation of plans related to future development; conduct

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sampling and evaluation of site activities, as necessary; documenting environmental conditions; and certify compliance with long-term monitoring and maintenance plans and this SMCMP. MFA will assist the Port with regulatory compliance and waste-handling determinations. Josh Elliott is the project engineer and can be reached at (503) 501-5236.

### 2.3 Washington State Department of Ecology

Ecology will continue to provide environmental oversight for future redevelopment projects that will encounter impacted site soil. The current Ecology project manager is Cam Penner-Ash, (360) 999-9590.

# 3 residual contamination in site soil

There is residual soil contamination on the Property, beneath a protective cap. This soil may contain listed wood-preserving wastes from the former PWT operations, and will be referred to as impacted soil in the rest of this SMCMP. The indicator hazardous substances (IHSs) identified for the Property are listed below:

- Metals: arsenic and total chromium
- Polycyclic aromatic hydrocarbons (PAHs), including carcinogenic PAHs: 2methylnaphthalene, acenaphthene, fluoranthene, fluorene, naphthalene, pyrene, benzo(a)pyrene
- Semivolatile organic compounds: dibenzofuran
- Volatile organic compounds: 1,1,2,2-tetrachloroethane, 1,2,4-trimethylbenzene, styrene
- Chlorinated phenolics: pentachlorophenol
- Petroleum hydrocarbons: diesel-range organics (diesel), residual-range organics (lube oil), gasoline-range organics (gasoline)
- Chlorinated dibenzo-p-dioxins and dibenzofurans (dioxins)

The tables in Appendices A (LRIS) and B (Railroad Avenue property/Port Marina property) show the results of all available soil analytical data for the respective sites. The naming convention in these tables corresponds to the soil sample labels shown in Figures 3-1, 3-2, and 3-3. The analytical results and corresponding figures can be referenced to understand the levels of contamination remaining on the Property at selected locations at the time of analysis. Figures 3-1, 3-2, and 3-3 also show the extent of soil excavated and removed for off-site disposal. The data provided in these appendices and figures show where there is known contamination. Figure 3-3 also shows areas where impacts were observed just below the constructed cap. Future work in areas where impacts were observed could require special care and proper protective equipment.

Before the start of work that will expose soil below the protective cap at the Property, a soil-handling work plan may be required by the Port. The soil-handling work plan should address the amount of soil cap to be worked or moved and where it will be staged; the quantities of soil disturbed below the cap; and where the soil will be placed on site, stockpiled, or disposed of. The work plan should show the original cap layout and the restoration of an equally protective cap, as applicable.

The following sections describe the general protocol for soil handling associated with specific construction conditions. Construction conditions other than those defined below will require evaluation on a case-by-case basis to establish a protocol. The following conditions may be encountered during standard site-development activities.

### 4.1 Protective Cap Soil

Depending on the type of project, construction activities may be limited to disturbance of the protective cap zone. Disturbances of the protective soil cap (i.e., above demarcation fabric) would not involve any special health and safety requirements (outside standard construction health and safety protocols). Care shall be taken to maintain cap integrity during construction activities taking place on the protective cap. If the protective soil cap is disturbed, reconstruction will be required. Ruts in the protective cap are to be filled with clean fill to avoid ponding. Grading or moving cap material from one location to another will not be permitted if it creates an area in the cap that does not meet the minimum thickness. Cap surface slopes must be maintained for adequate stormwater flow, and best management practices must be implemented to prevent erosion of cap material. Details on cap restoration are provided in Section 5.

### 4.2 Soil Beneath Cap

Soil beneath the cap is assumed to be impacted by wood-preserving waste. However, soil that, according to analytical results, does not contain any wood-preserving waste does not require placement with impacted soil on site or disposal off site. Documentation as to the source location, amount of soil, sampling procedures, laboratory analytical results, and data validation must be provided to Ecology before this soil can be used as or above the cap on the Property.

All construction activities that require excavation below the established or reconfigured cap (e.g., soil cap and demarcation fabric, pavement, concrete, building) and that will result in the disturbance of soil that may be impacted are required to comply with the protocol presented in this section. Impacted soil below the cap may be breached during general construction activities, including but not limited to the following: utility or stormwater conveyance construction, underground structure or building foundation construction, and general earthwork and earth-moving activities. Worker safety requirements pertaining to handling of impacted soil are provided in Section 6.2.

Soil above the demarcation fabric is clean fill. Should the soil cap become contaminated (e.g., contact or be mixed with soil from below the demarcation fabric), clean soil must be imported and used as replacement soil. Impacted soil beneath the demarcation fabric must be handled separately from the clean protective cap soil in order to:

- Avoid cross-contamination of clean protective cap soil.
- Allow reuse of the protective cap for soil cap restoration activities.
- Limit the amount of soil to be handled as impacted soil.
- Ascertain the disposal status of impacted soil.

Soil excavated below the demarcation fabric will be assumed to be a dangerous waste unless proven otherwise. Thus, the soil must be handled as dangerous waste and segregated from other soils. Impacted soil can be handled either by re-placing it with clean soil in the original excavation, by placing and capping at a new on-site location consistent with Ecology-approved cap options (Sections 4.2.1 through 4.2.3 and Section 5), or by off-site disposal.

The impacted soil that is generated from construction activities should not be placed directly on any portions of the clean soil cap, temporarily or otherwise. Impacted soil, regardless of where the soil is stored, should be placed on and covered by an impermeable liner at all times. Impacted soil can be stockpiled for up to 90 days without requiring a Resource Conservation and Recovery Act (RCRA) permit. A RCRA permit must be obtained to store impacted soil longer than 90 days.

When impacted soil is excavated, stockpiling should be limited to the extent possible. If soil must be stockpiled on top of the protective soil cap, then stockpiles of impacted soil should be placed as close to the excavation as possible and with the smallest footprint possible, and should be placed on and covered with an impermeable liner. The existing grade should be cleared of debris and any objects that have the potential to puncture the liner. A berm, constructed of imported or unimpacted site soil, compost socks, hay bales, sandbags, or equivalent material as approved by the supervising engineer, is to be installed along the perimeter of the impacted soil stockpile. The liner bottom and cover must extend up and over the perimeter berm so that there is no impacted-soil contact with precipitation or stormwater runoff. Impacted soil is to remain covered except when the stockpile is in use. It is imperative that mixing of impacted soil with cap soil be prevented. If impacted soil is released onto the cap surface, the impacted cap surface is to be removed and handled as impacted soil. Any soil cap that is removed must be replaced with a clean soil cap or other Ecology-approved cap.

When excavation activity is expected to go below the established cap, the demarcation fabric should be cut away from the boundary of the proposed excavation. To avoid creating a tear or gap in the fabric beyond the excavation area, the fabric may not be pulled or torn by excavation equipment at the boundary of the excavation. Replacement fabric will be overlapped with existing fabric to the extent possible to maintain a consistent fabric covering.

The current cap configurations, thicknesses, and materials for the Property are shown in Figure 4-1. Section 5 provides a more detailed description of cap restoration for each type of capping material. If activities on the Property are expected to result in handling of impacted soils in a manner inconsistent with this plan or using a cap profile different from that previously approved, Ecology approval must be secured as described in Section 5.2.

#### 4.2.1 Replacement at Original Excavation Location

Impacted soil placed into its original excavation (around foundations, pipes, or underground structures) should be compacted as directed in consultation with a geotechnical engineer. New demarcation fabric matching the existing fabric specifications shall be installed over the re-placed impacted soil where the fabric will not be covered by an impervious surface (impervious surfaces are in and of themselves the demarcation layer). The fabric should be installed to form continuous coverage with existing, adjacent fabric edges.

#### 4.2.2 New Placement Location

If impacted soil cannot be placed in the original excavation, then the impacted soil may be used as backfill at other areas of the Property below an Ecology-approved cap. When impacted soil is slated for placement at a new location, it is expected that the impacted soil will be transferred directly to its new location if at all possible. Instances that may potentially warrant a new placement location include large excavations for subgrade, footing, or utility trenches. Upon Ecology approval of a new soil placement location (e.g., beneath landscaping area, roadbed, building structure, constructed staging area), the material must be capped consistent with minimum capping guidelines described in Section 5. If new capping profiles or material are proposed (other than those listed in Section 5), approval from Ecology will be required.

#### 4.2.3 Off-Site Disposal

If impacted soil cannot be reused on the Property, then it must be disposed of appropriately at a licensed landfill. Prior to disposal, the soil must be tested by the methods outlined in the Sampling and Analysis Plan (SAP) (Appendix C). The disposal requirements will depend on analytical results, state and federal regulations in effect at the time of disposal, and disposal facility requirements.

#### 4.2.3.1 Site Waste Codes

Historically, soil containing wood-preserving waste on the LRIS has fallen under the state's Dangerous Waste Regulations (WAC 173-303) and has been listed as waste subject to land disposal restrictions (WAC 173-303-140). Based on historical site activity, the following waste codes were determined to apply to soil from the site (Cells 1, 2, 3, and 4), depending on the type of contaminants present in the soil to be disposed of and the locations from which it was generated:

- Listed Waste code F032—Preservative drippage in soil that contains chlorophenolic wastes
- Listed Waste code F034—Preservative drippage in soil that contains creosote wastes
- Listed Waste code F035—Preservative drippage in soil that contains arsenic and chromium waste

• Listed Waste K001—Bottom sediment sludge from the treatment of wastewaters from wood-preserving processes that use creosote and/or pentachlorophenol

Waste code K001 is applicable to the LRIS only as the code relates to wastewater treatment. Based on the findings of a memorandum from MFA to Ecology, a copy of which is provided as Appendix D, the hazardous waste codes F032, F034, and F035 are not applicable to the soil that could be generated from areas outside the LRIS, including the Railroad Avenue and Port Marina properties. This determination was based on a U.S. Environmental Protection Agency document clarifying the management of remediated waste (USEPA, 1998). Based on these findings, any soil generated from the Railroad Avenue and Port Marina properties will not require any waste code designation.

#### 4.2.3.2 Disposal

The two off-site disposal avenues for impacted soils on the LRIS are described below.

#### 4.2.3.2.1 Contained-In Soil

If concentrations of wood-preserving waste are below the current and relevant MTCA soil cleanup levels (CULs), the soil may qualify for a contained-in determination by Ecology's Hazardous Waste and Toxics Reduction Section. Procedures for obtaining a contained-in determination are found on Ecology's Web site at: <u>http://www.ecy.wa.gov/programs/hwtr/determinations/index.html</u>. Soil with a contained-in determination can be disposed of off site at an Ecology-approved permitted disposal facility, e.g., a Subtitle D landfill.

#### 4.2.3.2.2 CAMU-Eligible Waste

If waste levels in soil are above the current and relevant MTCA soil CULs, the soil may be disposed of off site, as a corrective action management unit (CAMU)-eligible waste, in a hazardous waste landfill. CAMU-eligible waste may be disposed of off site at a Subtitle C landfill.

A June 8, 2011, letter from Ecology to the Port documents Ecology's determination that contaminated soils from the PWT site are CAMU-eligible waste under the Dangerous Waste Regulations (Chapter 173-303 WAC). According to WAC 173-303-646920, these soils may be disposed of off site at a designated hazardous waste landfill, such as the Chemical Waste Management (CWM) facility in Arlington, Oregon. This determination applies to future off-site disposal of soils from the LRIS.

Federal regulations (40 Code of Federal Regulations [CFR] 264.555) outline requirements for approving placement of CAMU-eligible waste in an off-site landfill. Part 264.555(e) outlines the necessary procedures for public comment and regulatory approval at the off-site landfill before CAMU-eligible waste may be placed in the landfill. Because public and regulatory notice was provided by Ecology in 2011 for soils from the PWT site, public notice for continued off-site disposal of CAMU-eligible waste will have to be coordinated only with the Subtitle C disposal facility (e.g., the CWM Subtitle C landfill facility in Arlington, Oregon) and the regulatory authority (e.g., Oregon Department of Environmental Quality [DEQ]).

The CWM facility is permitted by the DEQ to accept CAMU-eligible waste. For each excavation activity generating a CAMU-eligible waste from the LRIS, CWM must request an additional permit modification from the DEQ; the request will include the source of the CAMU waste, its principal hazardous constituents, and the applicable treatment requirements. Public notice by CWM is also required (40 CFR § 264.555(d)-(e)). The DEQ may object to the off-site placement of CAMU-eligible waste within 30 days of CWM's notification (40 CFR § 264.555(e)(3)). CAMU-eligible wastes may not be placed in the landfill until the DEQ has notified CWM that the DEQ does not object to its placement.

WAC 173-303-646910(6), as referenced in WAC 173-303-636920, requires generators of CAMUeligible waste that is disposed of at an off-site dangerous-waste landfill to comply with the reporting, tracking, and recordkeeping requirements of 40 CFR 286.7(a)(4). CAMU documentation is included in Appendix E. Dangerous-waste handling and transportation procedures and documentation must be followed throughout the CAMU disposal process.

#### 4.2.3.2.3 Off-Property Disposal

If results are below the current and relevant MTCA ecological or human health CULs, then there are no special handling or disposal requirements. The soil may be used as clean soil cap if it is found to meet all other clean cap analytical requirements as described in the SAP found in Appendix C. The MTCA ecological CULs were established as the CULs for the Property. Calculation methods for ecological dioxin CULs are presented in the remedial investigation and feasibility study (RI/FS) (MFA, 2013). The CULs for human health should be evaluated at the time of soil characterization.



The protective caps generally consist of soil at specific minimum thicknesses (see Figure 4-1 for an overview and the attached as-built drawings for more details). The protective caps also consist of gravel or asphalt for pedestrian paths and asphalt for Division Street improvements. The following section can be referenced as a minimum capping guideline if any of the protective caps have been removed or altered as a result of redevelopment activities. New capping material and/or thickness may also be proposed for Ecology's approval. If new capping profiles or material (i.e., other than what is listed below) are proposed, approval from Ecology will be required. To expedite review, Ecology should be notified well in advance of development of the proposed capping profile or material changes; see Section 5.2.

### 5.1 Cap Description

In accordance with recommendations from Ecology and the findings of the final RI/FS (MFA, 2013), the soil cap profiles have been designed to ensure the appropriate degree of protection for ecological and human receptors from the contamination that remains on the Property. The following describes the current (post-remedial) cap conditions:

- Cell 1 has a minimum 2-foot-thick soil cap (see Figure 4-1), with grading to direct stormwater flow to the ditch.
- Most of Cell 2 is covered with either a 2-foot-thick or a 3-foot-thick soil cap (see Figure 4-1). Areas of the 3-foot-thick soil cap are along the western transition to the bank slope. In addition, portions of the Cell 2 cap consist of a gravel access road (24 inches of crushed base rock over demarcation fabric); a pedestrian trail composed of gravel (3 inches of crushed base rock over 3-foot-thick soil cap); and an asphalt hard trail (2.5 inches of asphalt and 6 inches of crushed base rock), which is also intended for pedestrian use.
- Cell 3 consists of a minimum 2-foot-thick soil cap in some areas and a minimum 3-footthick soil cap in other areas, similar to the configuration of Cell 2 (see Figure 4-1), and with a narrow, 1-foot-thick soil cap tapering to meet the elevation of the Port Marina property. Cell 3 also consists of the Division Street and Pioneer Street improvements, which include a minimum of 14 inches of crushed base rock and 5 inches of asphalt; a continuation of the pedestrian hard trail of Cell 2 (6 inches of crushed base rock under 2.5 inches of asphalt over a minimum 2-foot-thick soil cap); and a Cell 3 gravel access road, which consists of a minimum of 8 inches of crushed base rock over 16 inches of soil, over demarcation fabric (see Figure 4-1).
- Cell 4 consists of a minimum 2-foot-thick soil cap and a pedestrian trail cap over impacted soil (see Figure 4-1). The pedestrian trail consists of 6 inches of crushed base rock and 2.5 inches of asphalt.
- The Railroad Avenue property is covered with a minimum 2-foot-thick soil cap (see Figure 4-1).
- The Port Marina property is capped with 2 inches of asphalt pavement, with a portion of soil cap along the northern and eastern boundaries.

### 5.1.1 Soil Cap Requirements

Imported soil to be used as clean capping material will require approval from Ecology, and will follow guidelines that include, but are not limited to, the following:

- The owner of the proposed fill material must hire a qualified environmental professional to obtain representative samples of the proposed fill material for laboratory analysis. The engineer and/or environmental professional will conduct sampling in accordance with the SAP provided in Appendix C.
- The final determination for acceptance of clean soil will be made at the discretion of the Port in consultation with Ecology. The SAP provided in Appendix C will guide decision making.

#### 5.2 New Cap Construction

The following are Ecology-approved cap options.

#### Table Capping Options

Type of Use	Typical Section		
Landscaping/green space			
<2 feet soil	Geotextile as demarcation; no landscaping; impermeable surface required (e.g., pavement, impermeable liner to prevent infiltration, buildings)		
2 to 3 feet soil or gravel	Geotextile as demarcation layer; ground cover as outlined in the TEE (MFA, 2013); gravel surfaces, or additional as approved by Ecology; any grasses		
3 to 6 feet soil or gravel	Geotextile as demarcation layer; shrubs or trees as outlined in TEE (MFA, 2013); gravel surfaces, or additional as approved by Ecology; any grasses		
>6 feet soil	No geotextile and no vegetation planting restrictions		
Parking	Impermeable surface (min. thickness 3 inches) with clean subbase as necessary for construction		
Building/structure	Slab-on-grade (min. thickness 3 inches) with subbase as necessary for construction		
Sidewalk/pathway	Impermeable surface (min. thickness 2.5 inches) with clean subbase as necessary for construction or gravel surface with minimum 2 feet clean fill		
NOTE: TEE = terrestrial ecological evaluati	ion.		

If, as part of redevelopment of the Property, the cap types and/or configuration require alteration, the following Ecology notification/approval process will take place. Ecology must be provided notice that alternate cap types/configuration are under consideration. Ecology will endeavor to review the request and provide approval or request additional information or analysis within 30 days. Construction of the alternate cap/types or configuration will not take place until receipt of Ecology approval.

### 5.2.1 Geotextile

All new soil cap construction will first require replacement (or new placement) of a geotextile (SKAPS GT-160 Nonwoven Geotextile<sup>TM</sup> or equivalent, specifications provided in Appendix F), which will allow infiltration of surface water and will not create a hydraulic barrier. The geotextile should be placed over a smooth, prepared surface. The geotextile fabric is to serve as a delineation boundary between potentially impacted native soil and the overlying clean protective cap, and also will serve as a barrier limiting burrowing of potential ecological receptors. The presence of the fabric will alert subsequent developers when contact with impacted material could occur, and therefore when specific protocols are to be followed.

### 5.2.2 Vegetation

Vegetation requirements vary, depending on location; see Figure 5-1. For most of the upland area, the vegetation should be restored according to the direction provided in the terrestrial ecological

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evaluation (TEE) report, provided in the final RI/FS (MFA, 2013) and summarized here. The sitespecific TEE was performed following the procedures of WAC 173-340-7490 and WAC 173-340-7493. The planting list is included as Appendix F. Areas of 2-foot-minimum cap thickness are to be planted with grasses and vegetation that have shallow root systems. Shallow-rooted trees, shrubs, and grasses are allowed in areas of 3-foot-minimum cap thickness. A plan view delineating the original 2-foot-thick and 3-foot-thick soil cap areas is provided in Figure 4-1. Restoration of vegetation should comply with the approved plant list in Appendix F.

The Lake River riparian area (see Figure 5-1) has more specific vegetation requirements in select subareas. The vegetation in these subareas serves as mitigation associated with the Lake River remedy. Therefore, maintenance and monitoring is a requirement of the U.S. Army Corps of Engineers 401/404 permit requirements (see Appendix G).

#### 5.2.3 Asphalt Cap Construction

Certain portions of the Property currently employ asphalt as capping material. Any restored or new asphalt capping material should match the existing asphalt material and site-specific specifications, or Washington State Department of Transportation (WSDOT) specifications for subgrade, base rock, density, and compaction, whichever is most appropriate.

#### 5.2.4 Gravel Cap Construction

A gravel cap may be employed. Gravel is currently used on site for pedestrian and vehicular access. Gravel should be specified according to standards already established for the Property, WSDOT standards, or as directed by an engineer.

#### 5.2.5 Other Capping Material

Other capping material that may be used includes impermeable surfaces such as building foundations and footings and concrete surfaces or structures. If surfacing materials other than those listed in the table above are desired as part of future redevelopment activities, Ecology's approval is required.



The generation of impacted soil triggers the requirement to implement specific site controls. These controls are required in order to protect the adjacent environment and reduce potential exposure of the nearby public to the impacted soil material that remains capped at the Property.

### 6.1 Fencing and Signage

In the event of redevelopment activities that generate impacted soil, fencing should be maintained in order to restrict public access to areas of the Property that are no longer contained by a cap. Signage shall be posted on the fencing separating the public from uncapped areas.

#### 6.2 Worker Health and Safety

All future redevelopment activities that penetrate the cap, and that thereby generate impacted soil, are to be conducted according to WAC 173-340-810; the Occupational Safety and Health Act (OSHA) of 1970 (29 U.S. Code Sec. 651 et seq.); the Washington Industrial Safety and Health Act (Chapter 49.17 Revised Code of Washington); and relevant regulations. The developer will be required to prepare a health and safety plan before beginning work; this plan should be available for review by the Port and Ecology by request. The health and safety plan shall, at a minimum, set forth the requirements and protections for working in areas containing soil that may be chemically impacted, and shall include the following:

- Current Hazardous Waste Operations and Emergency Response (HAZWOPER) certification for workers disturbing impacted soil
- IHSs and site background
- Personal protective equipment
- Personal hygiene and decontamination protocols
- Medical surveillance
- Hazard communication and site control
- Recordkeeping and reporting

#### 6.2.1 Qualified Personnel

The developer will retain a contractor that will complete the development work in compliance with OSHA regulations (29 CFR § 1910.120 and § 1926.65); workers in any area of the Property that is temporarily uncapped during construction and those who will come in contact with impacted soil must be qualified personnel. The qualified personnel must have received the HAZWOPER standard 40-hour training and/or received refresher training in the past year. Managers and supervisors directly overseeing the working crew must have received an additional eight hours of specialized training in hazardous-waste management supervision.

#### 6.3 Land Use Restrictions

The environmental covenant for the Property provides additional land use restrictions, and should be referenced and complied with when a new proposed land use is considered. Because impacted soil

remains on the Property, there may be limitations to specific land uses and requirements associated with development.

#### 6.4 Hazard Communication

Appropriate training must be provided for personnel who will come in contact with hazardous waste. Additionally, all hazardous-waste and/or waste containers must be labeled consistent with 29 CFR  $\S$  1910.1200.

All contractors doing work on site must be provided this SMCMP before initiating work.

#### 6.5 Notification and Reporting

Ecology approval must be obtained prior to alteration of approved cap types and/or configuration. As indicated in Section 5.2, Ecology must be provided notice that alternate cap types/configuration are under consideration. This notice should be provided well in advance of development to allow time for the approval process. Ecology will endeavor to review the request and provide approval or request additional information or analysis within 30 days. Construction of the alternate cap/types or configuration will not begin until receipt of Ecology approval.

The contractor shall maintain weekly reports of field activities during any active construction that disturbs soil or other cap material on the Property. The Port will prepare or oversee the preparation of a project completion report to document the management of impacted soil for each project for which such work is conducted. The report will document the management techniques used and approximate volumes of materials handled, and will provide placement or disposal information, disposal manifests, and analytical data generated during management of the impacted material. The contractor weekly reports and project completion reports will be maintained by the Port in a cap monitoring and construction master file.

#### 6.6 Recordkeeping

The Port and any subsequent property owner must maintain records documenting the following:

- On-site placement of excavated soil, including delineation of the disposal areas and estimated volumes
- Off-site disposal of excavated soil, including waste characterization, shipping manifests, and disposal certificates
- Cap breach reports, including where the cap was breached, methods for replacement, figures showing areas of cap disturbance, materials used, and any analytical results

## PROTECTIVE CAP MONITORING AND MAINTENANCE

The protective cap requires regular and routine inspection to evaluate and maintain its integrity. Monitoring and, if required, maintenance should be conducted annually, at a minimum. This will provide an opportunity to correct small, localized failures before they become larger, more detrimental failures. In addition to annual inspection, an inspection is to take place after a large natural disaster occurs in close proximity to the Property, or after any other large-scale disturbance occurs near or at the Property. As the cap is the main barrier of protection between remaining impacted soil and human and ecological receptors, it is imperative that the cap maintain its intended integrity. This section outlines the monitoring and inspection procedure for each of the protective capping materials.

Monitoring personnel should complete the worksheet provided in Appendix H. The purpose of the monitoring event is to document current conditions of capping materials and structures. The documentation can be used as a reference in evaluating the severity of cap degradation, if any, to determine if corrective action is required. Ecology will be provided a report within 30 days of the inspection, recording the condition of the cap and any changes to the cap that would impair its performance.

#### 7.1 Soil Cap Inspection

All observations recorded (using the worksheet in Appendix H) should be accompanied by photographs documenting the following, which are the minimum observation and monitoring requirements per soil cap inspection:

- Overall cap condition
- Visible rills or gullies
- Evidence of stormwater ponding or concentrated flow
- Exposed demarcation fabric

#### 7.2 Asphalt Cap Inspection

All recorded observations should be accompanied by photographs documenting the following, which are the minimum observation and monitoring requirements per inspection of all asphalt caps at the LRIS site:

- Overall cap condition
- Evidence of cracking, buckling, or subgrade shifting
- Observed alligatored areas (areas with numerous intersecting cracks)
- Exposed demarcation fabric

### 7.3 Gravel Cap Inspection

All recorded observations should be accompanied by photographs documenting the following, which are the minimum observation and monitoring requirements per gravel cap inspection:

- Overall cap condition
- Visible rills or gullies
- Visible surficial cutting as a result of concentrated stormwater flow
- Exposed demarcation fabric

#### 7.4 Vegetation Inspection

Vegetation inspection requirements vary, depending on location; see Figure 5-1. For most of the upland area, the inspection for vegetation should be qualitative and quantitative. The following lists the minimum observation and monitoring requirements per inspection of site vegetation:

- Overall vegetation condition
- Overall vegetation percent coverage
- Areas of unestablished or failing vegetation
- Areas of dead or dying vegetation
- Observance of invasive species

For the Lake River riparian area, inspections must follow the requirements provided in Appendix G.

#### 7.5 Corrective Action

Corrective action will be implemented for caps and vegetation. If evidence of erosion or failure is observed in any of the abovementioned caps, the person conducting the inspection and reporting should consult with an engineer familiar with cap materials and structures. The engineer may decide that additional analysis or observation is necessary in order to determine if the damage will reduce the effectiveness of the protective cap. Corrective action will be evaluated on a case-by-case basis according to the type and/or severity of damage and the urgency. The following should be conducted in order to document damage and to evaluate a proposal for corrective action:

- 1. Engineer's internal review of inspection reports and photographs
- 2. Site visit by the engineer to review damage
- 3. Additional measurement or analysis (survey, sample collection, or analysis)
- 4. Consultation with Ecology regarding the damage or deterioration and the engineering assessment (within 48 hours of the discovery of damage)
- 5. Proposal for repair prepared by the engineer (if determined necessary)
- 6. Obtaining and supervising a contractor completing repair work

7. Repairing the damage and submitting a report documenting the work to Ecology within 30 days of completing the repairs

With regard to vegetation, corrective action requirements vary, depending on location; see Figure 5-1. For most of the upland area, replacement of vegetation is generally appropriate. For the Lake River riparian area (see Figure 5-1), vegetation must meet the requirements provided in Appendix G.

### 7.6 Soil Cap Maintenance

Soil cap maintenance will be conducted based on the findings of the annual monitoring report. If areas of the soil cap have eroded, maintenance to replace the eroded areas with soil and vegetation will be required. This may require additional seeding and/or planting. See also Section 7.9, Vegetation Maintenance.

#### 7.7 Asphalt Cap Maintenance

Asphalt cap maintenance should be performed if evidence of cracking or buckling is observed. Areas that show these failures shall be maintained by the application of a corrective patch of asphalt. Areas of failure larger than 100 square feet shall be entirely removed and replaced with 2.5 inches of asphalt (or to match existing thickness). All observed alligatored areas larger than 100 square feet shall be removed and replaced with asphalt 2.5 inches thick or matching existing thickness. Smaller alligatored areas may be repaired as cracks.

### 7.8 Gravel Cap Maintenance

If erosion or gullies are observed, then gravel maintenance is required. All areas of failure should be restored to their original thickness. The gravel cap should also be monitored for maintenance following an event or condition that causes an observed deterioration or change in the gravel cap. For example, use of heavy equipment over the gravel cap may displace or degrade areas of the cap. General smoothing or repair of notable depressions, holes, etc., should be completed as soon as possible after the deterioration is observed.

The gravel cap should also be maintained against invasive vegetation, consistent with the soil cap maintenance. Similar procedures should be followed to remove and prevent regrowth of invasive vegetation.

### 7.9 Vegetation Maintenance

All vegetated areas should include a survey for invasive species as part of the routine maintenance. An attempt shall be made to eliminate observed invasive species, such as Himalayan blackberry and reed canary grass.

For the Lake River riparian area (see Figure 5-1), vegetation maintenance must meet the requirements provided in Appendix G.

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

MFA. 2013. Final former PWT site remedial investigation and feasibility study. Former Pacific Wood Treating Co. site. Prepared for the Port of Ridgefield. Maul Foster & Alongi, Inc. July 1.

MFA. 2014. Soil management and cap maintenance plan, railroad overpass property. Prepared for the Port of Ridgefield. Maul Foster & Alongi, Inc., Vancouver, Washington. May 9.

USEPA. 1998. Management of remediation waste under RCRA. EPA530-F-98-026. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. October 14.

# FIGURES







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This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



Property Location

990

Feet

1,980



Source: Aerial imagery (2013) obtained from National Agriculture Imagery Program (NAIP).

## Figure 1-2 Property and Site Overview

Feet



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.





#### Figure 3-1 Cell 3, Port Marina, and Railroad Avenue Soil Sample Locations and Excavation Extents

Port of Ridgefield Ridgefield, Washington

#### Legend

- O Port Marina Soil Sample
- Soil Boring
- Surface Soil Sample
- Test Pit

ø

- Monitoring Well
  - Decommissioned Monitoring Well
  - Soil Excavation Extent
  - Cell Boundary
  - Railroad Avenue Property
  - Port Marina Property

Note: 1. Soil sample locations are approximate.



Source: Aerial imagery (2013) obtained from National Agriculture Imagery Program (NAIP).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



Source: Aerial imagery (2013) obtained from National Agriculture Imagery Program (NAIP).



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

#### Legend

- Soil Boring 0
- Surface Soil Sample
- Test Pit
- Soil Excavation Extent
- Cell Boundary

# Figure 3-2 Cell 4 Soil Sample Locations and Excavation Extents

Port of Ridgefield Ridgefield, Washington





Source: Aerial imagery (2013) obtained from National Agriculture Imagery Program (NAIP).

Note:

1. NAPL = nonaqueous-phase liquid.

Soil Boring 

Surface Soil Sample 

Test Pit

Monitoring Well

ø Decommissioned Monitoring Well Impacts Observed Below Constructed Cap

Legend

Soil Excavation Extent, Impacts Observed

Cell Boundary

Soil Excavation Extent

0 65 130 Feet

Cells 1 & 2 Soil Sample Locations

and Excavation Extents

Figure 3-3

Port of Ridgefield

Ridgefield, Washington

This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



Source: Aerial imagery (2014) obtained from Clark County GIS.

Note: WWTP = wastewater treatment plant



Port of Ridgefield Cell Boundaries

Railroad Avenue Property

Port Marina Property (Existing Asphalt)

WWTP



2' Soil Cap

3' Soil Cap

Division & Pioneer Streets (Minimum 5" Asphalt, 14" Crushed Base Rock, and Demarcation Fabric over the existing subgrade)













Soft Trail (3" Crushed Base Rock

over 36" Soil Cap (min) over Demarcation Fabric)

Cell 2 Gravel Access Road (2' Crushed Base Rock over Demarcation Fabric)

> Cell 3 Gravel Access Road (8" Crushed Base Rock over 16" of Soil Cap over Demarcation Fabric)

### Figure 4-1 Final Cap Overview

Port of Ridgefield Ridgefield, Washington





#### PLANT MATERIAL SCHEDULE

]	IREES .	AND SH	RUBS						SEED MIXES	
]	IOTAL <u>QTY</u>	GROVE #1 QTY	GROVE <u>#2 QTY</u>	GROVE <u>#3 QTY</u>	COMMON NAME	BOTANICAL NAME	SIZE	<u>SPACING</u>	UPLAND UNDERSTORY	MĽ
	4	2	2	0	DOUGLAS FIR	PSEUDOTSUGA MENZIESII	5 GAL	PER PLAN	IDAHO FESCUE	F
	4	2	1	1	WESTERN RED CEDAR	THUJA PLICATA	5 GAL	PER PLAN	BLUE WILD RYE ROEMER'S FESCUE	E F
	4	1	2	1	OREGON ASH	FRAXINUS LATIFOLIA	1.5" CAL	PER PLAN	CALIFORNIA BROME	H
	7	1	4	2	BITTER CHERRY	PRUNUS EMARGINATA	1.5" CAL	12'-0", O.C.	CA OATGRASS SLENDER HAIRGRASS	I I
	13	5	5	3	CHOKECHERRY	PRUNUS VIRGINIANA	1.5" CAL	12'-0", O.C.	MEADOW BARLEY	ł
	10	5	3	2	PACIFIC WILLOW	SALIX LASIANDRA	1 GAL	12'-0", O.C.	OREGON SUNSHINE COMMON CAMAS	E (
	4	1	3	0	SCOULER'S WILLOW	SALIX SCOULERIANA	1 GAL	12'-0", O.C.	SMALL LUPINE	Ι
	70	33	25	12	PACIFIC NINEBARK	PHYSOCARPUS CAPITATUS	1 GAL	6'-0", O.C.	GRASSLAND MIX	
	91	40	36	15	RED TWIG DOGWOOD	CORNUS SERICEA	1 GAL	5'-0", O.C.	 MEADOW BARLEY	ł
	190	66	91	33	SNOWBERRY	SYMPHORICARPOS ALBUS	1 GAL	4'-0", O.C.	CALIFORNIA BROME NATIVE RED FESCUE	E F
	125	36	59	30	R.F. CURRANT	<b>RIBES SANGUINEUM</b>	1 GAL	4'-0", O.C.	CA OATGRASS	Ι
	139	58	51	30	DOUGLAS' SPIRAEA	SPIRAEA DOUGLASII	1 GAL	4'-0", O.C.	TUFTED HAIR GRASS WOOLY SUNFLOWER	I F
	248	88	96	64	NOOTKA ROSE	ROSA NUTKANA	1 GAL	3'-0", O.C.	PINE BLUEGRASS	ł
	94	48	27	19	BALDHIP ROSE	ROSA GYMNOCARPA	1 GAL	3'-0", O.C.	ECO GRASS MIX	

NATIVE RED FESCUE

NOTES: 1. ALL PLANTING LOCATIONS SHOWN ARE APPROXIMATE. 2. ANY VEGETATION THAT IS REMOVED SHALL BE REPLACED IN LIKE KIND.

PLANS\L-LR\_SMCWF

: 05.13.2015



MFA JOB #:         9003.01.40           ISSUE DATE:         05/13/2015           CHECKED:         J. ELLOT	MAUN: C. KILLY MAUL FOSTER ALONGI 400 EMIPlain Bkd., suite 400 Varcouver, WA 98660 360.694.2091 (p) 360.961.1958 (f) www.maulfoster.com
MITIGATION PLANTING PLAN	LAKE RIVER REMEDIAL ACTION PORT OF RIDGEFIELD RIDGEFIELD WA
FIC	GURE 5-1

# DRAWINGS



# LRIS COMPLETION REPORT RECORD DRAWINGS

## PREPARED FOR: PORT OF RIDGEFIELD

FORMER PACIFIC WOOD TREATING CO. SITE - RIDGEFIELD, WASHINGTON



## GENERAL NOTES

- HORIZONTAL DATUM: WASHINGTON STATE PLANE COORDINATE SYSTEM SOUTH ZONE, NAD 83/91.
- 2. ELEVATION DATUM: CLARK COUNTY, NGVD 29/47
- 3. THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, BASED UPON INFORMATION FURNSHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THIS RECORD DRAWING OR FOR ANY ERRORS OR OMISSIONS THAT MAY HAVE BEEN INCORPORATED INTO IN AS A RESULT OF INCORRECT INFORMATION PROVIDED TO THE ENGINEER. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVEED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY.
- 4. THE TERM SUBGRADE REFERS TO THE GROUND SURFACE PRIOR TO THE PLACEMENT OF AN ENVIRONMENTAL CAP.
- 5. THE TERM FINISHED GRADE REFERS TO THE FINAL GROUND SURFACE FOLLOWING PLACEMENT OF AN ENVIRONMENTAL CAP.



VICINITY MAP

NOT TO SCALE

PROJECT CONTACTS			
CLIENT PORT OF RIDGEFIELD 111 WEST DIVISION ST RIDGEFIELD, WASHINGTON 98642 (360) 887-3873 (PHONE) CONTACT: LAURE OLIN, DIRECTOR OF OPERATIONS DEPARTMENT OF ECOLOGY TOXICS CLEANUP PROGRAM VANCOUVER FIELD OFFICE 2108 GRAND BLVD VANCOUVER, WA 98664 (360) 690-4795 (PHONE)	ENGINEER MAUL FOSTER & ALONGI, INC. 400 E. MILL PLAIN BLVD, SUITE 400 VANCOUVER, WASHINGTON 98660 (971) 544-2139 (PHONE) CONTACTS: JENNIFER KING, P.E. JOSHUA ELLIOTT, P.E.		

## SHEET INDEX

COVER SHEET
OVERALL SUBGRADE SITE MAP
SUBGRADE RECORD DRAWING 1
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FINISHED GRADE RECORD DRAWING 4
OVERALL DRAINAGE SITE MAP
DRAINAGE RECORD DRAWING 1
DRAINAGE RECORD DRAWING 2
DRAINAGE RECORD DRAWING 3
DRAINAGE RECORD DRAWING 4
DRAINAGE STANDARD DETAILS

## ABBREVIATIONS

APPROX	APPROXIMATE
AVE	AVENUE
CB	CATCH BASIN
Е	EAST, EASTING
EL	ELEVATION
EX	EXISTING
FT	FOOT
HDPE	HIGH-DENSITY POLYETHYLENE
MH	MANHOLE
MW	MONITORING WELL
Ν	NORTH, NORTHING
NTS	NOT TO SCALE
OF	OUTFALL
PVC	POLYVINYL CHLORIDE
SS	SANITARY SEWER
ST	STORM
WWTP	WASTEWATER TREATMENT PLANT






































RECORD DRAWING

C3.5

IFFT



13231T2.DWG DRAWN BY: CTP PROJECT MGR: C

### TOPOGRAPHIC SURVEY

FOR SMITH & SMITH CONSTRUCTION OF

2013 RAILROAD AVENUE REMEDIAL ACTION PROJECT JOB NO: 13-231 DATA COLLECT: 09-11-13, 09-13-13, 09-20-13, 09-27-13 DRAWING DATE: 09-27-13

LEGEND:

30 15 30 45 60 0 SCALE 1 INCH = 30 FEET





13231T2.DWG DRAWN BY: CTP PROJECT MGR: CTI

NOTES: 1. HORIZONTAL DATUM: NAD 83/91 WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE 2. VERTICAL DATUM: CLARK COUNTY, NGVD 29/47 SUBGRADE SURVEY

FOR SMITH & SMITH CONSTRUCTION OF

2013 RAILROAD AVENUE REMEDIAL ACTION PROJECT JOB NO.: 13-231 DATA COLLECT: 09-11-13, 09-13-13 DRAWING DATE: 09-13-13

LEGEND:





# **APPENDIX A** LRIS SAMPLE ANALYTICAL RESULTS



## APPENDIX A LRIS SAMPLE ANALYTICAL RESULTS

- A-1 CELL 1 ANALYTICAL RESULTS
- A-2 CELL 2 ANALYTICAL RESULTS
- A-3 CELL 3 ANALYTICAL RESULTS
- A-4 CELL 4 ANALYTICAL RESULTS
- A-5 PORT MARINA AND RAILROAD AVENUE ANALYTICAL RESULTS



Sample ID	B-30	B-30	B-30	B-31	B-31	B-31	B-316	B-317	B-318	B-319	B-32
Sample Collection Date	12/01/1997	12/01/1997	12/01/1997	11/26/1997	11/26/1997	11/26/1997	11/17/2011	11/17/2011	11/17/2011	11/17/2011	12/05/1997
Sample Depth (feet bgs)	3.5	9.5	17	3.5	8	15.5	2	1.25	1.75	2	6.5
Metals (mg/kg)											
Arsenic	3	1	1	< 1	1	1	12	140	10	8	12
Cadmium											
Chromium	13	7	5	6	6	10					13
Copper	19	23	19	15	17	22					23
Zinc	40	86	43	30	28	38					39
Dioxins and Furans (ng/kg)											
1,2,3,4,6,7,8-HpCDD											
1,2,3,4,6,7,8-HpCDF											
1,2,3,4,7,8,9-HpCDF											
1,2,3,4,7,8-HxCDD											
1,2,3,4,7,8-HxCDF											
1,2,3,6,7,8-HxCDD											
1,2,3,6,7,8-HxCDF											
1,2,3,7,8,9-HxCDD											
1,2,3,7,8,9-HxCDF											
1,2,3,7,8-PeCDD											
1,2,3,7,8-PeCDF											
2,3,4,6,7,8-HxCDF											
2,3,4,7,8-PeCDF											
2,3,7,8-TCDD											
2,3,7,8-TCDF											
OCDD											
OCDF											
Total HpCDDs											
Total HpCDFs											
Total HxCDDs											
Total HxCDFs											
Total PeCDDs											
Total PeCDFs											
Total TCDDs											
Total TCDFs											
Dioxin TEQ (Mammals—WHO 2005)											
Petroleum Hydrocarbons (mg/kg)									1		
Diesel	< 10	1110	619	< 10	< 10	1100	18	412	94	46	
Gasoline	< 10	< 10	< 10	< 10	< 10	< 10					
Jet fuels	< 10	< 10	< 10	< 10	< 10	< 10					
Kerosene	< 10	< 10	< 10	< 10	< 10	< 10					
Mineral spirits	< 10	< 10	< 10	< 10	< 10	< 10					
Lube Oil							242	257	125	246	
Other Petroleum Hydrocarbons	< 20	< 20	< 20	< 20	< 20	< 20					



Sample ID	B-30	B-30	B-30	B-31	B-31	B-31	B-316	B-317	B-318	B-319	B-32
Sample Collection Date	12/01/1997	12/01/1997	12/01/1997	11/26/1997	11/26/1997	11/26/1997	11/17/2011	11/17/2011	11/17/2011	11/17/2011	12/05/1997
Sample Depth (feet bgs)	3.5	9.5	17	3.5	8	15.5	2	1.25	1.75	2	6.5
Semivolatile Organic Compounds (ug/kg)											
2,4,5-Trichlorophenol	< 300	< 300	< 300	< 300	< 300	< 300					
2,4,6-Trichlorophenol	< 300	< 300	< 300	< 300	< 300	< 300					< 5
Dibenzofuran	< 5	10000	11000	< 5	< 5	24000					< 1000
2-Methylphenol	< 300	< 300	< 300	< 300	< 300	< 300					
3- & 4-Methylphenol	< 300	< 300	< 300	< 300	< 300	< 300					
Carbazole	< 300	700	700	< 300	< 300	500					
Pentachlorophenol	75	8000	12000	240	930	29000	842	5890	13700	3260	< 1000
Tetrachlorophenols, Total	< 5			33	71	260					< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)											
1-Methylnaphthalene							< 7.49	721	21.9	< 7.50	
2-Methylnaphthalene	< 5	16000	15000	< 5	< 5	32000	9	1440	24.1	< 7.50	< 1000
Acenaphthene	< 5	12000	15000	< 5	< 5	39000	40.4	1920	78.1	< 7.50	< 1000
Acenaphthylene	< 5	< 1000	2000	< 5	< 5	< 1000	10.5	56.3	19.7	20.2	< 1000
Anthracene	< 5	4000	6000	14	< 5	13000	41.2	1080	118	48.7	< 1000
Benzo(a)anthracene	7	< 1000	< 1000	6	10	7800	27	1580	97.8	24	< 1000
Benzo(a)pyrene	< 5	< 1000	< 1000	< 5	< 5	1260	21	510	68.6	53.2	< 1000
Benzo(b)fluoranthene	< 5			< 5	5	1270	79.4	1230	169	151	17
Benzo(b+k)fluoranthene		< 1000	< 1000			< 1000					< 1000
Benzo(ghi)perylene	< 5	< 1000	< 1000	< 5	< 5	< 1000	32.2	174	50.4	50.2	< 1000
Benzo(k)fluoranthene	< 5			< 5	< 5	1220	19.5	363	48.2	31.5	19
Chrysene	7	1000	< 1000	6	10	5300	27	1510	106	21	< 1000
Dibenzo(a,h)anthracene	< 5			< 5	< 5	98	18	116	33.6	31.5	< 5
Fluoranthene	22	9000	13000	34	44	31000	121	11100	672	127	< 1000
Fluorene	< 5	7000	9000	< 5	< 5	23000	19.5	1580	112	< 7.50	< 1000
Indeno(1,2,3-cd)pyrene	< 5			< 5	< 5	396	25.5	209	58.4	47.2	17
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene		< 1000	< 1000			< 1000					< 1000
Naphthalene	< 5	42000	52000	< 5	< 5	60000	9	1780	33.6	< 7.50	< 1000
Phenanthrene	< 300	22000	36000	< 300	< 300	63000	95.9	10100	704	16.5	< 1000
Pyrene	21	7000	13000	25	40	24000	94.4	6910	483	72.7	< 1000



Sample ID	B-30	B-32	B-320	B-322	B-323	B-324	B-325	B-33	B-33	B-33	B-34
Sample Collection Date	12/01/1997	12/08/1997	11/17/2011	11/17/2011	11/17/2011	11/17/2011	11/17/2011	12/04/1997	12/04/1997	12/04/1997	11/26/1997
Sample Depth (feet bgs)	3.5	14	2.25	2.5	1	0.5	8.5	3.5	9.5	15.5	3.5
Metals (mg/kg)											
Arsenic	3	1	10	241			7	18	6	1	10
Cadmium											
Chromium	13	7						24	22	7	14
Copper	19	20						33	28	17	19
Zinc	40	38						69	48	26	43
Dioxins and Furans (ng/kg)											
1,2,3,4,6,7,8-HpCDD											
1,2,3,4,6,7,8-HpCDF											
1,2,3,4,7,8,9-HpCDF											
1,2,3,4,7,8-HxCDD											
1,2,3,4,7,8-HxCDF											
1,2,3,6,7,8-HxCDD											
1,2,3,6,7,8-HxCDF											
1,2,3,7,8,9-HxCDD											
1,2,3,7,8,9-HxCDF											
1,2,3,7,8-PeCDD											
1,2,3,7,8-PeCDF											
2,3,4,6,7,8-HxCDF											
2,3,4,7,8-PeCDF											
2,3,7,8-TCDD											
2,3,7,8-TCDF											
OCDD											
OCDF											
Total HpCDDs											
Total HpCDFs											
Total HxCDDs											
Total HxCDFs											
Total PeCDDs											
Total PeCDFs											
Total TCDDs											
Total TCDFs											
Dioxin TEQ (Mammals—WHO 2005)											
Petroleum Hydrocarbons (mg/kg)											
Diesel	< 10	< 10	268					1380	151	371	38
Gasoline	< 10	< 10						< 10	< 10	< 10	< 10
Jet fuels	< 10	< 10						< 10	< 10	< 10	< 10
Kerosene	< 10	< 10						< 10	< 10	< 10	< 10
Mineral spirits	< 10	< 10						< 10	< 10	< 10	< 10
Lube Oil			698								
Other Petroleum Hydrocarbons	< 20	< 20						< 20	< 20	< 20	< 20



Sample ID	B-30	B-32	B-320	B-322	B-323	B-324	B-325	B-33	B-33	B-33	B-34
Sample Collection Date	12/01/1997	12/08/1997	11/17/2011	11/17/2011	11/17/2011	11/17/2011	11/17/2011	12/04/1997	12/04/1997	12/04/1997	11/26/1997
Sample Depth (feet bgs)	3.5	14	2.25	2.5	1	0.5	8.5	3.5	9.5	15.5	3.5
Semivolatile Organic Compounds (ug/kg)			_								
2,4,5-Trichlorophenol	< 300	< 300						< 300	< 300	< 0.3	< 300
2,4,6-Trichlorophenol	< 300	< 300						< 300	< 300	< 0.3	< 300
Dibenzofuran	< 5					< 41.0		3400	314	5	285
2-Methylphenol	< 300	< 300						< 300	< 300	< 300	< 300
3- & 4-Methylphenol	< 300	< 300						< 300	< 300	< 300	< 300
Carbazole	< 300	< 300						2700	300	< 300	< 300
Pentachlorophenol	75	6	52300		8380	< 61.5		17000	3200	29000	1400
Tetrachlorophenols, Total	< 5	< 5						670	94		96
Polycyclic Aromatic Hydrocarbons (ug/kg)											
1-Methylnaphthalene			50.9	10000		< 8.20					
2-Methylnaphthalene	< 5		86.3	10300		< 8.20		4100	53	4000	67
Acenaphthene	< 5		220	73900		< 8.20		5000	537	7000	621
Acenaphthylene	< 5		41.3	2870		< 8.20		237	26	< 1000	< 5
Anthracene	< 5		232	34300		8.2		8600	1180	3000	279
Benzo(a)anthracene	7		209	28900		8.2		4300	618	< 1000	186
Benzo(a)pyrene	< 5		184	9070		16.4		693	146	4000	65
Benzo(b)fluoranthene	< 5		383	21700		29.5		946	193		81
Benzo(b+k)fluoranthene										< 1000	
Benzo(ghi)perylene	< 5		87.8	2740		18		228	50	< 1000	35
Benzo(k)fluoranthene	< 5		119	6720		< 8.20		966	216		88
Chrysene	7		185	28200		< 8.20		4300	541	< 1000	169
Dibenzo(a,h)anthracene	< 5		53.8	1930		11.5		90	16		17
Fluoranthene	22		2140	189000		26.2		19000	3800	8000	1070
Fluorene	< 5		204	35500		< 8.20		4300	537	5000	489
Indeno(1,2,3-cd)pyrene	< 5		84.1	3490		18		357	74		33
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										< 1000	
Naphthalene	< 5		255	3780		< 8.20		238	14	6000	39
Phenanthrene	< 300	< 300	937	178000		15.6		28000	3300	19000	1600
Pyrene	21		1810	130000		19.7		20000	1800	7000	765



Sample ID	B-30	B-34	B-34	B-35	B-35	B-35	B-36	B-36	B-36	B-37	B-37
Sample Collection Date	12/01/1997	11/26/1997	11/26/1997	12/02/1997	12/02/1997	12/02/1997	12/03/1997	12/03/1997	12/03/1997	12/02/1997	12/03/1997
Sample Depth (feet bgs)	3.5	8	17	3.5	11	14	5	9.5	15.5	5	15.5
Metals (mg/kg)					•		•		•	•	
Arsenic	3	2	< 1	10	2	1	2	2	1	25	1
Cadmium											
Chromium	13	12	6	37	10	8	22	9	10	28	9
Copper	19	20	16	32	25	33	16	25	19	22	18
Zinc	40	40	25	107	42	32	39	45	35	86	40
Dioxins and Furans (ng/kg)											
1,2,3,4,6,7,8-HpCDD											
1,2,3,4,6,7,8-HpCDF											
1,2,3,4,7,8,9-HpCDF											
1,2,3,4,7,8-HxCDD											
1,2,3,4,7,8-HxCDF											
1,2,3,6,7,8-HxCDD											
1,2,3,6,7,8-HxCDF											
1,2,3,7,8,9-HxCDD											
1,2,3,7,8,9-HxCDF											
1,2,3,7,8-PeCDD											
1,2,3,7,8-PeCDF											
2,3,4,6,7,8-HxCDF											
2,3,4,7,8-PeCDF											
2,3,7,8-TCDD											
2,3,7,8-TCDF											
OCDD											
OCDF											
Total HpCDDs											
Total HpCDFs											
Total HxCDDs											
Total HxCDFs											
Total PeCDDs											
Total PeCDFs											
Total TCDDs											
Total TCDFs											
Dioxin TEQ (Mammals—WHO 2005)											
Petroleum Hydrocarbons (mg/kg)	r				1	r	1	ī	1	r	r
Diesel	< 10	734	284	4430	2180	4430	3710	2010	147	3630	< 10
Gasoline	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Jet fuels	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Kerosene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Mineral spirits	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Lube Oil											
Other Petroleum Hydrocarbons	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20



Sample ID	B-30	B-34	B-34	B-35	B-35	B-35	B-36	B-36	B-36	B-37	B-37
Sample Collection Date	12/01/1997	11/26/1997	11/26/1997	12/02/1997	12/02/1997	12/02/1997	12/03/1997	12/03/1997	12/03/1997	12/02/1997	12/03/1997
Sample Depth (feet bgs)	3.5	8	17	3.5	11	14	5	9.5	15.5	5	15.5
Semivolatile Organic Compounds (ug/kg)	-				-		-	-	-		-
2,4,5-Trichlorophenol	< 300	< 300	< 300	< 3000	< 3000	< 3000	< 300	< 300	< 300	< 3000	< 300
2,4,6-Trichlorophenol	< 300	< 300	< 300	< 3000	< 3000	< 3000	< 300	< 300	< 300	< 3000	< 300
Dibenzofuran	< 5	30000	17000	44000	59000	76000	39000	27000	4000	11000	< 1000
2-Methylphenol	< 300	< 300	< 300	< 3000	< 3000	< 3000	< 300	< 300	< 300	< 3000	< 300
3- & 4-Methylphenol	< 300	< 300	< 300	< 3000	< 3000	< 3000	< 300	< 300	< 300	< 3000	< 300
Carbazole	< 300	700	100	2000	27000	10000	2700	10000	900	< 3000	< 300
Pentachlorophenol	75	29000	20000	23000	53000	77000	182000	128000	22000	17000	< 1000
Tetrachlorophenols, Total	< 5							1700			< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)											
1-Methylnaphthalene											
2-Methylnaphthalene	< 5	29000	27000	16000	66000	187000	111000	59000	5000	64000	< 1000
Acenaphthene	< 5	38000	29000	23000	72000	120000	56000	46000	6000	18000	< 1000
Acenaphthylene	< 5	< 1000	< 1000	< 1000	3000	3000	3000	2000	< 1000	45000	< 1000
Anthracene	< 5	9000	10000	2000	15000	39000	14000	22000	2000	2000	< 1000
Benzo(a)anthracene	7	< 1000	< 1000	< 1000	6000	13000	3000	11000	< 1000	< 1000	< 1000
Benzo(a)pyrene	< 5	< 1000	< 1000	< 1000	< 1000	< 1000	6000	5000	3000	< 1000	< 1000
Benzo(b)fluoranthene	< 5							1440			< 5
Benzo(b+k)fluoranthene		< 1000	< 1000	< 1000	1000	7000	3000	< 1000	< 1000	< 1000	< 1000
Benzo(ghi)perylene	< 5	< 1000	1000	2000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000	< 1000
Benzo(k)fluoranthene	< 5							1610			< 5
Chrysene	7	< 1000	< 1000	< 1000	4000	11000	4000	8200	< 1000	< 1000	< 1000
Dibenzo(a,h)anthracene	< 5							124			< 5
Fluoranthene	22	33000	23000	13000	58000	88000	38000	44000	6000	8000	< 1000
Fluorene	< 5	24000	18000	13000	47000	72000	32000	35000	4000	19000	< 1000
Indeno(1,2,3-cd)pyrene	< 5							459			< 5
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene		< 1000	< 1000	3000	< 1000	5000	6000	< 1000	< 1000	< 1000	< 1000
Naphthalene	< 5	56000	51000	36000	226000	879000	736000	120000	16000	13000	< 1000
Phenanthrene	< 300	71000	50000	34000	127000	193000	84000	120000	11000	30000	< 1000
Pyrene	21	25000	18000	9000	51000	76000	33000	49000	5000	5000	< 1000



Sample ID	B-30	B-38	B-38	B-38	B-39	B-39	B-40	B-40	B-41	B-41	B-43
Sample Collection Date	12/01/1997	12/05/1997	12/05/1997	12/05/1997	01/19/1998	01/19/1998	12/11/1997	12/11/1997	12/10/1997	12/10/1997	11/20/1997
Sample Depth (feet bgs)	3.5	3.5	9.5	15.5	6.5	12.5	6.5	14	5	14	3.5
Metals (mg/kg)											
Arsenic	3	12	2	2	3	2	8	3	11	1	6
Cadmium											
Chromium	13	27	12	12	27	12	95	14	110	7	13
Copper	19	18	28	22	22	23	22	17	21	17	13
Zinc	40	188	126	43	48	32	116	39	411	30	58
Dioxins and Furans (ng/kg)											
1,2,3,4,6,7,8-HpCDD											
1,2,3,4,6,7,8-HpCDF											
1,2,3,4,7,8,9-HpCDF											
1,2,3,4,7,8-HxCDD											
1,2,3,4,7,8-HxCDF											
1,2,3,6,7,8-HxCDD											
1,2,3,6,7,8-HxCDF											
1,2,3,7,8,9-HxCDD											
1,2,3,7,8,9-HxCDF											
1,2,3,7,8-PeCDD											
1,2,3,7,8-PeCDF											
2,3,4,6,7,8-HxCDF											
2,3,4,7,8-PeCDF											
2,3,7,8-TCDD											
2,3,7,8-TCDF											
OCDD											
OCDF											
Total HpCDDs											
Total HpCDFs											
Total HxCDDs											
Total HxCDFs											
Total PeCDDs											
Total PeCDFs											
Total TCDDs											
Total TCDFs											
Dioxin TEQ (Mammals—WHO 2005)											
Petroleum Hydrocarbons (mg/kg)											
Diesel	< 10										
Gasoline	< 10										
Jet fuels	< 10										
Kerosene	< 10										
Mineral spirits	< 10										
Lube Oil											
Other Petroleum Hydrocarbons	< 20										



Sample ID	B-30	B-38	B-38	B-38	B-39	B-39	B-40	B-40	B-41	B-41	B-43
Sample Collection Date	12/01/1997	12/05/1997	12/05/1997	12/05/1997	01/19/1998	01/19/1998	12/11/1997	12/11/1997	12/10/1997	12/10/1997	11/20/1997
Sample Depth (feet bgs)	3.5	3.5	9.5	15.5	6.5	12.5	6.5	14	5	14	3.5
Semivolatile Organic Compounds (ug/kg)					-						
2,4,5-Trichlorophenol	< 300										< 0.3
2,4,6-Trichlorophenol	< 300				< 5000	< 5000					< 5
Dibenzofuran	< 5	1150	54000	58000			15000	146000	49000	50000	16
2-Methylphenol	< 300										< 0.3
3- & 4-Methylphenol	< 300										< 0.3
Carbazole	< 300										< 0.3
Pentachlorophenol	75	5000	349000	296000	290000	190000	161000	554000	274000	242000	< 5
Tetrachlorophenols, Total	< 5				11000	11000					< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)											
1-Methylnaphthalene											
2-Methylnaphthalene	< 5	1000	69000	101000			9000	188000	64000	95000	682
Acenaphthene	< 5	3100	74000	79000			21000	201000	69000	72000	57
Acenaphthylene	< 5	< 1000	8000	9000			< 1000	19000	7000	8000	< 5
Anthracene	< 5	3900	18000	22000			6000	52000	17000	22000	12
Benzo(a)anthracene	7	1230	23000	23000			6000	35000	8000	9000	16
Benzo(a)pyrene	< 5	< 1000	6000	6000			2000	10000	3000	5000	8
Benzo(b)fluoranthene	< 5	468									9
Benzo(b+k)fluoranthene		< 1000	7000	8000			2000	20000	6000	7000	
Benzo(ghi)perylene	< 5	< 1000	2000	4000			< 1000	13000	< 1000	4000	6
Benzo(k)fluoranthene	< 5	531									9
Chrysene	7	1300	22000	22000			6000	27000	9000	< 1000	21
Dibenzo(a,h)anthracene	< 5	43									< 5
Fluoranthene	22	8800	63000	60000			23000	159000	60000	56000	23
Fluorene	< 5	1900	45000	45000			10000	112000	43000	42000	11
Indeno(1,2,3-cd)pyrene	< 5	145									6
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene		< 1000	8000	11000			5000	28000	7000	9000	
Naphthalene	< 5	4000	227000	429000			34000	646000	213000	401000	9400
Phenanthrene	< 300	5900	137000	126000			32000	334000	129000	120000	14
Pyrene	21	8100	63000	57000			24000	156000	59000	54000	28



Sample ID	B-30	B-43	B-44	B-44	B-45	B-45	B-45	B-46	B-46	B-48	B-48
Sample Collection Date	12/01/1997	11/20/1997	11/20/1997	11/20/1997	11/19/1997	11/19/1997	11/19/1997	11/19/1997	11/19/1997	11/20/1997	11/20/1997
Sample Depth (feet bgs)	3.5	9.5	6.5	12.5	3.5	5	8	5	9.5	3.5	12.5
Metals (mg/kg)	1		1	<b></b>		<b></b>	•	1	T	1	1
Arsenic	3	3	6	17	8	7	9	8	2	9	2
Cadmium											
Chromium	13	11	13	26	19	18	28	18	13	17	6
Copper	19	25	16	20	14	18	17	13	22	15	17
Zinc	40	39	43	138	56	51	49	42	40	62	30
Dioxins and Furans (ng/kg)			-				-			-	-
1,2,3,4,6,7,8-HpCDD											
1,2,3,4,6,7,8-HpCDF											
1,2,3,4,7,8,9-HpCDF											
1,2,3,4,7,8-HxCDD											
1,2,3,4,7,8-HxCDF											
1,2,3,6,7,8-HxCDD											
1,2,3,6,7,8-HxCDF											
1,2,3,7,8,9-HxCDD											
1,2,3,7,8,9-HxCDF											
1,2,3,7,8-PeCDD											
1,2,3,7,8-PeCDF											
2,3,4,6,7,8-HxCDF											
2,3,4,7,8-PeCDF											
2,3,7,8-TCDD											
2,3,7,8-TCDF											
OCDD											
OCDF											
Total HpCDDs											
Total HpCDFs											
Total HxCDDs											
Total HxCDFs											
Total PeCDDs											
Total PeCDFs											
Total TCDDs											
Total TCDFs											
Dioxin TEQ (Mammals—WHO 2005)											
Petroleum Hydrocarbons (mg/kg)											
Diesel	< 10				249			< 10	< 10		
Gasoline	< 10				415			< 10	< 10		
Jet fuels	< 10				< 10			< 10	< 10		
Kerosene	< 10				< 10			< 10	< 10		
Mineral spirits	< 10				< 10			< 10	< 10		
Lube Oil											
Other Petroleum Hydrocarbons	< 20				< 20			< 20	< 20		



Sample ID	B-30	B-43	B-44	B-44	B-45	B-45	B-45	B-46	B-46	B-48	B-48
Sample Collection Date	12/01/1997	11/20/1997	11/20/1997	11/20/1997	11/19/1997	11/19/1997	11/19/1997	11/19/1997	11/19/1997	11/20/1997	11/20/1997
Sample Depth (feet bgs)	3.5	9.5	6.5	12.5	3.5	5	8	5	9.5	3.5	12.5
Semivolatile Organic Compounds (ug/kg)							-		-	-	-
2,4,5-Trichlorophenol	< 300		< 0.3			< 300		< 300	< 300	< 0.3	
2,4,6-Trichlorophenol	< 300		< 50			< 300		< 300	< 300	< 5	
Dibenzofuran	< 5	39000	915	28000	< 1000	116	14000	21	< 5	226	5000
2-Methylphenol	< 300		< 0.3			< 300		< 300	< 300	< 0.3	
3- & 4-Methylphenol	< 300		< 0.3			< 300		< 300	< 300	< 0.3	
Carbazole	< 300		< 0.3			< 300		< 300	< 300	< 0.3	
Pentachlorophenol	75	34000	5800	41000	4000	40000	22000	170	33	89	5000
Tetrachlorophenols, Total	< 5		210			1200		9	< 5	30	
Polycyclic Aromatic Hydrocarbons (ug/kg)											
1-Methylnaphthalene											
2-Methylnaphthalene	< 5	121000	1720	40000	< 1000	96	8000	17	< 5	1090	12000
Acenaphthene	< 5	61000	1470	41000	2000	116	22000	28	< 5	406	7000
Acenaphthylene	< 5	< 1000	35	< 1000	< 1000	7	1000	< 5	< 5	8	< 1000
Anthracene	< 5	18000	1120	11000	< 1000	96	3000	194	22	195	2000
Benzo(a)anthracene	7	2000	350	2000	< 1000	63	< 1000	16	< 5	51	< 1000
Benzo(a)pyrene	< 5	< 1000	94	< 1000	< 1000	15	< 1000	5	< 5	14	< 1000
Benzo(b)fluoranthene	< 5		100			22		7	< 5	18	
Benzo(b+k)fluoranthene		< 1000		< 1000	< 1000		< 1000				< 1000
Benzo(ghi)perylene	< 5	< 1000	28	< 1000	< 1000	7	< 1000	< 5	< 5	9	< 1000
Benzo(k)fluoranthene	< 5		136			22		8	< 5	19	
Chrysene	7	2000	400	2000	< 1000	69	1000	20	< 5	62	< 1000
Dibenzo(a,h)anthracene	< 5		8			< 5		< 5	< 5	< 5	
Fluoranthene	22	36000	2050	35000	2000	327	14000	99	17	266	5000
Fluorene	< 5	33000	1120	25000	1000	168	16000	44	< 5	444	4000
Indeno(1,2,3-cd)pyrene	< 5		33			8		< 5	< 5	8	
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene		< 1000		2000	< 1000		2000				< 1000
Naphthalene	< 5	649000	1060	141000	< 1000	53	6000	27	5	8700	53000
Phenanthrene	< 300	82000	4700	79000	2000	1600	30000	< 300	< 300	907	12000
Pyrene	21	37000	1930	33000	1000	331	11000	75	15	264	5000



Sample ID	B-30	MW-40	MW-40	MW-40	SS-9
Sample Collection Date	12/01/1997	07/18/2002	07/19/2002	07/19/2002	07/17/2
Sample Depth (feet bgs)	3.5	55	61	66	0.3
Metals (mg/kg)					
Arsenic	3	< 0.9	< 0.9	< 1.1	8
Cadmium		< 0.9	< 0.9	< 1.1	
Chromium	13	19	7	8	
Copper	19				
Zinc	40	272	25	30	
Dioxins and Furans (ng/kg)				•	
1,2,3,4,6,7,8-HpCDD					3100
1,2,3,4,6,7,8-HpCDF					4400
1,2,3,4,7,8,9-HpCDF					400
1,2,3,4,7,8-HxCDD					360
1,2,3,4,7,8-HxCDF					910
1,2,3,6,7,8-HxCDD					2100
1,2,3,6,7,8-HxCDF					< 480
1,2,3,7,8,9-HxCDD					950
1,2,3,7,8,9-HxCDF					340
1,2,3,7,8-PeCDD					180
1,2,3,7,8-PeCDF					140
2,3,4,6,7,8-HxCDF					560
2,3,4,7,8-PeCDF					400
2,3,7,8-TCDD					< 4.8
2,3,7,8-TCDF					33
OCDD					17000
OCDF					4200
Total HpCDDs					5200
Total HpCDFs					4800
Total HxCDDs					7500
Total HxCDFs					8000
Total PeCDDs					440
Total PeCDFs					2700
Total TCDDs					20
Total TCDFs					170
Dioxin TEQ (Mammals—WHO 2005)					1200
Petroleum Hydrocarbons (mg/kg)				•	
Diesel	< 10				
Gasoline	< 10				
Jet fuels	< 10				
Kerosene	< 10				
Mineral spirits	< 10				
Lube Oil					
Other Petroleum Hydrocarbons	< 20				





Sample ID	B-30	MW-40	MW-40	MW-40	SS-9
Sample Collection Date	12/01/1997	07/18/2002	07/19/2002	07/19/2002	07/17/2
Sample Depth (feet bgs)	3.5	55	61	66	0.3
Semivolatile Organic Compounds (ug/kg)					-
2,4,5-Trichlorophenol	< 300				
2,4,6-Trichlorophenol	< 300				
Dibenzofuran	< 5	5200	54	35	
2-Methylphenol	< 300				
3- & 4-Methylphenol	< 300				
Carbazole	< 300				
Pentachlorophenol	75				596
Tetrachlorophenols, Total	< 5				
Polycyclic Aromatic Hydrocarbons (ug/kg)			-		
1-Methylnaphthalene					< 7.0
2-Methylnaphthalene	< 5	15000	< 5.6	< 6.5	11.3
Acenaphthene	< 5	12000	66	54	23.3
Acenaphthylene	< 5	390	< 5.6	< 6.5	105
Anthracene	< 5	6000	100	37	90.3
Benzo(a)anthracene	7	3000	62	26	39.5
Benzo(a)pyrene	< 5	1600	31	12	92.4
Benzo(b)fluoranthene	< 5	1400	30	13	164
Benzo(b+k)fluoranthene					
Benzo(ghi)perylene	< 5	370	7	< 6.5	77.6
Benzo(k)fluoranthene	< 5	1600	33	15	35.3
Chrysene	7	2800	63	29	42.3
Dibenzo(a,h)anthracene	< 5	140	< 5.6	< 6.5	50.8
Fluoranthene	22	12000	250	120	103
Fluorene	< 5	8800	93	48	52.2
Indeno(1,2,3-cd)pyrene	< 5	550	9	< 6.5	83.9
Indeno(1,2,3-cd)pyrene/					
dibenz(a,h)anthracene					
Naphthalene	< 5	43000	7	7.8	< 7.0
Phenanthrene	< 300	24000	400	170	64.9
Pyrene	21	10000	210	100	69.8





#### NOTES:

--- = not analyzed.

bgs = below ground surface.

mg/kg = milligrams per kilogram.

ng/kg = nanograms per kilogram.

TEQ = toxicity equivalent. Calculated using World Health Organization 2005 methodology.

ug/kg = micrograms per kilogram.



Sample ID	B-1	B-10	B-10	B-10	B-100	B-100	B-100	B-101	B-101	B-103
Sample Collection Date	0	0	10.5	16	15	45	65	10	33	2.5
Sample Depth (feet bgs)	11/07/2000	02/04/1991	02/04/1991	02/04/1991	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)	•		•		•					
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-1	B-10	B-10	B-10	B-100	B-100	B-100	B-101	B-101	B-103
Sample Collection Date	0	0	10.5	16	15	45	65	10	33	2.5
Sample Depth (feet bgs)	11/07/2000	02/04/1991	02/04/1991	02/04/1991	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)										
C10-C22 Diesel-Range Organics	< 50									
C4-C12 Gasoline-Range Organics	< 20									
Diesel	240				< 10					
Gasoline					< 10					
Heavy-Fuel-Oil-Range Hydrocarbons					< 25					
Heavy-Oil-Range Hydrocarbon										
Jet fuels					< 10					
Kerosene					< 10					
Lube-Oil-Range Hydrocarbons					< 25					
Mineral spirits					< 10					
Naphtha Distillate					< 10					
Non-PHC as Diesel					< 50					
Other Petroleum Hydrocarbons										
PHC as Diesel					< 25					
TPH										
TPH (as motor oil)	1200									
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-1	B-10	B-10	B-10	B-100	B-100	B-100	B-101	B-101	B-103
Sample Collection Date	0	0	10.5	16	15	45	65	10	33	2.5
Sample Depth (feet bgs)	11/07/2000	02/04/1991	02/04/1991	02/04/1991	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										


Sample ID	B-1	B-10	B-10	B-10	B-100	B-100	B-100	B-101	B-101	B-103
Sample Collection Date	0	0	10.5	16	15	45	65	10	33	2.5
Sample Depth (feet bgs)	11/07/2000	02/04/1991	02/04/1991	02/04/1991	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol						< 50	< 50	< 50	< 50	< 50
2,3,4,6-Tetrachlorophenol			< 2500							
2,3,4-Trichlorophenol						< 50	< 50	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol						< 50	< 50	< 50	< 50	< 50
2,3,5-Trichlorophenol						< 50	< 50	< 50	< 50	< 50
2,3,6-Trichlorophenol						< 50	< 50	< 50	< 50	< 50
2,4,5-Trichlorophenol			< 300			< 50	< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol			< 300			< 50	< 50	< 50	< 50	< 50
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol		< 2500	< 2500	< 2500						
3-Methylphenol		< 2500	< 2500	< 2500						
4-Methylphenol		< 2500	< 2500	< 2500						
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol			< 300							
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol						< 50	< 50	< 50	< 50	< 50
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-1	B-10	B-10	B-10	B-100	B-100	B-100	B-101	B-101	B-103
Sample Collection Date	0	0	10.5	16	15	45	65	10	33	2.5
Sample Depth (feet bgs)	11/07/2000	02/04/1991	02/04/1991	02/04/1991	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole			< 300							
Dibenzofuran			< 2.5			< 5	< 5	< 5	< 5	< 5
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene			< 2.5			< 10	< 10	< 10	< 10	< 10
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol		15000	17000	7700		< 100	< 100	< 100	< 100	< 100
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)	1		•			•		1		
1-Methylnaphthalene										
2-Methylnaphthalene			< 3			< 5	< 5	< 5	< 5	< 5
Acenaphthene			< 2.5			< 10	< 10	< 10	< 10	< 10
Acenaphthylene			< 2.5			< 10	< 10	< 10	< 10	< 10
Anthracene			< 2.5			< 5	< 5	< 5	< 5	< 5
Benzo(a)anthracene			< 2.5			< 10	< 10	< 10	< 10	< 10
Benzo(a)pyrene			< 3			< 10	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene			< 2.5			< 10	< 10	< 10	< 10	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene			< 2.5			< 5	< 5	< 5	< 5	< 5
Benzo(k)fluoranthene			< 2.5			< 10	< 10	< 10	< 10	< 10
Chrysene			< 2.5			< 10	< 10	< 10	< 10	< 10
Dibenzo(a,h)anthracene			< 2.5			< 5	< 5	< 5	< 5	< 5
Fluorene			< 2.5			< 10	< 10	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene			< 2.5			< 5	< 5	< 5	< 5	< 5



Sample ID	B-1	B-10	B-10	B-10	B-100	B-100	B-100	B-101	B-101	B-103
Sample Collection Date	0	0	10.5	16	15	45	65	10	33	2.5
Sample Depth (feet bgs)	11/07/2000	02/04/1991	02/04/1991	02/04/1991	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene			< 2.5			9	< 5	9	< 5	< 5
Phenanthrene			< 2.5			< 10	< 10	< 10	< 10	< 10
Pyrene			< 2.5			< 10	< 10	< 10	< 10	< 10



Sample ID	B-104	B-104	B-104	B-105	B-105	B-105	B-106	B-106	B-107	B-107
Sample Collection Date	5	10	25	5	10	25	5	15	5	15
Sample Depth (feet bgs)	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/04/1999	06/04/1999	06/04/1999	06/04/1999
Metals (mg/kg)						•	•		•	
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)				T	T	1		T		T
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-ICDD										
2,3,7,8-ICDF										
OCDF										



Sample ID	B-104	B-104	B-104	B-105	B-105	B-105	B-106	B-106	B-107	B-107
Sample Collection Date	5	10	25	5	10	25	5	15	5	15
Sample Depth (feet bgs)	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/04/1999	06/04/1999	06/04/1999	06/04/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)			-			-	-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
ТРН										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-104	B-104	B-104	B-105	B-105	B-105	B-106	B-106	B-107	B-107
Sample Collection Date	5	10	25	5	10	25	5	15	5	15
Sample Depth (feet bgs)	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/04/1999	06/04/1999	06/04/1999	06/04/1999
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-104	B-104	B-104	B-105	B-105	B-105	B-106	B-106	B-107	B-107
Sample Collection Date	5	10	25	5	10	25	5	15	5	15
Sample Depth (feet bgs)	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/04/1999	06/04/1999	06/04/1999	06/04/1999
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)				-			-		-	
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 5	< 5
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-104	B-104	B-104	B-105	B-105	B-105	B-106	B-106	B-107	B-107
Sample Collection Date	5	10	25	5	10	25	5	15	5	15
Sample Depth (feet bgs)	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/04/1999	06/04/1999	06/04/1999	06/04/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	8	< 5	< 5	120	400	< 5	< 5	65	< 5	< 5
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)					-			-		
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	B-104	B-104	B-104	B-105	B-105	B-105	B-106	B-106	B-107	B-107
Sample Collection Date	5	10	25	5	10	25	5	15	5	15
Sample Depth (feet bgs)	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/03/1999	06/04/1999	06/04/1999	06/04/1999	06/04/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	B-107	B-107	B-108	B-108	B-109	B-109	B-109	B-109	B-11	B-11
Sample Collection Date	25	45	5	10	5	10	25	40	3	13.5
Sample Depth (feet bgs)	06/07/1999	06/07/1999	06/07/1999	06/07/1999	06/08/1999	06/08/1999	06/08/1999	06/08/1999	02/04/1991	02/04/1991
Metals (mg/kg)						-				
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										-
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-107	B-107	B-108	B-108	B-109	B-109	B-109	B-109	B-11	B-11
Sample Collection Date	25	45	5	10	5	10	25	40	3	13.5
Sample Depth (feet bgs)	06/07/1999	06/07/1999	06/07/1999	06/07/1999	06/08/1999	06/08/1999	06/08/1999	06/08/1999	02/04/1991	02/04/1991
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-		-	-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-107	B-107	B-108	B-108	B-109	B-109	B-109	B-109	B-11	B-11
Sample Collection Date	25	45	5	10	5	10	25	40	3	13.5
Sample Depth (feet bgs)	06/07/1999	06/07/1999	06/07/1999	06/07/1999	06/08/1999	06/08/1999	06/08/1999	06/08/1999	02/04/1991	02/04/1991
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-107	B-107	B-108	B-108	B-109	B-109	B-109	B-109	B-11	B-11
Sample Collection Date	25	45	5	10	5	10	25	40	3	13.5
Sample Depth (feet bgs)	06/07/1999	06/07/1999	06/07/1999	06/07/1999	06/08/1999	06/08/1999	06/08/1999	06/08/1999	02/04/1991	02/04/1991
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		-				-				
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol									< 2500	< 2500
3-Methylphenol									< 2500	< 2500
4-Methylphenol									< 2500	< 2500
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-107	B-107	B-108	B-108	B-109	B-109	B-109	B-109	B-11	B-11
Sample Collection Date	25	45	5	10	5	10	25	40	3	13.5
Sample Depth (feet bgs)	06/07/1999	06/07/1999	06/07/1999	06/07/1999	06/08/1999	06/08/1999	06/08/1999	06/08/1999	02/04/1991	02/04/1991
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 5	< 5	< 5	< 5	6.3	< 5	< 2500	< 2500
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	B-107	B-107	B-108	B-108	B-109	B-109	B-109	B-109	B-11	B-11
Sample Collection Date	25	45	5	10	5	10	25	40	3	13.5
Sample Depth (feet bgs)	06/07/1999	06/07/1999	06/07/1999	06/07/1999	06/08/1999	06/08/1999	06/08/1999	06/08/1999	02/04/1991	02/04/1991
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene										
Phenanthrene										
Pyrene										



	Sample ID	B-110	B-110	B-110	B-110	B-111	B-112	B-112	B-113	B-114	B-114
	Sample Collection Date	5	10	25	43	30	10	30	25	10	15
	Sample Depth (feet bgs)	06/08/1999	06/08/1999	06/08/1999	06/08/1999	06/10/1999	06/10/1999	06/10/1999	06/11/1999	06/11/1999	06/11/1999
Metals (mg/kg)											
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Dioxins and Furans	(ng/kg)										
1,2,3,4,6,7,8-HpC	DD										
1,2,3,4,6,7,8-HpC	DF										
1,2,3,4,7,8,9-HpC	DF										
1,2,3,4,7,8-HxCDE	)										
1,2,3,4,7,8-HxCDF											
1,2,3,6,7,8-HxCDE	)										
1,2,3,6,7,8-HxCDF											
1,2,3,7,8,9-HxCDE	)										
1,2,3,7,8,9-HxCDF											
1,2,3,7,8-PeCDD											
1,2,3,7,8-PeCDF											
2,3,4,6,7,8-HxCDF											
2,3,4,7,8-PeCDF											
2,3,7,8-TCDD											
2,3,7,8-TCDF											
OCDD											
OCDF											



Sample ID	B-110	B-110	B-110	B-110	B-111	B-112	B-112	B-113	B-114	B-114
Sample Collection Date	5	10	25	43	30	10	30	25	10	15
Sample Depth (feet bgs)	06/08/1999	06/08/1999	06/08/1999	06/08/1999	06/10/1999	06/10/1999	06/10/1999	06/11/1999	06/11/1999	06/11/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-	-	-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
ТРН										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-110	B-110	B-110	B-110	B-111	B-112	B-112	B-113	B-114	B-114
Sample Collection Date	5	10	25	43	30	10	30	25	10	15
Sample Depth (feet bgs)	06/08/1999	06/08/1999	06/08/1999	06/08/1999	06/10/1999	06/10/1999	06/10/1999	06/11/1999	06/11/1999	06/11/1999
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-110	B-110	B-110	B-110	B-111	B-112	B-112	B-113	B-114	B-114
Sample Collection Date	5	10	25	43	30	10	30	25	10	15
Sample Depth (feet bgs)	06/08/1999	06/08/1999	06/08/1999	06/08/1999	06/10/1999	06/10/1999	06/10/1999	06/11/1999	06/11/1999	06/11/1999
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)			-			-	-			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 500	< 5	< 50	< 5	< 5	< 5	< 5
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-110	B-110	B-110	B-110	B-111	B-112	B-112	B-113	B-114	B-114
Sample Collection Date	5	10	25	43	30	10	30	25	10	15
Sample Depth (feet bgs)	06/08/1999	06/08/1999	06/08/1999	06/08/1999	06/10/1999	06/10/1999	06/10/1999	06/11/1999	06/11/1999	06/11/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 46	26	< 5	660	< 5	65	10	88	< 5	13
Phenol										
Tetrachlorophenols, Total	10	< 5	< 5	< 500	< 5	190	< 5	13	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)								-		
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	B-110	B-110	B-110	B-110	B-111	B-112	B-112	B-113	B-114	B-114
Sample Collection Date	5	10	25	43	30	10	30	25	10	15
Sample Depth (feet bgs)	06/08/1999	06/08/1999	06/08/1999	06/08/1999	06/10/1999	06/10/1999	06/10/1999	06/11/1999	06/11/1999	06/11/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	B-114	B-115	B-115	B-116	B-116	B-116	B-117	B-117	B-117	B-117
Sample Collection Date	30	10	15	10	40	95	5	15	65	90
Sample Depth (feet bgs)	06/14/1999	06/14/1999	06/14/1999	06/14/1999	06/15/1999	06/15/1999	06/15/1999	06/15/1999	06/16/1999	06/16/1999
Metals (mg/kg)		-						-		
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-114	B-115	B-115	B-116	B-116	B-116	B-117	B-117	B-117	B-117
Sample Collection Date	30	10	15	10	40	95	5	15	65	90
Sample Depth (feet bgs)	06/14/1999	06/14/1999	06/14/1999	06/14/1999	06/15/1999	06/15/1999	06/15/1999	06/15/1999	06/16/1999	06/16/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-		-		-		-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)							-		-	
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-114	B-115	B-115	B-116	B-116	B-116	B-117	B-117	B-117	B-117
Sample Collection Date	30	10	15	10	40	95	5	15	65	90
Sample Depth (feet bgs)	06/14/1999	06/14/1999	06/14/1999	06/14/1999	06/15/1999	06/15/1999	06/15/1999	06/15/1999	06/16/1999	06/16/1999
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-114	B-115	B-115	B-116	B-116	B-116	B-117	B-117	B-117	B-117
Sample Collection Date	30	10	15	10	40	95	5	15	65	90
Sample Depth (feet bgs)	06/14/1999	06/14/1999	06/14/1999	06/14/1999	06/15/1999	06/15/1999	06/15/1999	06/15/1999	06/16/1999	06/16/1999
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-114	B-115	B-115	B-116	B-116	B-116	B-117	B-117	B-117	B-117
Sample Collection Date	30	10	15	10	40	95	5	15	65	90
Sample Depth (feet bgs)	06/14/1999	06/14/1999	06/14/1999	06/14/1999	06/15/1999	06/15/1999	06/15/1999	06/15/1999	06/16/1999	06/16/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 5	< 5	< 5	24	< 5	16	< 5	< 5
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)			•						•	
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	B-114	B-115	B-115	B-116	B-116	B-116	B-117	B-117	B-117	B-117
Sample Collection Date	30	10	15	10	40	95	5	15	65	90
Sample Depth (feet bgs)	06/14/1999	06/14/1999	06/14/1999	06/14/1999	06/15/1999	06/15/1999	06/15/1999	06/15/1999	06/16/1999	06/16/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	B-119	B-119	B-119	B-12	B-12	B-13	B-139	B-139	B-139	B-14
Sample Collection Date	2.5	5	15	3	13	15.5	2.5	5	20	8
Sample Depth (feet bgs)	06/17/1999	06/17/1999	06/17/1999	02/05/1991	02/05/1991	02/05/1991	10/04/1999	10/04/1999	10/04/1999	02/05/1991
Metals (mg/kg)				•						
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-119	B-119	B-119	B-12	B-12	B-13	B-139	B-139	B-139	B-14
Sample Collection Date	2.5	5	15	3	13	15.5	2.5	5	20	8
Sample Depth (feet bgs)	06/17/1999	06/17/1999	06/17/1999	02/05/1991	02/05/1991	02/05/1991	10/04/1999	10/04/1999	10/04/1999	02/05/1991
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-		-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10	< 10	< 10							
Gasoline	< 10	< 10	< 10							
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25							
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10	< 10	< 10							
Kerosene	< 10	< 10	< 10							
Lube-Oil-Range Hydrocarbons	< 25	34	< 25							
Mineral spirits	< 10	< 10	< 10							
Naphtha Distillate	< 10	< 10	< 10							
Non-PHC as Diesel	< 50	< 50	< 50							
Other Petroleum Hydrocarbons										
PHC as Diesel	< 25	< 25	< 25							
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane							< 5	< 5	< 5	
1,1,1-Trichloroethane							< 5	< 5	< 5	
1,1,2,2-Tetrachloroethane							< 5	< 5	< 5	
1,1,2-Trichloroethane							< 5	< 5	< 5	
1,1-Dichloroethane							< 5	< 5	< 5	
1,1-Dichloroethene							< 5	< 5	< 5	
1,1-Dichloropropene							< 5	< 5	< 5	
1,2,3-Trichlorobenzene							< 20	< 20	< 20	
1,2,3-Trichloropropane							< 5	< 5	< 5	
1,2,4-Trichlorobenzene							< 20	< 20	< 20	
1,2,4-Trimethylbenzene							< 20	< 20	< 20	
1,2-Dibromo-3-chloropropane							< 20	< 20	< 20	
1,2-Dibromoethane							< 20	< 20	< 20	
1,2-Dichlorobenzene							< 5	< 5	< 5	
1,2-Dichloroethane							< 5	< 5	< 5	



Sample ID	B-119	B-119	B-119	B-12	B-12	B-13	B-139	B-139	B-139	B-14
Sample Collection Date	2.5	5	15	3	13	15.5	2.5	5	20	8
Sample Depth (feet bgs)	06/17/1999	06/17/1999	06/17/1999	02/05/1991	02/05/1991	02/05/1991	10/04/1999	10/04/1999	10/04/1999	02/05/1991
1,2-Dichloropropane							< 5	< 5	< 5	
1,3,5-Trimethylbenzene							< 20	< 20	< 20	
1,3-Dichlorobenzene							< 5	< 5	< 5	
1,3-Dichloropropane							< 5	< 5	< 5	
1,4-Dichlorobenzene							< 5	< 5	< 5	
2,2-Dichloropropane							< 5	< 5	< 5	
2-Butanone							64	< 20	< 20	
2-Chlorotoluene							< 20	< 20	< 20	
2-Hexanone							< 20	< 20	< 20	
4-Chlorotoluene							< 20	< 20	< 20	
4-Isopropyltoluene							< 20	< 20	< 20	
4-Methyl-2-pentanone							< 20	< 20	< 20	
Acetone							300	< 50	< 50	
Benzene							< 5	< 5	< 5	
Bromobenzene							< 5	< 5	< 5	
Bromodichloromethane							< 5	< 5	< 5	
Bromoform							< 5	< 5	< 5	
Bromomethane							< 5	< 5	< 5	
Carbon disulfide							< 5	< 5	< 5	
Carbon tetrachloride							< 5	< 5	< 5	
Chlorobenzene							< 5	< 5	< 5	
Chlorobromomethane							< 5	< 5	< 5	
Chloroethane							< 5	< 5	< 5	
Chloroform							< 5	< 5	< 5	
Chloromethane							< 5	< 5	< 5	
cis-1,2-Dichloroethene							< 5	< 5	< 5	
cis-1,3-Dichloropropene							< 5	< 5	< 5	
Dibromochloromethane							< 5	< 5	< 5	
Dibromomethane							< 5	< 5	< 5	
Dichlorodifluoromethane							< 5	< 5	< 5	
Ethylbenzene							< 5	< 5	< 5	
lsopropylbenzene							< 20	< 20	< 20	
m,p-Xylene							< 5	< 5	< 5	
Methyl tert-butyl ether										
Methylene chloride							11	< 10	< 10	
n-Butylbenzene							< 20	< 20	< 20	
n-Propylbenzene							< 20	< 20	< 20	
o-Xylene							< 5	< 5	< 5	
sec-Butylbenzene							< 20	< 20	< 20	
Styrene							< 5	< 5	< 5	
tert-Butylbenzene							< 0.02	< 0.02	< 0.02	
Tetrachloroethene							< 5	< 5	< 5	



Sample ID	B-119	B-119	B-119	B-12	B-12	B-13	B-139	B-139	B-139	B-14
Sample Collection Date	2.5	5	15	3	13	15.5	2.5	5	20	8
Sample Depth (feet bgs)	06/17/1999	06/17/1999	06/17/1999	02/05/1991	02/05/1991	02/05/1991	10/04/1999	10/04/1999	10/04/1999	02/05/1991
Toluene							< 5	< 5	< 5	
trans-1,2-Dichloroethene							< 5	< 5	< 5	
trans-1,3-Dichloropropene							< 5	< 5	< 5	
Trichloroethene							< 5	< 5	< 5	
Trichlorofluoromethane							< 5	< 5	< 5	
Vinyl chloride							< 5	< 5	< 5	
Semivolatile Organic Compounds (ug/kg)			-				-			-
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5				< 5	< 5	< 5	
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol				< 2500	< 2500	< 2500				< 2500
3-Methylphenol				< 2500	< 2500	< 2500				< 2500
4-Methylphenol				< 2500	< 2500	< 2500				< 2500
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-119	B-119	B-119	B-12	B-12	B-13	B-139	B-139	B-139	B-14
Sample Collection Date	2.5	5	15	3	13	15.5	2.5	5	20	8
Sample Depth (feet bgs)	06/17/1999	06/17/1999	06/17/1999	02/05/1991	02/05/1991	02/05/1991	10/04/1999	10/04/1999	10/04/1999	02/05/1991
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene							< 20	< 20	< 20	
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 5	< 2500	< 2500	< 2500	< 5	< 5	< 5	< 2500
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5				< 5	< 5	< 5	
Polycyclic Aromatic Hydrocarbons (ug/kg)			•	•					•	•
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	B-119	B-119	B-119	B-12	B-12	B-13	B-139	B-139	B-139	B-14
Sample Collection Date	2.5	5	15	3	13	15.5	2.5	5	20	8
Sample Depth (feet bgs)	06/17/1999	06/17/1999	06/17/1999	02/05/1991	02/05/1991	02/05/1991	10/04/1999	10/04/1999	10/04/1999	02/05/1991
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene							< 20	< 20	< 20	
Phenanthrene										
Pyrene										



Sample ID	B-14	B-140	B-147	B-149	B-15	B-15	B-153	B-153	B-155	B-155
Sample Collection Date	13	10	20	20	3	15.5	5	10	5	9
Sample Depth (feet bgs)	02/05/1991	10/06/1999	10/08/1999	10/08/1999	02/05/1991	02/05/1991	10/11/1999	10/11/1999	10/12/1999	10/12/1999
Metals (mg/kg)			•			•			•	
Aluminum										
Antimony										
Arsenic		14						8	6	6
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium		29						31	22	43
Cobalt										
Copper		27						20	21	28
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc		89						73	83	92
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-14	B-140	B-147	B-149	B-15	B-15	B-153	B-153	B-155	B-155
Sample Collection Date	13	10	20	20	3	15.5	5	10	5	9
Sample Depth (feet bgs)	02/05/1991	10/06/1999	10/08/1999	10/08/1999	02/05/1991	02/05/1991	10/11/1999	10/11/1999	10/12/1999	10/12/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-			-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel		< 10						< 10	< 10	< 10
Gasoline		< 10						< 10	< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons		< 25						< 25	< 25	< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels		< 10						< 10	< 10	< 10
Kerosene		< 10						< 10	< 10	< 10
Lube-Oil-Range Hydrocarbons		< 25						< 25	110	< 25
Mineral spirits		< 10						< 10	< 10	< 10
Naphtha Distillate		< 10						< 10	< 10	< 10
Non-PHC as Diesel		< 50						< 50	< 50	< 50
Other Petroleum Hydrocarbons										
PHC as Diesel		< 25						29	56	40
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane								< 100	< 200	< 200
1,1,1-Trichloroethane								< 100	< 200	< 200
1,1,2,2-Tetrachloroethane								< 100	< 200	< 200
1,1,2-Trichloroethane								< 100	< 200	< 200
1,1-Dichloroethane								< 100	< 200	< 200
1,1-Dichloroethene								< 100	< 200	< 200
1,1-Dichloropropene								< 100	< 200	< 200
1,2,3-Trichlorobenzene								< 400	< 800	< 800
1,2,3-Trichloropropane								< 100	< 200	< 200
1,2,4-Trichlorobenzene								< 400	< 800	< 800
1,2,4-Trimethylbenzene								< 400	< 800	< 800
1,2-Dibromo-3-chloropropane								< 400	< 800	< 800
1,2-Dibromoethane								< 400	< 800	< 800
1,2-Dichlorobenzene								< 100	< 200	< 200
1,2-Dichloroethane								< 100	< 200	< 200



Sample ID	B-14	B-140	B-147	B-149	B-15	B-15	B-153	B-153	B-155	B-155
Sample Collection Date	13	10	20	20	3	15.5	5	10	5	9
Sample Depth (feet bgs)	02/05/1991	10/06/1999	10/08/1999	10/08/1999	02/05/1991	02/05/1991	10/11/1999	10/11/1999	10/12/1999	10/12/1999
1,2-Dichloropropane								< 100	< 200	< 200
1,3,5-Trimethylbenzene								< 400	< 800	< 800
1,3-Dichlorobenzene								< 100	< 200	< 200
1,3-Dichloropropane								< 100	< 200	< 200
1,4-Dichlorobenzene								< 100	< 200	< 200
2,2-Dichloropropane								< 100	< 200	< 200
2-Butanone								< 4000	< 8000	< 8000
2-Chlorotoluene								< 400	< 800	< 800
2-Hexanone								< 4000	< 8000	< 8000
4-Chlorotoluene								< 400	< 800	< 800
4-Isopropyltoluene								< 400	< 800	< 800
4-Methyl-2-pentanone								< 4000	< 8000	< 8000
Acetone								< 4000	< 8000	< 8000
Benzene								< 100	< 200	< 200
Bromobenzene								< 100	< 200	< 200
Bromodichloromethane								< 100	< 200	< 200
Bromoform								< 100	< 200	< 200
Bromomethane								< 100	< 200	< 200
Carbon disulfide								< 100	< 200	< 200
Carbon tetrachloride								< 100	< 200	< 200
Chlorobenzene								< 100	< 200	< 200
Chlorobromomethane								< 100	< 200	< 200
Chloroethane								< 100	< 200	< 200
Chloroform								< 100	< 200	< 200
Chloromethane								< 100	< 200	< 200
cis-1,2-Dichloroethene								< 100	< 200	< 200
cis-1,3-Dichloropropene								< 100	< 200	< 200
Dibromochloromethane								< 100	< 200	< 200
Dibromomethane								< 100	< 200	< 200
Dichlorodifluoromethane								< 100	< 200	< 200
Ethylbenzene								< 100	< 200	< 200
Isopropylbenzene								< 400	< 800	< 800
m,p-Xylene								< 100	< 200	< 200
Methyl tert-butyl ether										
Methylene chloride								300	< 400	< 400
n-Butylbenzene								< 400	< 800	< 800
n-Propylbenzene								< 400	< 800	< 800
o-Xylene								< 100	< 200	< 200
sec-Butylbenzene								< 400	< 800	< 800
Styrene								< 100	< 200	< 200
tert-Butylbenzene								< 0.4	< 0.8	< 0.8
Tetrachloroethene								< 100	< 200	< 200


Sample ID	B-14	B-140	B-147	B-149	B-15	B-15	B-153	B-153	B-155	B-155
Sample Collection Date	13	10	20	20	3	15.5	5	10	5	9
Sample Depth (feet bgs)	02/05/1991	10/06/1999	10/08/1999	10/08/1999	02/05/1991	02/05/1991	10/11/1999	10/11/1999	10/12/1999	10/12/1999
Toluene								< 100	< 200	< 200
trans-1,2-Dichloroethene								< 100	< 200	< 200
trans-1,3-Dichloropropene								< 100	< 200	< 200
Trichloroethene								< 100	< 200	< 200
Trichlorofluoromethane								< 100	< 200	< 200
Vinyl chloride								< 100	< 200	< 200
Semivolatile Organic Compounds (ug/kg)		-	-	-						
2,3,4,5-Tetrachlorophenol		< 50						< 50	< 50	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol		< 50						< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol		< 50						< 50	< 50	< 50
2,3,5-Trichlorophenol		< 50						< 50	< 50	< 50
2,3,6-Trichlorophenol		< 50						< 50	< 50	< 50
2,4,5-Trichlorophenol		< 50						< 50	< 50	< 50
2,4,6-Trichlorophenol		< 50	< 5	< 5			< 5	< 50	< 50	< 50
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol	< 2500				< 2500	< 2500				
3-Methylphenol	< 2500				< 2500	< 2500				
4-Methylphenol	< 2500				< 2500	< 2500				
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol		< 50						< 50	< 50	< 50
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-14	B-140	B-147	B-149	B-15	B-15	B-153	B-153	B-155	B-155
Sample Collection Date	13	10	20	20	3	15.5	5	10	5	9
Sample Depth (feet bgs)	02/05/1991	10/06/1999	10/08/1999	10/08/1999	02/05/1991	02/05/1991	10/11/1999	10/11/1999	10/12/1999	10/12/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole		140						10	68	< 10
Dibenzofuran		130						21	< 10	10
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene		29						18	450	20
Hexachlorobenzene										
Hexachlorobutadiene								< 400	< 800	< 800
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 2500	59	< 5	< 5	4300	30000	< 5	53	< 40	< 40
Phenol										
Tetrachlorophenols, Total		< 5	< 5	< 5			< 5	8.7	16	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene		< 1300						12	730	18
Acenaphthene		< 410						76	640	22
Acenaphthylene		< 10						< 50	< 50	< 50
Anthracene		28						< 10	99	< 10
Benzo(a)anthracene		< 10						< 10	54	< 10
Benzo(a)pyrene		< 10						< 10	16	< 10
Benzo(b)fluoranthene		< 10						< 10	30	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene		< 10						< 10	< 10	< 10
Benzo(k)fluoranthene		< 10						< 10	30	< 10
Chrysene		< 10						< 10	77	< 10
Dibenzo(a,h)anthracene		< 10						< 10	< 10	< 10
Fluorene		180						22	240	13
Indeno(1,2,3-cd)pyrene		< 10						< 10	11	< 10



Sample ID	B-14	B-140	B-147	B-149	B-15	B-15	B-153	B-153	B-155	B-155
Sample Collection Date	13	10	20	20	3	15.5	5	10	5	9
Sample Depth (feet bgs)	02/05/1991	10/06/1999	10/08/1999	10/08/1999	02/05/1991	02/05/1991	10/11/1999	10/11/1999	10/12/1999	10/12/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene		1100						< 400	14000	3700
Phenanthrene		320						46	430	33
Pyrene		18						14	340	17



Sample ID	B-160	B-161	B-162	B-165	B-167	B-170	B-18	B-18	B-18	B-187
Sample Collection Date	10	10	11.5	11.5	20	7.5	5	15	25	11.5
Sample Depth (feet bgs)	10/13/1999	10/13/1999	10/13/1999	10/13/1999	10/14/1999	10/15/1999	05/03/1993	05/03/1993	05/03/1993	10/21/1999
Metals (mg/kg)							-			
Aluminum										
Antimony										
Arsenic							4.6	3.7	2.7	
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium							16	25.1	16.9	
Cobalt										
Copper							20.1	16.8	17.4	
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)			-	-	-					
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-160	B-161	B-162	B-165	B-167	B-170	B-18	B-18	B-18	B-187
Sample Collection Date	10	10	11.5	11.5	20	7.5	5	15	25	11.5
Sample Depth (feet bgs)	10/13/1999	10/13/1999	10/13/1999	10/13/1999	10/14/1999	10/15/1999	05/03/1993	05/03/1993	05/03/1993	10/21/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-	-		-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10									
Gasoline	< 10									
Heavy-Fuel-Oil-Range Hydrocarbons	< 25									
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10									
Kerosene	< 10									
Lube-Oil-Range Hydrocarbons	< 25									
Mineral spirits	< 10									
Naphtha Distillate	< 10									
Non-PHC as Diesel	< 50									
Other Petroleum Hydrocarbons										
PHC as Diesel	< 25									
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 5									
1,1,1-Trichloroethane	< 5									
1,1,2,2-Tetrachloroethane	< 5									
1,1,2-Trichloroethane	< 5									
1,1-Dichloroethane	< 5									
1,1-Dichloroethene	< 5									
1,1-Dichloropropene	< 5									
1,2,3-Trichlorobenzene	< 20									
1,2,3-Trichloropropane	< 5									
1,2,4-Trichlorobenzene	< 20									
1,2,4-Trimethylbenzene	< 20									
1,2-Dibromo-3-chloropropane	< 20									
1,2-Dibromoethane	< 20									
1,2-Dichlorobenzene	< 5									
1,2-Dichloroethane	< 5									



Sample ID	B-160	B-161	B-162	B-165	B-167	B-170	B-18	B-18	B-18	B-187
Sample Collection Date	10	10	11.5	11.5	20	7.5	5	15	25	11.5
Sample Depth (feet bgs)	10/13/1999	10/13/1999	10/13/1999	10/13/1999	10/14/1999	10/15/1999	05/03/1993	05/03/1993	05/03/1993	10/21/1999
1,2-Dichloropropane	< 5									
1,3,5-Trimethylbenzene	< 20									
1,3-Dichlorobenzene	< 5									
1,3-Dichloropropane	< 5									
1,4-Dichlorobenzene	< 5									
2,2-Dichloropropane	< 5									
2-Butanone	< 20									
2-Chlorotoluene	< 20									
2-Hexanone	< 20									
4-Chlorotoluene	< 20									
4-Isopropyltoluene	< 20									
4-Methyl-2-pentanone	< 20									
Acetone	< 50									
Benzene	< 5									
Bromobenzene	< 5									
Bromodichloromethane	< 5									
Bromoform	< 5									
Bromomethane	< 5									
Carbon disulfide	< 5									
Carbon tetrachloride	< 5									
Chlorobenzene	< 5									
Chlorobromomethane	< 5									
Chloroethane	< 5									
Chloroform	< 5									
Chloromethane	< 5									
cis-1,2-Dichloroethene	< 5									
cis-1,3-Dichloropropene	< 5									
Dibromochloromethane	< 5									
Dibromomethane	< 5									
Dichlorodifluoromethane	< 5									
Ethylbenzene	< 5									
Isopropylbenzene	< 20									
m,p-Xylene	< 5									
Methyl tert-butyl ether										
Methylene chloride	< 10									
n-Butylbenzene	< 20									
n-Propylbenzene	< 20									
o-Xylene	< 5									
sec-Butylbenzene	< 20									
Styrene	< 5									
tert-Butylbenzene	< 0.02									
Tetrachloroethene	< 5									



Sample ID	B-160	B-161	B-162	B-165	B-167	B-170	B-18	B-18	B-18	B-187
Sample Collection Date	10	10	11.5	11.5	20	7.5	5	15	25	11.5
Sample Depth (feet bgs)	10/13/1999	10/13/1999	10/13/1999	10/13/1999	10/14/1999	10/15/1999	05/03/1993	05/03/1993	05/03/1993	10/21/1999
Toluene	< 5									
trans-1,2-Dichloroethene	< 5									
trans-1,3-Dichloropropene	< 5									
Trichloroethene	< 5									
Trichlorofluoromethane	< 5									
Vinyl chloride	< 5									
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol	< 50									
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50									
2,3,5,6-Tetrachlorophenol	< 50									
2,3,5-Trichlorophenol	< 50									
2,3,6-Trichlorophenol	< 50									
2,4,5-Trichlorophenol	< 50									
2,4,6-Trichlorophenol	< 50	< 5	< 5	< 5	< 5	< 50				< 5
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol	< 50									
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-160	B-161	B-162	B-165	B-167	B-170	B-18	B-18	B-18	B-187
Sample Collection Date	10	10	11.5	11.5	20	7.5	5	15	25	11.5
Sample Depth (feet bgs)	10/13/1999	10/13/1999	10/13/1999	10/13/1999	10/14/1999	10/15/1999	05/03/1993	05/03/1993	05/03/1993	10/21/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole	< 10									
Dibenzofuran	11									
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene	< 10									
Hexachlorobenzene										
Hexachlorobutadiene	< 20									
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 40	< 5	15	< 5	< 5	790				< 5
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5	160				< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	40									
Acenaphthene	140									
Acenaphthylene	< 10									
Anthracene	< 10									
Benzo(a)anthracene	< 10									
Benzo(a)pyrene	< 10									
Benzo(b)fluoranthene	< 10									
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 10									
Benzo(k)fluoranthene	< 10									
Chrysene	< 10									
Dibenzo(a,h)anthracene	< 10									
Fluorene	31									
Indeno(1,2,3-cd)pyrene	< 10									



Sample ID	B-160	B-161	B-162	B-165	B-167	B-170	B-18	B-18	B-18	B-187
Sample Collection Date	10	10	11.5	11.5	20	7.5	5	15	25	11.5
Sample Depth (feet bgs)	10/13/1999	10/13/1999	10/13/1999	10/13/1999	10/14/1999	10/15/1999	05/03/1993	05/03/1993	05/03/1993	10/21/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	28									
Phenanthrene	< 10									
Pyrene	< 10									



Sample ID	B-188	B-188	B-189	B-189	B-19	B-190	B-190	B-190	B-191	B-191
Sample Collection Date	5	11.5	2.5	12	5	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/21/1999	10/21/1999	10/22/1999	10/22/1999	05/03/1993	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999
Metals (mg/kg)					•			•		
Aluminum										
Antimony										
Arsenic										2
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										9
Cobalt										
Copper										5
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										25
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-188	B-188	B-189	B-189	B-19	B-190	B-190	B-190	B-191	B-191
Sample Collection Date	5	11.5	2.5	12	5	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/21/1999	10/21/1999	10/22/1999	10/22/1999	05/03/1993	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-	-	-		-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										< 10
Gasoline										< 10
Heavy-Fuel-Oil-Range Hydrocarbons										< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels										< 10
Kerosene										< 10
Lube-Oil-Range Hydrocarbons										< 25
Mineral spirits										< 10
Naphtha Distillate										< 10
Non-PHC as Diesel										< 50
Other Petroleum Hydrocarbons										
PHC as Diesel										< 25
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)		-								
1,1,1,2-Tetrachloroethane			< 100	< 2000		< 50	< 50	< 50		
1,1,1-Trichloroethane			< 100	100		< 50	< 50	< 50		
1,1,2,2-Tetrachloroethane			< 100	< 2000		< 50	< 50	< 50		
1,1,2-Trichloroethane			< 100	< 100		< 50	< 50	< 50		
1,1-Dichloroethane			< 100	< 100		< 50	< 50	< 50		
1,1-Dichloroethene			< 100	< 100		< 50	< 50	< 50		
1,1-Dichloropropene			< 100	< 100		< 50	< 50	< 50		
1,2,3-Trichlorobenzene			< 400	< 2000		< 200	< 200	< 200		
1,2,3-Trichloropropane			< 100	< 2000		< 50	< 50	< 50		
1,2,4-Trichlorobenzene			< 400	< 2000		< 200	< 200	< 200		
1,2,4-Trimethylbenzene			< 400	< 2000		< 200	< 200	< 200		
1,2-Dibromo-3-chloropropane			< 400	< 2000		< 200	< 200	< 200		
1,2-Dibromoethane			< 400	< 2000		< 200	< 200	< 200		
1,2-Dichlorobenzene			< 100	< 2000		< 50	< 50	< 50		
1,2-Dichloroethane			< 100	< 100		< 50	< 50	< 50		



Sample ID	B-188	B-188	B-189	B-189	B-19	B-190	B-190	B-190	B-191	B-191
Sample Collection Date	5	11.5	2.5	12	5	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/21/1999	10/21/1999	10/22/1999	10/22/1999	05/03/1993	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999
1,2-Dichloropropane			< 100	< 100		< 50	< 50	< 50		
1,3,5-Trimethylbenzene			< 400	< 2000		< 200	< 200	< 200		
1,3-Dichlorobenzene			< 100	< 2000		< 50	< 50	< 50		
1,3-Dichloropropane			< 100	< 100		< 50	< 50	< 50		
1,4-Dichlorobenzene			< 100	< 2000		< 50	< 50	< 50		
2,2-Dichloropropane			< 100	< 100		< 50	< 50	< 50		
2-Butanone			< 4000	< 4000		< 2000	< 2000	< 2000		
2-Chlorotoluene			< 400	< 2000		< 200	< 200	< 200		
2-Hexanone			< 4000	< 4000		< 2000	< 2000	< 2000		
4-Chlorotoluene			< 400	< 2000		< 200	< 200	< 200		
4-Isopropyltoluene			< 400	< 2000		< 200	< 200	< 200		
4-Methyl-2-pentanone			< 4000	< 4000		< 2000	< 2000	< 2000		
Acetone			< 4000	< 4000		< 2000	< 2000	< 2000		
Benzene			< 100	< 100		< 50	< 50	< 50		
Bromobenzene			< 100	< 2000		< 50	< 50	< 50		
Bromodichloromethane			< 100	< 100		< 50	< 50	< 50		
Bromoform			< 100	< 2000		< 50	< 50	< 50		
Bromomethane			< 100	< 100		< 50	< 50	< 50		
Carbon disulfide			< 100	< 100		< 50	< 50	< 50		
Carbon tetrachloride			< 100	< 100		< 50	< 50	< 50		
Chlorobenzene			< 100	< 2000		< 50	< 50	< 50		
Chlorobromomethane			< 100	< 100		< 50	< 50	< 50		
Chloroethane			< 100	< 100		< 50	< 50	< 50		
Chloroform			< 100	< 100		< 50	< 50	< 50		
Chloromethane			< 100	< 100		< 50	< 50	< 50		
cis-1,2-Dichloroethene			< 100	< 100		< 50	< 50	< 50		
cis-1,3-Dichloropropene			< 100	< 100		< 50	< 50	< 50		
Dibromochloromethane			< 100	< 2000		< 50	< 50	< 50		
Dibromomethane			< 100	< 100		< 50	< 50	< 50		
Dichlorodifluoromethane			< 100	< 100		< 50	< 50	< 50		
Ethylbenzene			< 100	< 2000		< 50	< 50	< 50		
Isopropylbenzene			< 400	< 2000		< 200	< 200	< 200		
m,p-Xylene			< 100	< 2000		< 50	< 50	< 50		
Methyl tert-butyl ether										
Methylene chloride			< 200	< 200		< 100	< 100	< 100		
n-Butylbenzene			< 400	< 2000		< 200	< 200	< 200		
n-Propylbenzene			< 400	< 2000		< 200	< 200	< 200		
o-Xylene			< 100	< 2000		< 50	< 50	< 50		
sec-Butylbenzene			< 400	< 2000		< 200	< 200	< 200		
Styrene			< 100	< 2000		< 50	< 50	< 50		
tert-Butylbenzene			< 0.4	< 2		< 0.2	< 0.2	< 0.2		
Tetrachloroethene			< 100	< 2000		< 50	< 50	< 50		



Sample ID	B-188	B-188	B-189	B-189	B-19	B-190	B-190	B-190	B-191	B-191
Sample Collection Date	5	11.5	2.5	12	5	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/21/1999	10/21/1999	10/22/1999	10/22/1999	05/03/1993	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999
Toluene			< 100	< 100		< 50	< 50	< 50		
trans-1,2-Dichloroethene			< 100	< 100		< 50	< 50	< 50		
trans-1,3-Dichloropropene			< 100	< 100		< 50	< 50	< 50		
Trichloroethene			< 100	< 100		< 50	< 50	< 50		
Trichlorofluoromethane			< 100	< 100		< 50	< 50	< 50		
Vinyl chloride			< 100	< 100		< 50	< 50	< 50		
Semivolatile Organic Compounds (ug/kg)			•		•	•	•			•
2,3,4,5-Tetrachlorophenol										< 50
2,3,4,6-Tetrachlorophenol					280					
2,3,4-Trichlorophenol										< 50
2,3,5,6-Tetrachlorophenol										< 50
2,3,5-Trichlorophenol										< 50
2,3,6-Trichlorophenol										< 50
2,4,5-Trichlorophenol					390					< 50
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5	48	< 5	< 5	< 5	< 5	< 50
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										< 50
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-188	B-188	B-189	B-189	B-19	B-190	B-190	B-190	B-191	B-191
Sample Collection Date	5	11.5	2.5	12	5	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/21/1999	10/21/1999	10/22/1999	10/22/1999	05/03/1993	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										< 10
Dibenzofuran										< 10
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										< 10
Hexachlorobenzene										
Hexachlorobutadiene			< 400	< 2000		< 200	< 200	< 200		
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 5	< 5	1100	< 5	< 5	< 5	< 5	< 40
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5		< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										< 10
Acenaphthene										< 10
Acenaphthylene										< 10
Anthracene										< 10
Benzo(a)anthracene										< 10
Benzo(a)pyrene										< 10
Benzo(b)fluoranthene										< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										< 10
Benzo(k)fluoranthene										< 10
Chrysene										< 10
Dibenzo(a,h)anthracene										< 10
Fluorene										< 10
Indeno(1,2,3-cd)pyrene										< 10



Sample ID	B-188	B-188	B-189	B-189	B-19	B-190	B-190	B-190	B-191	B-191
Sample Collection Date	5	11.5	2.5	12	5	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/21/1999	10/21/1999	10/22/1999	10/22/1999	05/03/1993	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene			< 400	< 2000		< 200	< 200	< 200		< 10
Phenanthrene										< 10
Pyrene										< 10



Sample ID	B-192	B-192	B-193	B-193	B-193	B-194	B-194	B-194	B-195	B-195
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/26/1999	10/26/1999
Metals (mg/kg)			•			•				
Aluminum										
Antimony										
Arsenic	2		2	14	2	7	3	3	33	4
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	13		11	31	22	23	22	31	129	25
Cobalt										
Copper	5		17	20	24	16	24	27	53	8
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	26		46	191	59	85	85	68	626	72
Dioxins and Furans (ng/kg)			1	•	•	1			1	
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-192	B-192	B-193	B-193	B-193	B-194	B-194	B-194	B-195	B-195
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/26/1999	10/26/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-	-	-	-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Gasoline			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons			< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Kerosene			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Lube-Oil-Range Hydrocarbons			< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Mineral spirits			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphtha Distillate			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Non-PHC as Diesel			< 50	< 50	< 50	180	100	420	< 50	< 50
Other Petroleum Hydrocarbons										
PHC as Diesel			840	920	< 25	< 25	< 25	< 25	890	230
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)			-	-						
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-192	B-192	B-193	B-193	B-193	B-194	B-194	B-194	B-195	B-195
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/26/1999	10/26/1999
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-192	B-192	B-193	B-193	B-193	B-194	B-194	B-194	B-195	B-195
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/26/1999	10/26/1999
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		•								
2,3,4,5-Tetrachlorophenol	< 50		< 50	< 50	< 50	250	< 50	120	72	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 50		< 50	< 50	< 50	68	76	< 50	74	< 50
2,3,5-Trichlorophenol	< 50		< 50	< 50	< 50	< 50	120	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50		< 50	< 50	< 50	57	< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 5	< 50	< 50	< 50	< 500	< 500	< 50	< 500	< 50
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol	< 50		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



	B 100	B 100	D 100	D 100	D 100	D 101	D 101	D 101	D 105	D 105
Sample ID	B-192	B-192	B-193	B-193	B-193	B-194	B-194	B-194	B-195	B-195
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/26/1999	10/26/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole	< 10		39	79	< 10	700	< 10	800	270	< 10
Dibenzofuran	< 10		120	160	< 10	1000	< 10	2100	200	< 10
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene	< 10		270	3700	< 10	1900	44	4400	2300	90
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 40	< 5	1200	440	< 40	8300	1900	4700	3000	110
Phenol										
Tetrachlorophenols, Total	< 5	< 5	65	< 50	< 5	580	< 500	< 5	< 500	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)				•	•					
1-Methylnaphthalene										
2-Methylnaphthalene	< 10		79	54	< 10	2600	42	3600	130	< 10
Acenaphthene	< 10		180	360	< 10	1900	11	3600	370	< 10
Acenaphthylene	< 10		< 10	< 10	< 10	27	< 10	51	34	< 10
Anthracene	< 10		110	420	< 10	720	< 10	2500	540	41
Benzo(a)anthracene	< 10		38	670	< 10	250	15	750	720	36
Benzo(a)pyrene	< 10		14	140	< 10	72	12	230	1000	33
Benzo(b)fluoranthene	< 10		24	270	< 10	92	20	260	970	93
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 10		< 10	37	< 10	20	11	60	350	22
Benzo(k)fluoranthene	< 10		16	170	< 10	76	14	210	850	73
Chrysene	< 10		43	740	< 10	230	22	680	1200	110
Dibenzo(a,h)anthracene	< 10		< 10	14	< 10	< 10	< 10	20	120	< 10
Fluorene	< 10		180	390	< 10	1400	< 10	3000	390	13
Indeno(1,2,3-cd)pyrene	< 10		< 10	60	< 10	32	14	99	630	44



Sample ID	B-192	B-192	B-193	B-193	B-193	B-194	B-194	B-194	B-195	B-195
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	10	2.5	5
Sample Depth (feet bgs)	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/25/1999	10/26/1999	10/26/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 10		36	62	< 10	23000	880	18000	93	< 10
Phenanthrene	< 10		480	1400	< 10	3200	39	9100	1200	27
Pyrene	< 10		230	3900	< 10	1500	37	3300	1700	100



Sample ID	B-195	B-196	B-196	B-197	B-197	B-197	B-198	B-198	B-199	B-199
Sample Collection Date	10	3	9	2.5	5	10	2.5	5	2.5	5
Sample Depth (feet bgs)	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999
Metals (mg/kg)		•				•				
Aluminum										
Antimony										
Arsenic	4	< 1	2	13	4	5	3	2	3	3
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	29	2	19	18	18	29	9	9	10	8
Cobalt										
Copper	34	11	22	31	13	30	5	6	7	8
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	79	11	60	73	72	72	24	26	27	23
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-195	B-196	B-196	B-197	B-197	B-197	B-198	B-198	B-199	B-199
Sample Collection Date	10	3	9	2.5	5	10	2.5	5	2.5	5
Sample Depth (feet bgs)	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-	-	-		-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Gasoline	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Kerosene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25	140	< 25	< 25	< 25	< 25	< 25	< 25
Mineral spirits	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphtha Distillate	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Non-PHC as Diesel	110	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Other Petroleum Hydrocarbons										
PHC as Diesel	< 25	< 25	460	< 25	32	< 25	160	< 25	< 25	< 25
ТРН										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane				< 5		< 5	< 5	< 5		
1,1,1-Trichloroethane				< 5		< 5	< 5	< 5		
1,1,2,2-Tetrachloroethane				< 5		< 5	< 5	< 5		
1,1,2-Trichloroethane				< 5		< 5	< 5	< 5		
1,1-Dichloroethane				< 5		< 5	< 5	< 5		
1,1-Dichloroethene				< 5		< 5	< 5	< 5		
1,1-Dichloropropene				< 5		< 5	< 5	< 5		
1,2,3-Trichlorobenzene				< 20		< 20	< 20	< 20		
1,2,3-Trichloropropane				< 5		< 5	< 5	< 5		
1,2,4-Trichlorobenzene				< 20		< 20	< 20	< 20		
1,2,4-Trimethylbenzene				< 20		< 20	< 20	< 20		
1,2-Dibromo-3-chloropropane				< 20		< 20	< 20	< 20		
1,2-Dibromoethane				< 20		< 20	< 20	< 20		
1,2-Dichlorobenzene				< 5		< 5	< 5	< 5		
1,2-Dichloroethane				< 5		< 5	< 5	< 5		



Sample ID	B-195	B-196	B-196	B-197	B-197	B-197	B-198	B-198	B-199	B-199
Sample Collection Date	10	3	9	2.5	5	10	2.5	5	2.5	5
Sample Depth (feet bgs)	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999
1,2-Dichloropropane				< 5		< 5	< 5	< 5		
1,3,5-Trimethylbenzene				< 20		< 20	< 20	< 20		
1,3-Dichlorobenzene				< 5		< 5	< 5	< 5		
1,3-Dichloropropane				< 5		< 5	< 5	< 5		
1,4-Dichlorobenzene				< 5		< 5	< 5	< 5		
2,2-Dichloropropane				< 5		< 5	< 5	< 5		
2-Butanone				< 20		50	< 20	< 20		
2-Chlorotoluene				< 20		< 20	< 20	< 20		
2-Hexanone				< 20		< 20	< 20	< 20		
4-Chlorotoluene				< 20		< 20	< 20	< 20		
4-Isopropyltoluene				< 20		24	< 20	< 20		
4-Methyl-2-pentanone				< 20		< 20	< 20	< 20		
Acetone				< 50		260	< 50	< 50		
Benzene				< 5		< 5	< 5	< 5		
Bromobenzene				< 5		< 5	< 5	< 5		
Bromodichloromethane				< 5		< 5	< 5	< 5		
Bromoform				< 5		< 5	< 5	< 5		
Bromomethane				< 5		< 5	< 5	< 5		
Carbon disulfide				< 5		< 5	< 5	< 5		
Carbon tetrachloride				< 5		< 5	< 5	< 5		
Chlorobenzene				< 5		< 5	< 5	< 5		
Chlorobromomethane				< 5		< 5	< 5	< 5		
Chloroethane				< 5		< 5	< 5	< 5		
Chloroform				< 5		< 5	< 5	< 5		
Chloromethane				< 5		< 5	< 5	< 5		
cis-1,2-Dichloroethene				< 5		< 5	< 5	< 5		
cis-1,3-Dichloropropene				< 5		< 5	< 5	< 5		
Dibromochloromethane				< 5		< 5	< 5	< 5		
Dibromomethane				< 5		< 5	< 5	< 5		
Dichlorodifluoromethane				< 5		< 5	< 5	< 5		
Ethylbenzene				< 5		< 5	< 5	< 5		
Isopropylbenzene				< 20		< 20	< 20	< 20		
m,p-Xylene				< 5		< 5	< 5	< 5		
Methyl tert-butyl ether										
Methylene chloride				< 10		< 10	< 10	< 10		
n-Butylbenzene				< 20		< 20	< 20	< 20		
n-Propylbenzene				< 20		< 20	< 20	< 20		
o-Xylene				< 5		< 5	< 5	< 5		
sec-Butylbenzene				< 20		< 20	< 20	< 20		
Styrene				< 5		< 5	< 5	< 5		
tert-Butylbenzene				< 0.02		< 0.02	< 0.02	< 0.02		
Tetrachloroethene				< 5		< 5	< 5	< 5		



Sample ID	B-195	B-196	B-196	B-197	B-197	B-197	B-198	B-198	B-199	B-199
Sample Collection Date	10	3	9	2.5	5	10	2.5	5	2.5	5
Sample Depth (feet bgs)	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999
Toluene				< 5		< 5	< 5	< 5		
trans-1,2-Dichloroethene				< 5		< 5	< 5	< 5		
trans-1,3-Dichloropropene				< 5		< 5	< 5	< 5		
Trichloroethene				< 5		< 5	< 5	< 5		
Trichlorofluoromethane				< 5		< 5	< 5	< 5		
Vinyl chloride				< 5		< 5	< 5	< 5		
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol	< 50	< 50	340	< 50	71	< 50	3500	2200	< 50	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50	< 5000	< 5000	< 50	< 50
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-195	B-196	B-196	B-197	B-197	B-197	B-198	B-198	B-199	B-199
Sample Collection Date	10	3	9	2.5	5	10	2.5	5	2.5	5
Sample Depth (feet bgs)	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole	< 10	< 10	21	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Dibenzofuran	< 10	< 10	120	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene	61	< 10	430	66	42	< 10	< 10	< 10	< 10	< 10
Hexachlorobenzene										
Hexachlorobutadiene				< 20		< 20	< 20	< 20		
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 40	< 40	17000	210	980	41	230000	40000	140	40
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 500	< 50	110	< 5	< 5000	< 5000	< 50	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	< 10	< 10	770	< 10	< 10	< 10	11	< 10	< 10	< 10
Acenaphthene	45	< 10	260	15	< 10	< 10	< 10	< 10	< 10	< 10
Acenaphthylene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Anthracene	< 10	< 10	56	25	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(a)anthracene	< 10	< 10	78	25	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(a)pyrene	< 10	< 10	15	22	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	< 10	< 10	47	68	13	< 10	< 10	< 10	< 10	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 10	< 10	< 10	38	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(k)fluoranthene	< 10	< 10	35	62	14	< 10	< 10	< 10	< 10	< 10
Chrysene	12	< 10	120	88	20	< 10	< 10	< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Fluorene	14	< 10	140	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10	12	44	< 10	< 10	< 10	< 10	< 10	< 10



Sample ID	B-195	B-196	B-196	B-197	B-197	B-197	B-198	B-198	B-199	B-199
Sample Collection Date	10	3	9	2.5	5	10	2.5	5	2.5	5
Sample Depth (feet bgs)	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/26/1999	10/27/1999	10/27/1999	10/27/1999	10/27/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	120	< 10	790	20	< 10	< 20	< 20	< 20	< 10	< 10
Phenanthrene	33	< 10	450	48	25	< 10	30	< 10	< 10	< 10
Pyrene	57	< 10	310	55	38	< 10	< 10	< 10	< 10	< 10



Sample ID	B-199	B-199	B-199	B-2	B-20	B-20	B-200	B-200	B-201	B-201
Sample Collection Date	10	15	20	0	5	20	2.5	5	2.5	5
Sample Depth (feet bgs)	10/27/1999	10/27/1999	01/01/2002	11/07/2000	05/03/1993	05/03/1993	10/27/1999	10/27/1999	10/28/1999	10/28/1999
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	7	5			7.9	3.1	4	3	8	3
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	17	15			15.7	7.4	12	10	12	10
Cobalt										
Copper	13	20			30	16.5	8	6	10	6
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	64	41					40	27	101	27
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-199	B-199	B-199	B-2	B-20	B-20	B-200	B-200	B-201	B-201
Sample Collection Date	10	15	20	0	5	20	2.5	5	2.5	5
Sample Depth (feet bgs)	10/27/1999	10/27/1999	01/01/2002	11/07/2000	05/03/1993	05/03/1993	10/27/1999	10/27/1999	10/28/1999	10/28/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-	-		-	-	-
C10-C22 Diesel-Range Organics				< 50						
C4-C12 Gasoline-Range Organics				< 20						
Diesel	< 10	< 10		150			< 10	< 10	< 10	< 10
Gasoline	< 10	< 10					< 10	< 10	< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25					< 25	< 25	< 25	< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10	< 10					< 10	< 10	< 10	< 10
Kerosene	< 10	< 10					< 10	< 10	< 10	< 10
Lube-Oil-Range Hydrocarbons	< 25	< 25					< 25	< 25	< 25	< 25
Mineral spirits	< 10	< 10					< 10	< 10	< 10	< 10
Naphtha Distillate	< 10	< 10					< 10	< 10	< 10	< 10
Non-PHC as Diesel	< 50	< 50					< 50	< 50	< 50	< 50
Other Petroleum Hydrocarbons										
PHC as Diesel	< 25	< 25					< 25	< 25	< 25	< 25
TPH										
TPH (as motor oil)				810						
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 5	< 5						< 5		
1,1,1-Trichloroethane	< 5	< 5						< 5		
1,1,2,2-Tetrachloroethane	< 5	< 5						< 5		
1,1,2-Trichloroethane	< 5	< 5						< 5		
1,1-Dichloroethane	< 5	< 5						< 5		
1,1-Dichloroethene	< 5	< 5						< 5		
1,1-Dichloropropene	< 5	< 5						< 5		
1,2,3-Trichlorobenzene	< 20	< 20						< 0.02		
1,2,3-Trichloropropane	< 5	< 5						< 5		
1,2,4-Trichlorobenzene	< 20	< 20						< 0.02		
1,2,4-Trimethylbenzene	< 20	< 20						< 20		
1,2-Dibromo-3-chloropropane	< 20	< 20						< 20		
1,2-Dibromoethane	< 20	< 20						< 20		
1,2-Dichlorobenzene	< 5	< 5						< 5		
1,2-Dichloroethane	< 5	< 5						< 5		



Sample ID	B-199	B-199	B-199	B-2	B-20	B-20	B-200	B-200	B-201	B-201
Sample Collection Date	10	15	20	0	5	20	2.5	5	2.5	5
Sample Depth (feet bgs)	10/27/1999	10/27/1999	01/01/2002	11/07/2000	05/03/1993	05/03/1993	10/27/1999	10/27/1999	10/28/1999	10/28/1999
1,2-Dichloropropane	< 5	< 5						< 5		
1,3,5-Trimethylbenzene	< 20	< 20						< 20		
1,3-Dichlorobenzene	< 5	< 5						< 5		
1,3-Dichloropropane	< 5	< 5						< 5		
1,4-Dichlorobenzene	< 5	< 5						< 5		
2,2-Dichloropropane	< 5	< 5						< 5		
2-Butanone	< 20	< 20								
2-Chlorotoluene	< 20	< 20								
2-Hexanone	< 20	< 20								
4-Chlorotoluene	< 20	< 20								
4-Isopropyltoluene	< 20	< 20								
4-Methyl-2-pentanone	< 20	< 20						< 20		
Acetone	< 50	< 50						< 50		
Benzene	< 5	< 5						< 5		
Bromobenzene	< 5	< 5						< 5		
Bromodichloromethane	< 5	< 5						< 5		
Bromoform	< 5	< 5						< 5		
Bromomethane	< 5	< 5						< 5		
Carbon disulfide	< 5	< 5						< 5		
Carbon tetrachloride	< 5	< 5						< 5		
Chlorobenzene	< 5	< 5						< 5		
Chlorobromomethane	< 5	< 5						< 5		
Chloroethane	< 5	< 5						< 5		
Chloroform	< 5	< 5						< 5		
Chloromethane	< 5	< 5						< 5		
cis-1,2-Dichloroethene	< 5	< 5						< 5		
cis-1,3-Dichloropropene	< 5	< 5						< 5		
Dibromochloromethane	< 5	< 5						< 5		
Dibromomethane	< 5	< 5						< 5		
Dichlorodifluoromethane	< 5	< 5						< 5		
Ethylbenzene	< 5	< 5						< 5		
Isopropylbenzene	< 20	< 20								
m,p-Xylene	< 5	< 5						< 5		
Methyl tert-butyl ether										
Methylene chloride	< 10	< 10						< 10		
n-Butylbenzene	< 20	< 20								
n-Propylbenzene	< 20	< 20						< 20		
o-Xylene	< 5	< 5						< 5		
sec-Butylbenzene	< 20	< 20						< 20		
Styrene	< 5	< 5						< 5		
tert-Butylbenzene	< 0.02	< 0.02						< 0.02		
Tetrachloroethene	< 5	< 5						< 5		



Sample ID	B-199	B-199	B-199	B-2	B-20	B-20	B-200	B-200	B-201	B-201
Sample Collection Date	10	15	20	0	5	20	2.5	5	2.5	5
Sample Depth (feet bgs)	10/27/1999	10/27/1999	01/01/2002	11/07/2000	05/03/1993	05/03/1993	10/27/1999	10/27/1999	10/28/1999	10/28/1999
Toluene	< 5	< 5						< 5		
trans-1,2-Dichloroethene	< 5	< 5						< 5		
trans-1,3-Dichloropropene	< 5	< 5						< 5		
Trichloroethene	< 5	< 5						< 5		
Trichlorofluoromethane	< 5	< 5						< 5		
Vinyl chloride	< 5	< 5						< 5		
Semivolatile Organic Compounds (ug/kg)		•					•			•
2,3,4,5-Tetrachlorophenol	< 50	< 50						< 20		
2,3,4,6-Tetrachlorophenol								< 20		
2,3,4-Trichlorophenol	< 50	< 50					< 50	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 50	< 50								
2,3,5-Trichlorophenol	< 50	< 50					< 50	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 50					< 50	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50					< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50					< 50	< 50	< 50	< 50
2,4-Dichlorophenol							< 50	< 50	< 50	< 50
2,4-Dimethylphenol							< 50	< 50	< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol								< 20		
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline								< 20		
2-Nitrophenol								< 20		
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol	< 50	< 50								
3-Nitroaniline										
4,6-Dinitro-2-methylphenol							< 50	< 50	< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline								< 20		
4-Nitrophenol								< 20		
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-199	B-199	B-199	B-2	B-20	B-20	B-200	B-200	B-201	B-201
Sample Collection Date	10	15	20	0	5	20	2.5	5	2.5	5
Sample Depth (feet bgs)	10/27/1999	10/27/1999	01/01/2002	11/07/2000	05/03/1993	05/03/1993	10/27/1999	10/27/1999	10/28/1999	10/28/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole	< 10	< 10								
Dibenzofuran	< 10	< 10								
Diethylphthalate						21000	< 10	< 10	< 10	< 10
Dimethyl phthalate						110000	< 10	< 10	< 10	< 10
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene	< 10	< 10								
Hexachlorobenzene										
Hexachlorobutadiene	< 20	< 20				200000	< 10	< 10	< 10	< 10
Hexachlorocyclopentadiene										
Hexachloroethane								< 20		
Isophorone										
Nitrobenzene								< 20		
N-Nitrosodimethylamine								< 20		
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	81	< 40					< 40	< 40	< 40	< 40
Phenol										
Tetrachlorophenols, Total	< 50	< 5					< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	< 10	< 10				130000	< 10	< 10	24	< 10
Acenaphthene	< 10	< 10				200000	< 10	< 10	11	< 10
Acenaphthylene	< 10	< 10				6200	< 10	< 10	< 10	< 10
Anthracene	< 10	< 10				44000	< 10	< 10	< 10	< 10
Benzo(a)anthracene	< 10	< 10				20000	< 10	< 10	< 10	< 10
Benzo(a)pyrene	< 10	< 10				6300	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	< 10	< 10				8600	< 10	< 10	< 10	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 10	< 10					< 10	< 10	< 10	< 10
Benzo(k)fluoranthene	< 10	< 10				3600	< 10	< 10	< 10	< 10
Chrysene	< 10	< 10				19000	< 10	< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 10	< 10					< 10	< 10	< 10	< 10
Fluorene	< 10	< 10				150000	< 10	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10					< 10	< 10	< 10	< 10



Sample ID	B-199	B-199	B-199	B-2	B-20	B-20	B-200	B-200	B-201	B-201
Sample Collection Date	10	15	20	0	5	20	2.5	5	2.5	5
Sample Depth (feet bgs)	10/27/1999	10/27/1999	01/01/2002	11/07/2000	05/03/1993	05/03/1993	10/27/1999	10/27/1999	10/28/1999	10/28/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 20	< 20				34000	< 10	< 20	61	< 10
Phenanthrene	< 10	< 10				520000	< 10	< 10	22	< 10
Pyrene	< 10	< 10				130000	< 10	< 10	< 10	< 10



Sample ID	B-201	B-201	B-201	B-202	B-202	B-202	B-203	B-203	B-203	B-221
Sample Collection Date	10	15	20	2.5	5	15	2.5	5	10	2.5
Sample Depth (feet bgs)	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/09/1999
Metals (mg/kg)			•				•			•
Aluminum										
Antimony										
Arsenic		7	4	8	3		4	2	4	5
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium		34	17	18	12		12	9	23	19
Cobalt										
Copper		30	24	7	8		7	6	12	24
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc		82	43	101	37		40	28	81	75
Dioxins and Furans (ng/kg)		T	1	T		T	1		T	1
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-201	B-201	B-201	B-202	B-202	B-202	B-203	B-203	B-203	B-221
Sample Collection Date	10	15	20	2.5	5	15	2.5	5	10	2.5
Sample Depth (feet bgs)	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/09/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Gasoline		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons		< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Kerosene		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Lube-Oil-Range Hydrocarbons		< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	65
Mineral spirits		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphtha Distillate		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Non-PHC as Diesel		2000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Other Petroleum Hydrocarbons										
PHC as Diesel		< 25	< 25	< 25	< 25	< 25	< 25	< 25	560	< 25
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 5				< 5	< 5				
1,1,1-Trichloroethane	< 5				< 5	< 5				
1,1,2,2-Tetrachloroethane	< 5				< 5	< 5				
1,1,2-Trichloroethane	< 5				< 5	< 5				
1,1-Dichloroethane	< 5				< 5	< 5				
1,1-Dichloroethene	< 5				< 5	< 5				
1,1-Dichloropropene	< 5				< 5	< 5				
1,2,3-Trichlorobenzene	< 0.02				< 0.02	< 0.02				
1,2,3-Trichloropropane	< 5				< 5	< 5				
1,2,4-Trichlorobenzene	< 0.02				< 0.02	< 0.02				
1,2,4-Trimethylbenzene	< 20				< 20	< 20				
1,2-Dibromo-3-chloropropane	< 20				< 20	< 20				
1,2-Dibromoethane	< 20				< 20	< 20				
1,2-Dichlorobenzene	< 5				< 5	< 5				
1,2-Dichloroethane	< 5				< 5	< 5				



Sample ID	B-201	B-201	B-201	B-202	B-202	B-202	B-203	B-203	B-203	B-221
Sample Collection Date	10	15	20	2.5	5	15	2.5	5	10	2.5
Sample Depth (feet bgs)	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/09/1999
1,2-Dichloropropane	< 5				< 5	< 5				
1,3,5-Trimethylbenzene	< 20				< 20	< 20				
1,3-Dichlorobenzene	< 5				< 5	< 5				
1,3-Dichloropropane	< 5				< 5	< 5				
1,4-Dichlorobenzene	< 5				< 5	< 5				
2,2-Dichloropropane	< 5				< 5	< 5				
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone	< 20				< 20	< 20				
Acetone	77				< 50	100				
Benzene	< 5				< 5	< 5				
Bromobenzene	< 5				< 5	< 5				
Bromodichloromethane	< 5				< 5	< 5				
Bromoform	< 5				< 5	< 5				
Bromomethane	< 5				< 5	< 5				
Carbon disulfide	< 5				< 5	< 5				
Carbon tetrachloride	< 5				< 5	< 5				
Chlorobenzene	< 5				< 5	< 5				
Chlorobromomethane	< 5				< 5	< 5				
Chloroethane	< 5				< 5	< 5				
Chloroform	< 5				< 5	< 5				
Chloromethane	< 5				< 5	< 5				
cis-1,2-Dichloroethene	< 5				< 5	< 5				
cis-1,3-Dichloropropene	< 5				< 5	< 5				
Dibromochloromethane	< 5				< 5	< 5				
Dibromomethane	< 5				< 5	< 5				
Dichlorodifluoromethane	< 5				< 5	< 5				
Ethylbenzene	< 5				< 5	< 5				
Isopropylbenzene										
m,p-Xylene	9				< 5	< 5				
Methyl tert-butyl ether										
Methylene chloride	18				< 10	< 10				
n-Butylbenzene										
n-Propylbenzene	< 20				< 20	< 20				
o-Xylene	< 5				< 5	< 5				
sec-Butylbenzene	< 20				< 20	< 20				
Styrene	< 5				< 5	< 5				
tert-Butylbenzene	< 0.02				< 0.02	< 0.02				
Tetrachloroethene	< 5				< 5	< 5				


Sample ID	B-201	B-201	B-201	B-202	B-202	B-202	B-203	B-203	B-203	B-221
Sample Collection Date	10	15	20	2.5	5	15	2.5	5	10	2.5
Sample Depth (feet bgs)	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/09/1999
Toluene	9				< 5	< 5				
trans-1,2-Dichloroethene	< 5				< 5	< 5				
trans-1,3-Dichloropropene	< 5				< 5	< 5				
Trichloroethene	< 5				< 5	< 5				
Trichlorofluoromethane	< 5				< 5	< 5				
Vinyl chloride	< 5				< 5	< 5				
Semivolatile Organic Compounds (ug/kg)		•			•		•			
2,3,4,5-Tetrachlorophenol	< 20				< 20	< 20				
2,3,4,6-Tetrachlorophenol	< 20				< 20	< 20				
2,3,4-Trichlorophenol		< 56	56	< 50	< 50		< 50	< 50	51	< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol		< 56	< 50	< 50	< 50		< 50	< 50	< 50	< 50
2,3,6-Trichlorophenol		< 56	< 50	< 50	< 50		< 50	< 50	67	< 50
2,4,5-Trichlorophenol		< 56	< 50	< 50	< 50		< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 5	< 56	< 50	< 50	< 50	< 5	< 50	< 50	< 50	< 50
2,4-Dichlorophenol		< 56	< 50	< 50	< 50		< 50	< 50	< 50	< 50
2,4-Dimethylphenol		< 56	< 50	< 50	< 50		< 50	< 50	< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol	< 20				< 20	< 20				
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline	< 20				< 20	< 20				
2-Nitrophenol	< 20				< 20	< 20				
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol		< 56	94	< 50	< 50		< 50	< 50	< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline	< 20				< 20	< 20				
4-Nitrophenol	< 20				< 20	< 20				
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-201	B-201	B-201	B-202	B-202	B-202	B-203	B-203	B-203	B-221
Sample Collection Date	10	15	20	2.5	5	15	2.5	5	10	2.5
Sample Depth (feet bgs)	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/09/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate		880	290	< 10	< 10		< 10	< 10	160	< 10
Dimethyl phthalate		5000	290	< 10	< 10		< 10	< 10	450	< 10
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene		3100	< 10	< 10	< 10		< 10	< 10	4400	10
Hexachlorocyclopentadiene										
Hexachloroethane	< 20				< 20	< 20				
Isophorone										
Nitrobenzene	< 20				< 20	< 20				
N-Nitrosodimethylamine	< 20				< 20	< 20				
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 40	< 40	< 40	< 40	< 5	< 40	< 40	1300	40
Phenol										
Tetrachlorophenols, Total	< 5	< 5	87	< 5	< 5	< 5	13	< 5	< 50	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)						-				
1-Methylnaphthalene										
2-Methylnaphthalene		25000	31	< 10	< 10		< 10	< 10	940	< 10
Acenaphthene		9400	300	< 10	< 10		< 10	< 10	1100	< 10
Acenaphthylene		46	< 10	< 10	< 10		< 10	< 10	21	< 10
Anthracene		2300	< 10	< 10	< 10		< 10	< 10	520	< 10
Benzo(a)anthracene		550	< 10	< 10	< 10		< 10	< 10	1200	< 10
Benzo(a)pyrene		160	< 10	< 10	< 10		< 10	< 10	470	< 10
Benzo(b)fluoranthene		180	< 10	< 10	< 10		< 10	< 10	800	13
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene		40	< 10	< 10	< 10		< 10	< 10	130	< 10
Benzo(k)fluoranthene		220	< 10	< 10	< 10		< 10	< 10	870	12
Chrysene		550	< 10	< 10	< 10		< 10	< 10	1700	15
Dibenzo(a,h)anthracene		17	< 10	< 10	< 10		< 10	< 10	69	< 10
Fluorene		5400	230	< 10	< 10		< 10	< 10	700	< 10
Indeno(1,2,3-cd)pyrene		55	< 10	< 10	< 10		< 10	< 10	210	10



Sample ID	B-201	B-201	B-201	B-202	B-202	B-202	B-203	B-203	B-203	B-221
Sample Collection Date	10	15	20	2.5	5	15	2.5	5	10	2.5
Sample Depth (feet bgs)	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	10/28/1999	11/09/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 20	59000	810	< 10	< 20	140	< 10	< 10	880	< 10
Phenanthrene		9400	38	< 10	< 10		< 10	< 10	1600	< 10
Pyrene		2300	< 10	< 10	< 10		< 10	< 10	4300	18



Sample ID	B-221	B-222	B-222	B-222	B-223	B-223	B-223	B-224	B-224	B-224
Sample Collection Date	7.5	2.5	5	10	2.5	5	10	2.5	5	10
Sample Depth (feet bgs)	11/09/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	3		3	5		3	5	11		
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	15		15	25		17	22	24		
Cobalt										
Copper	21		17	24		18	24	27		
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	51		58	74		55	79	71		
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-221	B-222	B-222	B-222	B-223	B-223	B-223	B-224	B-224	B-224
Sample Collection Date	7.5	2.5	5	10	2.5	5	10	2.5	5	10
Sample Depth (feet bgs)	11/09/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-		-	-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10	< 10	< 10	< 10		< 10	< 10	< 10		
Gasoline	< 10	< 10	< 10	< 10		< 10	< 10	< 10		
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25		< 25	< 25	< 25		
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10	< 10	< 10	< 10		< 10	< 10	< 10		
Kerosene	< 10	< 10	< 10	< 10		< 10	< 10	< 10		
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25		< 25	< 25	< 25		
Mineral spirits	< 10	< 10	< 10	< 10		< 10	< 10	< 10		
Naphtha Distillate	< 10	< 10	< 10	< 10		< 10	< 10	< 10		
Non-PHC as Diesel	< 50	54	165	< 50		< 50	< 50	52		
Other Petroleum Hydrocarbons										
PHC as Diesel	68	< 25	< 25	< 25		29	< 25	< 25		
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-221	B-222	B-222	B-222	B-223	B-223	B-223	B-224	B-224	B-224
Sample Collection Date	7.5	2.5	5	10	2.5	5	10	2.5	5	10
Sample Depth (feet bgs)	11/09/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
lsopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-221	B-222	B-222	B-222	B-223	B-223	B-223	B-224	B-224	B-224
Sample Collection Date	7.5	2.5	5	10	2.5	5	10	2.5	5	10
Sample Depth (feet bgs)	11/09/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50		
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50		
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50		
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50		
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 5	< 50	< 50	< 50	< 5	< 5
2,4-Dichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50		
2,4-Dimethylphenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50		
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50		
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-221	B-222	B-222	B-222	B-223	B-223	B-223	B-224	B-224	B-224
Sample Collection Date	7.5	2.5	5	10	2.5	5	10	2.5	5	10
Sample Depth (feet bgs)	11/09/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate	< 10	6300	270	19		< 10	< 10	< 10		
Dimethyl phthalate	19	12000	860	< 10		< 10	< 10	< 10		
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	38	24000	1900	< 10		17	< 10	11		
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	490	320	61	< 40	< 5	< 40	< 40	45	< 5	< 5
Phenol										
Tetrachlorophenols, Total	< 50	12	12	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)								-	-	
1-Methylnaphthalene										
2-Methylnaphthalene	< 10	4300	510	< 10		< 10	< 10	< 10		
Acenaphthene	45	19000	1400	64		< 10	28	< 10		
Acenaphthylene	< 10	340	14	< 10		< 10	< 10	< 10		
Anthracene	< 10	23000	740	< 10		< 10	< 10	< 10		
Benzo(a)anthracene	< 10	3400	300	< 10		< 10	< 10	< 10		
Benzo(a)pyrene	< 10	900	96	< 10		< 10	< 10	< 10		
Benzo(b)fluoranthene	< 10	1100	120	< 10		< 10	< 10	10		
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 10	230	26	< 10		< 10	< 10	< 10		
Benzo(k)fluoranthene	< 10	1500	140	< 10		< 10	< 10	10		
Chrysene	14	3600	300	< 10		< 10	< 10	< 10		
Dibenzo(a,h)anthracene	< 10	91	< 10	< 10		< 10	< 10	< 10		
Fluorene	24	22000	1200	81		< 10	14	< 10		
Indeno(1,2,3-cd)pyrene	< 10	320	34	< 10		< 10	< 10	< 10		



Sample ID	B-221	B-222	B-222	B-222	B-223	B-223	B-223	B-224	B-224	B-224
Sample Collection Date	7.5	2.5	5	10	2.5	5	10	2.5	5	10
Sample Depth (feet bgs)	11/09/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999	11/10/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	58	3000	810	< 10		< 10	< 10	< 10		
Phenanthrene	32	74000	3900	< 10		< 10	< 10	< 10		
Pyrene	40	17000	1400	< 10		17	< 10	11		



Sample ID	B-225	B-225	B-226	B-226	B-226	B-227	B-227	B-228	B-229	B-229
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	5	2.5	5
Sample Depth (feet bgs)	11/10/1999	11/10/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999
Metals (mg/kg)			-							
Aluminum										
Antimony										
Arsenic				2			3	1	4	
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium				11			23	8	20	
Cobalt										
Copper				6			21	5	20	
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc				39			61	26	66	
Dioxins and Furans (ng/kg)			-							
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-225	B-225	B-226	B-226	B-226	B-227	B-227	B-228	B-229	B-229
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	5	2.5	5
Sample Depth (feet bgs)	11/10/1999	11/10/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel				< 10			< 10	< 10	< 10	
Gasoline				< 10			< 10	< 10	< 10	
Heavy-Fuel-Oil-Range Hydrocarbons				< 25			< 25	< 25	< 25	
Heavy-Oil-Range Hydrocarbon										
Jet fuels				< 10			< 10	< 10	< 10	
Kerosene				< 10			< 10	< 10	< 10	
Lube-Oil-Range Hydrocarbons				< 25			< 25	< 25	< 25	
Mineral spirits				< 10			< 10	< 10	< 10	
Naphtha Distillate				< 10			< 10	< 10	< 10	
Non-PHC as Diesel				< 50			< 50	< 50	< 50	
Other Petroleum Hydrocarbons										
PHC as Diesel				< 25			< 25	< 25	< 25	
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)		-				-	-		-	-
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-225	B-225	B-226	B-226	B-226	B-227	B-227	B-228	B-229	B-229
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	5	2.5	5
Sample Depth (feet bgs)	11/10/1999	11/10/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
lsopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-225	B-225	B-226	B-226	B-226	B-227	B-227	B-228	B-229	B-229
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	5	2.5	5
Sample Depth (feet bgs)	11/10/1999	11/10/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)						-	-		-	
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-225	B-225	B-226	B-226	B-226	B-227	B-227	B-228	B-229	B-229
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	5	2.5	5
Sample Depth (feet bgs)	11/10/1999	11/10/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 5	9	< 5	< 5	14	140	19	< 5
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)			•						•	
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	B-225	B-225	B-226	B-226	B-226	B-227	B-227	B-228	B-229	B-229
Sample Collection Date	2.5	5	2.5	5	10	2.5	5	5	2.5	5
Sample Depth (feet bgs)	11/10/1999	11/10/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999	11/11/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	B-229	B-230	B-230	B-231	B-231	B-231	B-232	B-232	B-233	B-233
Sample Collection Date	10	2.5	5	2.5	5	7	5	25	5	15
Sample Depth (feet bgs)	11/11/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	12/07/1999	12/07/1999	12/07/1999	12/07/1999
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic		2				< 2				7
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium		10				11				29
Cobalt										
Copper		5				7				30
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc		26				30				76
Dioxins and Furans (ng/kg)						-				
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-229	B-230	B-230	B-231	B-231	B-231	B-232	B-232	B-233	B-233
Sample Collection Date	10	2.5	5	2.5	5	7	5	25	5	15
Sample Depth (feet bgs)	11/11/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	12/07/1999	12/07/1999	12/07/1999	12/07/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-			-		-		-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel		< 10	< 10	< 10		< 10				< 10
Gasoline		< 10	< 10	< 10		< 10				< 10
Heavy-Fuel-Oil-Range Hydrocarbons		< 25	< 25	< 25		< 25				< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels		< 10	< 10	< 10		< 10				< 10
Kerosene		< 10	< 10	< 10		< 10				< 10
Lube-Oil-Range Hydrocarbons		< 25	< 25	< 25		< 25				< 25
Mineral spirits		< 10	< 10	< 10		< 10				< 10
Naphtha Distillate		< 10	< 10	< 10		< 10				< 10
Non-PHC as Diesel		< 50	< 50	< 50		< 50				106
Other Petroleum Hydrocarbons										
PHC as Diesel		60	< 25	< 25		110				< 25
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane						< 5	< 6.5	< 6.6		
1,1,1-Trichloroethane						< 5	< 6.5	< 6.6		
1,1,2,2-Tetrachloroethane						< 5	< 6.5	< 6.6		
1,1,2-Trichloroethane						< 5	< 6.5	< 6.6		
1,1-Dichloroethane						< 5	< 6.5	< 6.6		
1,1-Dichloroethene						< 5	< 6.5	< 6.6		
1,1-Dichloropropene						< 5	< 6.5	< 6.6		
1,2,3-Trichlorobenzene						< 0.02	< 0.026	< 0.027		
1,2,3-Trichloropropane						< 5	< 6.5	< 6.6		
1,2,4-Trichlorobenzene						< 0.02	< 0.026	< 0.027		
1,2,4-Trimethylbenzene						< 20	< 26	< 27		
1,2-Dibromo-3-chloropropane						< 20	< 26	< 27		
1,2-Dibromoethane						< 20	< 26	< 27		
1,2-Dichlorobenzene						< 5	< 6.5	< 6.6		
1,2-Dichloroethane						< 5	< 6.5	< 6.6		



Sample ID	B-229	B-230	B-230	B-231	B-231	B-231	B-232	B-232	B-233	B-233
Sample Collection Date	10	2.5	5	2.5	5	7	5	25	5	15
Sample Depth (feet bgs)	11/11/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	12/07/1999	12/07/1999	12/07/1999	12/07/1999
1,2-Dichloropropane						< 5	< 6.5	< 6.6		
1,3,5-Trimethylbenzene						< 20	< 26	< 27		
1,3-Dichlorobenzene						< 5	< 6.5	< 6.6		
1,3-Dichloropropane						< 5	< 6.5	< 6.6		
1,4-Dichlorobenzene						< 5	< 6.5	< 6.6		
2,2-Dichloropropane						< 5	< 6.5	< 6.6		
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone						< 20	< 26	< 27		
Acetone						< 50	130	120		
Benzene						< 5	8	< 6.6		
Bromobenzene						< 5	< 6.5	< 6.6		
Bromodichloromethane						< 5	< 6.5	< 6.6		
Bromoform						< 5	< 6.5	< 6.6		
Bromomethane						< 5	< 6.5	< 6.6		
Carbon disulfide						< 5	< 6.5	< 6.6		
Carbon tetrachloride						< 5	< 6.5	< 6.6		
Chlorobenzene						< 5	< 6.5	< 6.6		
Chlorobromomethane						< 5	< 6.5	< 6.6		
Chloroethane						< 5	< 6.5	< 6.6		
Chloroform						< 5	< 6.5	< 6.6		
Chloromethane						< 5	< 6.5	< 6.6		
cis-1,2-Dichloroethene						< 5	< 6.5	< 6.6		
cis-1,3-Dichloropropene						< 5	< 6.5	< 6.6		
Dibromochloromethane						< 5	< 6.5	< 6.6		
Dibromomethane						< 5	< 6.5	< 6.6		
Dichlorodifluoromethane						< 5	< 6.5	< 6.6		
Ethylbenzene						< 5	31	< 6.6		
Isopropylbenzene										
m,p-Xylene						< 5	16	< 6.6		
Methyl tert-butyl ether										
Methylene chloride						< 10	31	16		
n-Butylbenzene										
n-Propylbenzene						< 20	< 26	< 27		
o-Xylene						< 5	21	< 6.6		
sec-Butylbenzene						< 20	< 26	< 27		
Styrene						< 5	< 6.5	< 6.6		
tert-Butylbenzene						< 0.02	< 0.026	< 0.027		
Tetrachloroethene						< 5	< 6.5	< 6.6		



Sample ID	B-229	B-230	B-230	B-231	B-231	B-231	B-232	B-232	B-233	B-233
Sample Collection Date	10	2.5	5	2.5	5	7	5	25	5	15
Sample Depth (feet bgs)	11/11/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	12/07/1999	12/07/1999	12/07/1999	12/07/1999
Toluene						< 5	< 6.5	< 6.6		
trans-1,2-Dichloroethene						< 5	< 6.5	< 6.6		
trans-1,3-Dichloropropene						< 5	< 6.5	< 6.6		
Trichloroethene						< 5	< 6.5	< 6.6		
Trichlorofluoromethane						< 5	< 6.5	< 6.6		
Vinyl chloride						< 5	< 6.5	< 6.6		
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol						< 20	< 26	< 27		
2,3,4,6-Tetrachlorophenol						< 20	< 26	< 27		
2,3,4-Trichlorophenol		4200	< 50	< 50		210				< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol		< 50	< 50	< 50		< 50				< 50
2,3,6-Trichlorophenol		< 50	< 50	< 50		< 50				< 50
2,4,5-Trichlorophenol		< 50	< 50	< 50		< 50				< 50
2,4,6-Trichlorophenol	< 5	< 50	< 50	< 50	< 5	< 50	< 5	< 5	< 5	< 50
2,4-Dichlorophenol		< 50	< 50	< 50		< 50				< 50
2,4-Dimethylphenol		< 50	< 50	< 50		< 50				< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol						< 20	< 26	< 27		
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline						< 20	< 26	< 27		
2-Nitrophenol						< 20	< 26	< 27		
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol		< 50	< 50	< 50		< 50				< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline						< 20	< 26	< 27		
4-Nitrophenol						< 20	< 26	< 27		
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-229	B-230	B-230	B-231	B-231	B-231	B-232	B-232	B-233	B-233
Sample Collection Date	10	2.5	5	2.5	5	7	5	25	5	15
Sample Depth (feet bgs)	11/11/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	12/07/1999	12/07/1999	12/07/1999	12/07/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate		21	< 10	< 10		12				870
Dimethyl phthalate		31	< 10	< 10		42				930
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene		97	< 10	< 10		190				49
Hexachlorocyclopentadiene										
Hexachloroethane						< 20	< 26	< 27		
Isophorone										
Nitrobenzene						< 20	< 26	< 27		
N-Nitrosodimethylamine						< 20	< 26	< 27		
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	120000	330	160	< 5	9600	< 5	< 5	< 5	130
Phenol										
Tetrachlorophenols, Total	< 5	860	< 5	< 5	< 5	110	< 5	< 5	< 5	< 50
Polycyclic Aromatic Hydrocarbons (ug/kg)										-
1-Methylnaphthalene										
2-Methylnaphthalene		97	< 10	< 10		180				150
Acenaphthene		20	< 10	< 10		65				1100
Acenaphthylene		< 10	< 10	< 10		< 10				14
Anthracene		30	< 10	< 10		41				140
Benzo(a)anthracene		24	< 10	< 10		32				< 10
Benzo(a)pyrene		< 10	< 10	< 10		23				< 10
Benzo(b)fluoranthene		< 10	< 10	< 10		27				< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene		< 10	< 10	< 10		< 10				< 10
Benzo(k)fluoranthene		< 10	< 10	< 10		22				< 10
Chrysene		35	< 10	< 10		51				< 10
Dibenzo(a,h)anthracene		< 10	< 10	< 10		< 10				< 10
Fluorene		48	< 10	< 10		68				790
Indeno(1,2,3-cd)pyrene		< 10	< 10	< 10		< 10				< 10



Sample ID	B-229	B-230	B-230	B-231	B-231	B-231	B-232	B-232	B-233	B-233
Sample Collection Date	10	2.5	5	2.5	5	7	5	25	5	15
Sample Depth (feet bgs)	11/11/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	11/12/1999	12/07/1999	12/07/1999	12/07/1999	12/07/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene		250	< 10	< 10		63	< 26	95		27000
Phenanthrene		290	< 10	< 10		280				1100
Pyrene		87	< 10	< 10		140				29



Sample ID	B-233	B-234	B-235	B-236	B-236	B-236	B-237	B-237	B-237	B-238
Sample Collection Date	25	25	25	10	15	25	5	15	25	25
Sample Depth (feet bgs)	12/07/1999	12/07/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/09/1999
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic			6	35	2					
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium			23	35	28					
Cobalt										
Copper			26	27	27					
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc			69	184	64					
Dioxins and Furans (ng/kg)									•	
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-233	B-234	B-235	B-236	B-236	B-236	B-237	B-237	B-237	B-238
Sample Collection Date	25	25	25	10	15	25	5	15	25	25
Sample Depth (feet bgs)	12/07/1999	12/07/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/09/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)			-	-	-		-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel			< 10	< 10	< 10					
Gasoline			< 10	< 10	< 10					
Heavy-Fuel-Oil-Range Hydrocarbons			< 25	< 25	< 25					
Heavy-Oil-Range Hydrocarbon										
Jet fuels			< 10	< 10	< 10					
Kerosene			< 10	< 10	< 10					
Lube-Oil-Range Hydrocarbons			< 25	< 25	< 25					
Mineral spirits			< 10	< 10	< 10					
Naphtha Distillate			< 10	< 10	< 10					
Non-PHC as Diesel			< 50	< 50	< 50					
Other Petroleum Hydrocarbons										
PHC as Diesel			< 25	148	< 25					
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-233	B-234	B-235	B-236	B-236	B-236	B-237	B-237	B-237	B-238
Sample Collection Date	25	25	25	10	15	25	5	15	25	25
Sample Depth (feet bgs)	12/07/1999	12/07/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/09/1999
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-233	B-234	B-235	B-236	B-236	B-236	B-237	B-237	B-237	B-238
Sample Collection Date	25	25	25	10	15	25	5	15	25	25
Sample Depth (feet bgs)	12/07/1999	12/07/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/09/1999
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		-					-			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol			< 50	< 50	< 50					
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol			< 50	< 50	< 50					
2,3,6-Trichlorophenol			< 50	< 50	< 50					
2,4,5-Trichlorophenol			< 50	< 50	< 50					
2,4,6-Trichlorophenol	< 5	< 5	< 50	< 50	< 50	< 5	< 5	< 5	< 5	< 5
2,4-Dichlorophenol			< 50	< 50	< 50					
2,4-Dimethylphenol			< 50	< 50	< 50					
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol			< 50	< 50	< 50					
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-233	B-234	B-235	B-236	B-236	B-236	B-237	B-237	B-237	B-238
Sample Collection Date	25	25	25	10	15	25	5	15	25	25
Sample Depth (feet bgs)	12/07/1999	12/07/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/09/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate			28	140	590					
Dimethyl phthalate			40	180	500					
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene			13	220	45					
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 40	< 40	71	< 5	< 5	< 5	< 5	< 5
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	18	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)					-					
1-Methylnaphthalene										
2-Methylnaphthalene			360	400	950					
Acenaphthene			64	340	710					
Acenaphthylene			< 10	< 10	12					
Anthracene			13	77	58					
Benzo(a)anthracene			< 10	17	< 10					
Benzo(a)pyrene			< 10	< 10	< 10					
Benzo(b)fluoranthene			< 10	< 10	< 10					
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene			< 10	< 10	< 10					
Benzo(k)fluoranthene			< 10	< 10	< 10					
Chrysene			< 10	24	24					
Dibenzo(a,h)anthracene			< 10	< 10	< 10					
Fluorene			47	220	430					
Indeno(1,2,3-cd)pyrene			< 10	< 10	< 10					



Sample ID	B-233	B-234	B-235	B-236	B-236	B-236	B-237	B-237	B-237	B-238
Sample Collection Date	25	25	25	10	15	25	5	15	25	25
Sample Depth (feet bgs)	12/07/1999	12/07/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/08/1999	12/09/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene			1900	2900	7400					
Phenanthrene			69	600	460					
Pyrene			< 10	160	29					



Sample ID	B-239	B-240	B-240	B-240	B-241	B-241	B-241	B-242	B-243	B-244
Sample Collection Date	25	5	15	25	5	15	25	25	25	25
Sample Depth (feet bgs)	12/09/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/13/1999	12/14/1999	12/15/1999
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic			6		9	5				
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium			25		39	24				
Cobalt										
Copper			25		22	25				
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc			68		162	67				
Dioxins and Furans (ng/kg)		T	1	T		1			T	1
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-239	B-240	B-240	B-240	B-241	B-241	B-241	B-242	B-243	B-244
Sample Collection Date	25	5	15	25	5	15	25	25	25	25
Sample Depth (feet bgs)	12/09/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/13/1999	12/14/1999	12/15/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)			•	•		•				
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel			< 10		< 10	< 10				< 10
Gasoline			< 10		< 10	< 10				< 10
Heavy-Fuel-Oil-Range Hydrocarbons			< 25		< 25	< 25				< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels			< 10		< 10	< 10				< 10
Kerosene			< 10		< 10	< 10				< 10
Lube-Oil-Range Hydrocarbons			< 25		< 25	< 25				< 25
Mineral spirits			< 10		< 10	< 10				< 10
Naphtha Distillate			< 10		< 10	< 10				< 10
Non-PHC as Diesel			< 50		< 50	71				< 50
Other Petroleum Hydrocarbons										
PHC as Diesel			< 25		120	< 25				< 25
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										< 5.5
1,1,1-Trichloroethane										< 5.5
1,1,2,2-Tetrachloroethane										< 5.5
1,1,2-Trichloroethane										< 5.5
1,1-Dichloroethane										< 5.5
1,1-Dichloroethene										< 5.5
1,1-Dichloropropene										< 5.5
1,2,3-Trichlorobenzene										< 0.022
1,2,3-Trichloropropane										< 5.5
1,2,4-Trichlorobenzene										< 0.022
1,2,4-Trimethylbenzene										< 22
1,2-Dibromo-3-chloropropane										< 22
1,2-Dibromoethane										< 22
1,2-Dichlorobenzene										< 5.5
1,2-Dichloroethane										< 5.5



Sample ID	B-239	B-240	B-240	B-240	B-241	B-241	B-241	B-242	B-243	B-244
Sample Collection Date	25	5	15	25	5	15	25	25	25	25
Sample Depth (feet bgs)	12/09/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/13/1999	12/14/1999	12/15/1999
1,2-Dichloropropane										< 5.5
1,3,5-Trimethylbenzene										< 22
1,3-Dichlorobenzene										< 5.5
1,3-Dichloropropane										< 5.5
1,4-Dichlorobenzene										< 5.5
2,2-Dichloropropane										< 5.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										< 22
Acetone										< 55
Benzene										< 5.5
Bromobenzene										< 5.5
Bromodichloromethane										< 5.5
Bromoform										< 5.5
Bromomethane										< 5.5
Carbon disulfide										< 5.5
Carbon tetrachloride										< 5.5
Chlorobenzene										< 5.5
Chlorobromomethane										< 5.5
Chloroethane										< 5.5
Chloroform										< 5.5
Chloromethane										< 5.5
cis-1,2-Dichloroethene										< 5.5
cis-1,3-Dichloropropene										< 5.5
Dibromochloromethane										< 5.5
Dibromomethane										< 5.5
Dichlorodifluoromethane										< 5.5
Ethylbenzene										< 5.5
Isopropylbenzene										
m,p-Xylene										< 5.5
Methyl tert-butyl ether										
Methylene chloride										< 11
n-Butylbenzene										
n-Propylbenzene										< 22
o-Xylene										< 5.5
sec-Butylbenzene										< 22
Styrene										< 5.5
tert-Butylbenzene										< 0.022
Tetrachloroethene										< 5.5



Sample ID	B-239	B-240	B-240	B-240	B-241	B-241	B-241	B-242	B-243	B-244
Sample Collection Date	25	5	15	25	5	15	25	25	25	25
Sample Depth (feet bgs)	12/09/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/13/1999	12/14/1999	12/15/1999
Toluene										< 5.5
trans-1,2-Dichloroethene										< 5.5
trans-1,3-Dichloropropene										< 5.5
Trichloroethene										< 5.5
Trichlorofluoromethane										< 5.5
Vinyl chloride										< 5.5
Semivolatile Organic Compounds (ug/kg)		-		-						-
2,3,4,5-Tetrachlorophenol										< 22
2,3,4,6-Tetrachlorophenol										< 22
2,3,4-Trichlorophenol			< 50		< 50	350				
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol			< 50		< 50	< 50				
2,3,6-Trichlorophenol			< 50		< 50	< 50				
2,4,5-Trichlorophenol			< 50		< 50	< 50				
2,4,6-Trichlorophenol	< 5	< 5	< 50	< 5	< 50	< 50	< 5	< 5	< 5	< 5
2,4-Dichlorophenol			< 50		< 50	< 50				
2,4-Dimethylphenol			< 50		< 50	< 50				
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										< 22
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										< 22
2-Nitrophenol										< 22
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol			< 50		< 50	310				
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										< 22
4-Nitrophenol										< 22
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-239	B-240	B-240	B-240	B-241	B-241	B-241	B-242	B-243	B-244
Sample Collection Date	25	5	15	25	5	15	25	25	25	25
Sample Depth (feet bgs)	12/09/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/13/1999	12/14/1999	12/15/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate			240		180	560				
Dimethyl phthalate			560		480	800				
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene			240		250	230				
Hexachlorocyclopentadiene										
Hexachloroethane										< 22
Isophorone										
Nitrobenzene										< 22
N-Nitrosodimethylamine										< 22
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 40	< 5	100	91	< 5	< 5	< 5	< 5
Phenol										
Tetrachlorophenols, Total	< 5	< 5	9	< 5	< 5	350	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)								-		-
1-Methylnaphthalene										
2-Methylnaphthalene			28		1500	1800				
Acenaphthene			650		1000	940				
Acenaphthylene			< 10		< 10	15				
Anthracene			220		87	310				
Benzo(a)anthracene			35		83	22				
Benzo(a)pyrene			< 10		42	< 10				
Benzo(b)fluoranthene			< 10		63	< 10				
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene			< 10		22	< 10				
Benzo(k)fluoranthene			< 10		67	< 10				
Chrysene			29		130	23				
Dibenzo(a,h)anthracene			< 10		< 10	< 10				
Fluorene			570		600	780				
Indeno(1,2,3-cd)pyrene			< 10		27	< 10				



Sample ID	B-239	B-240	B-240	B-240	B-241	B-241	B-241	B-242	B-243	B-244
Sample Collection Date	25	5	15	25	5	15	25	25	25	25
Sample Depth (feet bgs)	12/09/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/10/1999	12/13/1999	12/14/1999	12/15/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene			200		45000	10000				< 22
Phenanthrene			1100		210	1500				
Pyrene			160		180	150				



Sample ID	B-244	B-244	B-245	B-245	B-246	B-246	B-246	B-247	B-247	B-247
Sample Collection Date	30	35	15	30	5	10	20	2.5	5	16
Sample Depth (feet bgs)	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/16/1999	12/16/1999	12/16/1999	12/17/1999	12/17/1999	12/17/1999
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic									4	
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium									15	
Cobalt										
Copper									20	
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc									52	
Dioxins and Furans (ng/kg)			•	•	•					
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-244	B-244	B-245	B-245	B-246	B-246	B-246	B-247	B-247	B-247
Sample Collection Date	30	35	15	30	5	10	20	2.5	5	16
Sample Depth (feet bgs)	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/16/1999	12/16/1999	12/16/1999	12/17/1999	12/17/1999	12/17/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)			-	-		-	-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Gasoline	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Kerosene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	63	< 25	< 25	57	86	
Mineral spirits	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Naphtha Distillate	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Non-PHC as Diesel	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
Other Petroleum Hydrocarbons										
PHC as Diesel	< 25	< 25	5230	< 25	< 25	< 25	< 25	< 25	< 25	
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,1,1-Trichloroethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,1,2,2-Tetrachloroethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,1,2-Trichloroethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,1-Dichloroethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,1-Dichloroethene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,1-Dichloropropene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,2,3-Trichlorobenzene		< 0.021			< 0.022	< 0.021	< 0.022	< 0.024	< 0.023	< 0.022
1,2,3-Trichloropropane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,2,4-Trichlorobenzene		< 0.021			< 0.022	< 0.021	< 0.022	< 0.024	< 0.023	< 0.022
1,2,4-Trimethylbenzene		< 21			< 22	< 21	< 22	< 24	< 23	< 22
1,2-Dibromo-3-chloropropane		< 21			< 22	< 21	< 22	< 24	< 23	< 22
1,2-Dibromoethane		< 21			< 22	< 21	< 22	< 24	< 23	< 22
1,2-Dichlorobenzene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,2-Dichloroethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5



Sample ID	B-244	B-244	B-245	B-245	B-246	B-246	B-246	B-247	B-247	B-247
Sample Collection Date	30	35	15	30	5	10	20	2.5	5	16
Sample Depth (feet bgs)	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/16/1999	12/16/1999	12/16/1999	12/17/1999	12/17/1999	12/17/1999
1,2-Dichloropropane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,3,5-Trimethylbenzene		< 21			< 22	< 21	< 22	< 24	< 23	< 22
1,3-Dichlorobenzene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,3-Dichloropropane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
1,4-Dichlorobenzene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
2,2-Dichloropropane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone		< 21			< 22	< 21	< 22	< 24	< 23	< 22
Acetone		< 53			< 54	< 52	< 56	< 59	< 56	< 55
Benzene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Bromobenzene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Bromodichloromethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Bromoform		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Bromomethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Carbon disulfide		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Carbon tetrachloride		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Chlorobenzene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Chlorobromomethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Chloroethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Chloroform		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Chloromethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
cis-1,2-Dichloroethene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
cis-1,3-Dichloropropene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Dibromochloromethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Dibromomethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Dichlorodifluoromethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Ethylbenzene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Isopropylbenzene										
m,p-Xylene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Methyl tert-butyl ether										
Methylene chloride		< 11			< 11	< 10	< 11	< 12	< 11	< 11
n-Butylbenzene										
n-Propylbenzene		< 21			< 22	< 21	< 22	< 24	< 23	< 22
o-Xylene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
sec-Butylbenzene		< 21			< 22	< 21	< 22	< 24	< 23	< 22
Styrene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
tert-Butylbenzene		< 0.021			< 0.022	< 0.021	< 0.022	< 0.024	< 0.023	< 0.022
Tetrachloroethene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5


Sample ID	B-244	B-244	B-245	B-245	B-246	B-246	B-246	B-247	B-247	B-247
Sample Collection Date	30	35	15	30	5	10	20	2.5	5	16
Sample Depth (feet bgs)	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/16/1999	12/16/1999	12/16/1999	12/17/1999	12/17/1999	12/17/1999
Toluene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
trans-1,2-Dichloroethene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
trans-1,3-Dichloropropene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Trichloroethene		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Trichlorofluoromethane		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Vinyl chloride		< 5.3			< 5.4	< 5.2	< 5.6	< 5.9	< 5.6	< 5.5
Semivolatile Organic Compounds (ug/kg)					-					
2,3,4,5-Tetrachlorophenol		< 21			< 22	< 21	< 22	< 24	< 23	< 22
2,3,4,6-Tetrachlorophenol		< 21			< 22	< 21	< 22	< 24	< 23	< 22
2,3,4-Trichlorophenol		< 50	< 50	< 50	< 50					
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol		< 50	< 50	< 50	< 50					
2,3,6-Trichlorophenol		< 50	< 50	< 50	< 50					
2,4,5-Trichlorophenol		< 50	< 50	< 50	< 50					
2,4,6-Trichlorophenol		< 50	< 500	< 50	< 50	< 5	< 5	< 5	< 5	< 5
2,4-Dichlorophenol		< 50	< 50	< 50	< 50					
2,4-Dimethylphenol		< 50	< 50	< 50	< 50					
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol		< 21			< 22	< 21	< 22	< 24	< 23	< 22
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline		< 21			< 22	< 21	< 22	< 24	< 23	< 22
2-Nitrophenol		< 21			< 22	< 21	< 22	< 24	< 23	< 22
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol		< 50	< 50	< 50	< 50					
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline		< 21			< 22	< 21	< 22	< 24	< 23	< 22
4-Nitrophenol		< 21			< 22	< 21	< 22	< 24	< 23	< 22
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-244	B-244	B-245	B-245	B-246	B-246	B-246	B-247	B-247	B-247
Sample Collection Date	30	35	15	30	5	10	20	2.5	5	16
Sample Depth (feet bgs)	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/16/1999	12/16/1999	12/16/1999	12/17/1999	12/17/1999	12/17/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate		< 10	< 10	22	< 10					
Dimethyl phthalate		< 10	< 10	110	< 10					
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene		< 10	23	330	< 10					
Hexachlorocyclopentadiene										
Hexachloroethane		< 21			< 22	< 21	< 22	< 24	< 23	< 22
Isophorone										
Nitrobenzene		< 21			< 22	< 21	< 22	< 24	< 23	< 22
N-Nitrosodimethylamine		< 21			< 22	< 21	< 22	< 24	< 23	< 22
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol		< 40	17000	96	< 40	< 5	< 5	< 5	13	<5
Phenol										
Tetrachlorophenols, Total		< 5	1300	9	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)		•							•	-
1-Methylnaphthalene										
2-Methylnaphthalene		< 10	< 10	55	< 10					
Acenaphthene		< 10	< 10	110	< 10					
Acenaphthylene		< 10	< 10	< 10	< 10					
Anthracene		< 10	< 10	75	< 10					
Benzo(a)anthracene		< 10	< 10	45	< 10					
Benzo(a)pyrene		< 10	< 10	11	< 10					
Benzo(b)fluoranthene		< 10	< 10	11	< 10					
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene		< 10	< 10	< 10	< 10					
Benzo(k)fluoranthene		< 10	< 10	17	< 10					
Chrysene		< 10	< 10	46	< 10					
Dibenzo(a,h)anthracene		< 10	< 10	< 10	< 10					
Fluorene		< 10	< 10	140	< 10					
Indeno(1,2,3-cd)pyrene		< 10	< 10	< 10	< 10					



Sample ID	B-244	B-244	B-245	B-245	B-246	B-246	B-246	B-247	B-247	B-247
Sample Collection Date	30	35	15	30	5	10	20	2.5	5	16
Sample Depth (feet bgs)	12/15/1999	12/15/1999	12/15/1999	12/15/1999	12/16/1999	12/16/1999	12/16/1999	12/17/1999	12/17/1999	12/17/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene		< 21	< 10	76	< 22	< 21	< 22	< 24	< 23	< 22
Phenanthrene		< 10	22	490	< 10					
Pyrene		< 10	18	250	< 10					



Sample ID	B-248	B-248	B-248	B-249	B-249	B-249	B-249	B-249	B-250	B-250
Sample Collection Date	2.5	15	25	2.5	10	15	20	25	20	25
Sample Depth (feet bgs)	12/20/1999	12/20/1999	12/20/1999	12/20/1999	01/01/2002	01/01/2002	12/20/1999	12/20/1999	12/21/1999	12/21/1999
Metals (mg/kg)		•	•				•			
Aluminum										
Antimony										
Arsenic									7	3
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium									18	11
Cobalt										
Copper									27	17
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc									42	27
Dioxins and Furans (ng/kg)		1	1	T	T	T		T		T
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-248	B-248	B-248	B-249	B-249	B-249	B-249	B-249	B-250	B-250
Sample Collection Date	2.5	15	25	2.5	10	15	20	25	20	25
Sample Depth (feet bgs)	12/20/1999	12/20/1999	12/20/1999	12/20/1999	01/01/2002	01/01/2002	12/20/1999	12/20/1999	12/21/1999	12/21/1999
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)			-	-		-	-	-		
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10	< 10	< 10	< 10			< 10	< 10	< 10	< 10
Gasoline	< 10	< 10	< 10	< 10			< 10	< 10	< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25			< 25	< 25	< 25	< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10	< 10	< 10	< 10			< 10	< 10	< 10	< 10
Kerosene	< 10	< 10	< 10	< 10			< 10	< 10	< 10	< 10
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25	92			< 25	< 25	< 25	< 25
Mineral spirits	< 10	< 10	< 10	< 10			< 10	< 10	< 10	< 10
Naphtha Distillate	< 10	< 10	< 10	< 10			< 10	< 10	< 10	< 10
Non-PHC as Diesel	< 50	< 50	< 50	< 50			< 50	< 50	< 50	< 50
Other Petroleum Hydrocarbons										
PHC as Diesel	< 25	< 25	< 25	< 25			< 25	< 25	25	< 25
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)			-	-		-	-			
1,1,1,2-Tetrachloroethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,1,1-Trichloroethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,1,2,2-Tetrachloroethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,1,2-Trichloroethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,1-Dichloroethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,1-Dichloroethene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,1-Dichloropropene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,2,3-Trichlorobenzene	< 0.018	< 0.021	< 0.021	< 0.022			< 0.023	< 0.02	< 0.021	< 0.022
1,2,3-Trichloropropane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,2,4-Trichlorobenzene	< 0.018	< 0.021	< 0.021	< 0.022			< 0.023	< 0.02	< 0.021	< 0.022
1,2,4-Trimethylbenzene	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
1,2-Dibromo-3-chloropropane	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
1,2-Dibromoethane	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
1,2-Dichlorobenzene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,2-Dichloroethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5



Sample ID	B-248	B-248	B-248	B-249	B-249	B-249	B-249	B-249	B-250	B-250
Sample Collection Date	2.5	15	25	2.5	10	15	20	25	20	25
Sample Depth (feet bgs)	12/20/1999	12/20/1999	12/20/1999	12/20/1999	01/01/2002	01/01/2002	12/20/1999	12/20/1999	12/21/1999	12/21/1999
1,2-Dichloropropane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,3,5-Trimethylbenzene	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
1,3-Dichlorobenzene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,3-Dichloropropane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
1,4-Dichlorobenzene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
2,2-Dichloropropane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
Acetone	< 45	< 52	< 53	< 54			< 57	120	< 54	< 55
Benzene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Bromobenzene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Bromodichloromethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Bromoform	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Bromomethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Carbon disulfide	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Carbon tetrachloride	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Chlorobenzene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Chlorobromomethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Chloroethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Chloroform	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Chloromethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
cis-1,2-Dichloroethene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
cis-1,3-Dichloropropene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Dibromochloromethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Dibromomethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Dichlorodifluoromethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Ethylbenzene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Isopropylbenzene										
m,p-Xylene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Methyl tert-butyl ether										
Methylene chloride	< 9	< 10	< 11	< 11			< 11	< 9.9	< 11	< 2.2
n-Butylbenzene										
n-Propylbenzene	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
o-Xylene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
sec-Butylbenzene	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
Styrene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
tert-Butylbenzene	< 0.018	< 0.021	< 0.021	< 0.022			< 0.023	< 0.02	< 0.021	< 0.022
Tetrachloroethene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5



Sample ID	B-248	B-248	B-248	B-249	B-249	B-249	B-249	B-249	B-250	B-250
Sample Collection Date	2.5	15	25	2.5	10	15	20	25	20	25
Sample Depth (feet bgs)	12/20/1999	12/20/1999	12/20/1999	12/20/1999	01/01/2002	01/01/2002	12/20/1999	12/20/1999	12/21/1999	12/21/1999
Toluene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
trans-1,2-Dichloroethene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
trans-1,3-Dichloropropene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Trichloroethene	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Trichlorofluoromethane	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Vinyl chloride	< 4.5	< 5.2	< 5.3	< 5.4			< 5.7	< 5	< 5.4	< 5.5
Semivolatile Organic Compounds (ug/kg)		•	•							
2,3,4,5-Tetrachlorophenol	< 18	< 21	< 21	< 22			< 23	< 20	< 5	< 22
2,3,4,6-Tetrachlorophenol	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
2,3,4-Trichlorophenol									< 50	< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol									< 50	< 50
2,3,6-Trichlorophenol									< 50	< 50
2,4,5-Trichlorophenol									< 50	< 50
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5			< 5	< 5	< 50	< 50
2,4-Dichlorophenol									< 50	< 50
2,4-Dimethylphenol									< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
2-Nitrophenol	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol									< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
4-Nitrophenol	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-248	B-248	B-248	B-249	B-249	B-249	B-249	B-249	B-250	B-250
Sample Collection Date	2.5	15	25	2.5	10	15	20	25	20	25
Sample Depth (feet bgs)	12/20/1999	12/20/1999	12/20/1999	12/20/1999	01/01/2002	01/01/2002	12/20/1999	12/20/1999	12/21/1999	12/21/1999
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate									< 10	51
Dimethyl phthalate									29	79
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene									19	39
Hexachlorocyclopentadiene										
Hexachloroethane	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
Isophorone										
Nitrobenzene	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
N-Nitrosodimethylamine	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 5	< 5	< 5			< 5	< 5	110	< 40
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5			< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)		-			-			-		
1-Methylnaphthalene										
2-Methylnaphthalene									< 10	14
Acenaphthene									10	53
Acenaphthylene									< 10	< 10
Anthracene									10	35
Benzo(a)anthracene									< 10	< 10
Benzo(a)pyrene									< 10	< 10
Benzo(b)fluoranthene									< 10	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene									20	< 10
Benzo(k)fluoranthene									< 10	< 10
Chrysene									< 10	< 10
Dibenzo(a,h)anthracene									< 10	< 10
Fluorene									< 10	69
Indeno(1,2,3-cd)pyrene									21	< 10



Sample ID	B-248	B-248	B-248	B-249	B-249	B-249	B-249	B-249	B-250	B-250
Sample Collection Date	2.5	15	25	2.5	10	15	20	25	20	25
Sample Depth (feet bgs)	12/20/1999	12/20/1999	12/20/1999	12/20/1999	01/01/2002	01/01/2002	12/20/1999	12/20/1999	12/21/1999	12/21/1999
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 18	< 21	< 21	< 22			< 23	< 20	< 21	< 22
Phenanthrene									15	180
Pyrene									16	30



Sample ID	B-250	B-251	B-251	B-251	B-252	B-252	B-252	B-253	B-255	B-255
Sample Collection Date	35	2.5	10	25	15	20	25	25	10	15
Sample Depth (feet bgs)	12/21/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/23/1999	01/14/2000	01/14/2000
Metals (mg/kg)			•							
Aluminum										
Antimony										
Arsenic	< 2				3	2	3	5	20	4
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	9				28	27	30	27	14	26
Cobalt										
Copper	14				30	31	34	36	14	33
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	22				78	75	87	84	64	199
Dioxins and Furans (ng/kg)				•	•			•		
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-250	B-251	B-251	B-251	B-252	B-252	B-252	B-253	B-255	B-255
Sample Collection Date	35	2.5	10	25	15	20	25	25	10	15
Sample Depth (feet bgs)	12/21/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/23/1999	01/14/2000	01/14/2000
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)			-		-	-	-	-		
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Gasoline	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Kerosene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
Mineral spirits	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphtha Distillate	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Non-PHC as Diesel	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	4400	< 50
Other Petroleum Hydrocarbons										
PHC as Diesel	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 5.9	< 6.1	< 5.6	< 5.5						
1,1,1-Trichloroethane	< 5.9	< 6.1	< 5.6	< 5.5						
1,1,2,2-Tetrachloroethane	< 5.9	< 6.1	< 5.6	< 5.5						
1,1,2-Trichloroethane	< 5.9	< 6.1	< 5.6	< 5.5						
1,1-Dichloroethane	< 5.9	< 6.1	< 5.6	< 5.5						
1,1-Dichloroethene	< 5.9	< 6.1	< 5.6	< 5.5						
1,1-Dichloropropene	< 5.9	< 6.1	< 5.6	< 5.5						
1,2,3-Trichlorobenzene	< 0.024	< 0.025	< 0.022	< 0.022						
1,2,3-Trichloropropane	< 5.9	< 6.1	< 5.6	< 5.5						
1,2,4-Trichlorobenzene	< 0.024	< 0.025	< 0.022	< 0.022						
1,2,4-Trimethylbenzene	< 24	< 25	< 22	< 22						
1,2-Dibromo-3-chloropropane	< 24	< 25	< 22	< 22						
1,2-Dibromoethane	< 24	< 25	< 22	< 22						
1,2-Dichlorobenzene	< 5.9	< 6.1	< 5.6	< 5.5						
1,2-Dichloroethane	< 5.9	< 6.1	< 5.6	< 5.5						



Sample ID	B-250	B-251	B-251	B-251	B-252	B-252	B-252	B-253	B-255	B-255
Sample Collection Date	35	2.5	10	25	15	20	25	25	10	15
Sample Depth (feet bgs)	12/21/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/23/1999	01/14/2000	01/14/2000
1,2-Dichloropropane	< 5.9	< 6.1	< 5.6	< 5.5						
1,3,5-Trimethylbenzene	< 24	< 25	< 22	< 22						
1,3-Dichlorobenzene	< 5.9	< 6.1	< 5.6	< 5.5						
1,3-Dichloropropane	< 5.9	< 6.1	< 5.6	< 5.5						
1,4-Dichlorobenzene	< 5.9	< 6.1	< 5.6	< 5.5						
2,2-Dichloropropane	< 5.9	< 6.1	< 5.6	< 5.5						
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone	< 24	< 25	< 22	< 22						
Acetone	65	< 61	< 56	< 55						
Benzene	< 5.9	< 6.1	< 5.6	< 5.5						
Bromobenzene	< 5.9	< 6.1	< 5.6	< 5.5						
Bromodichloromethane	< 5.9	< 6.1	< 5.6	< 5.5						
Bromoform	< 5.9	< 6.1	< 5.6	< 5.5						
Bromomethane	< 5.9	< 6.1	< 5.6	< 5.5						
Carbon disulfide	< 5.9	< 6.1	< 5.6	< 5.5						
Carbon tetrachloride	< 5.9	< 6.1	< 5.6	< 5.5						
Chlorobenzene	< 5.9	< 6.1	< 5.6	< 5.5						
Chlorobromomethane	< 5.9	< 6.1	< 5.6	< 5.5						
Chloroethane	< 5.9	< 6.1	< 5.6	< 5.5						
Chloroform	< 5.9	< 6.1	< 5.6	< 5.5						
Chloromethane	< 5.9	< 6.1	< 5.6	< 5.5						
cis-1,2-Dichloroethene	< 5.9	< 6.1	< 5.6	< 5.5						
cis-1,3-Dichloropropene	< 5.9	< 6.1	< 5.6	< 5.5						
Dibromochloromethane	< 5.9	< 6.1	< 5.6	< 5.5						
Dibromomethane	< 5.9	< 6.1	< 5.6	< 5.5						
Dichlorodifluoromethane	< 5.9	< 6.1	< 5.6	< 5.5						
Ethylbenzene	< 5.9	< 6.1	< 5.6	< 5.5						
Isopropylbenzene										
m,p-Xylene	< 5.9	< 6.1	< 5.6	< 5.5						
Methyl tert-butyl ether										
Methylene chloride	17	< 2.5	< 2.2	< 2.2						
n-Butylbenzene										
n-Propylbenzene	< 24	< 25	< 22	< 22						
o-Xylene	< 5.9	< 6.1	< 5.6	< 5.5						
sec-Butylbenzene	< 24	< 25	< 22	< 22						
Styrene	< 5.9	< 6.1	< 5.6	< 5.5						
tert-Butylbenzene	< 0.024	< 0.025	< 0.022	< 0.022						
Tetrachloroethene	< 5.9	< 6.1	< 5.6	< 5.5						



Sample ID	B-250	B-251	B-251	B-251	B-252	B-252	B-252	B-253	B-255	B-255
Sample Collection Date	35	2.5	10	25	15	20	25	25	10	15
Sample Depth (feet bgs)	12/21/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/23/1999	01/14/2000	01/14/2000
Toluene	< 5.9	< 6.1	< 5.6	< 5.5						
trans-1,2-Dichloroethene	< 5.9	< 6.1	< 5.6	< 5.5						
trans-1,3-Dichloropropene	< 5.9	< 6.1	< 5.6	< 5.5						
Trichloroethene	< 5.9	< 6.1	< 5.6	< 5.5						
Trichlorofluoromethane	< 5.9	< 6.1	< 5.6	< 5.5						
Vinyl chloride	< 5.9	< 6.1	< 5.6	< 5.5						
Semivolatile Organic Compounds (ug/kg)		•								
2,3,4,5-Tetrachlorophenol	< 24	< 25	< 22	< 22						
2,3,4,6-Tetrachlorophenol	< 24	< 25	< 22	< 22						
2,3,4-Trichlorophenol	< 50				180	450	< 50	< 50	< 500	< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 50				< 50	< 50	< 50	< 50	< 500	< 50
2,3,6-Trichlorophenol	< 50				< 50	960	< 50	< 50	< 500	< 50
2,4,5-Trichlorophenol	< 50				< 50	< 50	< 50	< 50	< 500	< 50
2,4,6-Trichlorophenol	< 50	< 5	< 5	< 5	< 50	< 500	< 50	< 50	< 500	< 50
2,4-Dichlorophenol	< 50				< 50	< 50	< 50	< 50	< 500	< 50
2,4-Dimethylphenol	< 50				< 50	< 50	< 50	< 50	< 500	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol	< 24	< 25	< 22	< 22						
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline	< 24	< 25	< 22	< 22						
2-Nitrophenol	< 24	< 25	< 22	< 22						
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 50				< 50	< 50	< 50	< 50	< 500	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline	< 24	< 25	< 22	< 22						
4-Nitrophenol	< 24	< 25	< 22	< 22						
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-250	B-251	B-251	B-251	B-252	B-252	B-252	B-253	B-255	B-255
Sample Collection Date	35	2.5	10	25	15	20	25	25	10	15
Sample Depth (feet bgs)	12/21/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/23/1999	01/14/2000	01/14/2000
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate	36				< 10	< 10	< 10	120	2300	< 10
Dimethyl phthalate	140				< 10	< 10	< 10	290	9300	< 10
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	480				< 10	< 10	< 10	340	16000	< 10
Hexachlorocyclopentadiene										
Hexachloroethane	< 24	< 25	< 22	< 22						
Isophorone										
Nitrobenzene	< 24	< 25	< 22	< 22						
N-Nitrosodimethylamine	< 24	< 25	< 22	< 22						
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 40	< 5	< 5	< 5	3800	4300	57	420	7700	49
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	80	820	< 5	9	500	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	10				< 10	< 10	< 10	990	52000	34
Acenaphthene	200				< 10	< 10	< 10	630	19000	16
Acenaphthylene	< 10				< 10	< 10	< 10	< 10	100	< 10
Anthracene	87				< 10	< 10	< 10	170	9500	< 10
Benzo(a)anthracene	76				< 10	< 10	< 10	49	4100	< 10
Benzo(a)pyrene	17				< 10	< 10	< 10	16	1600	< 10
Benzo(b)fluoranthene	16				< 10	< 10	< 10	17	1400	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 10				< 10	< 10	< 10	< 10	270	< 10
Benzo(k)fluoranthene	32				< 10	< 10	< 10	23	1700	< 10
Chrysene	75				< 10	< 10	< 10	47	6500	< 10
Dibenzo(a,h)anthracene	< 10				< 10	< 10	< 10	< 10	110	< 10
Fluorene	260				< 10	< 10	< 10	400	9500	< 10
Indeno(1,2,3-cd)pyrene	< 10				< 10	< 10	< 10	< 10	320	< 10



Sample ID	B-250	B-251	B-251	B-251	B-252	B-252	B-252	B-253	B-255	B-255
Sample Collection Date	35	2.5	10	25	15	20	25	25	10	15
Sample Depth (feet bgs)	12/21/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/22/1999	12/23/1999	01/14/2000	01/14/2000
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 24	< 25	< 22	< 22	< 10	13	10	2300	360000	190
Phenanthrene	1000				< 10	< 10	< 10	830	21000	10
Pyrene	380				< 10	< 10	< 10	270	13000	< 10



Sample ID	B-255	B-256	B-256	B-256	B-261	B-261	B-261	B-264	B-264	B-265
Sample Collection Date	25	5	10	20	10	15	30	2.5	10	5
Sample Depth (feet bgs)	01/14/2000	01/14/2000	01/14/2000	01/14/2000	01/20/2000	01/20/2000	01/20/2000	08/17/2001	08/17/2001	08/17/2001
Metals (mg/kg)			•				•			•
Aluminum										
Antimony										
Arsenic		4	5		2	2	1	4.9	2.2	2.5
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium		21	25		12	13	7	25.4	21.9	24.5
Cobalt										
Copper		17	37		17	18	15	21.8	20.6	18.5
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc		45	58		61	37	30			
Dioxins and Furans (ng/kg)		T	1	T		T	1		T	1
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-255	B-256	B-256	B-256	B-261	B-261	B-261	B-264	B-264	B-265
Sample Collection Date	25	5	10	20	10	15	30	2.5	10	5
Sample Depth (feet bgs)	01/14/2000	01/14/2000	01/14/2000	01/14/2000	01/20/2000	01/20/2000	01/20/2000	08/17/2001	08/17/2001	08/17/2001
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-		-	-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel		< 10	< 10		< 10	< 10	< 10	16	20	< 12
Gasoline		< 10	< 10		< 10	< 10	< 10	< 13	< 13	< 12
Heavy-Fuel-Oil-Range Hydrocarbons		< 25	< 25		< 25	< 25	< 25			
Heavy-Oil-Range Hydrocarbon										
Jet fuels		< 10	< 10		< 10	< 10	< 10			
Kerosene		< 10	< 10		< 10	< 10	< 10			
Lube-Oil-Range Hydrocarbons		< 25	< 25		< 25	< 25	< 25			
Mineral spirits		< 10	< 10		< 10	< 10	< 10			
Naphtha Distillate		< 10	< 10		< 10	< 10	< 10			
Non-PHC as Diesel		< 50	< 50		< 50	83	< 50			
Other Petroleum Hydrocarbons										
PHC as Diesel		< 25	< 25		< 25	< 25	< 25			
TPH										
TPH (as motor oil)								85	76	< 30
Volatile Organic Compounds (ug/kg)					-		-		-	
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-255	B-256	B-256	B-256	B-261	B-261	B-261	B-264	B-264	B-265
Sample Collection Date	25	5	10	20	10	15	30	2.5	10	5
Sample Depth (feet bgs)	01/14/2000	01/14/2000	01/14/2000	01/14/2000	01/20/2000	01/20/2000	01/20/2000	08/17/2001	08/17/2001	08/17/2001
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-255	B-256	B-256	B-256	B-261	B-261	B-261	B-264	B-264	B-265
Sample Collection Date	25	5	10	20	10	15	30	2.5	10	5
Sample Depth (feet bgs)	01/14/2000	01/14/2000	01/14/2000	01/14/2000	01/20/2000	01/20/2000	01/20/2000	08/17/2001	08/17/2001	08/17/2001
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)			-				-			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol		< 50	< 50		< 50	< 50	< 50	< 66	< 65	< 62
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol		< 50	< 50		< 50	< 50	< 50	< 66	< 65	< 62
2,3,6-Trichlorophenol		< 50	< 50		< 50	< 50	< 50	< 66	< 65	< 62
2,4,5-Trichlorophenol		< 50	< 50		< 50	< 50	< 50	< 66	< 65	< 62
2,4,6-Trichlorophenol	< 5	< 50	< 50	< 5	< 50	< 50	< 50	< 66	< 65	< 62
2,4-Dichlorophenol		< 50	< 50		< 50	< 50	< 50	< 66	< 65	< 62
2,4-Dimethylphenol		< 50	< 50		< 50	< 50	< 50	< 66	< 65	< 62
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol		< 50	< 50		< 50	< 50	< 50	< 66	< 65	< 62
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-255	B-256	B-256	B-256	B-261	B-261	B-261	B-264	B-264	B-265
Sample Collection Date	25	5	10	20	10	15	30	2.5	10	5
Sample Depth (feet bgs)	01/14/2000	01/14/2000	01/14/2000	01/14/2000	01/20/2000	01/20/2000	01/20/2000	08/17/2001	08/17/2001	08/17/2001
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate		< 10	15		< 10	71	< 10	< 14	< 13	< 13
Dimethyl phthalate		< 10	22		< 10	650	< 10	< 14	< 13	< 13
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene		< 10	44		< 10	1200	< 10	15	< 13	< 13
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 5	< 40	< 40	< 5	420	1800	110	< 66	< 65	< 62
Phenol										
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5	56	22			
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene		< 10	10		< 10	1000	< 10	52	< 13	< 13
Acenaphthene		< 10	64		< 10	970	< 10	< 14	< 13	< 13
Acenaphthylene		< 10	< 10		< 10	17	< 10	< 14	< 13	< 13
Anthracene		< 10	14		< 10	420	< 10	< 14	< 13	< 13
Benzo(a)anthracene		< 10	< 10		< 10	270	< 10	< 14	< 13	< 13
Benzo(a)pyrene		< 10	< 10		< 10	66	< 10	< 14	< 13	< 13
Benzo(b)fluoranthene		< 10	< 10		< 10	73	< 10	< 14	< 13	< 13
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene		< 10	< 10		< 10	17	< 10	< 14	< 13	< 13
Benzo(k)fluoranthene		< 10	< 10		< 10	70	< 10	< 14	< 13	< 13
Chrysene		< 10	10		< 10	220	< 10	< 14	< 13	< 13
Dibenzo(a,h)anthracene		< 10	< 10		< 10	< 10	< 10	< 14	< 13	< 13
Fluorene		< 10	44		< 10	780	< 10	< 14	< 13	< 13
Indeno(1,2,3-cd)pyrene		< 10	< 10		< 10	19	< 10	< 14	< 13	< 13



Sample ID	B-255	B-256	B-256	B-256	B-261	B-261	B-261	B-264	B-264	B-265
Sample Collection Date	25	5	10	20	10	15	30	2.5	10	5
Sample Depth (feet bgs)	01/14/2000	01/14/2000	01/14/2000	01/14/2000	01/20/2000	01/20/2000	01/20/2000	08/17/2001	08/17/2001	08/17/2001
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene		24	49		< 10	850	< 10	120	< 13	< 13
Phenanthrene		< 10	< 10		< 10	2300	11	< 14	< 13	< 13
Pyrene		< 10	36		< 10	930	< 10	14	< 13	< 13



Sample ID	B-266	B-272	B-273	B-274	B-3	B-302	B-303	B-304	B-304	B-305
Sample Collection Date	5	5	5	5	0	20	20	10	19.5	10
Sample Depth (feet bgs)	08/17/2001	08/17/2001	08/20/2001	08/20/2001	11/07/2000	09/23/2005	09/26/2005	06/12/2008	06/12/2008	06/12/2008
Metals (mg/kg)				•			•		•	
Aluminum										
Antimony										
Arsenic	5.3	14.4	3.8	2.6				38.2	< 2.28	< 2.31
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	22.4	45.5	26	19.9				68.7	21	17.8
Cobalt										
Copper	23.4	11.8	27.4	17.1				24.3	16.8	45.8
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc								324	56.3	82.6
Dioxins and Furans (ng/kg)			•	•	•	•	•	•	•	•
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-266	B-272	B-273	B-274	B-3	B-302	B-303	B-304	B-304	B-305
Sample Collection Date	5	5	5	5	0	20	20	10	19.5	10
Sample Depth (feet bgs)	08/17/2001	08/17/2001	08/20/2001	08/20/2001	11/07/2000	09/23/2005	09/26/2005	06/12/2008	06/12/2008	06/12/2008
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		•					•	-	•	
C10-C22 Diesel-Range Organics					< 50					
C4-C12 Gasoline-Range Organics					< 20					
Diesel	< 16	130	22	< 14	240			11800	25.3	38.8
Gasoline	< 16	17	18	< 14						
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons								3270	< 68.4	< 69.4
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)	100	170	49	< 35	1300					
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane								< 11.4	< 13.7	< 69.4
1,1,1-Trichloroethane								< 11.4	< 13.7	< 69.4
1,1,2,2-Tetrachloroethane								57.1	< 13.7	< 69.4
1,1,2-Trichloroethane								< 11.4	< 13.7	< 69.4
1,1-Dichloroethane								< 11.4	< 13.7	< 69.4
1,1-Dichloroethene								< 11.4	< 13.7	< 69.4
1,1-Dichloropropene								< 11.4	< 13.7	< 69.4
1,2,3-Trichlorobenzene								< 0.0571	< 0.0137	< 0.0694
1,2,3-Trichloropropane								< 57.1	< 13.7	< 69.4
1,2,4-Trichlorobenzene						< 0.0358	< 0.036	< 0.0571	< 0.0137	< 0.0694
1,2,4-Trimethylbenzene								< 57.1	< 13.7	< 69.4
1,2-Dibromo-3-chloropropane						< 35.8	< 36	< 57.1	< 13.7	< 69.4
1,2-Dibromoethane								< 57.1	< 13.7	< 69.4
1,2-Dichlorobenzene						< 35.8	< 36	< 57.1	< 13.7	< 69.4
1,2-Dichloroethane								< 11.4	< 13.7	< 69.4



Sample ID	B-266	B-272	B-273	B-274	B-3	B-302	B-303	B-304	B-304	B-305
Sample Collection Date	5	5	5	5	0	20	20	10	19.5	10
Sample Depth (feet bgs)	08/17/2001	08/17/2001	08/20/2001	08/20/2001	11/07/2000	09/23/2005	09/26/2005	06/12/2008	06/12/2008	06/12/2008
1,2-Dichloropropane								< 11.4	< 13.7	< 69.4
1,3,5-Trimethylbenzene								< 57.1	< 13.7	< 69.4
1,3-Dichlorobenzene						< 35.8	< 36	< 57.1	< 13.7	< 69.4
1,3-Dichloropropane								< 11.4	< 13.7	< 69.4
1,4-Dichlorobenzene						< 35.8	< 36	< 57.1	< 13.7	< 69.4
2,2-Dichloropropane								< 11.4	< 13.7	< 69.4
2-Butanone						< 35.8	< 180			
2-Chlorotoluene						< 35.8	< 36			
2-Hexanone						< 35.8	< 36			
4-Chlorotoluene						< 35.8	< 108			
4-Isopropyltoluene						< 35.8	< 36			
4-Methyl-2-pentanone								< 57.1	< 13.7	< 69.4
Acetone								242	< 68.4	< 347
Benzene								< 11.4	< 13.7	< 69.4
Bromobenzene								< 57.1	< 13.7	< 69.4
Bromodichloromethane								< 11.4	< 13.7	< 69.4
Bromoform								< 11.4	< 13.7	< 69.4
Bromomethane								< 11.4	< 13.7	< 69.4
Carbon disulfide								< 11.4	< 13.7	< 69.4
Carbon tetrachloride								< 11.4	< 13.7	< 69.4
Chlorobenzene								< 11.4	< 13.7	< 69.4
Chlorobromomethane								< 11.4	< 13.7	< 69.4
Chloroethane								< 11.4	< 13.7	< 69.4
Chloroform								< 11.4	< 13.7	< 69.4
Chloromethane								< 11.4	< 13.7	< 69.4
cis-1,2-Dichloroethene								< 11.4	< 13.7	< 69.4
cis-1,3-Dichloropropene								< 11.4	< 13.7	< 69.4
Dibromochloromethane								< 11.4	< 13.7	< 69.4
Dibromomethane								< 11.4	< 13.7	< 69.4
Dichlorodifluoromethane								< 11.4	< 13.7	< 69.4
Ethylbenzene								< 11.4	< 13.7	< 69.4
Isopropylbenzene						< 35.8	< 71.9			
m,p-Xylene								< 22.9	< 27.4	< 139
Methyl tert-butyl ether								< 11.4	< 13.7	< 69.4
Methylene chloride								< 57.1	< 68.4	< 347
n-Butylbenzene						< 35.8	< 36			
n-Propylbenzene								< 57.1	< 13.7	< 69.4
o-Xylene								< 11.4	< 13.7	< 69.4
sec-Butylbenzene								< 57.1	< 13.7	< 69.4
Styrene								< 11.4	< 13.7	< 69.4
tert-Butylbenzene								< 0.0571	< 0.0137	< 0.0694
Tetrachloroethene								< 11.4	< 13.7	< 69.4



Sample ID	B-266	B-272	B-273	B-274	B-3	B-302	B-303	B-304	B-304	B-305
Sample Collection Date	5	5	5	5	0	20	20	10	19.5	10
Sample Depth (feet bgs)	08/17/2001	08/17/2001	08/20/2001	08/20/2001	11/07/2000	09/23/2005	09/26/2005	06/12/2008	06/12/2008	06/12/2008
Toluene								< 11.4	< 13.7	< 69.4
trans-1,2-Dichloroethene								< 11.4	< 13.7	< 69.4
trans-1,3-Dichloropropene								< 11.4	< 13.7	< 69.4
Trichloroethene								< 11.4	< 13.7	< 69.4
Trichlorofluoromethane								< 11.4	< 13.7	< 69.4
Vinyl chloride								< 11.4	< 13.7	< 69.4
Semivolatile Organic Compounds (ug/kg)							-		-	
2,3,4,5-Tetrachlorophenol								< 11.4	< 13.7	< 69.4
2,3,4,6-Tetrachlorophenol								< 57.1	< 13.7	< 69.4
2,3,4-Trichlorophenol	< 80	< 58	< 74	< 70						
2,3,5,6-Tetrachlorophenol						< 35.8	< 180	8760	< 45.6	< 46.3
2,3,5-Trichlorophenol	< 80	< 58	< 74	< 70		< 35.8	< 36	< 152	< 45.6	< 46.3
2,3,6-Trichlorophenol	< 80	< 58	< 74	< 70		< 35.8	< 180	1680	< 45.6	< 46.3
2,4,5-Trichlorophenol	< 80	< 58	< 74	< 70		< 35.8	< 36	< 152	< 45.6	< 46.3
2,4,6-Trichlorophenol	< 80	< 58	< 74	< 70		< 35.8	< 180	< 152	< 45.6	< 46.3
2,4-Dichlorophenol	< 80	< 58	< 74	< 70		< 35.8	< 36	< 152	< 45.6	< 46.3
2,4-Dimethylphenol	< 80	< 58	< 74	< 70		< 35.8	< 180	1630	< 45.6	< 46.3
2,4-Dinitrophenol						< 35.8	< 108			
2,4-Dinitrotoluene						< 35.8	< 108			
2,6-Dichlorophenol						< 358.0	< 360			
2,6-Dinitrotoluene						< 35.8	< 180			
2-Chloronaphthalene										
2-Chlorophenol								94.3	< 27.4	< 139
2-Methylphenol						< 35.8	< 71.9			
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline								< 57.1	< 13.7	< 69.4
2-Nitrophenol								< 22.9	< 27.4	< 139
3- & 4-Methylphenol						< 35.8	< 216			
3,3-Dichlorobenzidine						< 179	< 180			
3,4,5-Trichlorophenol						< 35.8	< 360			
3-Nitroaniline						< 179	< 180			
4,6-Dinitro-2-methylphenol	< 80	< 58	< 74	< 70		< 35.8	< 36	< 152.0	< 45.6	< 46.3
4-Bromophenylphenyl ether						< 35.8	< 216			
4-Chloro-3-methylphenol						< 179	< 360			
4-Chloroaniline						< 35.8	< 36			
4-Chlorophenylphenyl ether						< 35.8	< 72			
4-Nitroaniline								< 57.1	< 13.7	< 69.4
4-Nitrophenol								< 22.9	< 27.4	< 139
Aniline						< 35.8	< 180			
Benzoic acid						< 179	< 180			
Benzyl alcohol										



Sample ID	B-266	B-272	B-273	B-274	B-3	B-302	B-303	B-304	B-304	B-305
Sample Collection Date	5	5	5	5	0	20	20	10	19.5	10
Sample Depth (feet bgs)	08/17/2001	08/17/2001	08/20/2001	08/20/2001	11/07/2000	09/23/2005	09/26/2005	06/12/2008	06/12/2008	06/12/2008
Bis(2-chloro-1-methylethyl) ether						< 716	< 719			
Bis(2-chloroethoxy)methane						< 35.8	< 180			
Bis(2-chloroethyl)ether						< 35.8	< 36			
Bis(2-chloroisopropyl)ether						< 35.8	< 36			
Bis(2-ethylhexyl)phthalate						< 35.8	< 71.9			
Butylbenzylphthalate										
Carbazole						43.7	59.3	< 152	< 45.6	< 46.3
Dibenzofuran						< 35.8	< 36			
Diethylphthalate	< 16	270	61	< 14		< 35.8	44.2	1630	< 45.6	< 46.3
Dimethyl phthalate	< 16	330	280	< 14		53	908	629	71.1	< 46.3
Di-n-butyl phthalate						< 35.8	< 36			
Di-n-octyl phthalate						< 35.8	< 36			
Fluoranthene						< 35.8	< 36			
Hexachlorobenzene						< 35.8	< 36			
Hexachlorobutadiene	< 16	710	390	76		500	2280	28300	< 45.6	< 46.3
Hexachlorocyclopentadiene						< 35.8	< 36			
Hexachloroethane						< 35.8	< 71.9	< 57.1	< 13.7	< 69.4
Isophorone						< 35.8	< 180			
Nitrobenzene								< 11.4	< 13.7	< 69.4
N-Nitrosodimethylamine								< 57.1	< 13.7	< 69.4
N-Nitrosodiphenylamine						< 35.8	< 36			
N-Nitrosodipropylamine										
Pentachlorophenol	< 80	< 58	< 74	< 70		< 53.7	< 180	119000	< 68.4	< 69.4
Phenol						< 35.8	< 71.9			
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene						< 35.8	< 36	< 160	< 76.2	< 46.3
2-Methylnaphthalene	< 16	700	950	< 14		50.5	< 36	< 152	< 45.6	< 46.3
Acenaphthene	21	1000	580	18		96	233	4950	< 181	< 46.3
Acenaphthylene	< 16	< 12	< 15	< 14		< 35.8	< 36	518	< 45.6	< 46.3
Anthracene	< 16	190	190	< 14		139	1660	3650	< 45.6	< 46.3
Benzo(a)anthracene	< 16	100	61	16		1600	310	6080	< 45.6	< 46.3
Benzo(a)pyrene	< 16	31	20	< 14		1070	< 36	1360	< 45.6	< 46.3
Benzo(b)fluoranthene	< 16	57	25	< 14		1610	79.1	3200	< 45.6	< 46.3
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 16	< 12	< 15	< 14		234	< 36	561	< 45.6	< 46.3
Benzo(k)fluoranthene	< 16	47	22	< 14		637	< 36	1250	< 45.6	< 46.3
Chrysene	< 16	120	57	22		1460	286	6350	< 45.6	< 46.3
Dibenzo(a,h)anthracene	< 16	< 12	< 15	< 14		62	< 36	262	< 45.6	< 46.3
Fluorene	< 16	490	360	< 14		92.4	1060	1570	79.8	< 46.3
Indeno(1,2,3-cd)pyrene	< 16	12	< 15	< 14		266	< 36	627	< 45.6	< 46.3



Sample ID	B-266	B-272	B-273	B-274	B-3	B-302	B-303	B-304	B-304	B-305
Sample Collection Date	5	5	5	5	0	20	20	10	19.5	10
Sample Depth (feet bgs)	08/17/2001	08/17/2001	08/20/2001	08/20/2001	11/07/2000	09/23/2005	09/26/2005	06/12/2008	06/12/2008	06/12/2008
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	52	2400	1700	1300		85.2	61.1	596	< 45.6	< 69.4
Phenanthrene	< 16	930	960	35		275	5870	4930	< 45.6	< 46.3
Pyrene	< 16	540	290	67		564	1370	32400	< 45.6	< 46.3



Sample ID	B-305	B-306	B-306	B-306	B-313	B-313	B-313	B-313	B-42	B-42
Sample Collection Date	19	2.5	15	18	2.5	5	10	15	8	12.5
Sample Depth (feet bgs)	06/12/2008	03/11/2009	03/11/2009	03/11/2009	05/21/2009	05/21/2009	05/21/2009	05/21/2009	12/09/1997	12/09/1997
Metals (mg/kg)				•	•		•	•	•	
Aluminum										
Antimony		12.1		2.58						
Arsenic	< 2.55	592		2.75	1.53	1.56	2.22	3.57	3	1
Barium										
Beryllium		1.06		1.11						
Cadmium		4.58		< 0.109						
Calcium										
Chromium	34.1	367		18.2	7.73	8.05	12.6	21.1	12	9
Cobalt										
Copper	22.8	348		24.3	2.74	3.06	9.53	16.8	28	18
Iron										
Lead		9.76		< 2.17						
Magnesium										
Manganese										
Mercury										
Nickel		12.3		11.2						
Potassium										
Selenium		< 2.06		< 2.17						
Silver										
Sodium										
Thallium		< 2.58		< 2.72						
Vanadium										
Zinc	78.3	669		63.5	32.8	47.2	59	59	48	38
Dioxins and Furans (ng/kg)			-		-			-		
1,2,3,4,6,7,8-HpCDD		280000	400000	400000	8.7	6.1	5	4.8		
1,2,3,4,6,7,8-HpCDF		18000	4000	4000	0.86	1	0.76	0.59		
1,2,3,4,7,8,9-HpCDF		1300	210	210	< 0.14	< 0.076	< 0.088	< 0.079		
1,2,3,4,7,8-HxCDD		440	1100	1100	< 0.15	< 0.11	< 0.19	< 0.12		
1,2,3,4,7,8-HxCDF		6600	< 1200	< 1200	< 0.21	0.35	< 0.084	< 0.077		
1,2,3,6,7,8-HxCDD		10000	10000	10000	0.36	0.31	0.21	< 0.17		
1,2,3,6,7,8-HxCDF		800	250	250	< 0.24	< 0.092	0.11	< 0.095		
1,2,3,7,8,9-HxCDD		1800	4500	4500	< 0.13	< 0.14	< 0.12	< 0.16		
1,2,3,7,8,9-HxCDF		150	< 40	< 0.91	< 0.078	< 0.097	< 0.078	< 0.092		
1,2,3,7,8-PeCDD		170	180	180	< 0.13	< 0.085	< 0.092	< 0.11		
1,2,3,7,8-PeCDF		620	110	110	< 0.18	< 0.14	< 0.17	< 0.13		
2,3,4,6,7,8-HxCDF		710	140	140	< 0.083	< 0.16	< 0.11	< 0.086		
2,3,4,7,8-PeCDF		850	220	220	< 0.11	0.2	< 0.1	< 0.096		
2,3,7,8-TCDD		< 0.18	< 7.9	< 0.18	< 0.24	< 0.11	< 0.16	< 0.18		
2,3,7,8-TCDF		< 120	38	38	< 0.19	< 0.11	< 0.13	0.23		
OCDD		4200000	2100000	2100000	120	59	67	45		
OCDF		53000	17000	17000	1.7	0.99	1.5	< 0.02		



Sample ID	B-305	B-306	B-306	B-306	B-313	B-313	B-313	B-313	B-42	B-42
Sample Collection Date	19	2.5	15	18	2.5	5	10	15	8	12.5
Sample Depth (feet bgs)	06/12/2008	03/11/2009	03/11/2009	03/11/2009	05/21/2009	05/21/2009	05/21/2009	05/21/2009	12/09/1997	12/09/1997
Total HpCDDs		650000	690000	690000	16	11	9.8	9.6		
Total HpCDFs		64000	17000	17000	2.6	2.7	0.76	1.7		
Total HxCDDs		49000	130000	130000	1	0.99	0.6	1.7		
Total HxCDFs		50000	8300	8300	0.48	2.4	1.4	1.1		
Total PeCDDs		2600	3600	3600	< 0.13	< 0.085	< 0.092	< 0.11		
Total PeCDFs		11000	2200	2200	< 0.15	1.1	0.36	0.34		
Total TCDDs		2500	2000	2000	0.62	< 0.11	< 0.16	< 0.18		
Total TCDFs		1700	420	420	< 0.19	< 0.11	< 0.13	0.49		
Dioxin TEQ (Mammals—WHO 2005)		6700	6600	6600	0.42	0.35	0.29	0.29		
Petroleum Hydrocarbons (mg/kg)			-	-	-	-	-		-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	29.2				< 15.9		< 19.4	< 19.9		< 10
Gasoline										< 10
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										< 10
Kerosene										< 10
Lube-Oil-Range Hydrocarbons	< 68.9				< 53		80.3	< 66.5		
Mineral spirits										< 10
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										< 20
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 13.8									
1,1,1-Trichloroethane	< 13.8									
1,1,2,2-Tetrachloroethane	< 13.8									
1,1,2-Trichloroethane	< 13.8									
1,1-Dichloroethane	< 13.8									
1,1-Dichloroethene	< 13.8									
1,1-Dichloropropene	< 13.8									
1,2,3-Trichlorobenzene	< 0.0138									
1,2,3-Trichloropropane	< 13.8									
1,2,4-Trichlorobenzene	< 0.0138				< 0.0353	< 0.0358	< 0.043	< 0.0443		
1,2,4-Trimethylbenzene	< 13.8									
1,2-Dibromo-3-chloropropane	< 13.8				< 35.3	< 35.8	< 43	< 44.3		
1,2-Dibromoethane	< 13.8									
1,2-Dichlorobenzene	< 13.8				< 35.3	< 35.8	< 43	< 44.3		
1,2-Dichloroethane	< 13.8									



Sample ID	B-305	B-306	B-306	B-306	B-313	B-313	B-313	B-313	B-42	B-42
Sample Collection Date	19	2.5	15	18	2.5	5	10	15	8	12.5
Sample Depth (feet bgs)	06/12/2008	03/11/2009	03/11/2009	03/11/2009	05/21/2009	05/21/2009	05/21/2009	05/21/2009	12/09/1997	12/09/1997
1,2-Dichloropropane	< 13.8									
1,3,5-Trimethylbenzene	< 13.8									
1,3-Dichlorobenzene	< 13.8				< 35.3	< 35.8	< 43	< 44.3		
1,3-Dichloropropane	< 13.8									
1,4-Dichlorobenzene	< 13.8				< 35.3	< 35.8	< 43	44.3		
2,2-Dichloropropane	< 13.8									
2-Butanone										
2-Chlorotoluene					< 35.3	< 35.8	< 43	< 44.3		
2-Hexanone					< 35.3	< 35.8	< 43	< 44.3		
4-Chlorotoluene					< 35.3	< 35.8	< 43	< 44.3		
4-Isopropyltoluene					< 35.3	< 35.8	< 43	< 44.3		
4-Methyl-2-pentanone	< 13.8									
Acetone	< 68.9									
Benzene	< 13.8									
Bromobenzene	< 13.8									
Bromodichloromethane	< 13.8									
Bromoform	< 13.8									
Bromomethane	< 13.8									
Carbon disulfide	< 13.8									
Carbon tetrachloride	< 13.8									
Chlorobenzene	< 13.8									
Chlorobromomethane	< 13.8									
Chloroethane	< 13.8									
Chloroform	< 13.8									
Chloromethane	< 13.8									
cis-1,2-Dichloroethene	< 13.8									
cis-1,3-Dichloropropene	< 13.8									
Dibromochloromethane	< 13.8									
Dibromomethane	< 13.8									
Dichlorodifluoromethane	< 13.8									
Ethylbenzene	< 13.8									
Isopropylbenzene					< 35.3	< 35.8	< 43	< 44.3		
m,p-Xylene	< 27.5									
Methyl tert-butyl ether	< 13.8									
Methylene chloride	< 68.9									
n-Butylbenzene					< 35.3	< 35.8	< 43	< 44.3		
n-Propylbenzene	< 13.8									
o-Xylene	< 13.8									
sec-Butylbenzene	< 13.8									
Styrene	< 13.8									
tert-Butylbenzene	< 0.0138									
Tetrachloroethene	< 13.8									



Sample ID	B-305	B-306	B-306	B-306	B-313	B-313	B-313	B-313	B-42	B-42
Sample Collection Date	19	2.5	15	18	2.5	5	10	15	8	12.5
Sample Depth (feet bgs)	06/12/2008	03/11/2009	03/11/2009	03/11/2009	05/21/2009	05/21/2009	05/21/2009	05/21/2009	12/09/1997	12/09/1997
Toluene	< 13.8									
trans-1,2-Dichloroethene	< 13.8									
trans-1,3-Dichloropropene	< 13.8									
Trichloroethene	< 13.8									
Trichlorofluoromethane	< 13.8									
Vinyl chloride	< 13.8									
Semivolatile Organic Compounds (ug/kg)			-							
2,3,4,5-Tetrachlorophenol	< 13.8									
2,3,4,6-Tetrachlorophenol	< 13.8									
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		
2,3,5-Trichlorophenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		
2,3,6-Trichlorophenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		
2,4,5-Trichlorophenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		
2,4,6-Trichlorophenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		< 300
2,4-Dichlorophenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		
2,4-Dimethylphenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		< 300
2,4-Dinitrophenol					< 35.3	< 35.8	< 43	< 44.3		
2,4-Dinitrotoluene					< 35.3	< 35.8	< 43	< 44.3		
2,6-Dichlorophenol					< 353	< 358	< 430	< 443		
2,6-Dinitrotoluene					< 35.3	< 35.8	< 43	< 44.3		
2-Chloronaphthalene										
2-Chlorophenol	< 27.5									
2-Methylphenol					< 35.3	< 35.8	< 43	< 44.3		< 300
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline	< 13.8									
2-Nitrophenol	< 27.5									
3- & 4-Methylphenol					< 35.3	< 35.8	< 43	< 44.3		
3,3-Dichlorobenzidine					< 177	< 179	< 215	< 222		
3,4,5-Trichlorophenol					< 35.3	< 35.8	< 43	< 44.3		< 300
3-Nitroaniline					< 177	< 179	< 215	< 222		
4,6-Dinitro-2-methylphenol	< 45.9				< 35.3	< 35.8	< 43	< 44.3		
4-Bromophenylphenyl ether					< 35.3	< 35.8	< 43	< 44.3		
4-Chloro-3-methylphenol					< 177	< 179	< 215	< 222		
4-Chloroaniline					< 35.3	< 35.8	< 43	< 44.3		
4-Chlorophenylphenyl ether					< 35.3	< 35.8	< 43	< 44.3		
4-Nitroaniline	< 13.8									
4-Nitrophenol	< 27.5									
Aniline					< 35.3	< 35.8	< 43	< 44.3		
Benzoic acid					< 177	< 179	< 215	< 222		
Benzyl alcohol										



Sample ID	B-305	B-306	B-306	B-306	B-313	B-313	B-313	B-313	B-42	B-42
Sample Collection Date	19	2.5	15	18	2.5	5	10	15	8	12.5
Sample Depth (feet bgs)	06/12/2008	03/11/2009	03/11/2009	03/11/2009	05/21/2009	05/21/2009	05/21/2009	05/21/2009	12/09/1997	12/09/1997
Bis(2-chloro-1-methylethyl) ether					< 706	< 717	< 860	< 887		
Bis(2-chloroethoxy)methane					< 35.3	< 35.8	< 43	< 44.3		
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether					< 35.3	< 35.8	< 43	< 44.3		
Bis(2-ethylhexyl)phthalate					< 35.3	< 35.8	< 43	< 44.3		
Butylbenzylphthalate					< 35.3	< 35.8	< 43	< 44.3		
Carbazole	< 45.9				< 35.3	46.9	< 43	< 44.3		
Dibenzofuran					< 35.3	< 35.8	< 43	< 44.3		
Diethylphthalate	171				< 35.3	< 35.8	< 43	< 44.3		< 300
Dimethyl phthalate	227				< 35.3	< 35.8	< 43	< 44.3	< 1000	
Di-n-butyl phthalate					< 35.3	< 35.8	< 43	< 44.3		
Di-n-octyl phthalate					< 35.3	< 35.8	< 43	< 44.3		
Fluoranthene					< 35.3	< 35.8	< 43	< 44.3		
Hexachlorobenzene					< 35.3	< 35.8	< 43	< 44.3		
Hexachlorobutadiene	< 45.9	310000		55800	< 35.3	< 35.8	< 43	< 44.3	5000	
Hexachlorocyclopentadiene					< 35.3	< 35.8	< 43	< 44.3		
Hexachloroethane	< 13.8				< 35.3	< 35.8	< 43	< 44.3		
Isophorone					< 35.3	< 35.8	< 43	< 44.3		
Nitrobenzene	< 13.8									
N-Nitrosodimethylamine	< 13.8									
N-Nitrosodiphenylamine					< 35.3	< 35.8	< 43	< 44.3		
N-Nitrosodipropylamine										
Pentachlorophenol	< 68.9	46700		853	< 53	< 53.7	< 64.5	< 66.5	5000	55
Phenol					< 35.3	< 35.8	43	< 44.3		
Tetrachlorophenols, Total										< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene	374				< 35.3	< 35.8	< 43	< 44.3		
2-Methylnaphthalene	< 93.7				< 35.3	< 35.8	< 43	< 44.3	< 1000	
Acenaphthene	407	36000		541	< 35.3	< 35.8	< 43	< 44.3	1290	
Acenaphthylene	< 45.9	1880		172	< 35.3	< 35.8	< 43	< 44.3	< 1000	
Anthracene	45.9	77700		6640	< 35.3	< 35.8	< 43	< 44.3	3000	
Benzo(a)anthracene	< 45.9	49100		17500	< 35.3	< 35.8	< 43	< 44.3	< 1000	
Benzo(a)pyrene	< 45.9	15700		3070	< 35.3	< 35.8	< 43	< 44.3	< 1000	
Benzo(b)fluoranthene	< 45.9	39600		5560	< 35.3	< 35.8	< 43	< 44.3	265	
Benzo(b+k)fluoranthene									< 1000	
Benzo(ghi)perylene	< 45.9	5770		892	< 35.3	< 35.8	< 43	< 44.3	< 1000	
Benzo(k)fluoranthene	< 45.9	10700		1360	< 35.3	< 35.8	< 43	< 44.3	316	
Chrysene	< 45.9	50700		15600	< 35.3	< 35.8	< 43	< 44.3	< 1000	
Dibenzo(a,h)anthracene	< 45.9	4300		445	< 35.3	< 35.8	< 43	< 44.3	28	
Fluorene	181	13400		1530	< 35.3	< 35.8	< 43	< 44.3	1220	
Indeno(1,2,3-cd)pyrene	< 45.9	7630		983	< 35.3	< 35.8	< 43	< 44.3	86	



Sample ID	B-305	B-306	B-306	B-306	B-313	B-313	B-313	B-313	B-42	B-42
Sample Collection Date	19	2.5	15	18	2.5	5	10	15	8	12.5
Sample Depth (feet bgs)	06/12/2008	03/11/2009	03/11/2009	03/11/2009	05/21/2009	05/21/2009	05/21/2009	05/21/2009	12/09/1997	12/09/1997
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene									< 1000	
Naphthalene	77.6	863		61.4	< 35.3	< 35.8	< 43	< 44.3	< 1000	
Phenanthrene	99.6	86900		26000	< 35.3	< 35.8	< 43	< 44.3	4100	< 300
Pyrene	< 45.9	194000		55300	< 35.3	< 35.8	< 43	< 44.3	4700	



Sample ID	B-42	B-47	B-47	B-47	B-49	B-49	B-50	B-50	B-51	B-51
Sample Collection Date	15.5	3.5	9.5	15.5	5	9.5	3.5	8	3.5	9.5
Sample Depth (feet bgs)	12/09/1997	11/18/1997	11/18/1997	11/18/1997	11/25/1997	11/25/1997	11/21/1997	11/21/1997	11/24/1997	11/24/1997
Metals (mg/kg)						•				
Aluminum										
Antimony										
Arsenic	1	6	2	2	7	4	15	5	7	5
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	10	14	8	11	16	8	22	11	16	16
Cobalt										
Copper	23	15	32	26	11	22	14	24	14	30
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	40	52	73	38	55	40	62	44	55	48
Dioxins and Furans (ng/kg)								•		
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-42	B-47	B-47	B-47	B-49	B-49	B-50	B-50	B-51	B-51
Sample Collection Date	15.5	3.5	9.5	15.5	5	9.5	3.5	8	3.5	9.5
Sample Depth (feet bgs)	12/09/1997	11/18/1997	11/18/1997	11/18/1997	11/25/1997	11/25/1997	11/21/1997	11/21/1997	11/24/1997	11/24/1997
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-		-	-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										< 10
Gasoline										< 10
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										< 10
Kerosene										< 10
Lube-Oil-Range Hydrocarbons										
Mineral spirits										< 10
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										< 20
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)				-						-
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-42	B-47	B-47	B-47	B-49	B-49	B-50	B-50	B-51	B-51
Sample Collection Date	15.5	3.5	9.5	15.5	5	9.5	3.5	8	3.5	9.5
Sample Depth (feet bgs)	12/09/1997	11/18/1997	11/18/1997	11/18/1997	11/25/1997	11/25/1997	11/21/1997	11/21/1997	11/24/1997	11/24/1997
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
lsopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										


Sample ID	B-42	B-47	B-47	B-47	B-49	B-49	B-50	B-50	B-51	B-51
Sample Collection Date	15.5	3.5	9.5	15.5	5	9.5	3.5	8	3.5	9.5
Sample Depth (feet bgs)	12/09/1997	11/18/1997	11/18/1997	11/18/1997	11/25/1997	11/25/1997	11/21/1997	11/21/1997	11/24/1997	11/24/1997
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		-					-			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol			< 300		< 5			< 300		< 300
2,4-Dichlorophenol										
2,4-Dimethylphenol			< 300					< 300		< 300
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol			< 300					< 300		< 300
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol			< 300					< 300		< 300
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-42	B-47	B-47	B-47	B-49	B-49	B-50	B-50	B-51	B-51
Sample Collection Date	15.5	3.5	9.5	15.5	5	9.5	3.5	8	3.5	9.5
Sample Depth (feet bgs)	12/09/1997	11/18/1997	11/18/1997	11/18/1997	11/25/1997	11/25/1997	11/21/1997	11/21/1997	11/24/1997	11/24/1997
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate			< 300					< 300		< 300
Dimethyl phthalate	10000	< 1000	< 5	24000	< 1000	6000	< 1000	10	14000	
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	13000	< 1000	5	33000	< 1000	5000	< 1000	32	18000	50
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	55000	3000	1700	32000	< 1000	6000	2000	1000	13000	780
Phenol										
Tetrachlorophenols, Total			66		41			55		< 50
Polycyclic Aromatic Hydrocarbons (ug/kg)										-
1-Methylnaphthalene										
2-Methylnaphthalene	21000	< 1000	< 5	29000	< 1000	16000	< 1000	14	10000	
Acenaphthene	15000	< 1000	< 5	32000	< 1000	9000	< 1000	11	23000	< 100
Acenaphthylene	< 1000	< 1000	< 5	2000	< 1000	< 1000	< 1000	< 5	< 1000	< 100
Anthracene	6000	< 1000	6	11000	< 1000	2000	< 1000	31	3000	< 10
Benzo(a)anthracene	1000	< 1000	< 5	3000	< 1000	< 1000	< 1000	11	< 1000	< 10
Benzo(a)pyrene	2000	< 1000	< 5	< 1000	< 1000	< 1000	< 1000	5	< 1000	< 10
Benzo(b)fluoranthene			< 5					< 5		< 20
Benzo(b+k)fluoranthene	1000	< 1000		< 1000	< 1000	< 1000	< 1000		< 1000	
Benzo(ghi)perylene	< 1000	< 1000	< 5	< 1000	< 1000	< 1000	< 1000	< 5	< 1000	< 20
Benzo(k)fluoranthene			< 5					< 5		< 10
Chrysene	2000	< 1000	< 5	2000	< 1000	< 1000	< 1000	10	< 1000	< 10
Dibenzo(a,h)anthracene			< 5					< 5		< 10
Fluorene	9000	< 1000	< 5	20000	< 1000	6000	< 1000	10	13000	< 20
Indeno(1,2,3-cd)pyrene			< 5					< 5		< 10



Sample ID	B-42	B-47	B-47	B-47	B-49	B-49	B-50	B-50	B-51	B-51
Sample Collection Date	15.5	3.5	9.5	15.5	5	9.5	3.5	8	3.5	9.5
Sample Depth (feet bgs)	12/09/1997	11/18/1997	11/18/1997	11/18/1997	11/25/1997	11/25/1997	11/21/1997	11/21/1997	11/24/1997	11/24/1997
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene	< 1000	1000		2000	< 1000	< 1000	< 1000		< 1000	
Naphthalene	68000	< 1000	10	66000	< 1000	52000	1000	42	20000	< 100
Phenanthrene	27000	< 1000	< 300	74000	< 1000	13000	< 1000	< 300	34000	< 300
Pyrene	13000	< 1000	< 5	25000	< 1000	5000	< 1000	30	11000	< 20



Sample ID	B-52	B-52	B-53	B-53	B-54	B-54	B-55	B-55	B-56	B-56
Sample Collection Date	3.5	9.5	9.5	15.5	8	15.5	8	17	6.5	12.5
Sample Depth (feet bgs)	11/20/1997	11/20/1997	01/14/1998	01/14/1998	01/14/1998	01/14/1998	01/15/1998	01/15/1998	01/15/1998	01/15/1998
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	101	3	4	2	7	1	6	4	8	3
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	37	7	14	10	22	9	20	12	20	8
Cobalt										
Copper	20	19	30	39	18	16	14	14	13	22
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	153	36	38	48	59	33	59	37	53	36
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-52	B-52	B-53	B-53	B-54	B-54	B-55	B-55	B-56	B-56
Sample Collection Date	3.5	9.5	9.5	15.5	8	15.5	8	17	6.5	12.5
Sample Depth (feet bgs)	11/20/1997	11/20/1997	01/14/1998	01/14/1998	01/14/1998	01/14/1998	01/15/1998	01/15/1998	01/15/1998	01/15/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-52	B-52	B-53	B-53	B-54	B-54	B-55	B-55	B-56	B-56
Sample Collection Date	3.5	9.5	9.5	15.5	8	15.5	8	17	6.5	12.5
Sample Depth (feet bgs)	11/20/1997	11/20/1997	01/14/1998	01/14/1998	01/14/1998	01/14/1998	01/15/1998	01/15/1998	01/15/1998	01/15/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-52	B-52	B-53	B-53	B-54	B-54	B-55	B-55	B-56	B-56
Sample Collection Date	3.5	9.5	9.5	15.5	8	15.5	8	17	6.5	12.5
Sample Depth (feet bgs)	11/20/1997	11/20/1997	01/14/1998	01/14/1998	01/14/1998	01/14/1998	01/15/1998	01/15/1998	01/15/1998	01/15/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		-					-		-	
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 300		< 300	< 300	< 300		< 300		< 300	
2,4-Dichlorophenol										
2,4-Dimethylphenol	< 300		< 300	< 300	< 300		< 300		< 300	
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol	< 300		< 300	< 300	< 300		< 300		< 300	
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol	< 300		< 300	< 300	< 300		< 300		< 300	
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-52	B-52	B-53	B-53	B-54	B-54	B-55	B-55	B-56	B-56
Sample Collection Date	3.5	9.5	9.5	15.5	8	15.5	8	17	6.5	12.5
Sample Depth (feet bgs)	11/20/1997	11/20/1997	01/14/1998	01/14/1998	01/14/1998	01/14/1998	01/15/1998	01/15/1998	01/15/1998	01/15/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate	< 300		< 300	< 300	< 300		< 300		< 300	
Dimethyl phthalate	116	51000	< 5	158	131	< 1000	66	3000	< 5	2000
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	1050	38000	< 5	833	168	< 1000	16	5000	< 5	4000
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	3700	39000	15	200	600	< 1000	49	21000	35	15000
Phenol										
Tetrachlorophenols, Total	150		< 5	5	119		25		< 5	
Polycyclic Aromatic Hydrocarbons (ug/kg)			•					•	•	<b>-</b>
1-Methylnaphthalene										
2-Methylnaphthalene	174	98000	< 5	115	< 5	< 1000	35	7000	72	3000
Acenaphthene	136	68000	< 5	224	119	< 1000	69	5000	16	3000
Acenaphthylene	9	2000	< 5	< 5	< 5	< 1000	< 5	< 1000	< 5	< 1000
Anthracene	240	21000	< 5	325	93	< 1000	10	2000	< 5	1000
Benzo(a)anthracene	214	< 1000	< 5	224	32	< 1000	< 5	< 1000	< 5	< 1000
Benzo(a)pyrene	70	< 1000	< 5	71	8	< 1000	< 5	< 1000	< 5	< 1000
Benzo(b)fluoranthene	97		< 5	78	8		< 5		< 5	
Benzo(b+k)fluoranthene		< 1000				< 1000		< 1000		< 1000
Benzo(ghi)perylene	38	< 1000	< 5	20	5	< 1000	106	< 1000	< 5	< 1000
Benzo(k)fluoranthene	132		< 5	84	6		< 5		< 5	
Chrysene	243	2000	< 5	193	26	< 1000	< 5	< 1000	< 5	< 1000
Dibenzo(a,h)anthracene	11		< 5	< 5	< 5		5		< 5	
Fluorene	168	37000	< 5	287	161	< 1000	49	3000	< 5	2000
Indeno(1,2,3-cd)pyrene	42		< 5	28	< 5		6		6	



Sample ID	B-52	B-52	B-53	B-53	B-54	B-54	B-55	B-55	B-56	B-56
Sample Collection Date	3.5	9.5	9.5	15.5	8	15.5	8	17	6.5	12.5
Sample Depth (feet bgs)	11/20/1997	11/20/1997	01/14/1998	01/14/1998	01/14/1998	01/14/1998	01/15/1998	01/15/1998	01/15/1998	01/15/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene		< 1000				< 1000		< 1000		< 1000
Naphthalene	964	322000	< 5	26	27	< 1000	340	68000	252	8000
Phenanthrene	773	92000	< 300	1080	< 300	< 1000	< 300	10000	< 300	8000
Pyrene	844	27000	< 5	742	150	< 1000	11	5000	< 5	2000



Sample ID	B-57	B-57	B-58	B-58	B-58A	B-58A	B-6	B-62	B-62	B-63
Sample Collection Date	8	14	6.5	14	5	17	33	5	17	5
Sample Depth (feet bgs)	01/16/1998	01/16/1998	01/16/1998	01/16/1998	06/12/1998	06/12/1998	02/04/1991	06/12/1998	06/12/1998	06/12/1998
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	8	2	2	2						
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	20	13	12	14						
Cobalt										
Copper	15	24	21	21						
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	63	44	38	23						
Dioxins and Furans (ng/kg)			-	-		-	-	-	-	
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-57	B-57	B-58	B-58	B-58A	B-58A	B-6	B-62	B-62	B-63
Sample Collection Date	8	14	6.5	14	5	17	33	5	17	5
Sample Depth (feet bgs)	01/16/1998	01/16/1998	01/16/1998	01/16/1998	06/12/1998	06/12/1998	02/04/1991	06/12/1998	06/12/1998	06/12/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-		-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)		-	-	-			-		-	
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-57	B-57	B-58	B-58	B-58A	B-58A	B-6	B-62	B-62	B-63
Sample Collection Date	8	14	6.5	14	5	17	33	5	17	5
Sample Depth (feet bgs)	01/16/1998	01/16/1998	01/16/1998	01/16/1998	06/12/1998	06/12/1998	02/04/1991	06/12/1998	06/12/1998	06/12/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-57	B-57	B-58	B-58	B-58A	B-58A	B-6	B-62	B-62	B-63
Sample Collection Date	8	14	6.5	14	5	17	33	5	17	5
Sample Depth (feet bgs)	01/16/1998	01/16/1998	01/16/1998	01/16/1998	06/12/1998	06/12/1998	02/04/1991	06/12/1998	06/12/1998	06/12/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol					< 50	< 50		< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol					< 50	< 50		< 50	< 50	< 50
2,3,6-Trichlorophenol					< 50	< 50		< 50	< 50	< 50
2,4,5-Trichlorophenol					< 50	< 50		< 50	< 50	< 50
2,4,6-Trichlorophenol	< 300		< 300		< 50	< 50		< 50	< 50	< 50
2,4-Dichlorophenol					< 50	< 50		< 50	< 50	< 50
2,4-Dimethylphenol	< 300		< 300		< 50	< 50		< 50	< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol	< 300		< 300				< 2500			
3-Methylphenol							< 2500			
4-Methylphenol							< 2500			
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol	< 300		< 300							
3-Nitroaniline										
4,6-Dinitro-2-methylphenol					< 50	< 50		< 50	< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-57	B-57	B-58	B-58	B-58A	B-58A	B-6	B-62	B-62	B-63
Sample Collection Date	8	14	6.5	14	5	17	33	5	17	5
Sample Depth (feet bgs)	01/16/1998	01/16/1998	01/16/1998	01/16/1998	06/12/1998	06/12/1998	02/04/1991	06/12/1998	06/12/1998	06/12/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate	< 300		< 300							
Dimethyl phthalate	< 5	14000	< 5	10000	< 5	< 5		< 5	< 5	< 5
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	< 5	18000	11	21000	15	< 10		10	< 10	< 10
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	31	94000	69	123000	< 100	< 100	< 2500	< 100	< 100	< 100
Phenol										
Tetrachlorophenols, Total	< 5		< 5							
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	< 5	14000	< 5	7000	< 5	< 5		< 5	< 5	< 5
Acenaphthene	< 5	18000	< 5	14000	< 10	< 10		< 10	< 10	< 10
Acenaphthylene	< 5	< 1000	< 5	< 1000	< 10	< 10		< 10	< 10	< 10
Anthracene	< 5	5000	< 5	4000	< 5	< 5		< 5	< 5	< 5
Benzo(a)anthracene	< 5	< 1000	< 5	< 1000	< 10	< 10		< 10	< 10	< 10
Benzo(a)pyrene	< 5	< 1000	< 5	< 1000	10	< 10		< 10	< 10	< 10
Benzo(b)fluoranthene	< 5		< 5		26	< 10		< 10	< 10	< 10
Benzo(b+k)fluoranthene		< 1000		< 1000						
Benzo(ghi)perylene	< 5	< 1000	5	< 1000	16	< 5		< 5	< 5	7
Benzo(k)fluoranthene	< 5		< 5		31	< 10		< 10	< 10	< 10
Chrysene	< 5	< 1000	< 5	1000	23	< 10		< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 5		6		< 5	< 5		< 5	< 5	< 5
Fluorene	< 5	13000	< 5	11000	< 10	< 10		< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 5		5		22	< 5		< 5	< 5	8



Sample ID	B-57	B-57	B-58	B-58	B-58A	B-58A	B-6	B-62	B-62	B-63
Sample Collection Date	8	14	6.5	14	5	17	33	5	17	5
Sample Depth (feet bgs)	01/16/1998	01/16/1998	01/16/1998	01/16/1998	06/12/1998	06/12/1998	02/04/1991	06/12/1998	06/12/1998	06/12/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene		< 1000		< 1000						
Naphthalene	13	30000	< 5	11000	< 5	< 5		< 5	< 5	< 5
Phenanthrene	< 300	37000	< 300	38000	< 10	< 10		< 10	< 10	< 10
Pyrene	< 5	13000	10	18000	17	< 10		11	< 10	< 10



Sample I	D B-63	B-66	B-66	B-69	B-69	B-69	B-69	B-69	B-7	B-7
Sample Collection Dat	e 17	5	17	0.5	2.5	5	10	17	5.5	13.5
Sample Depth (feet bg	s) 06/12/1998	06/12/1998	06/12/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	02/04/1991	02/04/1991
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic				19	4	4	1	2		
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium				26	19	18	8	8		
Cobalt										
Copper				33	19	24	19	17		
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc				63	52	44	34	32		
Dioxins and Furans (ng/kg)		•		-				•		
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-63	B-66	B-66	B-69	B-69	B-69	B-69	B-69	B-7	B-7
Sample Collection Date	17	5	17	0.5	2.5	5	10	17	5.5	13.5
Sample Depth (feet bgs)	06/12/1998	06/12/1998	06/12/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	02/04/1991	02/04/1991
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-		-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel				< 10	< 10	< 10	< 10	< 10		
Gasoline				< 10	< 10	< 10	< 10	< 10		
Heavy-Fuel-Oil-Range Hydrocarbons				< 25	< 25	< 25	< 25	< 25		
Heavy-Oil-Range Hydrocarbon										
Jet fuels				< 10	< 10	< 10	< 10	< 10		
Kerosene				< 10	< 10	< 10	< 10	< 10		
Lube-Oil-Range Hydrocarbons				219	< 25	< 25	< 25	< 25		
Mineral spirits				< 10	< 10	< 10	< 10	< 10		
Naphtha Distillate				< 10	< 10	< 10	< 10	< 10		
Non-PHC as Diesel				< 50	< 50	< 50	< 50	< 50		
Other Petroleum Hydrocarbons										
PHC as Diesel				< 25	< 25	< 25	< 25	< 25		
ТРН										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-63	B-66	B-66	B-69	B-69	B-69	B-69	B-69	B-7	B-7
Sample Collection Date	17	5	17	0.5	2.5	5	10	17	5.5	13.5
Sample Depth (feet bgs)	06/12/1998	06/12/1998	06/12/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	02/04/1991	02/04/1991
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-63	B-66	B-66	B-69	B-69	B-69	B-69	B-69	B-7	B-7
Sample Collection Date	17	5	17	0.5	2.5	5	10	17	5.5	13.5
Sample Depth (feet bgs)	06/12/1998	06/12/1998	06/12/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	02/04/1991	02/04/1991
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)					-					
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50	58	< 50	< 50	< 50	< 50		
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		
2,4-Dichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		
2,4-Dimethylphenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol									< 2500	< 2500
3-Methylphenol									< 2500	< 2500
4-Methylphenol									< 2500	< 2500
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50		
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-63	B-66	B-66	B-69	B-69	B-69	B-69	B-69	B-7	B-7
Sample Collection Date	17	5	17	0.5	2.5	5	10	17	5.5	13.5
Sample Depth (feet bgs)	06/12/1998	06/12/1998	06/12/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	02/04/1991	02/04/1991
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	< 10	< 10	< 10	< 1500	< 10	< 10	< 10	< 10		
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 100	< 100	< 100	1300	< 100	< 100	< 100	< 100	< 2500	< 2500
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)				•				•	-	
1-Methylnaphthalene										
2-Methylnaphthalene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
Acenaphthene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10		
Acenaphthylene	< 10	< 10	< 10	79	< 10	< 10	< 10	< 10		
Anthracene	< 5	< 5	< 5	540	< 5	< 5	< 5	< 5		
Benzo(a)anthracene	< 10	< 10	< 10	2000	< 10	< 10	< 10	< 10		
Benzo(a)pyrene	< 10	< 10	< 10	930	< 10	< 10	< 10	< 10		
Benzo(b)fluoranthene	< 10	< 10	< 10	2300	< 10	< 10	< 10	< 10		
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 5	< 5	< 5	430	< 5	< 5	< 5	< 5		
Benzo(k)fluoranthene	< 10	< 10	< 10	2100	< 10	< 10	< 10	< 10		
Chrysene	< 10	< 10	< 10	4200	< 10	< 10	< 10	< 10		
Dibenzo(a,h)anthracene	< 5	< 5	< 5	150	< 5	< 5	< 5	< 5		
Fluorene	< 10	< 10	< 10	13	< 10	< 10	< 10	< 10		
Indeno(1,2,3-cd)pyrene	< 5	< 5	< 5	980	< 5	< 5	< 5	< 5		



Sample ID	B-63	B-66	B-66	B-69	B-69	B-69	B-69	B-69	B-7	B-7
Sample Collection Date	17	5	17	0.5	2.5	5	10	17	5.5	13.5
Sample Depth (feet bgs)	06/12/1998	06/12/1998	06/12/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	06/16/1998	02/04/1991	02/04/1991
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5		
Phenanthrene	< 10	< 10	< 10	150	< 10	< 10	< 10	< 10		
Pyrene	< 10	< 10	< 10	2200	< 10	< 10	< 10	< 10		



Sample ID	B-72	B-72	B-72	B-72	B-73	B-74	B-74	B-75	B-75	B-76
Sample Collection Date	0.5	5	10	17	17	2.5	17	2.5	17	10
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998
Metals (mg/kg)			-			-			-	
Aluminum										
Antimony										
Arsenic	22	3	2	2						
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	36	15	16	8						
Cobalt										
Copper	50	16	25	19						
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	111	32	41	34						
Dioxins and Furans (ng/kg)			-			-			-	
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-72	B-72	B-72	B-72	B-73	B-74	B-74	B-75	B-75	B-76
Sample Collection Date	0.5	5	10	17	17	2.5	17	2.5	17	10
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-			-		-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-72	B-72	B-72	B-72	B-73	B-74	B-74	B-75	B-75	B-76
Sample Collection Date	0.5	5	10	17	17	2.5	17	2.5	17	10
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
lsopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-72	B-72	B-72	B-72	B-73	B-74	B-74	B-75	B-75	B-76
Sample Collection Date	0.5	5	10	17	17	2.5	17	2.5	17	10
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4-Dichlorophenol	< 10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4-Dimethylphenol	< 10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 10000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-72	B-72	B-72	B-72	B-73	B-74	B-74	B-75	B-75	B-76
Sample Collection Date	0.5	5	10	17	17	2.5	17	2.5	17	10
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate	88000	31	12	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	220000	220	330	40	< 10	< 10	12	< 10	< 10	< 10
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 20000	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100	< 100
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)								-		
1-Methylnaphthalene										
2-Methylnaphthalene	120000	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Acenaphthene	170000	26	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Acenaphthylene	2400	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Anthracene	90000	47	70	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Benzo(a)anthracene	32000	45	68	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(a)pyrene	1000	12	18	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	9100	13	19	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	2700	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Benzo(k)fluoranthene	12000	17	25	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chrysene	31000	43	65	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 1000	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Fluorene	130000	51	31	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	3400	< 5	6	< 5	< 5	< 5	< 5	< 5	< 5	< 5



Sample ID	B-72	B-72	B-72	B-72	B-73	B-74	B-74	B-75	B-75	B-76
Sample Collection Date	0.5	5	10	17	17	2.5	17	2.5	17	10
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/17/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	220000	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Phenanthrene	400000	300	330	11	< 10	< 10	15	< 10	< 10	< 10
Pyrene	160000	160	250	32	< 10	< 10	< 10	< 10	< 10	< 10



	Sample ID	B-76	B-77	B-77	B-77	B-78	B-78	B-79	B-79	B-79	B-80
	Sample Collection Date	27	2.5	5	17	0.5	17	2.5	10	17	2.5
S	Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/19/1998
Metals (mg/kg)										•	
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Dioxins and Furans (ng	g/kg)							•		1	
1,2,3,4,6,7,8-HpCDD											
1,2,3,4,6,7,8-HpCDF											
1,2,3,4,7,8,9-HpCDF											
1,2,3,4,7,8-HxCDD											
1,2,3,4,7,8-HxCDF											
1,2,3,6,7,8-HxCDD											
1,2,3,6,7,8-HxCDF											
1,2,3,7,8,9-HxCDD											
1,2,3,7,8,9-HxCDF											
1,2,3,7,8-PeCDD											
1,2,3,7,8-PeCDF											
2,3,4,6,7,8-HxCDF											
2,3,4,7,8-PeCDF											
2,3,7,8-TCDD											
2,3,7,8-TCDF											
OCDD											
OCDF											



Sample ID	B-76	B-77	B-77	B-77	B-78	B-78	B-79	B-79	B-79	B-80
Sample Collection Date	27	2.5	5	17	0.5	17	2.5	10	17	2.5
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/19/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-			-	-				-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)					•	•				•
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-76	B-77	B-77	B-77	B-78	B-78	B-79	B-79	B-79	B-80
Sample Collection Date	27	2.5	5	17	0.5	17	2.5	10	17	2.5
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/19/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-76	B-77	B-77	B-77	B-78	B-78	B-79	B-79	B-79	B-80
Sample Collection Date	27	2.5	5	17	0.5	17	2.5	10	17	2.5
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/19/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50	< 25000	400	< 50	< 500	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 25000	< 50	< 50	< 500	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 25000	440	< 50	< 500	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 25000	93	< 50	< 500	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 25000	< 50	< 50	< 500	< 50	< 50	< 50
2,4-Dichlorophenol	< 50	< 50	< 50	< 25000	< 50	< 50	< 500	< 50	< 50	< 50
2,4-Dimethylphenol	< 50	< 50	< 50	< 25000	< 50	< 50	< 500	< 50	< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 25000	< 50	< 50	< 500	< 50	< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-76	B-77	B-77	B-77	B-78	B-78	B-79	B-79	B-79	B-80
Sample Collection Date	27	2.5	5	17	0.5	17	2.5	10	17	2.5
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/19/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate	< 5	< 5	< 5	46000	4600	< 5	190	< 5	< 5	< 5
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	110	22	< 10	73000	37000	< 10	140	< 10	< 10	< 10
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 100	< 100	< 100	< 50000	< 3900	< 100	< 1000	< 100	< 100	< 100
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	< 5	< 5	< 5	130000	1100	< 5	3300	< 5	< 5	< 5
Acenaphthene	< 10	< 10	< 10	83000	13000	< 10	700	< 10	< 10	< 10
Acenaphthylene	< 10	< 10	< 10	< 5000	250	< 10	< 100	< 10	< 10	< 10
Anthracene	< 5	< 5	< 5	40000	15000	< 5	< 50	< 5	< 5	< 5
Benzo(a)anthracene	31	< 10	< 10	16000	7300	< 10	< 100	< 10	< 10	< 10
Benzo(a)pyrene	22	< 10	< 10	6300	3100	< 10	< 100	< 10	< 10	< 10
Benzo(b)fluoranthene	21	< 10	< 10	5900	3400	< 10	< 100	< 10	< 10	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	8	< 5	< 5	< 2500	1300	< 5	< 50	< 5	< 5	< 5
Benzo(k)fluoranthene	21	< 10	< 10	7700	3600	< 10	< 100	< 10	< 10	< 10
Chrysene	38	< 10	< 10	15000	8200	< 10	< 100	< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 5	< 5	< 5	< 2500	270	< 5	< 50	< 5	< 5	< 5
Fluorene	< 10	< 10	< 10	58000	9400	< 10	1600	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	11	< 5	< 5	< 2500	1700	< 5	< 50	< 5	< 5	< 5



Sample ID	B-76	B-77	B-77	B-77	B-78	B-78	B-79	B-79	B-79	B-80
Sample Collection Date	27	2.5	5	17	0.5	17	2.5	10	17	2.5
Sample Depth (feet bgs)	06/17/1998	06/17/1998	06/17/1998	06/17/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/18/1998	06/19/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 5	50	17	370000	200	< 5	< 50	< 5	< 5	< 5
Phenanthrene	< 10	10	< 10	150000	38000	< 10	2700	< 10	< 10	< 10
Pyrene	90	20	< 10	57000	32000	< 10	140	< 10	< 10	< 10



Sample ID	B-80	B-80	B-81	B-82	B-82	B-83	B-83	B-84	B-84	B-85
Sample Collection Date	15	25	2.5	10	20	5	17	10	35	5
Sample Depth (feet bgs)	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Metals (mg/kg)						•				
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)			•	•	•	1		•		
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-80	B-80	B-81	B-82	B-82	B-83	B-83	B-84	B-84	B-85
Sample Collection Date	15	25	2.5	10	20	5	17	10	35	5
Sample Depth (feet bgs)	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-	-	-		-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)				-	-					
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-80	B-80	B-81	B-82	B-82	B-83	B-83	B-84	B-84	B-85
Sample Collection Date	15	25	2.5	10	20	5	17	10	35	5
Sample Depth (feet bgs)	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										


Sample ID	B-80	B-80	B-81	B-82	B-82	B-83	B-83	B-84	B-84	B-85
Sample Collection Date	15	25	2.5	10	20	5	17	10	35	5
Sample Depth (feet bgs)	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		-					-			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	990	< 50	< 50	< 50	< 1000	< 50	< 50	350
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 1000	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 1000	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 1000	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 1000	< 50	< 50	< 50
2,4-Dichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 1000	< 50	< 50	< 50
2,4-Dimethylphenol	< 50	< 50	< 50	< 50	< 50	< 50	< 1000	< 50	< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 50	< 50	< 350	< 50	< 50	< 50	< 1000	< 50	< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-80	B-80	B-81	B-82	B-82	B-83	B-83	B-84	B-84	B-85
Sample Collection Date	15	25	2.5	10	20	5	17	10	35	5
Sample Depth (feet bgs)	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate	< 5	< 5	< 5	15	< 5	< 5	24000	200	< 5	77
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	< 10	< 10	28	61	< 10	< 10	28000	360	< 10	270
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 100	< 100	17000	1100	< 100	< 100	< 2000	< 100	< 100	6500
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	< 5	< 5	40	17	< 5	< 5	100000	190	14	370
Acenaphthene	< 10	< 10	< 10	31	< 10	< 10	42000	380	< 10	97
Acenaphthylene	< 10	< 10	< 10	< 10	< 10	< 10	420	< 10	< 10	30
Anthracene	< 5	< 5	13	15	< 5	38	19000	800	< 5	200
Benzo(a)anthracene	< 10	< 10	< 10	10	< 10	< 10	5300	61	< 10	140
Benzo(a)pyrene	< 10	< 10	< 10	< 10	< 10	< 10	1600	16	< 10	110
Benzo(b)fluoranthene	< 10	< 10	< 10	< 10	< 10	< 10	1500	18	< 10	110
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 5	< 5	< 5	< 5	< 5	< 5	330	< 5	< 5	49
Benzo(k)fluoranthene	< 10	< 10	< 10	< 10	< 10	< 10	1700	24	< 10	160
Chrysene	< 10	< 10	< 10	13	< 10	< 10	4900	75	< 10	160
Dibenzo(a,h)anthracene	< 5	< 5	< 5	< 5	< 5	< 5	< 100	< 5	< 5	11
Fluorene	< 10	< 10	16	34	< 10	< 10	27000	380	< 10	77
Indeno(1,2,3-cd)pyrene	< 5	< 5	< 5	< 5	< 5	< 5	530	7	< 5	80



Sample ID	B-80	B-80	B-81	B-82	B-82	B-83	B-83	B-84	B-84	B-85
Sample Collection Date	15	25	2.5	10	20	5	17	10	35	5
Sample Depth (feet bgs)	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/19/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 5	< 5	250	40	< 5	30	530000	890	43	1700
Phenanthrene	< 10	< 10	50	69	< 10	14	68000	970	< 10	270
Pyrene	< 10	< 10	25	53	< 10	< 10	20000	250	< 10	260



Sample ID	B-85	B-86	B-86	B-87	B-87	B-88	B-88	B-89	B-89	B-90
Sample Collection Date	10	5	15	5	15	5	15	5	15	0.5
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Metals (mg/kg)						-	-			
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)				-		1		•		
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-85	B-86	B-86	B-87	B-87	B-88	B-88	B-89	B-89	B-90
Sample Collection Date	10	5	15	5	15	5	15	5	15	0.5
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-	-	-			
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-85	B-86	B-86	B-87	B-87	B-88	B-88	B-89	B-89	B-90
Sample Collection Date	10	5	15	5	15	5	15	5	15	0.5
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-85	B-86	B-86	B-87	B-87	B-88	B-88	B-89	B-89	B-90
Sample Collection Date	10	5	15	5	15	5	15	5	15	0.5
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)							-			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 5000	< 50	15000	< 50	180	< 50	< 50	< 50	< 50	< 1000
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 5000	< 50	< 1000	< 50	< 50	< 50	< 50	< 50	< 50	< 1000
2,3,6-Trichlorophenol	< 5000	< 50	1100	< 50	< 50	< 50	< 50	< 50	< 50	< 1000
2,4,5-Trichlorophenol	< 5000	< 50	< 1000	< 50	< 50	< 50	< 50	< 50	< 50	< 1000
2,4,6-Trichlorophenol	< 5000	< 50	< 1000	< 50	< 50	< 50	< 50	< 50	< 50	< 1000
2,4-Dichlorophenol	< 5000	< 50	< 1000	< 50	< 50	< 50	< 50	< 50	< 50	< 1000
2,4-Dimethylphenol	< 5000	< 50	< 1000	< 50	< 50	< 50	< 50	< 50	< 50	< 1000
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 5000	< 50	< 1000	< 50	< 50	< 50	< 50	< 50	< 50	< 1000
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-85	B-86	B-86	B-87	B-87	B-88	B-88	B-89	B-89	B-90
Sample Collection Date	10	5	15	5	15	5	15	5	15	0.5
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate	100000	20	53000	6	950	< 5	13	< 5	< 5	1000
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	130000	34	85000	< 10	2100	< 10	80	< 10	< 10	17000
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	16000	< 100	230000	< 100	3900	< 100	170	< 100	< 100	7000
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	550000	59	190000	34	1500	24	24	< 5	< 5	380
Acenaphthene	180000	29	89000	< 10	1500	< 10	21	< 10	< 10	2500
Acenaphthylene	5100	< 10	1500	< 10	15	< 10	< 10	< 10	< 10	< 200
Anthracene	92000	14	34000	< 5	740	< 5	22	< 5	< 5	2800
Benzo(a)anthracene	30000	< 10	14000	< 10	290	< 10	17	< 10	< 10	3800
Benzo(a)pyrene	120000	< 10	4800	< 10	89	< 10	< 10	< 10	< 10	1900
Benzo(b)fluoranthene	9800	< 10	4200	< 10	81	< 10	< 10	< 10	< 10	2600
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	2700	< 5	1000	< 5	21	< 5	< 5	< 5	< 5	680
Benzo(k)fluoranthene	13000	< 10	5400	< 10	95	< 10	< 10	< 10	< 10	2800
Chrysene	28000	< 10	13000	< 10	260	< 10	23	< 10	< 10	4900
Dibenzo(a,h)anthracene	610	< 5	250	< 5	< 5	< 5	< 5	< 5	< 5	140
Fluorene	130000	24	67000	< 10	1300	< 10	23	< 10	< 10	2300
Indeno(1,2,3-cd)pyrene	4300	< 5	1600	< 5	28	< 5	< 5	< 5	6	1100



Sample ID	B-85	B-86	B-86	B-87	B-87	B-88	B-88	B-89	B-89	B-90
Sample Collection Date	10	5	15	5	15	5	15	5	15	0.5
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	5800000	300	520000	240	1900	210	150	22	< 5	< 100
Phenanthrene	320000	69	200000	< 10	4800	< 10	120	< 10	< 10	8600
Pyrene	100000	26	64000	< 10	1600	< 10	61	< 10	< 10	14000



Sample ID	B-90	B-91	B-91	B-92	B-92	B-93	B-93	B-94	B-94	B-95
Sample Collection Date	17.5	0.5	15	10	30	25	40	10	35	25
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998
Metals (mg/kg)			•							•
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)					-			-	•	
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-90	B-91	B-91	B-92	B-92	B-93	B-93	B-94	B-94	B-95
Sample Collection Date	17.5	0.5	15	10	30	25	40	10	35	25
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	B-90	B-91	B-91	B-92	B-92	B-93	B-93	B-94	B-94	B-95
Sample Collection Date	17.5	0.5	15	10	30	25	40	10	35	25
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-90	B-91	B-91	B-92	B-92	B-93	B-93	B-94	B-94	B-95
Sample Collection Date	17.5	0.5	15	10	30	25	40	10	35	25
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	16000	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50	460	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4-Dichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4-Dimethylphenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	B-90	B-91	B-91	B-92	B-92	B-93	B-93	B-94	B-94	B-95
Sample Collection Date	17.5	0.5	15	10	30	25	40	10	35	25
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate	19	110	< 5	< 5	< 5	200	110	1800	< 5	19
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	100	1400	< 10	10	< 10	280	380	2100	13	37
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 100	510000	< 100	< 100	< 100	< 100	620	430	< 100	< 100
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)			•	•				•	•	
1-Methylnaphthalene										
2-Methylnaphthalene	< 5	960	< 5	< 5	< 5	350	220	9400	< 5	60
Acenaphthene	22	85	< 10	150	< 10	470	220	4900	< 10	37
Acenaphthylene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	28	< 10	< 10
Anthracene	15	300	< 5	< 5	< 5	83	94	950	< 5	18
Benzo(a)anthracene	23	280	< 10	< 10	< 10	68	90	350	< 10	10
Benzo(a)pyrene	< 10	120	< 10	< 10	< 10	19	25	130	< 10	< 10
Benzo(b)fluoranthene	< 10	220	< 10	< 10	< 10	22	28	120	< 10	< 10
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 5	51	< 5	< 5	< 5	6	7	40	< 5	< 5
Benzo(k)fluoranthene	11	240	< 10	< 10	< 10	31	37	160	< 10	< 10
Chrysene	21	450	< 10	< 10	< 10	39	60	370	< 10	< 10
Dibenzo(a,h)anthracene	< 5	31	< 5	< 5	< 5	< 5	< 5	9	< 5	< 5
Fluorene	27	210	< 10	< 10	< 10	380	200	2400	< 10	28
Indeno(1,2,3-cd)pyrene	< 5	59	< 5	< 5	< 5	8	10	58	< 5	< 5



Sample ID	B-90	B-91	B-91	B-92	B-92	B-93	B-93	B-94	B-94	B-95
Sample Collection Date	17.5	0.5	15	10	30	25	40	10	35	25
Sample Depth (feet bgs)	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/23/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998	06/24/1998
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 5	700	< 5	16	< 5	94	220	35000	15	54
Phenanthrene	130	2100	< 10	10	< 10	700	770	5400	25	48
Pyrene	82	1000	< 10	< 10	< 10	200	270	1400	< 10	29



Sample ID	B-95	B-96	B-96	B-97	B-97	B-98	B-99	B-99	B-99	DS-E
Sample Collection Date	32.5	10	30	2.5	10	17	15	45	64	0
Sample Depth (feet bgs)	06/24/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	06/18/1997
Metals (mg/kg)						-	-			
Aluminum										
Antimony										
Arsenic										10
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										24
Cobalt										
Copper										34
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										131
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-95	B-96	B-96	B-97	B-97	B-98	B-99	B-99	B-99	DS-E
Sample Collection Date	32.5	10	30	2.5	10	17	15	45	64	0
Sample Depth (feet bgs)	06/24/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	06/18/1997
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)			-		-	-		-		-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel		< 10			< 10		< 10			< 10
Gasoline		< 10			< 10		< 10			< 10
Heavy-Fuel-Oil-Range Hydrocarbons		< 25			< 25		< 25			
Heavy-Oil-Range Hydrocarbon										
Jet fuels		< 10			< 10		< 10			< 10
Kerosene		< 10			< 10		< 10			< 10
Lube-Oil-Range Hydrocarbons		< 25			< 25		< 25			
Mineral spirits		< 10			< 10		< 10			< 10
Naphtha Distillate		< 10			< 10		< 10			
Non-PHC as Diesel		51			< 50		< 50			
Other Petroleum Hydrocarbons										1700
PHC as Diesel		< 25			2088		< 25			
ТРН										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										< 0.3
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										< 300
1,2-Dibromoethane										
1,2-Dichlorobenzene										< 300
1,2-Dichloroethane										



Sample ID	B-95	B-96	B-96	B-97	B-97	B-98	B-99	B-99	B-99	DS-E
Sample Collection Date	32.5	10	30	2.5	10	17	15	45	64	0
Sample Depth (feet bgs)	06/24/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	06/18/1997
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										< 300
1,3-Dichloropropane										
1,4-Dichlorobenzene										< 300
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										< 300
2-Hexanone										< 300
4-Chlorotoluene										< 300
4-Isopropyltoluene										< 300
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										< 300
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										< 300
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	B-95	B-96	B-96	B-97	B-97	B-98	B-99	B-99	B-99	DS-E
Sample Collection Date	32.5	10	30	2.5	10	17	15	45	64	0
Sample Depth (feet bgs)	06/24/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	06/18/1997
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		•					•			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50		< 50	< 50		< 50		< 50	< 50	
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol	< 50		< 50	< 50		< 50		< 50	< 50	
2,3,6-Trichlorophenol	< 50		< 50	< 50		< 50		< 50	< 50	
2,4,5-Trichlorophenol	< 50		< 50	< 50		< 50		< 50	< 50	
2,4,6-Trichlorophenol	< 50		< 50	< 50		< 50		< 50	< 50	< 300
2,4-Dichlorophenol	< 50		< 50	< 50		< 50		< 50	< 50	
2,4-Dimethylphenol	< 50		< 50	< 50		< 50		< 50	< 50	< 300
2,4-Dinitrophenol										< 300
2,4-Dinitrotoluene										< 300
2,6-Dichlorophenol										< 2000
2,6-Dinitrotoluene										< 300
2-Chloronaphthalene										< 300
2-Chlorophenol										
2-Methylphenol										< 300
3-Methylphenol										
4-Methylphenol										< 300
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										< 2000
3,3-Dichlorobenzidine										< 300
3,4,5-Trichlorophenol										
3-Nitroaniline										< 2000
4,6-Dinitro-2-methylphenol	< 50		< 50	< 50		< 50		< 50	< 50	
4-Bromophenylphenyl ether										< 2000
4-Chloro-3-methylphenol										< 2000
4-Chloroaniline										< 300
4-Chlorophenylphenyl ether										< 300
4-Nitroaniline										
4-Nitrophenol										
Aniline										< 2000
Benzoic acid										< 2000
Benzyl alcohol										< 1000



Sample ID	B-95	B-96	B-96	B-97	B-97	B-98	B-99	B-99	B-99	DS-E
Sample Collection Date	32.5	10	30	2.5	10	17	15	45	64	0
Sample Depth (feet bgs)	06/24/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	06/18/1997
Bis(2-chloro-1-methylethyl) ether										< 2000
Bis(2-chloroethoxy)methane										< 300
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										< 300
Bis(2-ethylhexyl)phthalate										< 300
Butylbenzylphthalate										< 300
Carbazole										< 300
Dibenzofuran										< 300
Diethylphthalate										
Dimethyl phthalate	< 5		< 5	< 5		< 5		< 5	< 5	< 300
Di-n-butyl phthalate										< 300
Di-n-octyl phthalate										< 300
Fluoranthene										< 300
Hexachlorobenzene										< 300
Hexachlorobutadiene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Hexachlorocyclopentadiene										< 300
Hexachloroethane										< 300
Isophorone										< 300
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										< 300
N-Nitrosodipropylamine										< 2000
Pentachlorophenol	310		< 100	< 100		< 100		< 100	410	19000
Phenol										< 300
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene	10		< 5	7		< 5		< 5	< 5	< 300
Acenaphthene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Acenaphthylene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Anthracene	< 5		< 5	< 5		< 5		< 5	< 5	< 300
Benzo(a)anthracene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Benzo(a)pyrene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Benzo(b)fluoranthene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 5		< 5	< 5		< 5		< 5	< 5	< 300
Benzo(k)fluoranthene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Chrysene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Dibenzo(a,h)anthracene	< 5		< 5	< 5		< 5		< 5	< 5	< 300
Fluorene	< 10		< 10	< 10		< 10		< 10	< 10	< 300
Indeno(1,2,3-cd)pyrene	5		< 5	< 5		< 5		< 5	< 5	< 300



Sample ID	B-95	B-96	B-96	B-97	B-97	B-98	B-99	B-99	B-99	DS-E
Sample Collection Date	32.5	10	30	2.5	10	17	15	45	64	0
Sample Depth (feet bgs)	06/24/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	07/08/1998	06/18/1997
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	11		12	14		< 5		50	6	< 300
Phenanthrene	18		< 10	< 10		< 10		< 10	< 10	< 300
Pyrene	< 10		< 10	< 10		< 10		< 10	< 10	< 300



Sample ID	DS-W	GP11	GP11	GP11	GP11	GP8	GP8	GP8	GP8	MFP-01
Sample Collection Date	0	1.5	5	10	15	1.4	5	11	15	0
Sample Depth (feet bgs)	06/18/1997	05/21/2009	05/21/2009	05/21/2009	05/21/2009	05/22/2009	05/22/2009	05/22/2009	05/22/2009	11/25/1997
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	40	6.88	2.3	3.68	3.38	2.57	1.36	13.1	3.31	
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	54	13	23.8	21.4	25	11.3	13.5	38.1	25.6	
Cobalt										
Copper	38	4.42	17.7	17	17.1	8	9.38	30.8	17.3	
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	150	45.4	131	58.2	80.8	117	49.5	132	95.2	
Dioxins and Furans (ng/kg)			-				-		-	
1,2,3,4,6,7,8-HpCDD		11000	530	3.4	< 0.21	12000	16	270	< 0.16	
1,2,3,4,6,7,8-HpCDF		1300	64	0.34	< 0.088	1700	1.5	21	0.18	
1,2,3,4,7,8,9-HpCDF		94	< 1	< 0.24	< 0.11	93	< 0.32	1.1	< 0.071	
1,2,3,4,7,8-HxCDD		35	< 1.5	< 0.25	< 0.093	52	< 0.45	< 0.34	< 0.13	
1,2,3,4,7,8-HxCDF		210	< 0.83	< 0.24	< 0.081	360	0.45	4.5	< 0.055	
1,2,3,6,7,8-HxCDD		460	22	< 0.27	< 0.1	500	0.85	12	< 0.11	
1,2,3,6,7,8-HxCDF		120	< 1.1	< 0.24	< 0.089	140	< 0.38	1.4	< 0.059	
1,2,3,7,8,9-HxCDD		96	5.5	< 0.26	< 0.075	110	< 0.37	5.2	< 0.14	
1,2,3,7,8,9-HxCDF		130	5.4	< 0.3	< 0.1	110	< 0.38	1.3	< 0.07	
1,2,3,7,8-PeCDD		11	< 1.2	< 0.16	< 0.1	14	< 0.35	1.2	< 0.075	
1,2,3,7,8-PeCDF		71	3.9	< 0.17	< 0.088	78	< 0.35	0.9	< 0.089	
2,3,4,6,7,8-HxCDF		150	7.5	< 0.19	< 0.071	160	< 0.31	2	< 0.057	
2,3,4,7,8-PeCDF		230	11	< 0.15	< 0.064	240	< 0.35	2.4	< 0.044	
2,3,7,8-TCDD		< 0.96	< 1.3	< 0.18	< 0.16	< 6.9	< 0.49	< 0.21	< 0.11	
2,3,7,8-TCDF		21	1.8	< 0.14	0.22	29	< 0.29	0.59	0.22	
OCDD		120000	5100	38	2.5	160000	170	2800	7.1	
OCDF		1300	70	0.63	< 0.16	1900	< 0.7	34	0.32	



Sample ID	DS-W	GP11	GP11	GP11	GP11	GP8	GP8	GP8	GP8	MFP-01
Sample Collection Date	0	1.5	5	10	15	1.4	5	11	15	0
Sample Depth (feet bgs)	06/18/1997	05/21/2009	05/21/2009	05/21/2009	05/21/2009	05/22/2009	05/22/2009	05/22/2009	05/22/2009	11/25/1997
Total HpCDDs		19000	930	7	< 0.21	22000	32	480	< 0.16	
Total HpCDFs		4000	190	0.34	< 0.1	1800	4.2	61	0.34	
Total HxCDDs		1500	76	< 0.26	< 0.09	1900	3.2	56	0.76	
Total HxCDFs		4100	210	< 0.24	< 0.085	3100	4.1	61	< 0.06	
Total PeCDDs		33	< 1.2	< 0.16	< 0.1	210	< 0.35	7	< 0.075	
Total PeCDFs		1600	65	< 0.16	< 0.076	2300	1.7	19	< 0.067	
Total TCDDs		5.2	< 1.3	< 0.18	< 0.16	23	< 0.49	0.74	< 0.11	
Total TCDFs		78	2.8	0.22	0.4	210	< 0.29	1.9	0.22	
Dioxin TEQ (Mammals—WHO 2005)		370	17	0.34	0.2	420	0.94	8.5	0.16	
Petroleum Hydrocarbons (mg/kg)			•			•				•
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	< 10	128	< 19	< 20.5	< 19.8	118	< 17.6	< 189	< 21.3	
Gasoline	< 10									
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels	< 10									
Kerosene	< 10									
Lube-Oil-Range Hydrocarbons		276	< 63.3	< 68.2	< 65.9	389	< 58.8	11100	< 71.1	
Mineral spirits	< 10									
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons	1600									
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene	< 0.3	< 0.0382	< 0.0422	< 0.0455	< 0.0439	< 0.175	< 0.0392	< 0.21	< 0.043	
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
1,2-Dibromoethane										
1,2-Dichlorobenzene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
1,2-Dichloroethane										



Sample ID	DS-W	GP11	GP11	GP11	GP11	GP8	GP8	GP8	GP8	MFP-01
Sample Collection Date	0	1.5	5	10	15	1.4	5	11	15	0
Sample Depth (feet bgs)	06/18/1997	05/21/2009	05/21/2009	05/21/2009	05/21/2009	05/22/2009	05/22/2009	05/22/2009	05/22/2009	11/25/1997
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
1,3-Dichloropropane										
1,4-Dichlorobenzene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2-Hexanone	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
4-Chlorotoluene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
4-Isopropyltoluene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	DS-W	GP11	GP11	GP11	GP11	GP8	GP8	GP8	GP8	MFP-01
Sample Collection Date	0	1.5	5	10	15	1.4	5	11	15	0
Sample Depth (feet bgs)	06/18/1997	05/21/2009	05/21/2009	05/21/2009	05/21/2009	05/22/2009	05/22/2009	05/22/2009	05/22/2009	11/25/1997
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)							-	-		
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol		< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,3,5-Trichlorophenol		< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,3,6-Trichlorophenol		< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,4,5-Trichlorophenol		< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,4,6-Trichlorophenol	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	< 50
2,4-Dichlorophenol		< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,4-Dimethylphenol	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,4-Dinitrophenol	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,4-Dinitrotoluene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2,6-Dichlorophenol	< 2000	< 382	< 422	< 455	< 439	< 1750	< 392	< 2100	< 430	
2,6-Dinitrotoluene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
2-Chloronaphthalene	< 300									
2-Chlorophenol										
2-Methylphenol	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
3-Methylphenol										
4-Methylphenol	< 300									
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol	< 2000	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
3,3-Dichlorobenzidine	< 300	< 191	< 211	< 227	< 220	< 877	< 196	< 1050	< 215	
3,4,5-Trichlorophenol		< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
3-Nitroaniline	< 2000	< 191	< 211	< 227	< 220	< 877	< 196	< 1050	< 215	
4,6-Dinitro-2-methylphenol		< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
4-Bromophenylphenyl ether	< 2000	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
4-Chloro-3-methylphenol	< 2000	< 191	< 211	< 227	< 220	< 877	< 196	< 1050	< 215	
4-Chloroaniline	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
4-Chlorophenylphenyl ether	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
4-Nitroaniline										
4-Nitrophenol										
Aniline	< 2000	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Benzoic acid	< 2000	< 191	< 211	< 227	< 220	< 877	< 196	< 1050	< 215	
Benzyl alcohol	< 1000									



Sample ID	DS-W	GP11	GP11	GP11	GP11	GP8	GP8	GP8	GP8	MFP-01
Sample Collection Date	0	1.5	5	10	15	1.4	5	11	15	0
Sample Depth (feet bgs)	06/18/1997	05/21/2009	05/21/2009	05/21/2009	05/21/2009	05/22/2009	05/22/2009	05/22/2009	05/22/2009	11/25/1997
Bis(2-chloro-1-methylethyl) ether	< 2000	< 764	< 844	< 910	< 878	< 3510	< 784	< 4200	< 860	
Bis(2-chloroethoxy)methane	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Bis(2-ethylhexyl)phthalate	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Butylbenzylphthalate	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Carbazole	< 300	< 38.2	56.1	< 45.5	< 43.9	< 175	< 39.2	271	< 43	
Dibenzofuran	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Diethylphthalate		< 38	< 42	< 46	< 44	< 175	49.4	< 210	< 43	
Dimethyl phthalate	< 300	< 38	< 42	< 46	< 44	< 175	82.7	< 210	71.4	
Di-n-butyl phthalate	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Di-n-octyl phthalate	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Fluoranthene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	43	
Hexachlorobenzene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Hexachlorobutadiene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Hexachlorocyclopentadiene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Hexachloroethane	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Isophorone	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
N-Nitrosodipropylamine	< 2000									
Pentachlorophenol	5200	368	< 63.3	< 68.2	< 65.9	726	< 58.8	< 315	< 64.5	2200
Phenol	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Tetrachlorophenols, Total										55
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene		< 38	< 42	< 46	< 44	< 175	257	< 210	232	
2-Methylnaphthalene	< 300	< 38	< 42	< 46	< 44	< 175	129	< 210	117	
Acenaphthene	< 300	< 38	< 42	< 46	< 44	< 175	145	< 210	95	
Acenaphthylene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Anthracene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Benzo(a)anthracene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Benzo(a)pyrene	< 300	< 38	< 42	< 46	< 44	< 175	< 39	< 210	< 43	
Benzo(b)fluoranthene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Benzo(k)fluoranthene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Chrysene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Dibenzo(a,h)anthracene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Fluorene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	63.9	< 210	55.1	
Indeno(1,2,3-cd)pyrene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	



Sample ID	DS-W	GP11	GP11	GP11	GP11	GP8	GP8	GP8	GP8	MFP-01
Sample Collection Date	0	1.5	5	10	15	1.4	5	11	15	0
Sample Depth (feet bgs)	06/18/1997	05/21/2009	05/21/2009	05/21/2009	05/21/2009	05/22/2009	05/22/2009	05/22/2009	05/22/2009	11/25/1997
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Phenanthrene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	
Pyrene	< 300	< 38.2	< 42.2	< 45.5	< 43.9	< 175	< 39.2	< 210	< 43	



Sample ID	MFP-01	MFP-01	MFP-01	MFP-02	MFP-04	MFP-04	MFP-05	MFP-05	MFP-05	MFP-05
Sample Collection Date	3	6	9	6	0	3	0	3	6	9
Sample Depth (feet bgs)	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	MFP-01	MFP-01	MFP-01	MFP-02	MFP-04	MFP-04	MFP-05	MFP-05	MFP-05	MFP-05
Sample Collection Date	3	6	9	6	0	3	0	3	6	9
Sample Depth (feet bgs)	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-		-	-	-	-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	MFP-01	MFP-01	MFP-01	MFP-02	MFP-04	MFP-04	MFP-05	MFP-05	MFP-05	MFP-05
Sample Collection Date	3	6	9	6	0	3	0	3	6	9
Sample Depth (feet bgs)	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	MFP-01	MFP-01	MFP-01	MFP-02	MFP-04	MFP-04	MFP-05	MFP-05	MFP-05	MFP-05
Sample Collection Date	3	6	9	6	0	3	0	3	6	9
Sample Depth (feet bgs)	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		-		-						
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 50000	< 500	< 500	< 5	< 5	< 5	< 5	< 5	< 50	< 5
2,4-Dichlorophenol										
2,4-Dimethylphenol										
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	MFP-01	MFP-01	MFP-01	MFP-02	MFP-04	MFP-04	MFP-05	MFP-05	MFP-05	MFP-05
Sample Collection Date	3	6	9	6	0	3	0	3	6	9
Sample Depth (feet bgs)	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	2500000	230000	180000	38	200	23	44	33	3100	410
Phenol										
Tetrachlorophenols, Total	25000	17000	14000	20	16	< 5	< 5	< 5	340	95
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	MFP-01	MFP-01	MFP-01	MFP-02	MFP-04	MFP-04	MFP-05	MFP-05	MFP-05	MFP-05
Sample Collection Date	3	6	9	6	0	3	0	3	6	9
Sample Depth (feet bgs)	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997	11/25/1997
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	MW-10	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-17	MW-17
Sample Collection Date	0	5	15	20	5	20	10	20	5	12.5
Sample Depth (feet bgs)	02/05/1991	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	10000000	1.8	5.6	2.5	4.2	4	2.2	5.1	4.9	5.4
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium		6.4	10.2	9.2	14.6	27.6	11.1	22.3	17.4	19.5
Cobalt										
Copper		3.7	< 20	16.4	19.1	17	7.3	22.7	11.7	21.7
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	MW-10	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-17	MW-17
Sample Collection Date	0	5	15	20	5	20	10	20	5	12.5
Sample Depth (feet bgs)	02/05/1991	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-		-	-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	MW-10	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-17	MW-17
Sample Collection Date	0	5	15	20	5	20	10	20	5	12.5
Sample Depth (feet bgs)	02/05/1991	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Isopropylbenzene										
m,p-Xylene										
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										


Sample ID	MW-10	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-17	MW-17
Sample Collection Date	0	5	15	20	5	20	10	20	5	12.5
Sample Depth (feet bgs)	02/05/1991	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)							-			
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol		< 30	< 30		230				33	
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol		< 30	< 30		< 30				< 30	
2,4-Dichlorophenol										
2,4-Dimethylphenol		< 30	< 30		< 30				< 30	
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol	< 2500									
3-Methylphenol	< 2500									
4-Methylphenol	< 2500									
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	MW-10	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-17	MW-17
Sample Collection Date	0	5	15	20	5	20	10	20	5	12.5
Sample Depth (feet bgs)	02/05/1991	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate										
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene										
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 2500	46	570		9300				500	
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)								-		
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										



Sample ID	MW-10	MW-13	MW-13	MW-13	MW-14	MW-14	MW-15	MW-15	MW-17	MW-17
Sample Collection Date	0	5	15	20	5	20	10	20	5	12.5
Sample Depth (feet bgs)	02/05/1991	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	MW-22	MW-22	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-26
Sample Collection Date	10	15	0.5	11	16	21	3	21	36	16
Sample Depth (feet bgs)	05/03/1993	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996
Metals (mg/kg)									•	
Aluminum				11500					5190	
Antimony				< 6.7					< 12.9	
Arsenic	3.6	3		11.9					2.1	
Barium				135					69.5	
Beryllium				1.2					0.62	
Cadmium				< 0.87					< 0.69	
Calcium				2290					3460	
Chromium	25.3	24.3		14					11.6	
Cobalt				20					10.8	
Copper	16.3	12.3		16.1					18	
Iron				22400					14500	
Lead				9.5					2.5	
Magnesium				3310					3030	
Manganese				408					290	
Mercury									< 0.12	
Nickel				15.6					10.1	
Potassium				809					< 660	
Selenium				0.79					< 0.49	
Silver				< 1.6					< 2	
Sodium				< 88					240	
Thallium				< 0.5					< 2.5	
Vanadium				60.2					38.5	
Zinc				60.2					32	
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	MW-22	MW-22	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-26
Sample Collection Date	10	15	0.5	11	16	21	3	21	36	16
Sample Depth (feet bgs)	05/03/1993	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-		-	-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH				4000				< 23		110
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)			-			-	-		-	
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	MW-22	MW-22	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-26
Sample Collection Date	10	15	0.5	11	16	21	3	21	36	16
Sample Depth (feet bgs)	05/03/1993	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone	< 5000									
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene	< 5000				4600	42000		< 5.8		
Isopropylbenzene										
m,p-Xylene	2700				11000	80000		< 5.8		
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	MW-22	MW-22	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-26
Sample Collection Date	10	15	0.5	11	16	21	3	21	36	16
Sample Depth (feet bgs)	05/03/1993	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996
Toluene					< 750	4300		< 5.8		
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		-				-	-		-	
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol		< 30	< 1700							
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol		< 30								
2,4-Dichlorophenol										
2,4-Dimethylphenol		< 30								
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	MW-22	MW-22	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-26
Sample Collection Date	10	15	0.5	11	16	21	3	21	36	16
Sample Depth (feet bgs)	05/03/1993	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole				1200		< 8700	< 370			
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate				13000		30000	50			
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene			100	14000		38000	440			
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol		62	< 1700	< 20000		7800	1100			
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene				33000		64000	< 370			
Acenaphthene				22000		51000	120			
Acenaphthylene										
Anthracene				9000		22000	100			
Benzo(a)anthracene				2700		8200	140			
Benzo(a)pyrene			260	830		3100	120			
Benzo(b)fluoranthene			520	870		2800	150			
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene			160	240		1000	70			
Benzo(k)fluoranthene			310	740		3000	93			
Chrysene			120	2700		8100	210			
Dibenzo(a,h)anthracene			63	170		620	43			
Fluorene				15000		36000	70			
Indeno(1,2,3-cd)pyrene			200	270		1000	73			



Sample ID	MW-22	MW-22	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-26
Sample Collection Date	10	15	0.5	11	16	21	3	21	36	16
Sample Depth (feet bgs)	05/03/1993	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene			130	< 4100		< 8700	< 370			
Phenanthrene			< 350	23000		54000	170			
Pyrene			320	9500		16000	380			



Sample ID	MW-26	MW-27	MW-27	MW-31	MW-31	MW-31	MW-31	MW-55	MW-55	MW-58D
Sample Collection Date	21	6	8.5	16	21	26	31	10	20	10
Sample Depth (feet bgs)	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	06/10/2008	06/10/2008	06/18/2008
Metals (mg/kg)										
Aluminum		13200		14400						
Antimony		< 12.8		< 13.3						
Arsenic		6.8		14.3				2.74	< 2.6	15
Barium		137		100						
Beryllium		1.2		1.3						
Cadmium		< 0.68		< 0.71						
Calcium		4190		2360						
Chromium		16.5		15.2				18.3	32.4	27
Cobalt		17.3		19.4						
Copper		18.8		12.1				16	24	18.8
Iron		23900		26300						
Lead		6.5		9.3						
Magnesium		4780		4090						
Manganese		389		545						
Mercury		< 0.12		< 0.13						
Nickel		18.6		12.2						
Potassium		< 688		1150						
Selenium		< 0.49		< 0.51						
Silver		< 2		< 2.1						
Sodium		193		83.3						
Thallium		< 0.24		< 0.25						
Vanadium		55.1		72.9						
Zinc		47.1		54.9				103	72.7	117
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	MW-26	MW-27	MW-27	MW-31	MW-31	MW-31	MW-31	MW-55	MW-55	MW-58D
Sample Collection Date	21	6	8.5	16	21	26	31	10	20	10
Sample Depth (feet bgs)	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	06/10/2008	06/10/2008	06/18/2008
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)				-	-		-	-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel								26.3	37	33.3
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons								< 68.6	< 70.3	103
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
ТРН			26							
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane								< 13.7	< 14.1	< 10.9
1,1,1-Trichloroethane								< 13.7	< 14.1	< 10.9
1,1,2,2-Tetrachloroethane								< 13.7	< 14.1	< 10.9
1,1,2-Trichloroethane								< 13.7	< 14.1	< 10.9
1,1-Dichloroethane								< 13.7	< 14.1	< 10.9
1,1-Dichloroethene								< 13.7	< 14.1	< 10.9
1,1-Dichloropropene								< 13.7	< 14.1	< 10.9
1,2,3-Trichlorobenzene								< 0.0137	< 0.0141	< 0.0109
1,2,3-Trichloropropane								< 13.7	< 14.1	< 10.9
1,2,4-Trichlorobenzene								< 0.0137	< 0.0141	< 0.0109
1,2,4-Trimethylbenzene								< 13.7	< 14.1	< 10.9
1,2-Dibromo-3-chloropropane								< 13.7	< 14.1	< 10.9
1,2-Dibromoethane								< 13.7	< 14.1	< 10.9
1,2-Dichlorobenzene								< 13.7	< 14.1	< 10.9
1,2-Dichloroethane								< 13.7	< 14.1	< 10.9



Sample ID	MW-26	MW-27	MW-27	MW-31	MW-31	MW-31	MW-31	MW-55	MW-55	MW-58D
Sample Collection Date	21	6	8.5	16	21	26	31	10	20	10
Sample Depth (feet bgs)	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	06/10/2008	06/10/2008	06/18/2008
1,2-Dichloropropane								< 13.7	< 14.1	< 10.9
1,3,5-Trimethylbenzene								< 13.7	< 14.1	< 10.9
1,3-Dichlorobenzene								< 13.7	< 14.1	< 10.9
1,3-Dichloropropane								< 13.7	< 14.1	< 10.9
1,4-Dichlorobenzene								< 13.7	< 14.1	< 10.9
2,2-Dichloropropane								< 13.7	< 14.1	< 10.9
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone								< 13.7	< 14.1	< 10.9
Acetone								127	< 70.3	< 54.4
Benzene								< 13.7	< 14.1	< 10.9
Bromobenzene								< 13.7	< 14.1	< 10.9
Bromodichloromethane								< 13.7	< 14.1	< 10.9
Bromoform								< 13.7	< 14.1	< 10.9
Bromomethane								< 13.7	< 14.1	< 10.9
Carbon disulfide								< 13.7	< 14.1	< 10.9
Carbon tetrachloride								< 13.7	< 14.1	< 10.9
Chlorobenzene								< 13.7	< 14.1	< 10.9
Chlorobromomethane								< 13.7	< 14.1	< 10.9
Chloroethane								< 13.7	< 14.1	< 10.9
Chloroform								< 13.7	< 14.1	< 10.9
Chloromethane								< 13.7	< 14.1	< 10.9
cis-1,2-Dichloroethene								< 13.7	< 14.1	< 10.9
cis-1,3-Dichloropropene								< 13.7	< 14.1	< 10.9
Dibromochloromethane								< 13.7	< 14.1	< 10.9
Dibromomethane								< 13.7	< 14.1	< 10.9
Dichlorodifluoromethane								< 13.7	< 14.1	< 10.9
Ethylbenzene								< 13.7	< 14.1	< 10.9
Isopropylbenzene										
m,p-Xylene								< 27.4	< 28.1	< 21.8
Methyl tert-butyl ether								< 13.7	< 14.1	< 10.9
Methylene chloride								< 68.6	< 70.3	< 54.4
n-Butylbenzene										
n-Propylbenzene								< 13.7	< 14.1	< 10.9
o-Xylene								< 13.7	< 14.1	< 10.9
sec-Butylbenzene								< 13.7	< 14.1	< 10.9
Styrene								< 13.7	< 14.1	< 10.9
tert-Butylbenzene								< 0.0137	< 0.0141	< 0.0109
Tetrachloroethene								< 13.7	< 14.1	< 10.9



Sample ID	MW-26	MW-27	MW-27	MW-31	MW-31	MW-31	MW-31	MW-55	MW-55	MW-58D
Sample Collection Date	21	6	8.5	16	21	26	31	10	20	10
Sample Depth (feet bgs)	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	06/10/2008	06/10/2008	06/18/2008
Toluene								< 13.7	< 14.1	< 10.9
trans-1,2-Dichloroethene								< 13.7	< 14.1	< 10.9
trans-1,3-Dichloropropene								< 13.7	< 14.1	< 10.9
Trichloroethene								< 13.7	< 14.1	< 10.9
Trichlorofluoromethane								< 13.7	< 14.1	< 10.9
Vinyl chloride								< 13.7	< 14.1	< 10.9
Semivolatile Organic Compounds (ug/kg)							-		-	
2,3,4,5-Tetrachlorophenol								< 13.7	< 14.1	< 10.9
2,3,4,6-Tetrachlorophenol								< 13.7	< 14.1	< 10.9
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol	< 2200							< 45.7	< 46.9	< 36.3
2,3,5-Trichlorophenol								< 45.7	< 46.9	< 36.3
2,3,6-Trichlorophenol								< 45.7	< 46.9	< 36.3
2,4,5-Trichlorophenol								< 45.7	< 46.9	< 36.3
2,4,6-Trichlorophenol								< 45.7	< 46.9	< 36.3
2,4-Dichlorophenol								< 45.7	< 46.9	< 36.3
2,4-Dimethylphenol								< 45.7	< 46.9	< 36.3
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol								35.4	< 28.1	< 21.8
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline								< 13.7	< 14.1	< 10.9
2-Nitrophenol								< 27.4	< 28.1	< 21.8
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol								< 45.7	< 46.9	< 36.3
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline								< 13.7	< 14.1	< 10.9
4-Nitrophenol								< 27.4	< 28.1	< 21.8
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	MW-26	MW-27	MW-27	MW-31	MW-31	MW-31	MW-31	MW-55	MW-55	MW-58D
Sample Collection Date	21	6	8.5	16	21	26	31	10	20	10
Sample Depth (feet bgs)	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	06/10/2008	06/10/2008	06/18/2008
Bis(2-chloro-1-methylethyl) ether	< 2200									
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole	< 460				310	190	400	< 45.7	< 46.9	< 36.3
Dibenzofuran										
Diethylphthalate								< 45.7	82.5	< 36.3
Dimethyl phthalate	9100				73	< 430	< 420	< 45.7	76.9	< 36.3
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	10000				280	< 430	< 420	< 45.7	< 46.9	< 36.3
Hexachlorocyclopentadiene										
Hexachloroethane								< 13.7	< 14.1	< 10.9
Isophorone										
Nitrobenzene								< 13.7	< 14.1	< 10.9
N-Nitrosodimethylamine								< 13.7	< 14.1	< 10.9
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	1200				73	< 2100	< 2000	< 68.6	< 70.3	720
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)			•	•			•			<b>.</b>
1-Methylnaphthalene								< 45.7	258	< 36.3
2-Methylnaphthalene	15000							< 45.7	< 46.9	< 36.3
Acenaphthene	17000				150	< 430	< 420	< 45.7	163	< 36.3
Acenaphthylene								< 45.7	< 46.9	< 36.3
Anthracene	4900				98	< 430	< 420	< 45.7	< 46.9	< 36.3
Benzo(a)anthracene	1900				52	< 160	< 150	< 45.7	< 46.9	< 36.3
Benzo(a)pyrene	650				< 150	< 160	< 150	< 45.7	< 46.9	< 36.3
Benzo(b)fluoranthene	690							< 45.7	< 46.9	< 36.3
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	140							< 45.7	< 46.9	< 36.3
Benzo(k)fluoranthene	720							< 45.7	< 46.9	< 36.3
Chrysene	2400				63	< 430	< 420	< 45.7	< 46.9	< 36.3
Dibenzo(a,h)anthracene	110							< 45.7	< 46.9	< 36.3
Fluorene	9700				100	< 430	< 420	< 45.7	51.6	< 36.3
Indeno(1,2,3-cd)pyrene	160							< 45.7	< 46.9	< 36.3



Sample ID	MW-26	MW-27	MW-27	MW-31	MW-31	MW-31	MW-31	MW-55	MW-55	MW-58D
Sample Collection Date	21	6	8.5	16	21	26	31	10	20	10
Sample Depth (feet bgs)	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	06/10/2008	06/10/2008	06/18/2008
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	32000				50	< 430	< 420	< 45.7	752	< 36.3
Phenanthrene	20000				520	< 430	< 420	< 45.7	< 46.9	< 36.3
Pyrene	11000				200	< 430	< 420	< 45.7	< 46.9	< 36.3



Sample ID	MW-58D	SS-13	SS-15	SS-16	SS-17	SS-18	SS-19	SS-2	TP-02	TP-02
Sample Collection Date	13.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5	< 0	< 5
Sample Depth (feet bgs)	06/18/2008	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	04/02/1996	05/03/1993	05/03/1993
Metals (mg/kg)										
Aluminum								10300		
Antimony								< 13.3		
Arsenic	4.47	2.59	8.32	22.9	1.63	2.44	39.5	5.3	< 6	< 8
Barium								165		
Beryllium								0.97		
Cadmium								0.8		
Calcium								4800		
Chromium	23.5	16.1	18.1	46.7	11.4	21.2	57.4	14.9	< 10	< 18
Cobalt								16.2		
Copper	32.5	5.41	13.4	30.7	10.1	10.2	51.7	20.2	< 35	< 11
Iron								21800		
Lead								5.6		
Magnesium								5350		
Manganese								286		
Mercury								< 0.13		
Nickel								18.7		
Potassium								1300		
Selenium								< 0.51		
Silver								< 2.1		
Sodium								821		
Thallium								< 0.25		
Vanadium								44.8		
Zinc	162	43.7	64.9	107	38.1	39	119	70.4		
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD		2600	8200	9200	590	48	28000			
1,2,3,4,6,7,8-HpCDF		120	960	810	< 89	< 8.3	1400			
1,2,3,4,7,8,9-HpCDF		14	74	76	< 8.3	< 2	280			
1,2,3,4,7,8-HxCDD		13	45	94	3.5	< 0.94	220			
1,2,3,4,7,8-HxCDF		13	240	58	9.1	< 2.6	250			
1,2,3,6,7,8-HxCDD		130	400	560	28	2.5	1600			
1,2,3,6,7,8-HxCDF		9.8	98	61	5.7	< 1	200			
1,2,3,7,8,9-HxCDD		32	110	220	9.8	< 1.1	470			
1,2,3,7,8,9-HxCDF		2.3	16	11	< 0.94	< 1.2	41			
1,2,3,7,8-PeCDD		4.3	15	51	2	< 0.94	80			
1,2,3,7,8-PeCDF		11	53	49	< 3.6	< 1.4	< 520			
2,3,4,6,7,8-HxCDF		11	62	58	3.9	< 0.98	170			
2,3,4,7,8-PeCDF		15	89	44	7	< 1.4	200			
2,3,7,8-TCDD		< 0.37	< 0.97	5.3	< 0.35	< 0.4	< 3.8			
2,3,7,8-TCDF		4.9	16	11	0.97	< 0.28	38			
OCDD		21000	86000	61000	5400	1700	250000			
OCDF		200	650	1300	65	6.7	5000			



Sample ID	MW-58D	SS-13	SS-15	SS-16	SS-17	SS-18	SS-19	SS-2	TP-02	TP-02
Sample Collection Date	13.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5	< 0	< 5
Sample Depth (feet bgs)	06/18/2008	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	04/02/1996	05/03/1993	05/03/1993
Total HpCDDs		4200	15000	17000	1100	86	50000			
Total HpCDFs		600	3500	3500	150	10	9900			
Total HxCDDs		430	1600	2600	110	5	6700			
Total HxCDFs		460	3500	2300	170	7.1	9200			
Total PeCDDs		8.3	87	280	6.6	< 0.94	810			
Total PeCDFs		200	1400	1000	62	5.7	4100			
Total TCDDs		< 0.37	37	81	< 0.35	< 0.4	290			
Total TCDFs		19	110	150	5.1	0.44	260			
Dioxin TEQ (Mammals—WHO 2005)		64	260	300	18	2.5	820			
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-		-	-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel	74.9									
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons	96.8									
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)		-			-				-	-
1,1,1,2-Tetrachloroethane	< 14.9									
1,1,1-Trichloroethane	< 14.9									
1,1,2,2-Tetrachloroethane	< 14.9									
1,1,2-Trichloroethane	< 14.9									
1,1-Dichloroethane	< 14.9									
1,1-Dichloroethene	< 14.9									
1,1-Dichloropropene	< 14.9									
1,2,3-Trichlorobenzene	< 0.0149									
1,2,3-Trichloropropane	< 14.9									
1,2,4-Trichlorobenzene	< 0.0149									
1,2,4-Trimethylbenzene	< 14.9									
1,2-Dibromo-3-chloropropane	< 14.9									
1,2-Dibromoethane	< 14.9									
1,2-Dichlorobenzene	< 14.9									
1,2-Dichloroethane	< 14.9									



Sample ID	MW-58D	SS-13	SS-15	SS-16	SS-17	SS-18	SS-19	SS-2	TP-02	TP-02
Sample Collection Date	13.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5	< 0	< 5
Sample Depth (feet bgs)	06/18/2008	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	04/02/1996	05/03/1993	05/03/1993
1,2-Dichloropropane	< 14.9									
1,3,5-Trimethylbenzene	< 14.9									
1,3-Dichlorobenzene	< 14.9									
1,3-Dichloropropane	< 14.9									
1,4-Dichlorobenzene	< 14.9									
2,2-Dichloropropane	< 14.9									
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone	< 14.9									
Acetone	< 74.5									
Benzene	< 14.9									
Bromobenzene	< 14.9									
Bromodichloromethane	< 14.9									
Bromoform	< 14.9									
Bromomethane	< 14.9									
Carbon disulfide	< 14.9									
Carbon tetrachloride	< 14.9									
Chlorobenzene	< 14.9									
Chlorobromomethane	< 14.9									
Chloroethane	< 14.9									
Chloroform	< 14.9									
Chloromethane	< 14.9									
cis-1,2-Dichloroethene	< 14.9									
cis-1,3-Dichloropropene	< 14.9									
Dibromochloromethane	< 14.9									
Dibromomethane	< 14.9									
Dichlorodifluoromethane	< 14.9									
Ethylbenzene	< 14.9									
Isopropylbenzene										
m,p-Xylene	< 29.8									
Methyl tert-butyl ether	< 14.9									
Methylene chloride	< 74.5									
n-Butylbenzene										
n-Propylbenzene	< 14.9									
o-Xylene	< 14.9									
sec-Butylbenzene	< 14.9									
Styrene	< 14.9									
tert-Butylbenzene	< 0.0149									
Tetrachloroethene	< 14.9									



Sample ID	MW-58D	SS-13	SS-15	SS-16	SS-17	SS-18	SS-19	SS-2	TP-02	TP-02
Sample Collection Date	13.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5	< 0	< 5
Sample Depth (feet bgs)	06/18/2008	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	04/02/1996	05/03/1993	05/03/1993
Toluene	< 14.9									
trans-1,2-Dichloroethene	< 14.9									
trans-1,3-Dichloropropene	< 14.9									
Trichloroethene	< 14.9									
Trichlorofluoromethane	< 14.9									
Vinyl chloride	< 14.9									
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol	< 14.9									
2,3,4,6-Tetrachlorophenol	< 14.9									
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol	< 49.7								< 30	< 150
2,3,5-Trichlorophenol	< 49.7									
2,3,6-Trichlorophenol	< 49.7									
2,4,5-Trichlorophenol	< 49.7									
2,4,6-Trichlorophenol	< 49.7								< 30	< 30
2,4-Dichlorophenol	< 49.7									
2,4-Dimethylphenol	< 49.7								< 30	< 50
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol	< 29.8									
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline	< 14.9									
2-Nitrophenol	< 29.8									
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol	< 49.7									
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline	< 14.9									
4-Nitrophenol	< 29.8									
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	MW-58D	SS-13	SS-15	SS-16	SS-17	SS-18	SS-19	SS-2	TP-02	TP-02
Sample Collection Date	13.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5	< 0	< 5
Sample Depth (feet bgs)	06/18/2008	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	04/02/1996	05/03/1993	05/03/1993
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole	< 49.7									
Dibenzofuran										
Diethylphthalate	< 49.7									
Dimethyl phthalate	50.2									
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene	< 49.7	< 7.1	11.8	24	< 7.46	< 7.49	5070			
Hexachlorocyclopentadiene										
Hexachloroethane	< 14.9									
Isophorone										
Nitrobenzene	< 14.9									
N-Nitrosodimethylamine	< 14.9									
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	< 74.5	< 355	< 393	< 399	< 372	< 374	821		< 160	< 4000
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene	1090									
2-Methylnaphthalene	103									
Acenaphthene	512	< 7.1	< 7.87	< 8	< 7.46	< 7.49	44.3			
Acenaphthylene	< 49.7	< 7.1	< 7.87	< 8	< 7.46	< 7.49	302			
Anthracene	< 49.7	< 7.1	< 7.87	21.6	< 7.46	< 7.49	628			
Benzo(a)anthracene	< 49.7	< 7.1	< 7.87	10.4	< 7.46	< 7.49	2050			
Benzo(a)pyrene	< 49.7	< 7.1	< 7.87	< 8	< 7.46	< 7.49	1500			
Benzo(b)fluoranthene	< 49.7	< 7.1	7.87	36	< 7.46	< 7.49	3080			
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene	< 49.7	< 7.1	8.66	11.2	< 7.46	< 7.49	559			
Benzo(k)fluoranthene	< 49.7	< 7.1	< 7.87	< 8	< 7.46	< 7.49	1090			
Chrysene	< 49.7	< 7.1	< 7.87	24.8	< 7.46	< 7.49	3480			
Dibenzo(a,h)anthracene	< 49.7	< 7.1	< 7.87	8.79	< 7.46	< 7.49	247			
Fluorene	68.6	< 7.1	< 7.87	< 8	< 7.46	< 7.49	39.7			
Indeno(1,2,3-cd)pyrene	< 49.7	< 7.1	< 7.87	12	< 7.46	< 7.49	607			



Sample ID	MW-58D	SS-13	SS-15	SS-16	SS-17	SS-18	SS-19	SS-2	TP-02	TP-02
Sample Collection Date	13.5	0.5	0.5	0.5	0.5	0.5	0.5	8.5	< 0	< 5
Sample Depth (feet bgs)	06/18/2008	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	02/26/2009	04/02/1996	05/03/1993	05/03/1993
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene	< 49.7	< 7.1	16.5	< 8	< 7.46	< 7.49	64.1			
Phenanthrene	< 49.7	< 7.1	22.8	16	< 7.46	< 7.49	342			
Pyrene	< 49.7	< 7.1	17.3	24	< 7.46	< 7.49	6610			



Sample ID	TP-02	TP-03	TP-04	TP-04	TP-04	TP-05	TP-05	TP-06	TP-06	TP-06
Sample Collection Date	< 9	< 10	< 1	< 5	< 10	< 1	< 8	< 0	< 3	< 10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Metals (mg/kg)		•	•				•		•	
Aluminum										
Antimony										
Arsenic	< 7	< 2	< 2	< 1	< 1	< 11	< 2	< 4	< 13	< 3
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	< 23	< 8	< 13	< 0	< 9	< 25	< 17	< 11	< 26	< 21
Cobalt										
Copper	< 11	< 4	< 22	< 0	< 6	< 4	< 8	< 4	< 7	< 10
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)					-	-				
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	TP-02	TP-03	TP-04	TP-04	TP-04	TP-05	TP-05	TP-06	TP-06	TP-06
Sample Collection Date	< 9	< 10	< 1	< 5	< 10	< 1	< 8	< 0	< 3	< 10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)						-	-		-	
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)		-	-	-	-					-
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	TP-02	TP-03	TP-04	TP-04	TP-04	TP-05	TP-05	TP-06	TP-06	TP-06
Sample Collection Date	< 9	< 10	< 1	< 5	< 10	< 1	< 8	< 0	< 3	< 10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
lsopropylbenzene										
m,p-Xylene									< 32	
Methyl tert-butyl ether										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	TP-02	TP-03	TP-04	TP-04	TP-04	TP-05	TP-05	TP-06	TP-06	TP-06
Sample Collection Date	< 9	< 10	< 1	< 5	< 10	< 1	< 8	< 0	< 3	< 10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol		< 300		< 3600	< 3100	< 86				
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol		< 30		< 2300	< 2300	< 30				
2,4-Dichlorophenol										
2,4-Dimethylphenol		< 30		< 2300	< 2300	< 30				
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol										
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	TP-02	TP-03	TP-04	TP-04	TP-04	TP-05	TP-05	TP-06	TP-06	TP-06
Sample Collection Date	< 9	< 10	< 1	< 5	< 10	< 1	< 8	< 0	< 3	< 10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate										
Dimethyl phthalate									< 670	
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene									< 940	
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol		< 4600		< 100000	< 51000	< 1600			< 3600	
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene									< 670	
Acenaphthene									< 670	
Acenaphthylene										
Anthracene									< 670	
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene									< 670	
Indeno(1,2,3-cd)pyrene										



Sample ID	TP-02	TP-03	TP-04	TP-04	TP-04	TP-05	TP-05	TP-06	TP-06	TP-06
Sample Collection Date	< 9	< 10	< 1	< 5	< 10	< 1	< 8	< 0	< 3	< 10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene									< 670	
Phenanthrene									< 670	
Pyrene									< 1600	



Sample ID	TP-11	TP-11	TP-12	TP-12	TP-12	TP-13	TP-13	TP-14	TP-14	TP-15
Sample Collection Date	0.5	10	0.3	3	6.5	5.5	7.5	0.5	5	0.2
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Metals (mg/kg)							•		•	•
Aluminum										
Antimony										
Arsenic	78	4.7	2.4		6.9	32.7	10.6	50.1	2.8	22
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	69.5	17.8	15		16.3	9	14.8	55.4	9.1	34.1
Cobalt										
Copper	56.5	18.6	11.6		11.3	9.2	17	32.2	5.2	29.6
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)					-		-		-	
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	TP-11	TP-11	TP-12	TP-12	TP-12	TP-13	TP-13	TP-14	TP-14	TP-15
Sample Collection Date	0.5	10	0.3	3	6.5	5.5	7.5	0.5	5	0.2
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Dioxin TEQ (Mammals—WHO 2005)										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-	-		-	-
C10-C22 Diesel-Range Organics										
C4-C12 Gasoline-Range Organics										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Heavy-Oil-Range Hydrocarbon										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
Other Petroleum Hydrocarbons										
PHC as Diesel										
TPH										
TPH (as motor oil)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane							< 5			
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloroethene										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										



Sample ID	TP-11	TP-11	TP-12	TP-12	TP-12	TP-13	TP-13	TP-14	TP-14	TP-15
Sample Collection Date	0.5	10	0.3	3	6.5	5.5	7.5	0.5	5	0.2
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone					76		440			
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene					130		52			
Isopropylbenzene										
m,p-Xylene					42		54			
Methyl tert-butyl ether										
Methylene chloride							< 10000			
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene							< 5			
tert-Butylbenzene										
Tetrachloroethene										



Sample ID	TP-11	TP-11	TP-12	TP-12	TP-12	TP-13	TP-13	TP-14	TP-14	TP-15
Sample Collection Date	0.5	10	0.3	3	6.5	5.5	7.5	0.5	5	0.2
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Toluene							< 5			
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol	< 30	< 30	< 30			< 30		30		32
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 30	< 30	< 30			< 30		< 30		< 30
2,4-Dichlorophenol										
2,4-Dimethylphenol	< 30	< 30	< 30			< 30		< 30		< 30
2,4-Dinitrophenol										
2,4-Dinitrotoluene										
2,6-Dichlorophenol										
2,6-Dinitrotoluene										
2-Chloronaphthalene										
2-Chlorophenol							36			
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2-Nitroaniline										
2-Nitrophenol										
3- & 4-Methylphenol										
3,3-Dichlorobenzidine										
3,4,5-Trichlorophenol										
3-Nitroaniline										
4,6-Dinitro-2-methylphenol										
4-Bromophenylphenyl ether										
4-Chloro-3-methylphenol										
4-Chloroaniline										
4-Chlorophenylphenyl ether										
4-Nitroaniline										
4-Nitrophenol							12			
Aniline										
Benzoic acid										
Benzyl alcohol										



Sample ID	TP-11	TP-11	TP-12	TP-12	TP-12	TP-13	TP-13	TP-14	TP-14	TP-15
Sample Collection Date	0.5	10	0.3	3	6.5	5.5	7.5	0.5	5	0.2
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Bis(2-chloro-1-methylethyl) ether										
Bis(2-chloroethoxy)methane										
Bis(2-chloroethyl)ether										
Bis(2-chloroisopropyl)ether										
Bis(2-ethylhexyl)phthalate										
Butylbenzylphthalate										
Carbazole										
Dibenzofuran										
Diethylphthalate					< 1700					
Dimethyl phthalate				< 67000	< 1700					
Di-n-butyl phthalate										
Di-n-octyl phthalate										
Fluoranthene										
Hexachlorobenzene										
Hexachlorobutadiene				200000	5300					
Hexachlorocyclopentadiene										
Hexachloroethane										
Isophorone										
Nitrobenzene										
N-Nitrosodimethylamine										
N-Nitrosodiphenylamine										
N-Nitrosodipropylamine										
Pentachlorophenol	460	40	190	110000	< 8500	85		730		450
Phenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)			-	-						
1-Methylnaphthalene										
2-Methylnaphthalene				130	2.4					
Acenaphthene				< 67000	2.6					
Acenaphthylene										
Anthracene				290000	< 1700					
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b+k)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene				< 67000	< 1700					
Indeno(1,2,3-cd)pyrene										



Sample ID	TP-11	TP-11	TP-12	TP-12	TP-12	TP-13	TP-13	TP-14	TP-14	TP-15
Sample Collection Date	0.5	10	0.3	3	6.5	5.5	7.5	0.5	5	0.2
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene										
Naphthalene				810000	19000					
Phenanthrene				< 320000	4000					
Pyrene				< 67000	6400					



Sample ID	TP-15	TP-16	TP-16	TP-27	TP-28	TP-28	TP-32
Sample Collection Date	6	0.3	7	10	7	9.5	10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Metals (mg/kg)							
Aluminum							
Antimony							
Arsenic	51.5	41.2	7.6				
Barium							
Beryllium							
Cadmium							
Calcium							
Chromium	12.1	40.7	11.1				
Cobalt							
Copper	7.5	55.1	11.1				
lron							
Lead							
Magnesium							
Manganese							
Mercury							
Nickel							
Potassium							
Selenium							
Silver							
Sodium							
Thallium							
Vanadium							
Zinc							
Dioxins and Furans (ng/kg)							
1,2,3,4,6,7,8-HpCDD							
1,2,3,4,6,7,8-HpCDF							
1,2,3,4,7,8,9-HpCDF							
1,2,3,4,7,8-HxCDD							
1,2,3,4,7,8-HXCDF							
1,2,3,6,7,8-HXCDD							
1,2,3,6,7,8-HXCDF							
1,2,3,7,8,9-HXCDD							
1,2,3,7,8,9-HXCDF							
1,2,3,7,8-PECDD							
UCUF							



Sample ID	TP-15	TP-16	TP-16	TP-27	TP-28	TP-28	TP-32
Sample Collection Date	6	0.3	7	10	7	9.5	10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Total HpCDDs							
Total HpCDFs							
Total HxCDDs							
Total HxCDFs							
Total PeCDDs							
Total PeCDFs							
Total TCDDs							
Total TCDFs							
Dioxin TEQ (Mammals—WHO 2005)							
Petroleum Hydrocarbons (mg/kg)			-				
C10-C22 Diesel-Range Organics							
C4-C12 Gasoline-Range Organics							
Diesel							
Gasoline							
Heavy-Fuel-Oil-Range Hydrocarbons							
Heavy-Oil-Range Hydrocarbon							
Jet fuels							
Kerosene							
Lube-Oil-Range Hydrocarbons							
Mineral spirits							
Naphtha Distillate							
Non-PHC as Diesel							
Other Petroleum Hydrocarbons							
PHC as Diesel							
TPH							
TPH (as motor oil)							
Volatile Organic Compounds (ug/kg)							
1,1,1,2-Tetrachloroethane							
1,1,1-Trichloroethane							
1,1,2,2-Tetrachloroethane						< 5000	
1,1,2-Trichloroethane							
1,1-Dichloroethane							
1,1-Dichloroethene							
1,1-Dichloropropene							
1,2,3-Trichlorobenzene							
1,2,3-Trichloropropane							
1,2,4-Trichlorobenzene							
1,2,4-Trimethylbenzene							
1,2-Dibromo-3-chloropropane							
1,2-Dibromoethane							
1,2-Dichlorobenzene							
1,2-Dichloroethane							



Sample ID	TP-15	TP-16	TP-16	TP-27	TP-28	TP-28	TP-32
Sample Collection Date	6	0.3	7	10	7	9.5	10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
1,2-Dichloropropane							
1,3,5-Trimethylbenzene							
1,3-Dichlorobenzene							
1,3-Dichloropropane							
1,4-Dichlorobenzene							
2,2-Dichloropropane							
2-Butanone							
2-Chlorotoluene							
2-Hexanone							
4-Chlorotoluene							
4-Isopropyltoluene							
4-Methyl-2-pentanone							
Acetone						< 10000	
Benzene							
Bromobenzene							
Bromodichloromethane							
Bromoform							
Bromomethane							
Carbon disulfide							
Carbon tetrachloride							
Chlorobenzene							
Chlorobromomethane							
Chloroethane							
Chloroform							
Chloromethane							
cis-1,2-Dichloroethene							
cis-1,3-Dichloropropene							
Dibromochloromethane							
Dibromomethane							
Dichlorodifluoromethane							
Ethylbenzene						< 5000	
Isopropylbenzene							
m,p-Xylene						7300	
Methyl tert-butyl ether							
Methylene chloride						9300	
n-Butylbenzene							
n-Propylbenzene							
o-Xylene							
sec-Butylbenzene							
Styrene						< 5000	
tert-Butylbenzene							
Tetrachloroethene							


Sample ID	TP-15	TP-16	TP-16	TP-27	TP-28	TP-28	TP-32
Sample Collection Date	6	0.3	7	10	7	9.5	10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Toluene						< 5000	
trans-1,2-Dichloroethene							
trans-1,3-Dichloropropene							
Trichloroethene							
Trichlorofluoromethane							
Vinyl chloride							
Semivolatile Organic Compounds (ug/kg)							
2,3,4,5-Tetrachlorophenol							
2,3,4,6-Tetrachlorophenol							
2,3,4-Trichlorophenol							
2,3,5,6-Tetrachlorophenol		40	30	30	30		30
2,3,5-Trichlorophenol							
2,3,6-Trichlorophenol							
2,4,5-Trichlorophenol							
2,4,6-Trichlorophenol		< 30	< 30	< 30	< 30		< 30
2,4-Dichlorophenol							
2,4-Dimethylphenol		< 30	30	30	30		30
2,4-Dinitrophenol							
2,4-Dinitrotoluene							
2,6-Dichlorophenol							
2,6-Dinitrotoluene							
2-Chloronaphthalene							
2-Chlorophenol						10000	
2-Methylphenol							
3-Methylphenol							
4-Methylphenol							
2-Nitroaniline							
2-Nitrophenol							
3- & 4-Methylphenol							
3,3-Dichlorobenzidine							
3,4,5-Trichlorophenol							
3-Nitroaniline							
4,6-Dinitro-2-methylphenol							
4-Bromophenylphenyl ether							
4-Chloro-3-methylphenol							
4-Chloroaniline							
4-Chlorophenylphenyl ether							
4-Nitroaniline							
4-Nitrophenol						10000	
Aniline							
Benzoic acid							
Benzyl alcohol							



Sample ID	TP-15	TP-16	TP-16	TP-27	TP-28	TP-28	TP-32
Sample Collection Date	6	0.3	7	10	7	9.5	10
Sample Depth (feet bas)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Bis(2-chloro-1-methylethyl) ether							
Bis(2-chloroethoxy)methane							
Bis(2-chloroethyl)ether							
Bis(2-chloroisopropyl)ether							
Bis(2-ethylhexyl)phthalate							
Butylbenzylphthalate							
Carbazole							
Dibenzofuran							
Diethylphthalate						67000	
Dimethyl phthalate						140000	
Di-n-butyl phthalate							
Di-n-octyl phthalate							
Fluoranthene							
Hexachlorobenzene							
Hexachlorobutadiene						240000	
Hexachlorocyclopentadiene							
Hexachloroethane							
Isophorone							
Nitrobenzene							
N-Nitrosodimethylamine							
N-Nitrosodiphenylamine							
N-Nitrosodipropylamine							
Pentachlorophenol		620	320	35	33	< 330000	190
Phenol							
Tetrachlorophenols, Total							
Polycyclic Aromatic Hydrocarbons (ug/kg)							
1-Methylnaphthalene							
2-Methylnaphthalene						340	
Acenaphthene						250	
Acenaphthylene							
Anthracene						130000	
Benzo(a)anthracene							
Benzo(a)pyrene							
Benzo(b)fluoranthene							
Benzo(b+k)fluoranthene							
Benzo(ghi)perylene							
Benzo(k)fluoranthene							
Chrysene							
Dibenzo(a,h)anthracene							
Fluorene						180000	
Indeno(1,2,3-cd)pyrene							



Sample ID	TP-15	TP-16	TP-16	TP-27	TP-28	TP-28	TP-32
Sample Collection Date	6	0.3	7	10	7	9.5	10
Sample Depth (feet bgs)	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Indeno(1,2,3-cd)pyrene/ dibenz(a,h)anthracene							
Naphthalene						1400000	
Phenanthrene						500000	
Pyrene						200000	



### NOTES:

---- = not analyzed.

bgs = below ground surface.

mg/kg = milligrams per kilogram.

ng/kg = nanograms per kilogram.

PHC = petroleum hydrocarbon.

TEQ = toxicity equivalent. Calculated using World Health Organization 2005 methodology.

TPH = total petroleum hydrocarbons.

ug/kg = micrograms per kilogram.



Sample ID	B-204	B-204	B-204	B-205	B-205	B-205	B-206	B-206	B-206	B-207
Sample Date	10/28/1999	10/28/1999	10/28/1999	10/29/1999	10/29/1999	10/29/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	2.5	5	10	2.5	5	10	2.5	5	10	2.5
Metals (mg/kg)						•			•	•
Aluminum										
Antimony										
Arsenic	11			3			5		9	8
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	32			18			21		27	18
Cobalt										
Copper	41			23			20		24	18
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	49			58			46		62	87
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-204	B-204	B-204	B-205	B-205	B-205	B-206	B-206	B-206	B-207
Sample Date	10/28/1999	10/28/1999	10/28/1999	10/29/1999	10/29/1999	10/29/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	2.5	5	10	2.5	5	10	2.5	5	10	2.5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10			< 10			< 10		< 10	< 10
Gasoline	< 10			< 10			< 10		< 10	< 10
Heavy-Fuel-Oil-Range Hydrocarbons	< 25			< 25			< 25		< 25	< 25
Jet fuels	< 10			< 10			< 10		< 10	< 10
Kerosene	< 10			< 10			< 10		< 10	< 10
Lube-Oil-Range Hydrocarbons	< 25			< 25			< 25		< 25	< 25
Mineral spirits	< 10			< 10			< 10		< 10	< 10
Naphtha Distillate	< 10			< 10			< 10		< 10	< 10
Non-PHC as Diesel	< 50			< 50			< 50		< 50	< 50
PHC as Diesel	670			160			112		1090	884
ТРН										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,1,1-Trichloroethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,1,2,2-Tetrachloroethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,1,2-Trichloroethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,1-Dichloroethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,1-Dichloropropene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,2,3-Trichlorobenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
1,2,3-Trichloropropane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,2,4-Trichlorobenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
1,2,4-Trimethylbenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
1,2-Dibromo-3-chloropropane	< 20	< 20		< 20	< 20		< 20	< 20		< 20
1,2-Dibromoethane	< 20	< 20		< 20	< 20		< 20	< 20		< 20
1,2-Dichlorobenzene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,2-Dichloroethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,2-Dichloropropane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,3,5-Trimethylbenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
1,3-Dichlorobenzene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,3-Dichloropropane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
1,4-Dichlorobenzene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
2,2-Dichloropropane	< 5	< 5		< 5	< 5		< 5	< 5		< 5



Sample ID	B-204	B-204	B-204	B-205	B-205	B-205	B-206	B-206	B-206	B-207
Sample Date	10/28/1999	10/28/1999	10/28/1999	10/29/1999	10/29/1999	10/29/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	2.5	5	10	2.5	5	10	2.5	5	10	2.5
2-Butanone	< 20	< 20		< 20	< 20		< 20	< 20		< 20
2-Chlorotoluene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
2-Hexanone	< 20	< 20		< 20	< 20		< 20	< 20		< 20
4-Chlorotoluene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
4-Isopropyltoluene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
4-Methyl-2-pentanone	< 20	< 20		< 20	< 20		< 20	< 20		< 20
Acetone	< 50	82		< 50	110		< 50	81		< 50
Benzene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Bromobenzene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Bromodichloromethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Bromoform	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Bromomethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Carbon disulfide	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Carbon tetrachloride	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Chlorobenzene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Chlorobromomethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Chloroethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Chloroform	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Chloromethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
cis-1,2-Dichloroethene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
cis-1,3-Dichloropropene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Dibromochloromethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Dibromomethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Dichlorodifluoromethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Ethylbenzene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Hexachlorobutadiene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
Isopropylbenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
m,p-Xylene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Methylene chloride	< 10	< 10		< 10	< 10		< 10	< 10		< 10
n-Butylbenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
n-Propylbenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
o-Xylene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
sec-Butylbenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
Styrene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
tert-Butylbenzene	< 20	< 20		< 20	< 20		< 20	< 20		< 20
Tetrachloroethene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Toluene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
trans-1,2-Dichloroethene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
trans-1,3-Dichloropropene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Trichloroethene	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Trichlorofluoromethane	< 5	< 5		< 5	< 5		< 5	< 5		< 5
Vinyl chloride	< 5	< 5		< 5	< 5		< 5	< 5		< 5



Sample ID	B-204	B-204	B-204	B-205	B-205	B-205	B-206	B-206	B-206	B-207
Sample Date	10/28/1999	10/28/1999	10/28/1999	10/29/1999	10/29/1999	10/29/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	2.5	5	10	2.5	5	10	2.5	5	10	2.5
Semivolatile Organic Compounds (ug/kg)		•	•	•			•		•	•
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	94			< 50			< 50	< 50	16000	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50			< 50			< 50	< 50	< 500	< 50
2,3,5,6-Tetrachlorophenol	< 50			< 50			< 50	< 50	< 500	< 50
2,3,5-Trichlorophenol	< 50			< 50			< 50	< 50	< 500	< 50
2,3,6-Trichlorophenol	< 50			< 50			< 50	< 50	< 500	< 50
2,4,5-Trichlorophenol	< 50			< 50			< 50	< 50	< 500	< 50
2,4,6-Trichlorophenol	< 500	< 5	< 5	< 50	< 5	< 5	< 500	< 50	< 50000	< 50
3,4,5-Trichlorophenol	< 50			< 50			< 50	< 50	< 500	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	190			84			< 10	< 10	140	20
Dibenzofuran	11			17			< 10	< 10	170	< 10
Fluoranthene	1600			250			43	< 10	2000	380
Pentachlorophenol	4300	< 5	< 5	330	< 5	< 5	1800	< 40	340000	1100
Tetrachlorophenols, Total	< 500	< 5	< 5	7.1	< 5	< 5	< 500	< 5	< 50000	7.9
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	11			41			< 10	< 10	110	24
Acenaphthylene	190			68			< 10	< 50	< 500	16
Anthracene	420			180			< 10	< 10	1100	78
Benzo(a)anthracene	1300			170			< 10	< 10	560	99
Benzo(a)pyrene	2500			340			< 10	< 10	130	180
Benzo(b)fluoranthene	6300			560			27	< 10	210	310
Benzo(ghi)perylene	1600			370			< 10	< 10	< 100	150
Benzo(k)fluoranthene	4900			520			16	< 10	150	220
Chrysene	6300			390			25	< 10	630	260
Dibenzo(a,h)anthracene	450			83			< 10	< 10	< 100	< 100
Fluorene	16			34			< 10	< 10	440	25
Indeno(1,2,3-cd)pyrene	2100			440			< 10	< 10	< 100	210
Naphthalene	< 20	< 20		53	< 20		< 20	< 20	1600	< 20
Phenanthrene	200			160			40	< 10	2700	68
Pyrene	9700			300			39	< 10	1700	470



Sample ID	B-207	B-207	B-208	B-208	B-208	B-209	B-209	B-209	B-210	B-210
Sample Date	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	5	10	2.5	5	10	2.5	5	10	2.5	5
Metals (mg/kg)			-						-	-
Aluminum										
Antimony										
Arsenic	7	4	5	5				3		6
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	31	30	27	28				24		29
Cobalt										
Copper	27	27	23	34				24		20
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	79	69	57	85				66		74
Dioxins and Furans (ng/kg)			1						1	1
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-207	B-207	B-208	B-208	B-208	B-209	B-209	B-209	B-210	B-210
Sample Date	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	5	10	2.5	5	10	2.5	5	10	2.5	5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10	< 10	< 10	< 10				< 10		< 10
Gasoline	< 10	< 10	< 10	< 10				< 10		< 10
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25				< 25		< 25
Jet fuels	< 10	< 10	< 10	< 10				< 10		< 10
Kerosene	< 10	< 10	< 10	< 10				< 10		< 10
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25				< 25		190
Mineral spirits	< 10	< 10	< 10	< 10				< 10		< 10
Naphtha Distillate	< 10	< 10	< 10	< 10				< 10		< 10
Non-PHC as Diesel	< 50	< 50	< 50	< 50				< 50		< 50
PHC as Diesel	< 25	< 25	3390	214				< 25		< 25
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane			< 5	< 5					< 5	< 5
1,1,1-Trichloroethane			< 5	< 5					< 5	< 5
1,1,2,2-Tetrachloroethane			< 5	< 5					< 5	< 5
1,1,2-Trichloroethane			< 5	< 5					< 5	< 5
1,1-Dichloroethane			< 5	< 5					< 5	< 5
1,1-Dichloropropene			< 5	< 5					< 5	< 5
1,2,3-Trichlorobenzene			< 20	< 20					< 20	< 20
1,2,3-Trichloropropane			< 5	< 5					< 5	< 5
1,2,4-Trichlorobenzene			< 20	< 20					< 20	< 20
1,2,4-Trimethylbenzene			34	< 20					< 20	< 20
1,2-Dibromo-3-chloropropane			< 20	< 20					< 20	< 20
1,2-Dibromoethane			< 20	< 20					< 20	< 20
1,2-Dichlorobenzene			< 5	< 5					< 5	< 5
1,2-Dichloroethane			< 5	< 5					< 5	< 5
1,2-Dichloropropane			< 5	< 5					< 5	< 5
1,3,5-Trimethylbenzene			< 20	< 20					< 20	< 20
1,3-Dichlorobenzene			< 5	< 5					< 5	< 5
1,3-Dichloropropane			< 5	< 5					< 5	< 5
1,4-Dichlorobenzene			< 5	< 5					< 5	< 5
2,2-Dichloropropane			< 5	< 5					< 5	< 5



Sample ID	B-207	B-207	B-208	B-208	B-208	B-209	B-209	B-209	B-210	B-210
Sample Date	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	5	10	2.5	5	10	2.5	5	10	2.5	5
2-Butanone			< 20	20					< 20	< 20
2-Chlorotoluene			< 20	< 20					< 20	< 20
2-Hexanone			< 20	< 20					< 20	< 20
4-Chlorotoluene			< 20	< 20					< 20	< 20
4-Isopropyltoluene			< 20	< 20					< 20	< 20
4-Methyl-2-pentanone			< 20	< 20					< 20	< 20
Acetone			72	98					< 50	< 50
Benzene			< 5	< 5					< 5	< 5
Bromobenzene			< 5	< 5					< 5	< 5
Bromodichloromethane			< 5	< 5					< 5	< 5
Bromoform			< 5	< 5					< 5	< 5
Bromomethane			< 5	< 5					< 5	< 5
Carbon disulfide			< 5	< 5					< 5	< 5
Carbon tetrachloride			< 5	< 5					< 5	< 5
Chlorobenzene			< 5	< 5					< 5	< 5
Chlorobromomethane			< 5	< 5					< 5	< 5
Chloroethane			< 5	< 5					< 5	< 5
Chloroform			< 5	< 5					< 5	< 5
Chloromethane			< 5	< 5					< 5	< 5
cis-1,2-Dichloroethene			< 5	< 5					< 5	< 5
cis-1,3-Dichloropropene			< 5	< 5					< 5	< 5
Dibromochloromethane			< 5	< 5					< 5	< 5
Dibromomethane			< 5	< 5					< 5	< 5
Dichlorodifluoromethane			< 5	< 5					< 5	< 5
Ethylbenzene			< 5	< 5					< 5	< 5
Hexachlorobutadiene			< 20	< 20					< 20	< 20
Isopropylbenzene			< 20	< 20					< 20	< 20
m,p-Xylene			< 5	< 5					< 5	< 5
Methylene chloride			< 10	< 10					< 10	< 10
n-Butylbenzene			< 20	< 20					< 20	< 20
n-Propylbenzene			< 20	< 20					< 20	< 20
o-Xylene			< 5	< 5					< 5	< 5
sec-Butylbenzene			< 20	< 20					< 20	< 20
Styrene			< 5	< 5					< 5	< 5
tert-Butylbenzene			< 20	< 20					< 20	< 20
Tetrachloroethene			< 5	< 5					< 5	< 5
Toluene			< 5	< 5					< 5	< 5
trans-1,2-Dichloroethene			< 5	< 5					< 5	< 5
trans-1,3-Dichloropropene			< 5	< 5					< 5	< 5
Trichloroethene			< 5	< 5					< 5	< 5
Trichlorofluoromethane			< 5	< 5					< 5	< 5
Vinyl chloride			< 5	< 5					< 5	< 5



Sample ID	B-207	B-207	B-208	B-208	B-208	B-209	B-209	B-209	B-210	B-210
Sample Date	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999	11/01/1999
Sample Depth (feet bgs)	5	10	2.5	5	10	2.5	5	10	2.5	5
Semivolatile Organic Compounds (ug/kg)			•							
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 50	1300	< 50	< 50	< 50		< 50	< 50	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50		< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 50	< 50	690	< 50	< 50	< 50		< 50	< 50	93
2,3,5-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50		< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50		< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50		< 50	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50		< 50	< 50	< 50
3,4,5-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50		< 50	< 50	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	< 10	< 10	110	94	< 10	< 10		< 10	< 10	36
Dibenzofuran	< 10	< 10	670	52	< 10	< 10		< 10	< 10	30
Fluoranthene	< 10	< 10	3800	940	< 10	51		11	34	2000
Pentachlorophenol	< 40	< 40	43000	1400	< 40	< 40	< 5	< 40	47	1800
Tetrachlorophenols, Total	< 5	< 5	640	70	< 5	< 5	< 5	< 5	< 5	< 500
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10	< 10	540	84	< 10	< 10		< 10	< 10	11
Acenaphthylene	< 50	< 10	< 500	25	< 50	< 50		< 10	< 50	< 50
Anthracene	< 10	< 10	510	170	< 10	12		< 10	< 10	88
Benzo(a)anthracene	< 10	< 10	540	480	< 10	16		< 10	< 10	340
Benzo(a)pyrene	< 10	< 10	110	450	< 10	12		< 10	< 10	110
Benzo(b)fluoranthene	< 10	15	270	1200	< 10	16		< 10	13	370
Benzo(ghi)perylene	< 10	< 10	< 100	180	< 10	< 10		< 10	< 10	51
Benzo(k)fluoranthene	< 10	11	200	710	< 10	13		< 10	11	250
Chrysene	< 10	< 10	730	1100	< 10	20		< 10	14	560
Dibenzo(a,h)anthracene	< 10	< 10	< 100	63	< 10	< 10		< 10	< 10	20
Fluorene	< 10	< 10	1200	110	< 10	< 10		< 10	< 10	71
Indeno(1,2,3-cd)pyrene	< 10	10	< 100	350	< 10	13		< 10	11	95
Naphthalene	< 10	< 10	190	< 20	< 10	12		< 10	< 20	< 20
Phenanthrene	< 10	< 10	5000	490	< 10	29		< 10	< 10	150
Pyrene	< 10	22	2900	950	< 10	63		10	38	1800



Sample ID	B-210	B-212	B-212	B-212	B-213	B-213	B-213	B-214	B-214	B-214
Sample Date	11/01/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/03/1999	11/03/1999	11/03/1999
Sample Depth (feet bgs)	15	2.5	5	10	2.5	5	10	2.5	5	10
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	5		6		7					
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	28		22		25					
Cobalt										
Copper	31		45		28					
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	75		181		80					
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-210	B-212	B-212	B-212	B-213	B-213	B-213	B-214	B-214	B-214
Sample Date	11/01/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/03/1999	11/03/1999	11/03/1999
Sample Depth (feet bgs)	15	2.5	5	10	2.5	5	10	2.5	5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10		< 10							
Gasoline	< 10		< 10							
Heavy-Fuel-Oil-Range Hydrocarbons	< 25		< 25							
Jet fuels	< 10		< 10							
Kerosene	< 10		< 10							
Lube-Oil-Range Hydrocarbons	< 25		297							
Mineral spirits	< 10		< 10							
Naphtha Distillate	< 10		< 10							
Non-PHC as Diesel	< 50		< 50							
PHC as Diesel	< 25		< 25							
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane		< 5	< 5					< 5	< 5	
1,1,1-Trichloroethane		< 5	< 5					< 5	< 5	
1,1,2,2-Tetrachloroethane		< 5	< 5					< 5	< 5	
1,1,2-Trichloroethane		< 5	< 5					< 5	< 5	
1,1-Dichloroethane		< 5	< 5					< 5	< 5	
1,1-Dichloropropene		< 5	< 5					< 5	< 5	
1,2,3-Trichlorobenzene		< 20	< 20					< 20	< 20	
1,2,3-Trichloropropane		< 5	< 5					< 5	< 5	
1,2,4-Trichlorobenzene		< 20	< 20					< 20	< 20	
1,2,4-Trimethylbenzene		< 20	< 20					< 20	< 20	
1,2-Dibromo-3-chloropropane		< 20	< 20					< 20	< 20	
1,2-Dibromoethane		< 20	< 20					< 20	< 20	
1,2-Dichlorobenzene		< 5	< 5					< 5	< 5	
1,2-Dichloroethane		< 5	< 5					< 5	< 5	
1,2-Dichloropropane		< 5	< 5					< 5	< 5	
1,3,5-Trimethylbenzene		< 20	< 20					< 20	< 20	
1,3-Dichlorobenzene		< 5	< 5					< 5	< 5	
1,3-Dichloropropane		< 5	< 5					< 5	< 5	
1,4-Dichlorobenzene		< 5	< 5					< 5	< 5	
2,2-Dichloropropane		< 5	< 5					< 5	< 5	



Sample ID	B-210	B-212	B-212	B-212	B-213	B-213	B-213	B-214	B-214	B-214
Sample Date	11/01/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/03/1999	11/03/1999	11/03/1999
Sample Depth (feet bgs)	15	2.5	5	10	2.5	5	10	2.5	5	10
2-Butanone		36	< 20					< 20	< 20	
2-Chlorotoluene		< 20	< 20					< 20	< 20	
2-Hexanone		< 20	< 20					< 20	< 20	
4-Chlorotoluene		< 20	< 20					< 20	< 20	
4-Isopropyltoluene		< 20	< 20					< 20	< 20	
4-Methyl-2-pentanone		< 20	< 20					< 20	< 20	
Acetone		180	< 50					< 50	< 50	
Benzene		< 5	< 5					< 5	< 5	
Bromobenzene		< 5	< 5					< 5	< 5	
Bromodichloromethane		< 5	< 5					< 5	< 5	
Bromoform		< 5	< 5					< 5	< 5	
Bromomethane		< 5	< 5					< 5	< 5	
Carbon disulfide		< 5	< 5					< 5	< 5	
Carbon tetrachloride		< 5	< 5					< 5	< 5	
Chlorobenzene		< 5	< 5					< 5	< 5	
Chlorobromomethane		< 5	< 5					< 5	< 5	
Chloroethane		< 5	< 5					< 5	< 5	
Chloroform		< 5	< 5					< 5	< 5	
Chloromethane		< 5	< 5					< 5	< 5	
cis-1,2-Dichloroethene		< 5	< 5					< 5	< 5	
cis-1,3-Dichloropropene		< 5	< 5					< 5	< 5	
Dibromochloromethane		< 5	< 5					< 5	< 5	
Dibromomethane		< 5	< 5					< 5	< 5	
Dichlorodifluoromethane		< 5	< 5					< 5	< 5	
Ethylbenzene		< 5	< 5					< 5	< 5	
Hexachlorobutadiene		< 20	< 20					< 20	< 20	
Isopropylbenzene		< 20	< 20					< 20	< 20	
m,p-Xylene		< 5	< 5					< 5	< 5	
Methylene chloride		< 10	< 10					< 10	< 10	
n-Butylbenzene		< 20	< 20					< 20	< 20	
n-Propylbenzene		< 20	< 20					< 20	< 20	
o-Xylene		< 5	< 5					< 5	< 5	
sec-Butylbenzene		< 20	< 20					< 20	< 20	
Styrene		< 5	< 5					< 5	< 5	
tert-Butylbenzene		< 20	< 20					< 20	< 20	
Tetrachloroethene		< 5	< 5					< 5	< 5	
Toluene		< 5	< 5					< 5	< 5	
trans-1,2-Dichloroethene		< 5	< 5					< 5	< 5	
trans-1,3-Dichloropropene		< 5	< 5					< 5	< 5	
Trichloroethene		< 5	< 5					< 5	< 5	
Trichlorofluoromethane		< 5	< 5					< 5	< 5	
Vinyl chloride		< 5	< 5					< 5	< 5	



Sample ID	B-210	B-212	B-212	B-212	B-213	B-213	B-213	B-214	B-214	B-214
Sample Date	11/01/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/02/1999	11/03/1999	11/03/1999	11/03/1999
Sample Depth (feet bgs)	15	2.5	5	10	2.5	5	10	2.5	5	10
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50		< 50		< 50					
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50		< 50		< 50					
2,3,5,6-Tetrachlorophenol	< 50		< 50		< 50					
2,3,5-Trichlorophenol	< 50		< 50		< 50					
2,3,6-Trichlorophenol	< 50		< 50		< 50					
2,4,5-Trichlorophenol	< 50		< 50		< 50					
2,4,6-Trichlorophenol	< 50	< 5	< 50	< 5	< 50	< 5	< 5	< 5	< 5	< 5
3,4,5-Trichlorophenol	< 50		< 50		< 50					
Bis(2-ethylhexyl)phthalate										
Carbazole	< 10		< 10		13					
Dibenzofuran	< 10		< 10		< 10					
Fluoranthene	< 10		23		52					
Pentachlorophenol	< 40	< 5	< 40	< 5	43	< 5	< 5	< 5	< 5	< 5
Tetrachlorophenols, Total	24	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10		< 10		< 10					
Acenaphthylene	< 10		< 50		< 50					
Anthracene	< 10		< 10		23					
Benzo(a)anthracene	< 10		< 10		34					
Benzo(a)pyrene	< 10		10		71					
Benzo(b)fluoranthene	< 10		19		160					
Benzo(ghi)perylene	< 10		< 10		85					
Benzo(k)fluoranthene	< 10		11		110					
Chrysene	< 10		15		91					
Dibenzo(a,h)anthracene	< 10		< 10		22					
Fluorene	< 10		< 10		< 10					
Indeno(1,2,3-cd)pyrene	< 10		14		160					
Naphthalene	< 10	< 20	< 20		< 10			< 20	< 20	
Phenanthrene	< 10		15		11					
Pyrene	< 10		22		60					



Sample ID	B-215	B-215	B-215	B-216	B-216	B-217	B-217	B-217	B-218	B-218
Sample Date	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/05/1999	11/05/1999	11/05/1999	11/08/1999	11/08/1999
Sample Depth (feet bgs)	2.5	5	10	5	10	2.5	10	15	5	10
Metals (mg/kg)			-							-
Aluminum										
Antimony										
Arsenic	6	5	5	5	4	13	52	6	11	
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	16	28	20	21	22	17	32	30	21	
Cobalt										
Copper	18	22	23	22	25	25	70	32	25	
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	40	53	56	63	63	59	163	73	63	
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-215	B-215	B-215	B-216	B-216	B-217	B-217	B-217	B-218	B-218
Sample Date	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/05/1999	11/05/1999	11/05/1999	11/08/1999	11/08/1999
Sample Depth (feet bgs)	2.5	5	10	5	10	2.5	10	15	5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Gasoline	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	
Jet fuels	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Kerosene	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Lube-Oil-Range Hydrocarbons	< 25	< 25	500	< 25	< 25	< 25	< 25	< 25	< 25	
Mineral spirits	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Naphtha Distillate	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Non-PHC as Diesel	< 50	< 50	< 50	< 50	< 50	< 50	150	< 50	< 50	
PHC as Diesel	250	82	< 25	< 25	< 25	520	< 25	< 25	1400	
ТРН										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 5	< 5		< 5		< 5			< 5	
1,1,1-Trichloroethane	< 5	< 5		< 5		< 5			< 5	
1,1,2,2-Tetrachloroethane	< 5	< 5		< 5		< 5			< 5	
1,1,2-Trichloroethane	< 5	< 5		< 5		< 5			< 5	
1,1-Dichloroethane	< 5	< 5		< 5		< 5			< 5	
1,1-Dichloropropene	< 5	< 5		< 5		< 5			< 5	
1,2,3-Trichlorobenzene	< 20	< 20		< 20		< 20			< 20	
1,2,3-Trichloropropane	< 5	< 5		< 5		< 5			< 5	
1,2,4-Trichlorobenzene	< 20	< 20		< 20		< 20			< 20	
1,2,4-Trimethylbenzene	< 20	< 20		< 20		< 20			< 20	
1,2-Dibromo-3-chloropropane	< 20	< 20		< 20		< 20			< 20	
1,2-Dibromoethane	< 20	< 20		< 20		< 20			< 20	
1,2-Dichlorobenzene	< 5	< 5		< 5		< 5			< 5	
1,2-Dichloroethane	< 5	< 5		< 5		< 5			< 5	
1,2-Dichloropropane	< 5	< 5		< 5		< 5			< 5	
1,3,5-Trimethylbenzene	< 20	< 20		< 20		< 20			< 20	
1,3-Dichlorobenzene	< 5	< 5		< 5		< 5			< 5	
1,3-Dichloropropane	< 5	< 5		< 5		< 5			< 5	
1,4-Dichlorobenzene	< 5	< 5		< 5		< 5			< 5	
2,2-Dichloropropane	< 5	< 5		< 5		< 5			< 5	



Sample ID	B-215	B-215	B-215	B-216	B-216	B-217	B-217	B-217	B-218	B-218
Sample Date	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/05/1999	11/05/1999	11/05/1999	11/08/1999	11/08/1999
Sample Depth (feet bgs)	2.5	5	10	5	10	2.5	10	15	5	10
2-Butanone	< 20	< 20		50		< 20			< 20	
2-Chlorotoluene	< 20	< 20		< 20		< 20			< 20	
2-Hexanone	< 20	< 20		< 20		< 20			< 20	
4-Chlorotoluene	< 20	< 20		< 20		< 20			< 20	
4-Isopropyltoluene	< 20	< 20		< 20		< 20			< 20	
4-Methyl-2-pentanone	< 20	< 20		< 20		< 20			< 20	
Acetone	< 50	< 50		220		< 50			< 50	
Benzene	< 5	< 5		< 5		< 5			< 5	
Bromobenzene	< 5	< 5		< 5		< 5			< 5	
Bromodichloromethane	< 5	< 5		< 5		< 5			< 5	
Bromoform	< 5	< 5		< 5		< 5			< 5	
Bromomethane	< 5	< 5		< 5		< 5			< 5	
Carbon disulfide	< 5	< 5		< 5		< 5			< 5	
Carbon tetrachloride	< 5	< 5		< 5		< 5			< 5	
Chlorobenzene	< 5	< 5		< 5		< 5			< 5	
Chlorobromomethane	< 5	< 5		< 5		< 5			< 5	
Chloroethane	< 5	< 5		< 5		< 5			< 5	
Chloroform	< 5	< 5		< 5		< 5			< 5	
Chloromethane	< 5	< 5		< 5		< 5			< 5	
cis-1,2-Dichloroethene	< 5	< 5		< 5		< 5			< 5	
cis-1,3-Dichloropropene	< 5	< 5		< 5		< 5			< 5	
Dibromochloromethane	< 5	< 5		< 5		< 5			< 5	
Dibromomethane	< 5	< 5		< 5		< 5			< 5	
Dichlorodifluoromethane	< 5	< 5		< 5		< 5			< 5	
Ethylbenzene	< 5	< 5		< 5		< 5			< 5	
Hexachlorobutadiene	< 20	< 20		< 20		< 20			< 20	
Isopropylbenzene	< 20	< 20		< 20		< 20			< 20	
m,p-Xylene	< 5	< 5		< 5		< 5			8	
Methylene chloride	< 10	< 10		< 10		< 10			< 10	
n-Butylbenzene	< 20	< 20		< 20		< 20			< 20	
n-Propylbenzene	< 20	< 20		< 20		< 20			< 20	
o-Xylene	< 5	< 5		< 5		< 5			6	
sec-Butylbenzene	< 20	< 20		< 20		< 20			< 20	
Styrene	< 5	< 5		< 5		< 5			< 5	
tert-Butylbenzene	< 20	< 20		< 20		< 20			< 20	
Tetrachloroethene	< 5	< 5		< 5		< 5			< 5	
Toluene	< 5	< 5		< 5		< 5			< 5	
trans-1,2-Dichloroethene	< 5	< 5		< 5		< 5			< 5	
trans-1,3-Dichloropropene	< 5	< 5		< 5		< 5			< 5	
Trichloroethene	< 5	< 5		< 5		< 5			< 5	
Trichlorofluoromethane	< 5	< 5		< 5		< 5			< 5	
Vinyl chloride	< 5	< 5		< 5		< 5			< 5	



Sample ID	B-215	B-215	B-215	B-216	B-216	B-217	B-217	B-217	B-218	B-218
Sample Date	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/04/1999	11/05/1999	11/05/1999	11/05/1999	11/08/1999	11/08/1999
Sample Depth (feet bgs)	2.5	5	10	5	10	2.5	10	15	5	10
Semivolatile Organic Compounds (ug/kg)					-			-		-
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	250	100	
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50	< 50	
2,3,5,6-Tetrachlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	180	76	
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50	< 50	
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50	< 50	
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 50		< 50	< 50	< 50	< 50	
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 5	< 50	< 50	< 500	< 500	< 5
3,4,5-Trichlorophenol	< 50	< 50	< 50	< 50		57	< 50	59	< 50	
Bis(2-ethylhexyl)phthalate										
Carbazole	21	12	< 10	< 10		42	47	60	240	
Dibenzofuran	< 10	< 10	< 10	< 10		28	36	33	200	
Fluoranthene	230	180	< 10	< 10		1400	450	< 10	7400	
Pentachlorophenol	620	430	780	91	< 5	500	180	2000	5100	< 5
Tetrachlorophenols, Total	< 50	< 50	50	8.4	< 5	< 50	< 50	870	< 500	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10	< 10	< 10	< 10		55	50	< 10	180	
Acenaphthylene	11	< 10	< 10	< 10		27	< 10	< 10	68	
Anthracene	28	16	< 10	< 10		210	200	< 10	1100	
Benzo(a)anthracene	110	< 100	< 10	< 10		420	120	< 10	1800	
Benzo(a)pyrene	92	< 100	< 10	< 10		390	140	< 10	1700	
Benzo(b)fluoranthene	330	170	< 10	< 10		540	180	< 10	2100	
Benzo(ghi)perylene	94	< 100	< 10	< 10		370	98	< 10	520	
Benzo(k)fluoranthene	250	150	< 10	< 10		560	180	< 10	2300	
Chrysene	310	240	11	< 10		680	200	< 10	4900	
Dibenzo(a,h)anthracene	26	< 100	< 10	< 10		< 100	27	< 10	150	
Fluorene	< 10	< 10	< 10	< 10		91	86	43	790	
Indeno(1,2,3-cd)pyrene	98	< 100	< 10	< 10		380	110	< 10	690	
Naphthalene	< 20	< 20	< 10	< 20		< 20	30	< 10	< 20	
Phenanthrene	66	37	< 10	< 10		170	470	< 10	1900	
Pyrene	230	170	12	< 10		1300	430	< 10	7800	



Sample ID	B-218	B-219	B-219	B-219	B-275	B-275	B-275	B-275	B-276	B-276
Sample Date	11/08/1999	11/08/1999	11/08/1999	11/08/1999	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	15	2.5	5	10	0.5	0.5	5	10	0.5	3
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	5			5	6.7		7.2	6	2.4	1.6
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	27			23	15.3		21	15	15.1	30.4
Cobalt										
Copper	24			24	24.2		17	20.7	32.1	20.6
Iron										
Lead					< 20		< 23	< 23	< 22	< 22
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	64			64						
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-218	B-219	B-219	B-219	B-275	B-275	B-275	B-275	B-276	B-276
Sample Date	11/08/1999	11/08/1999	11/08/1999	11/08/1999	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	15	2.5	5	10	0.5	0.5	5	10	0.5	3
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10			< 10	33		< 15	< 15	< 13	< 13
Gasoline	< 10			< 10						
Heavy-Fuel-Oil-Range Hydrocarbons	< 25			< 25						
Jet fuels	< 10			< 10						
Kerosene	< 10			< 10						
Lube-Oil-Range Hydrocarbons	< 25			< 25						
Mineral spirits	< 10			< 10						
Naphtha Distillate	< 10			< 10						
Non-PHC as Diesel	< 50			< 50						
PHC as Diesel	< 25			< 25						
TPH										
TPH (as motor oil)(E5030-8015)					130		< 57	< 60	71	< 50
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane		< 5	< 5							
1,1,1-Trichloroethane		< 5	< 5							
1,1,2,2-Tetrachloroethane		< 5	< 5							
1,1,2-Trichloroethane		< 5	< 5							
1,1-Dichloroethane		< 5	< 5							
1,1-Dichloropropene		< 5	< 5							
1,2,3-Trichlorobenzene		< 20	< 20							
1,2,3-Trichloropropane		< 5	< 5							
1,2,4-Trichlorobenzene		< 20	< 20							
1,2,4-Trimethylbenzene		< 20	< 20							
1,2-Dibromo-3-chloropropane		< 20	< 20							
1,2-Dibromoethane		< 20	< 20							
1,2-Dichlorobenzene		< 5	< 5							
1,2-Dichloroethane		< 5	< 5							
1,2-Dichloropropane		< 5	< 5							
1,3,5-Trimethylbenzene		< 20	< 20							
1,3-Dichlorobenzene		< 5	< 5							
1,3-Dichloropropane		< 5	< 5							
1,4-Dichlorobenzene		< 5	< 5							
2,2-Dichloropropane		< 5	< 5							



Sample ID	B-218	B-219	B-219	B-219	B-275	B-275	B-275	B-275	B-276	B-276
Sample Date	11/08/1999	11/08/1999	11/08/1999	11/08/1999	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	15	2.5	5	10	0.5	0.5	5	10	0.5	3
2-Butanone		25	< 20							
2-Chlorotoluene		< 20	< 20							
2-Hexanone		< 20	< 20							
4-Chlorotoluene		< 20	< 20							
4-Isopropyltoluene		< 20	< 20							
4-Methyl-2-pentanone		< 20	< 20							
Acetone		130	74							
Benzene		< 5	< 5							
Bromobenzene		< 5	< 5							
Bromodichloromethane		< 5	< 5							
Bromoform		< 5	< 5							
Bromomethane		< 5	< 5							
Carbon disulfide		< 5	< 5							
Carbon tetrachloride		< 5	< 5							
Chlorobenzene		< 5	< 5							
Chlorobromomethane		< 5	< 5							
Chloroethane		< 5	< 5							
Chloroform		< 5	< 5							
Chloromethane		< 5	< 5							
cis-1,2-Dichloroethene		< 5	< 5							
cis-1,3-Dichloropropene		< 5	< 5							
Dibromochloromethane		< 5	< 5							
Dibromomethane		< 5	< 5							
Dichlorodifluoromethane		< 5	< 5							
Ethylbenzene		< 5	< 5							
Hexachlorobutadiene		< 20	< 20							
Isopropylbenzene		< 20	< 20							
m,p-Xylene		< 5	< 5							
Methylene chloride		< 10	< 10							
n-Butylbenzene		< 20	< 20							
n-Propylbenzene		< 20	< 20							
o-Xylene		< 5	< 5							
sec-Butylbenzene		< 20	< 20							
Styrene		< 5	< 5							
tert-Butylbenzene		< 20	< 20							
Tetrachloroethene		< 5	< 5							
Toluene		< 5	< 5							
trans-1,2-Dichloroethene		< 5	< 5							
trans-1,3-Dichloropropene		< 5	< 5							
Trichloroethene		< 5	< 5							
Trichlorofluoromethane		< 5	< 5							
Vinyl chloride		< 5	< 5							



Sample ID	B-218	B-219	B-219	B-219	B-275	B-275	B-275	B-275	B-276	B-276
Sample Date	11/08/1999	11/08/1999	11/08/1999	11/08/1999	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	15	2.5	5	10	0.5	0.5	5	10	0.5	3
Semivolatile Organic Compounds (ug/kg)									-	-
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	210			< 50		74	< 50	< 50	< 50	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50			< 50		< 50	< 50	< 50	< 50	< 50
2,3,5,6-Tetrachlorophenol	130			< 50		< 50	< 50	< 50	< 50	< 50
2,3,5-Trichlorophenol	< 50			< 50		< 50	< 50	< 50	< 50	< 50
2,3,6-Trichlorophenol	< 50			< 50		< 50	< 50	< 50	< 50	< 50
2,4,5-Trichlorophenol	< 50			< 50		< 50	< 50	< 50	< 50	< 50
2,4,6-Trichlorophenol	< 500	< 5	< 5	< 50		< 50	< 50	< 50	< 50	< 50
3,4,5-Trichlorophenol	< 50			< 50		< 50	< 50	< 50	< 50	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	49			< 10		47	< 10	< 10	< 10	< 10
Dibenzofuran	110			< 10		< 10	< 10	< 10	< 10	< 10
Fluoranthene	< 10			10		140	< 10	< 10	< 10	< 10
Pentachlorophenol	1200	< 5	< 5	< 40		1200	< 50	< 50	< 50	< 50
Tetrachlorophenols, Total	540	< 5	< 5	< 5						
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10			< 10		< 10	< 10	< 10	< 10	< 10
Acenaphthylene	< 10			< 10		200	< 10	< 10	< 10	< 10
Anthracene	< 10			< 10		310	< 10	< 10	< 10	< 10
Benzo(a)anthracene	< 10			< 10		110	< 10	< 10	< 10	< 10
Benzo(a)pyrene	< 10			< 10		85	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	< 10			12		400	< 10	< 10	< 10	< 10
Benzo(ghi)perylene	< 10			< 10		72	< 10	< 10	< 10	< 10
Benzo(k)fluoranthene	< 10			11		85	< 10	< 10	< 10	< 10
Chrysene	< 10			< 10		210	< 10	< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 10			< 10		54	< 10	< 10	< 10	< 10
Fluorene	140			< 10			< 10	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 10			< 10		330	< 10	< 10	< 10	< 10
Naphthalene	< 10	< 20	< 20	< 10		36	< 10	< 10	< 10	< 10
Phenanthrene	< 10			< 10		42	< 10	< 10	< 10	< 10
Pyrene	< 10			10		180	< 10	< 10	< 10	< 10



Sample ID	B-277	B-277	B-277	B-277	B-278	B-278	B-278	B-279	B-279	B-279
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	10	0.5	2.5	5
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	< 2.1	2.6	< 2.3	2.6	6.3	2.9	2.9	3	3.9	5
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	7.7	20.2	23.1	21	26.1	12.9	26.5	14	15.1	20.9
Cobalt										
Copper	14.5	18.7	19.9	21.7	29.8	20.7	28.5	17.4	13.8	22.8
Iron										
Lead	< 20	< 23	< 23	< 21	< 21	< 23	< 22	< 22	< 22	< 22
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-277	B-277	B-277	B-277	B-278	B-278	B-278	B-279	B-279	B-279
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	10	0.5	2.5	5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 13	< 15	< 15	< 16	44	25	< 16	< 14	< 14	< 17
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	< 51	< 58	< 58	< 62	97	< 57	< 64	< 55	< 54	< 67
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-277	B-277	B-277	B-277	B-278	B-278	B-278	B-279	B-279	B-279
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	10	0.5	2.5	5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-277	B-277	B-277	B-277	B-278	B-278	B-278	B-279	B-279	B-279
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	10	0.5	2.5	5
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
2,3,5,6-Tetrachlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
2,3,5-Trichlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
2,3,6-Trichlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
2,4,5-Trichlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
2,4,6-Trichlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
3,4,5-Trichlorophenol	< 47	< 50	< 48	< 49	< 49	< 50	< 50	< 50	< 50	< 49
Bis(2-ethylhexyl)phthalate										
Carbazole	< 9.4	< 10	< 9.6	< 9.8	100	< 9.9	< 10	< 10	< 10	< 9.8
Dibenzofuran	< 9.4	< 10	< 9.6	< 9.8	12	< 9.9	< 10	< 10	< 10	< 9.8
Fluoranthene	< 9.4	13	< 9.6	< 9.8	220	57	< 10	15	17	< 9.8
Pentachlorophenol	< 47	< 50	< 48	< 49	600	120	< 50	< 50	< 50	< 49
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 9.4	< 10	< 9.6	< 9.8	< 9.8	< 9.9	< 10	< 10	< 10	< 9.8
Acenaphthylene	< 9.4	< 10	< 9.6	< 9.8	21	< 9.9	< 10	< 10	< 10	< 9.8
Anthracene	< 9.4	27	< 9.6	< 9.8	400	11	< 10	< 10	< 10	< 9.8
Benzo(a)anthracene	< 9.4	< 10	< 9.6	< 9.8	150	20	< 10	< 10	< 10	< 9.8
Benzo(a)pyrene	< 9.4	14	< 9.6	< 9.8	140	12	< 10	< 10	11	< 9.8
Benzo(b)fluoranthene	< 9.4	33	9.6	< 9.8	400	26	< 10	< 10	22	< 9.8
Benzo(ghi)perylene	< 9.4	19	< 9.6	< 9.8	120	< 9.9	< 10	< 10	15	< 9.8
Benzo(k)fluoranthene	< 9.4	< 10	< 9.6	< 9.8	110	< 9.9	< 10	< 10	< 10	< 9.8
Chrysene	< 9.4	16	< 9.6	< 9.8	340	37	< 10	< 10	16	< 9.8
Dibenzo(a,h)anthracene	< 9.4	< 10	< 9.6	< 9.8	28	< 9.9	< 10	< 10	< 10	< 9.8
Fluorene	< 9.4	< 10	< 9.6	< 9.8	29	11	< 10	< 10	< 10	< 9.8
Indeno(1,2,3-cd)pyrene	< 9.4	24	< 9.6	< 9.8	170	< 9.9	< 10	< 10	16	< 9.8
Naphthalene	< 9.4	< 10	< 9.6	11	13	< 9.9	< 10	48	< 10	< 9.8
Phenanthrene	< 9.4	28	< 9.6	< 9.8	120	24	< 10	< 10	< 10	< 9.8
Pyrene	< 9.4	< 10	< 9.6	10	240	88	< 10	16	20	< 9.8



Sample ID	B-279	B-280	B-280	B-280	B-281	B-281	B-281	B-282	B-282	B-282
Sample Date	07/09/2004	07/13/2004	07/13/2004	07/13/2004	07/09/2004	07/09/2004	07/09/2004	07/08/2004	07/08/2004	07/08/2004
Sample Depth (feet bgs)	10	0.5	5	10	0.5	2.5	10	0.5	5	10
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	3.4	4.3	5.4	2.8	4.8	2.9	10.1	25.9	6.2	6.7
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	26.1	13.5	22.2	20.3	17.4	10.4	22.4	24	20.8	15.9
Cobalt										
Copper	28.2	44.8	32.5	21.3	19.9	27	27.9	31.7	15	20.7
Iron										
Lead	< 23	< 20	69.7	< 22	< 20	< 24	< 21	< 20	< 24	< 24
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-279	B-280	B-280	B-280	B-281	B-281	B-281	B-282	B-282	B-282
Sample Date	07/09/2004	07/13/2004	07/13/2004	07/13/2004	07/09/2004	07/09/2004	07/09/2004	07/08/2004	07/08/2004	07/08/2004
Sample Depth (feet bgs)	10	0.5	5	10	0.5	2.5	10	0.5	5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 17	< 13	43	< 13	22	23	< 16	290	160	< 15
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	< 67	< 50	110	< 50	55	< 60	< 63	390	< 58	< 59
Volatile Organic Compounds (ug/kg)				-						
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-279	B-280	B-280	B-280	B-281	B-281	B-281	B-282	B-282	B-282
Sample Date	07/09/2004	07/13/2004	07/13/2004	07/13/2004	07/09/2004	07/09/2004	07/09/2004	07/08/2004	07/08/2004	07/08/2004
Sample Depth (feet bgs)	10	0.5	5	10	0.5	2.5	10	0.5	5	10
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-279	B-280	B-280	B-280	B-281	B-281	B-281	B-282	B-282	B-282
Sample Date	07/09/2004	07/13/2004	07/13/2004	07/13/2004	07/09/2004	07/09/2004	07/09/2004	07/08/2004	07/08/2004	07/08/2004
Sample Depth (feet bgs)	10	0.5	5	10	0.5	2.5	10	0.5	5	10
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 50	< 50	< 50	57	< 50	< 50	< 500	140	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 500	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 500	< 50	< 50
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 500	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 500	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 500	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 500	< 50	< 50
3,4,5-Trichlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 500	< 50	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	< 10	< 10	43	< 10	37	10	< 9.9	< 100	< 10	< 10
Dibenzofuran	< 10	< 10	< 10	< 10	16	38	< 9.9	< 100	< 10	< 10
Fluoranthene	< 10	40	150	< 10	130	150	< 9.9	240	210	10
Pentachlorophenol	< 50	200	280	< 50	1300	1400	270	6100	3600	86
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10	< 10	< 10	< 10	14	63	< 9.9	< 100	< 10	< 10
Acenaphthylene	< 10	16	70	< 10	34	17	< 9.9	130	< 10	< 10
Anthracene	< 10	32	100	< 10	110	59	< 9.9	360	12	< 10
Benzo(a)anthracene	< 10	19	120	< 10	46	37	< 9.9	120	24	< 10
Benzo(a)pyrene	< 10	34	150	< 10	43	25	< 9.9	< 100	< 10	< 10
Benzo(b)fluoranthene	< 10	86	420	< 10	160	120	< 9.9	< 100	26	< 10
Benzo(ghi)perylene	< 10	50	150	< 10	210	61	12	< 100	< 10	< 10
Benzo(k)fluoranthene	< 10	20	120	< 10	42	30	< 9.9	< 100	< 10	< 10
Chrysene	< 10	38	250	< 10	88	63	< 9.9	< 100	41	< 10
Dibenzo(a,h)anthracene	< 10	< 10	35	< 10	25	13	< 9.9	< 100	< 10	< 10
Fluorene	< 10	< 10	< 10	< 10	11	26	< 9.9	< 100	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 10	50	200	< 10	210	86	< 9.9	< 100	< 10	< 10
Naphthalene	< 10	26	< 10	< 10	63	320	< 9.9	< 100	< 10	< 10
Phenanthrene	< 10	27	19	< 10	62	84	< 9.9	< 100	17	< 10
Pyrene	< 10	47	190	< 10	110	130	< 9.9	< 100	200	< 10



Sample ID	B-283	B-283	B-283	B-284	B-284	B-284	B-284	B-285	B-285	B-285
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	0.5	2.5	5	0.5	2.5	5	10	0.5	5	10
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	1.3	< 1.1	1.4	17.5	3.6	4.8	4.2	37.2	5.6	2.9
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	11.1	12.5	15.1	32.2	19.2	26.7	26.6	50.3	31.6	17.2
Cobalt										
Copper	10.1	19.5	20.9	44.2	22.9	36.1	31	38.8	29.9	21.8
Iron										
Lead	< 21	< 21	< 23	< 21	< 22	< 22	< 23	< 20	< 23	< 21
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-283	B-283	B-283	B-284	B-284	B-284	B-284	B-285	B-285	B-285
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	0.5	2.5	5	0.5	2.5	5	10	0.5	5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 13	92	< 13	330	36	< 13	< 13	140	200	< 13
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	< 50	< 50	< 49	230	< 50	< 50	< 50	580	600	< 50
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-283	B-283	B-283	B-284	B-284	B-284	B-284	B-285	B-285	B-285
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	0.5	2.5	5	0.5	2.5	5	10	0.5	5	10
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-283	B-283	B-283	B-284	B-284	B-284	B-284	B-285	B-285	B-285
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004
Sample Depth (feet bgs)	0.5	2.5	5	0.5	2.5	5	10	0.5	5	10
Semivolatile Organic Compounds (ug/kg)			-						-	-
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 50	< 50	3500	230	< 50	< 50	< 1000	230	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50	< 500	< 51	< 50	< 50	< 1000	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 50	< 50	< 50	< 500	< 51	< 50	< 50	< 1000	85	< 50
2,3,5-Trichlorophenol	< 50	< 50	< 50	< 500	< 51	< 50	< 50	< 1000	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 50	< 50	< 500	< 51	< 50	< 50	< 1000	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 50	< 50	< 500	< 51	< 50	< 50	< 1000	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 500	< 51	< 50	< 50	< 1000	< 50	< 50
3,4,5-Trichlorophenol	< 50	< 50	< 50	< 500	< 51	< 50	< 50	< 1000	< 50	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	< 9.9	< 10	< 10	< 100	< 11	< 10	< 10	< 200	20	< 10
Dibenzofuran	< 9.9	< 10	< 10	< 100	< 11	< 10	< 10	< 200	140	< 10
Fluoranthene	16	19	< 10	880	120	< 10	< 10	760	460	< 10
Pentachlorophenol	< 50	350	< 50	110000	6800	< 50	< 50	8900	3900	< 50
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 9.9	< 10	< 10	< 100	< 11	< 10	< 10	< 200	130	< 10
Acenaphthylene	< 9.9	< 10	< 10	< 100	< 11	< 10	< 10	220	25	< 10
Anthracene	< 9.9	< 10	< 10	< 100	19	< 10	< 10	350	81	< 10
Benzo(a)anthracene	< 9.9	< 10	< 10	140	22	< 10	< 10	370	82	< 10
Benzo(a)pyrene	< 9.9	< 10	< 10	< 100	18	< 10	< 10	570	91	< 10
Benzo(b)fluoranthene	< 9.9	< 10	< 10	280	71	< 10	< 10	1700	210	< 10
Benzo(ghi)perylene	< 9.9	< 10	< 10	< 100	13	< 10	< 10	610	66	< 10
Benzo(k)fluoranthene	< 9.9	< 10	< 10	< 100	20	< 10	< 10	460	53	< 10
Chrysene	< 9.9	10	< 10	320	58	< 10	< 10	1000	150	< 10
Dibenzo(a,h)anthracene	< 9.9	< 10	< 10	< 100	< 11	< 10	< 10	< 200	15	< 10
Fluorene	< 9.9	< 10	< 10	< 100	< 11	< 10	< 10	< 200	85	< 10
Indeno(1,2,3-cd)pyrene	< 9.9	< 10	< 10	< 100	29	< 10	< 10	860	76	< 10
Naphthalene	< 9.9	< 10	< 10	220	13	< 10	< 10	< 200	85	< 10
Phenanthrene	22	12	< 10	490	49	< 10	< 10	< 200	370	< 10
Pyrene	14	19	< 10	710	100	< 10	< 10	790	400	< 10


Sample ID	B-286	B-286	B-286	B-286	B-287	B-287	B-287	B-287	B-288	B-288
Sample Date	07/08/2004	07/08/2004	0770872004	0770872004	0771272004	0771272004	0771272004	10	0770872004	0770872004
Metals (mg/kg)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
Antimony										
Arsenic	8.4	ΔΔ	3 5	8.2	77	1 9	3.2	4 5	13.3	57
Barium										
Bervllium										
Cadmium										
Calcium										
Chromium	37.8	20	18	19.5	46.1	16.2	29.6	32.6	21.4	13.1
Cobalt										
Copper	22.9	22.1	12	19.5	27.4	18.7	26.9	27.3	26.6	18.4
Iron										
Lead	< 20	23.9	< 24	< 24	< 21	< 22	< 23	< 21	< 21	< 23
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-286	B-286	B-286	B-286	B-287	B-287	B-287	B-287	B-288	B-288
Sample Date	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/08/2004	07/08/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	5100	24	< 16	< 15	60	< 13	19	< 13	67	< 15
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	3900	< 57	< 61	< 60	140	< 50	< 50	< 50	260	< 58
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-286	B-286	B-286	B-286	B-287	B-287	B-287	B-287	B-288	B-288
Sample Date	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/08/2004	07/08/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-286	B-286	B-286	B-286	B-287	B-287	B-287	B-287	B-288	B-288
Sample Date	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/08/2004	07/08/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
Semivolatile Organic Compounds (ug/kg)			•							
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	6300	< 50	< 50	< 50	< 260	< 49	< 50	< 49	52	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 500	< 50	< 50	< 50	< 260	< 49	< 50	< 49	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 500	< 50	< 50	< 50	< 260	< 49	< 50	< 49	< 50	< 50
2,3,5-Trichlorophenol	< 500	< 50	< 50	< 50	< 260	< 49	< 50	< 49	< 50	< 50
2,3,6-Trichlorophenol	< 500	< 50	< 50	< 50	< 260	< 49	< 50	< 49	< 50	< 50
2,4,5-Trichlorophenol	< 500	< 50	< 50	< 50	< 260	< 49	< 50	< 49	< 50	< 50
2,4,6-Trichlorophenol	< 500	< 50	< 50	< 50	< 260	< 49	< 50	< 49	< 50	< 50
3,4,5-Trichlorophenol	< 500	< 50	< 50	< 50	< 260	< 49	< 50	< 49	< 50	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	130	< 10	< 10	< 10	< 51	< 9.8	13	< 9.7	49	< 10
Dibenzofuran	< 100	24	< 10	< 10	< 51	< 9.8	< 10	< 9.7	24	< 10
Fluoranthene	8900	92	< 10	< 10	270	29	64	< 9.7	180	< 10
Pentachlorophenol	110000	1100	< 50	< 50	950	160	250	95	1100	< 50
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 100	< 10	< 10	< 10	< 51	< 9.8	< 10	< 9.7	< 10	< 10
Acenaphthylene	< 100	< 10	< 10	< 10	95	14	17	< 9.7	160	< 10
Anthracene	240	< 10	< 10	< 10	210	23	34	< 9.7	320	< 10
Benzo(a)anthracene	490	12	< 10	< 10	100	17	45	< 9.7	120	< 10
Benzo(a)pyrene	150	18	< 10	< 10	180	26	57	< 9.7	89	< 10
Benzo(b)fluoranthene	1500	30	< 10	< 10	690	96	180	< 9.7	320	< 10
Benzo(ghi)perylene	< 100	< 10	< 10	< 10	290	33	47	< 9.7	280	11
Benzo(k)fluoranthene	480	< 10	< 10	< 10	160	22	53	< 9.7	76	< 10
Chrysene	1500	33	< 10	< 10	310	82	130	< 9.7	200	< 10
Dibenzo(a,h)anthracene	< 100	< 10	< 10	< 10	< 51	< 9.8	11	< 9.7	48	< 10
Fluorene	< 100	< 10	< 10	< 10	< 51	< 9.8	< 10	< 9.7	13	< 10
Indeno(1,2,3-cd)pyrene	260	26	< 10	< 10	370	41	66	< 9.7	270	< 10
Naphthalene	< 100	71	< 10	< 10	< 51	< 9.8	< 10	< 9.7	120	< 10
Phenanthrene	530	64	< 10	< 10	130	< 9.8	20	< 9.7	72	< 10
Pyrene	7700	420	< 10	< 10	250	33	65	< 9.7	220	< 10



Sample ID	B-289	B-289	B-289	B-289	B-290	B-290	B-290	B-290	B-291	B-291
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	2.5
Metals (mg/kg)			T		T	1	T	1	1	
Aluminum										
Antimony										
Arsenic	4.3	2.4	1.8	4.2	13.8	28.9	5.6	2.8	33.5	10.4
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	9.3	22	16.4	49.4	21.1	134	33.8	28.7	256	41.5
Cobalt										
Copper	9.8	22.6	17.8	28.3	50.6	51.9	32.5	27.1	58.5	38.2
Iron										
Lead	< 21	< 23	< 23	< 22	< 20	< 22	84.4	< 21	< 21	27.2
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)						-		-	-	
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-289	B-289	B-289	B-289	B-290	B-290	B-290	B-290	B-291	B-291
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	2.5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	140	< 13	< 13	< 15	89	650	88	< 13	97	450
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	240	< 49	< 49	< 59	240	640	72	< 50	190	1000
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-289	B-289	B-289	B-289	B-290	B-290	B-290	B-290	B-291	B-291
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	2.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-289	B-289	B-289	B-289	B-290	B-290	B-290	B-290	B-291	B-291
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	2.5
Semivolatile Organic Compounds (ug/kg)			•	•			•	•		
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
2,3,5,6-Tetrachlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
2,3,5-Trichlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
2,3,6-Trichlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
2,4,5-Trichlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
2,4,6-Trichlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
3,4,5-Trichlorophenol	< 46	< 500	< 50	< 50	< 500	< 500	< 500	< 50	< 500	< 500
Bis(2-ethylhexyl)phthalate										
Carbazole	< 9.1	13000	140	< 10	< 100	300	< 100	< 10	< 100	< 100
Dibenzofuran	< 9.1	1400	19	< 10	< 100	240	< 100	< 10	< 100	< 100
Fluoranthene	< 9.1	10000	57	13	360	2100	320	< 10	220	1400
Pentachlorophenol	< 46	< 500	< 50	< 50	690	7200	< 500	< 50	730	12000
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 9.1	< 99	< 10	< 10	< 100	360	210	< 10	< 100	110
Acenaphthylene	< 9.1	< 99	< 10	< 10	200	< 100	< 100	< 10	< 100	< 100
Anthracene	< 9.1	57000	510	< 10	330	940	< 100	< 10	200	250
Benzo(a)anthracene	< 9.1	2400	22	< 10	180	480	140	< 10	120	260
Benzo(a)pyrene	< 9.1	810	10	< 10	140	430	170	< 10	250	260
Benzo(b)fluoranthene	< 9.1	1300	19	< 10	740	2000	220	< 10	750	740
Benzo(ghi)perylene	< 9.1	110	17	< 10	530	330	< 100	< 10	300	320
Benzo(k)fluoranthene	< 9.1	520	< 10	< 10	170	500	< 100	< 10	170	210
Chrysene	< 9.1	5000	46	< 10	360	1100	220	< 10	310	560
Dibenzo(a,h)anthracene	< 9.1	< 99	< 10	< 10	< 100	< 100	< 100	< 10	< 100	< 100
Fluorene	< 9.1	5600	54	11	< 100	440	< 100	< 10	< 100	100
Indeno(1,2,3-cd)pyrene	< 9.1	260	< 10	< 10	550	470	110	< 10	420	390
Naphthalene	< 9.1	410	< 10	< 10	< 100	370	< 100	< 10	< 100	< 100
Phenanthrene	< 9.1	12000	100	< 10	110	1100	120	< 10	< 100	430
Pyrene	< 9.1	9200	53	< 10	310	2200	340	< 10	380	1400



Sample ID	B-291	B-291	B-292	B-292	B-292	B-292	B-293	B-293	B-293	B-293
Sample Date	07/12/2004	07/12/2004	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	5	10	0.5	2.5	5	10	0.5	2.5	5	10
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	5.2	2.6	14.9	4.4	4.3	7.6	12.8	17.2	2.2	4.5
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	27.2	26.8	31.6	19.3	19.2	16.4	14.4	42	18.1	29.6
Cobalt										
Copper	25.6	27.9	26.8	15.1	12.8	19.4	39.7	31.3	18.3	30.9
Iron										
Lead	23	< 23	< 21	< 24	< 24	< 21	< 21	< 22	< 24	< 23
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-291	B-291	B-292	B-292	B-292	B-292	B-293	B-293	B-293	B-293
Sample Date	07/12/2004	07/12/2004	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	5	10	0.5	2.5	5	10	0.5	2.5	5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	58	42	230	< 16	67	< 16	37	840	< 13	< 13
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	94	200	190	< 62	< 59	< 63	82	280	< 50	< 50
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-291	B-291	B-292	B-292	B-292	B-292	B-293	B-293	B-293	B-293
Sample Date	07/12/2004	07/12/2004	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	5	10	0.5	2.5	5	10	0.5	2.5	5	10
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-291	B-291	B-292	B-292	B-292	B-292	B-293	B-293	B-293	B-293
Sample Date	07/12/2004	07/12/2004	07/08/2004	07/08/2004	07/08/2004	07/08/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004
Sample Depth (feet bgs)	5	10	0.5	2.5	5	10	0.5	2.5	5	10
Semivolatile Organic Compounds (ug/kg)		•	•					•		
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 51	630	< 50	< 50	< 50	< 48	3300	< 50	< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 51	< 510	< 50	< 50	< 50	< 48	< 500	< 50	< 50
2,3,5,6-Tetrachlorophenol	< 50	< 51	< 510	< 50	< 50	< 50	< 48	< 500	< 50	< 50
2,3,5-Trichlorophenol	< 50	< 51	< 510	< 50	< 50	< 50	< 48	< 500	< 50	< 50
2,3,6-Trichlorophenol	< 50	< 51	< 510	< 50	< 50	< 50	< 48	< 500	< 50	< 50
2,4,5-Trichlorophenol	< 50	< 51	< 510	< 50	< 50	< 50	< 48	< 500	< 50	< 50
2,4,6-Trichlorophenol	< 50	< 51	< 510	< 50	< 50	< 50	< 48	< 500	< 50	< 50
3,4,5-Trichlorophenol	< 50	< 51	< 510	< 50	< 50	< 50	< 48	< 500	< 50	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	< 10	< 11	< 110	< 10	< 10	< 10	34	740	< 9.9	< 10
Dibenzofuran	< 10	< 11	< 110	< 10	< 10	< 10	12	260	< 9.9	< 10
Fluoranthene	32	< 11	720	< 10	< 10	< 10	600	14000	< 9.9	< 10
Pentachlorophenol	110	< 51	16000	< 50	< 50	< 50	370	130000	76	< 50
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10	< 11	< 110	< 10	< 10	< 10	11	290	< 9.9	< 10
Acenaphthylene	< 10	< 11	140	< 10	< 10	< 10	65	< 100	< 9.9	< 10
Anthracene	< 10	< 11	340	< 10	< 10	< 10	240	2300	< 9.9	< 10
Benzo(a)anthracene	< 10	< 11	190	< 10	< 10	< 10	200	1400	< 9.9	< 10
Benzo(a)pyrene	< 10	< 11	150	18	< 10	< 10	130	450	< 9.9	< 10
Benzo(b)fluoranthene	17	< 11	770	< 10	< 10	< 10	250	1700	< 9.9	< 10
Benzo(ghi)perylene	10	< 11	< 110	< 10	< 10	< 10	270	250	< 9.9	< 10
Benzo(k)fluoranthene	< 10	< 11	180	< 10	< 10	< 10	100	580	< 9.9	< 10
Chrysene	16	< 11	390	< 10	< 10	< 10	270	3000	< 9.9	< 10
Dibenzo(a,h)anthracene	< 10	< 11	< 110	< 10	< 10	< 10	30	< 100	< 9.9	< 10
Fluorene	< 10	< 11	< 110	< 10	< 10	< 10	19	480	< 9.9	< 10
Indeno(1,2,3-cd)pyrene	10	< 11	340	25	< 10	< 10	200	340	< 9.9	< 10
Naphthalene	< 10	< 11	< 110	< 10	< 10	< 10	< 9.6	1000	< 9.9	< 10
Phenanthrene	18	< 11	230	< 10	< 10	< 10	230	1900	< 9.9	< 10
Pyrene	37	< 11	1000	53	< 10	< 10	510	11000	< 9.9	< 10



Sample ID	B-294	B-294	B-294	B-294	B-295	B-295	B-295	B-295	B-296	B-296
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	1	8.9	29.4	3.1	13.8	2.5	3.2	3.2	38.7	7.5
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	10.1	33.3	35.7	27.2	32.2	23.8	22.4	23.5	95.9	15
Cobalt										
Copper	19.4	36.5	32.2	32.2	56.3	25.1	22.2	29	115	25.5
Iron										
Lead	< 20	< 22	28.2	< 23	< 21	< 22	< 21	< 22	< 21	63
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-294	B-294	B-294	B-294	B-295	B-295	B-295	B-295	B-296	B-296
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 13	36	330	< 13	310	64	17	< 13	110	41
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	< 51	< 50	500	< 51	160	< 51	< 50	< 50	130	< 61
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-294	B-294	B-294	B-294	B-295	B-295	B-295	B-295	B-296	B-296
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-294	B-294	B-294	B-294	B-295	B-295	B-295	B-295	B-296	B-296
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/09/2004	07/09/2004
Sample Depth (feet bgs)	0.5	2.5	5	10	0.5	2.5	5	10	0.5	10
Semivolatile Organic Compounds (ug/kg)			•							
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 500	< 48	< 49	< 510	58	< 50	< 49	< 500	680
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 500	< 48	< 49	< 510	< 50	< 50	< 49	< 500	< 50
2,3,5,6-Tetrachlorophenol	< 50	< 500	< 48	< 49	< 510	< 50	< 50	< 49	< 500	< 50
2,3,5-Trichlorophenol	< 50	< 500	< 48	< 49	< 510	< 50	< 50	< 49	< 500	< 50
2,3,6-Trichlorophenol	< 50	< 500	< 48	< 49	< 510	< 50	< 50	< 49	< 500	< 50
2,4,5-Trichlorophenol	< 50	< 500	< 48	< 49	< 510	< 50	< 50	< 49	< 500	< 50
2,4,6-Trichlorophenol	< 50	< 500	< 48	< 49	< 510	< 50	< 50	< 49	< 500	< 50
3,4,5-Trichlorophenol	< 50	< 500	< 48	< 49	< 510	< 50	< 50	< 49	< 500	< 50
Bis(2-ethylhexyl)phthalate										
Carbazole	< 10	120	< 9.5	< 9.8	< 110	< 10	< 10	< 9.7	680	11
Dibenzofuran	< 10	120	< 9.5	< 9.8	< 110	< 10	< 10	< 9.7	< 100	400
Fluoranthene	20	6200	73	< 9.8	550	1300	12	< 9.7	6000	71
Pentachlorophenol	89	3300	240	< 49	4200	1700	< 50	< 49	11000	27000
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10	380	< 9.5	< 9.8	< 110	24	< 10	< 9.7	< 100	690
Acenaphthylene	13	< 99	< 9.5	< 9.8	< 110	25	< 10	< 9.7	590	25
Anthracene	22	830	23	< 9.8	260	120	< 10	< 9.7	2200	57
Benzo(a)anthracene	12	830	37	< 9.8	210	210	< 10	< 9.7	2000	15
Benzo(a)pyrene	13	450	41	< 9.8	350	110	< 10	< 9.7	2100	10
Benzo(b)fluoranthene	79	1100	100	< 9.8	1500	290	< 10	< 9.7	7500	35
Benzo(ghi)perylene	30	240	26	< 9.8	420	94	< 10	< 9.7	1600	< 10
Benzo(k)fluoranthene	17	370	31	< 9.8	210	96	< 10	< 9.7	2300	< 10
Chrysene	37	1300	85	< 9.8	650	260	< 10	< 9.7	5900	44
Dibenzo(a,h)anthracene	< 10	< 99	< 9.5	< 9.8	< 110	19	< 10	< 9.7	420	< 10
Fluorene	< 10	240	< 9.5	< 9.8	< 110	16	< 10	< 9.7	< 100	270
Indeno(1,2,3-cd)pyrene	37	340	33	< 9.8	620	120	< 10	< 9.7	2500	12
Naphthalene	< 10	< 99	< 9.5	< 9.8	< 110	< 10	< 10	< 9.7	< 100	4400
Phenanthrene	< 10	1400	17	< 9.8	< 110	160	< 10	< 9.7	920	290
Pyrene	20	6800	87	< 9.8	630	1200	< 10	< 9.7	5300	59



Sample ID	B-296	B-296	B-297	B-297	B-297	B-297	B-299	B-299	B-299	B-299
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004
Sample Depth (feet bgs)	2.5	5	1	2.5	5	10	0.5	2.5	5	10
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	6.3	5	27.6	8.1	7.9			11.2		15.5
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	19.9	31.5	60.9	23.5	21.7			22.3		63.2
Cobalt										
Copper	16.1	22.5	70.3	17.5	19.8			20.5		33.7
Iron										
Lead	< 23	33.8	< 21	< 24	< 25			12.9		16.1
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	B-296	B-296	B-297	B-297	B-297	B-297	B-299	B-299	B-299	B-299
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004
Sample Depth (feet bgs)	2.5	5	1	2.5	5	10	0.5	2.5	5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	28	1800	560	< 16	< 16			150		560
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	< 58	590	890	< 61	< 62			190		120
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-296	B-296	B-297	B-297	B-297	B-297	B-299	B-299	B-299	B-299
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004
Sample Depth (feet bgs)	2.5	5	1	2.5	5	10	0.5	2.5	5	10
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-296	B-296	B-297	B-297	B-297	B-297	B-299	B-299	B-299	B-299
Sample Date	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/09/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004
Sample Depth (feet bgs)	2.5	5	1	2.5	5	10	0.5	2.5	5	10
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	1400	17000	< 500	< 50	< 50	< 50	< 50		< 50	
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50	< 50		< 50	
2,3,5,6-Tetrachlorophenol	60	200	< 500	< 50	< 50	< 50	< 50		< 50	
2,3,5-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50	< 50		< 50	
2,3,6-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50	< 50		< 50	
2,4,5-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50	< 50		< 50	
2,4,6-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50	< 50		< 50	
3,4,5-Trichlorophenol	< 50	< 50	< 500	< 50	< 50	< 50	< 50		< 50	
Bis(2-ethylhexyl)phthalate										
Carbazole	< 10	< 200	170	< 10	< 10	< 10	10		< 10	
Dibenzofuran	22	2700	160	< 10	< 10	< 10	< 10		< 10	
Fluoranthene	< 10	590	4300	230	12	< 10	39		31	
Pentachlorophenol	120000	620000	7800	200	< 50	< 50	120		91	
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10	3100	210	< 10	< 10	< 10	< 10		< 10	
Acenaphthylene	< 10	130	250	< 10	< 10	< 10	< 10		< 10	
Anthracene	< 10	270	1300	30	< 10	< 10	23		25	
Benzo(a)anthracene	< 10	140	1300	36	< 10	< 10	16		< 10	
Benzo(a)pyrene	< 10	23	110	15	< 10	< 10	33		14	
Benzo(b)fluoranthene	< 10	54	1900	130	< 10	< 10	83		33	
Benzo(ghi)perylene	< 10	16	< 100	< 10	< 10	< 10	41		11	
Benzo(k)fluoranthene	< 10	17	560	22	< 10	< 10	21		< 10	
Chrysene	< 10	220	1700	100	< 10	< 10	44		22	
Dibenzo(a,h)anthracene	< 10	< 9.9	190	< 10	< 10	< 10	< 10		< 10	
Fluorene	< 10	1800	450	< 10	< 10	< 10	< 10		< 10	
Indeno(1,2,3-cd)pyrene	< 10	11	200	30	< 10	< 10	51		14	
Naphthalene	1900	110000	< 100	< 10	< 10	< 10	< 10		< 10	
Phenanthrene	< 10	2600	2500	89	< 10	< 10	< 10		< 10	
Pyrene	< 10	460	1300	180	13	< 10	36		31	



Sample ID	B-300	B-300	B-300	B-301	B-301	B-301	B-307	B-307	B-307	BH-27
Sample Date	07/21/2004	07/21/2004	0//21/2004	07/21/2004	07/21/2004	07/21/2004	02/26/2009	02/26/2009	02/26/2009	04/02/1996
Sample Depth (feet bgs)	0.5	2.5	10	0.5	2.5	5	0.5	2.5	20	1
Metals (mg/kg)										
Antimony										
Arsenic	2.3	6.9	5.4	61.2	25.9	3	9.12	3830	1.89	
Barium										
Beryllium										
Calcium										
Chromium	11	18.9	25.4	125	40.5	35.3	15.4	14.8	9.11	
Cobalt										
Copper	19.3	15.7	25.5	119	29.9	15.3	24.6	15.3	12.6	
Iron										
Lead	4.9	39	11.6	13.4	31.1	8.7				
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc							46.8	60.1	33.2	
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD								9600	32	
1,2,3,4,6,7,8-HpCDF								1300	6	
1,2,3,4,7,8,9-HpCDF								100	< 0.98	
1,2,3,4,7,8-HxCDD								41	< 0.91	
1,2,3,4,7,8-HxCDF								< 1900	< 3.2	
1,2,3,6,7,8-HxCDD								460	2	
1,2,3,6,7,8-HxCDF								120	< 0.91	
1,2,3,7,8,9-HxCDD								99	< 0.91	
1,2,3,7,8,9-HxCDF								25	< 0.91	
1,2,3,7,8-PeCDD								< 20	< 0.91	
1,2,3,7,8-PeCDF								44	< 0.91	
2,3,4,6,7,8-HxCDF								72	< 0.91	
2,3,4,7,8-PeCDF								120	< 0.91	
2,3,7,8-TCDD								< 4	< 0.18	
2,3,7,8-TCDF								12	< 0.18	
OCDD								110000	430	
OCDF								1700	31	



Sample ID	B-300	B-300	B-300	B-301	B-301	B-301	B-307	B-307	B-307	BH-27
Sample Date	07/21/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004	02/26/2009	02/26/2009	02/26/2009	04/02/1996
Sample Depth (feet bgs)	0.5	2.5	10	0.5	2.5	5	0.5	2.5	20	1
Total HpCDDs								16000	61	
Total HpCDFs								4100	29	
Total HxCDDs								1500	5.9	
Total HxCDFs								3100	6.5	
Total PeCDDs								47	< 0.91	
Total PeCDFs								1100	< 0.91	
Total TCDDs								79	< 0.18	
Total TCDFs								61	< 0.18	
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 14	29	< 17	730	170	< 15				
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	< 54	84	< 65	1800	360	< 57				
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	B-300	B-300	B-300	B-301	B-301	B-301	B-307	B-307	B-307	BH-27
Sample Date	07/21/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004	02/26/2009	02/26/2009	02/26/2009	04/02/1996
Sample Depth (feet bgs)	0.5	2.5	10	0.5	2.5	5	0.5	2.5	20	1
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	B-300	B-300	B-300	B-301	B-301	B-301	B-307	B-307	B-307	BH-27
Sample Date	07/21/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004	07/21/2004	02/26/2009	02/26/2009	02/26/2009	04/02/1996
Sample Depth (feet bgs)	0.5	2.5	10	0.5	2.5	5	0.5	2.5	20	1
Semivolatile Organic Compounds (ug/kg)								-		
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 51	< 50	< 2500	67	< 50				
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 51	< 50	< 2500	< 50	< 50				
2,3,5,6-Tetrachlorophenol	< 50	< 51	< 50	< 2500	54	< 50				
2,3,5-Trichlorophenol	< 50	< 51	< 50	< 2500	< 50	< 50				
2,3,6-Trichlorophenol	< 50	< 51	< 50	< 2500	< 50	< 50				
2,4,5-Trichlorophenol	< 50	< 51	< 50	< 2500	< 50	< 50				
2,4,6-Trichlorophenol	< 50	< 51	< 50	< 2500	< 50	< 50				
3,4,5-Trichlorophenol	< 50	< 51	< 50	< 2500	< 50	< 50				
Bis(2-ethylhexyl)phthalate										110
Carbazole	< 10	12	< 10	1000	13	< 10				
Dibenzofuran	< 10	< 11	< 10	< 500	< 10	< 10				
Fluoranthene	32	40	< 10	2300	100	< 10	72.6	17.8	< 7.93	350
Pentachlorophenol	120	130	< 50	15000	1100	< 50	885	909	< 396	190
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	54	< 11	< 10	< 500	< 10	< 10	< 7.12	< 7.43	< 7.93	
Acenaphthylene	< 10	14	< 10	1900	11	< 10	33.4	< 7.43	< 7.93	
Anthracene	37	38	< 10	3500	42	< 10	117	11.1	< 7.93	
Benzo(a)anthracene	< 10	25	< 10	1600	28	< 10	33.4	< 7.43	< 7.93	190
Benzo(a)pyrene	21	31	< 10	3600	43	< 10	94.6	20	< 7.93	1000
Benzo(b)fluoranthene	33	81	< 10	14000	130	< 10	228	32.7	< 7.93	420
Benzo(ghi)perylene	15	74	< 10	1100	64	< 10	147	20	< 7.93	290
Benzo(k)fluoranthene	< 10	24	< 10	2400	24	< 10	47	11.1	< 7.93	420
Chrysene	20	46	< 10	4600	48	< 10	60.5	14.8	< 7.93	620
Dibenzo(a,h)anthracene	< 10	< 11	< 10	1100	12	< 10	65.5	< 7.43	< 7.93	100
Fluorene	< 10	< 11	< 10	< 500	< 10	< 10	< 7.12	< 7.43	< 7.93	
Indeno(1,2,3-cd)pyrene	16	67	< 10	6600	77	< 10	126	18.6	< 7.93	340
Naphthalene	57	< 11	< 10	< 500	< 10	< 10	< 7.12	< 7.43	< 7.93	
Phenanthrene	< 10	< 11	< 10	< 500	22	< 10	24.2	8.17	< 7.93	36
Pyrene	14	38	< 10	2100	130	< 10	109	28.2	< 7.93	490



Sample ID	BH-27	BH-27	BH-28	BH-28	BH-28	BH-29	BH-29	MW-19	MW-19	MW-20S
Sample Date	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	6	26	0.5	6	21	6	11	5	20	5
Metals (mg/kg)										
Aluminum		11300		12000		13500				
Antimony		< 15		< 13.2		< 13.5				
Arsenic		< 1.3		3		9.3		5.2	2.8	2.8
Barium		147		134		160				
Beryllium		1		1.1		1.2				
Cadmium		< 0.8		< 0.7		< 0.72				
Calcium		5250		4480		4700				
Chromium		15.6		16		19.2		11.2	13.1	15.1
Cobalt		15.5		16.2		16.6				
Copper		27.5		22.7		23.4		7.4	15.2	13.4
Iron		19800		21000		25000				
Lead		6.9		30.1		7.2				
Magnesium		6040		4740		5490				
Manganese		198		217		377				
Mercury		< 0.14		< 0.13		< 0.13				
Nickel		23.1		21.6		21.3				
Potassium		1200		948		1030				
Selenium		< 0.57		0.62		< 0.52				
Silver		< 2.4		< 2.1		< 2.1				
Sodium		292		282		544				
Thallium		< 0.28		< 0.25		< 0.26				
Vanadium		48.6		45.6		57.7				
Zinc		55.5		54.7		55				
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	BH-27	BH-27	BH-28	BH-28	BH-28	BH-29	BH-29	MW-19	MW-19	MW-20S
Sample Date	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	6	26	0.5	6	21	6	11	5	20	5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH					< 30		32			
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	BH-27	BH-27	BH-28	BH-28	BH-28	BH-29	BH-29	MW-19	MW-19	MW-20S
Sample Date	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	6	26	0.5	6	21	6	11	5	20	5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone							8.4			
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride							4.1			
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	BH-27	BH-27	BH-28	BH-28	BH-28	BH-29	BH-29	MW-19	MW-19	MW-20S
Sample Date	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	6	26	0.5	6	21	6	11	5	20	5
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol										
3,4,5-Trichlorophenol										
Bis(2-ethylhexyl)phthalate	< 380		< 350							
Carbazole										
Dibenzofuran										
Fluoranthene	220		260							
Pentachlorophenol	340		270							
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)		-	-					-		
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene	< 140		230							
Benzo(a)pyrene	170		320							
Benzo(b)fluoranthene	160		780							
Benzo(ghi)perylene	130		530							
Benzo(k)fluoranthene	120		410							
Chrysene	< 380		600							
Dibenzo(a,h)anthracene	51		160							
Fluorene										
Indeno(1,2,3-cd)pyrene	120		550							
Naphthalene										
Phenanthrene	< 380		< 350							
Pyrene	390		390							



Sample ID	MW-20S	MW-285	MW-285	MW-28S	MW-29	MW-29	MW-29	MW-29	MW-45D	MW-45D
Sample Date	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	07/20/2004	07/20/2004
Sample Depth (feet bgs)	20	0.5	6	11	8.5	11	16	31	0.5	2.5
Metals (mg/kg)										
Aluminum			15500		13700	14200	16200			
Antimony			< 11.9		< 14	< 13.6	< 14.5			
Arsenic	3.1		3.9		5.3	5.9	6.4		17.4	1.9
Barium			235		182	180	212			
Beryllium			1.4		1.6	1.5	1.7			
Cadmium			< 0.63		< 0.75	< 0.73	< 0.77			
Calcium			3480		5800	5800	6780			
Chromium	15.5		10.8		20.3	18.7	22.8		35.9	19
Cobalt			21.7		19.6	18.6	22.8			
Copper	17.5		20.6		26.3	24.9	31.4		62	16.9
Iron			28900		25600	25800	29900			
Lead			7.6		27.1	28.9	16.9		9.1	7.9
Magnesium			3040		6380	6380	7470			
Manganese			584		546	492	737			
Mercury			< 0.11		< 0.13	< 0.13	< 0.14			
Nickel			17.6		27.5	26.6	30.3			
Potassium			< 535		905	990	1360			
Selenium			< 0.45		< 0.53	< 0.52	< 0.55			
Silver			< 1.9		< 2.2	< 2.2	2.4			
Sodium			< 142		233	200	282			
Thallium			< 0.39		< 0.27	< 0.26	< 0.28			
Vanadium			71.3		58	55.3	65.4			
Zinc			58.5		65.9	75.1	78.2			
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	MW-20S	MW-28S	MW-28S	MW-28S	MW-29	MW-29	MW-29	MW-29	MW-45D	MW-45D
Sample Date	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	07/20/2004	07/20/2004
Sample Depth (feet bgs)	20	0.5	6	11	8.5	11	16	31	0.5	2.5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel									130	< 15
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH				< 24				< 27		
TPH (as motor oil)(E5030-8015)									520	< 58
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	MW-20S	MW-28S	MW-28S	MW-28S	MW-29	MW-29	MW-29	MW-29	MW-45D	MW-45D
Sample Date	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	07/20/2004	07/20/2004
Sample Depth (feet bgs)	20	0.5	6	11	8.5	11	16	31	0.5	2.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide								< 6.8		
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
lsopropylbenzene										
m,p-Xylene										
Methylene chloride								1.6		
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	MW-20S	MW-28S	MW-28S	MW-28S	MW-29	MW-29	MW-29	MW-29	MW-45D	MW-45D
Sample Date	05/03/1993	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	04/02/1996	07/20/2004	07/20/2004
Sample Depth (feet bgs)	20	0.5	6	11	8.5	11	16	31	0.5	2.5
Semivolatile Organic Compounds (ug/kg)			•							
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol									110	< 51
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol									< 51	< 51
2,3,5,6-Tetrachlorophenol									< 51	< 51
2,3,5-Trichlorophenol									< 51	< 51
2,3,6-Trichlorophenol									< 51	< 51
2,4,5-Trichlorophenol									< 51	< 51
2,4,6-Trichlorophenol									< 51	< 51
3,4,5-Trichlorophenol									< 51	< 51
Bis(2-ethylhexyl)phthalate		160	690							
Carbazole									110	< 11
Dibenzofuran									< 11	< 11
Fluoranthene		1200	93						310	< 11
Pentachlorophenol		2000	3000						1900	< 51
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene			< 380						< 11	< 11
Acenaphthylene									200	< 11
Anthracene									260	< 11
Benzo(a)anthracene		1800	< 140						220	< 11
Benzo(a)pyrene		1600	< 140						260	< 11
Benzo(b)fluoranthene		2400	70						790	< 11
Benzo(ghi)perylene		1500	< 380						490	< 11
Benzo(k)fluoranthene		1700	< 240						220	< 11
Chrysene		2000	52						410	< 11
Dibenzo(a,h)anthracene		710	< 200						74	< 11
Fluorene									16	< 11
Indeno(1,2,3-cd)pyrene		1600	< 180						510	< 11
Naphthalene									< 11	< 11
Phenanthrene		230	66						69	< 11
Pyrene		2200	86						370	< 11



Sample ID	MW-45D	MW-45D	MW-9S	MW-9S	MW-9S	SPY-01A	SPY-01A	SPY-01B	SPY-01C	SPY-01C
Sample Date	07/20/2004	07/20/2004	07/14/2004	07/14/2004	07/14/2004	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	5	10	2.5	5	10	5	10	10	1	5
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	1.8	5.3	9.3	8.2	4.7	3.1	10.9	11.2	27.9	2.3
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	18.1	26	31.5	30.5	23.1	21.2	23.3	31.5	75.4	20.3
Cobalt										
Copper	16.4	27.5	21.9	20	22.6	19.8	13	21.2	77	20.7
Iron										
Lead	6.7	10.3	< 24	< 24	< 21					
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc						48.7	55.5	73.5	70.5	50.2
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	MW-45D	MW-45D	MW-9S	MW-9S	MW-9S	SPY-01A	SPY-01A	SPY-01B	SPY-01C	SPY-01C
Sample Date	07/20/2004	07/20/2004	07/14/2004	07/14/2004	07/14/2004	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	5	10	2.5	5	10	5	10	10	1	5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 15	< 17	4500	78	< 13					
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)	62	< 66	540	56	< 51					
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	MW-45D	MW-45D	MW-9S	MW-9S	MW-9S	SPY-01A	SPY-01A	SPY-01B	SPY-01C	SPY-01C
Sample Date	07/20/2004	07/20/2004	07/14/2004	07/14/2004	07/14/2004	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	5	10	2.5	5	10	5	10	10	1	5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	MW-45D	MW-45D	MW-9S	MW-9S	MW-9S	SPY-01A	SPY-01A	SPY-01B	SPY-01C	SPY-01C
Sample Date	07/20/2004	07/20/2004	07/14/2004	07/14/2004	07/14/2004	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	5	10	2.5	5	10	5	10	10	1	5
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 50	< 50	< 2500	220	< 50	< 62	< 130	4500	150	< 63
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 2500	< 50	< 50	< 62	< 130	< 650	< 55	< 63
2,3,5,6-Tetrachlorophenol	< 50	< 50	< 2500	100	< 50	< 62	< 130	< 650	< 55	< 63
2,3,5-Trichlorophenol	< 50	< 50	< 2500	< 50	< 50	< 62	< 130	< 650	< 55	< 63
2,3,6-Trichlorophenol	< 50	< 50	< 2500	< 50	< 50	< 62	< 130	< 650	< 55	< 63
2,4,5-Trichlorophenol	< 50	< 50	< 2500	66	< 50	< 62	< 130	< 650	< 55	< 63
2,4,6-Trichlorophenol	< 50	< 50	< 2500	< 50	< 50	< 62	< 130	< 650	< 55	< 63
3,4,5-Trichlorophenol	< 50	< 50	< 2500	64	< 50	< 62	< 130	< 650	< 55	< 63
Bis(2-ethylhexyl)phthalate										
Carbazole	< 10	< 10	2100	1100	110	< 13	< 26	< 130	350	< 13
Dibenzofuran	< 10	< 10	8200	2100	140	< 13	< 26	7900	< 11	< 13
Fluoranthene	< 10	< 10	17000	1700	280	68	< 26	26000	1300	< 13
Pentachlorophenol	< 50	< 50	4600	5600	89	< 62	< 130	130000	3600	< 63
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 10	< 10	13000	2500	78	< 13	< 26	12000	16	< 13
Acenaphthylene	< 10	< 10	< 500	30	< 10	< 13	< 26	300	170	< 13
Anthracene	< 10	< 10	7900	1500	190	< 13	< 26	4800	1100	< 13
Benzo(a)anthracene	< 10	< 10	2700	180	48	19	< 26	3500	1400	< 13
Benzo(a)pyrene	< 10	< 10	890	75	15	19	< 26	800	2000	< 13
Benzo(b)fluoranthene	< 10	< 10	1500	140	21	63	< 26	1100	3500	< 13
Benzo(ghi)perylene	< 10	< 10	200	31	< 10	16	< 26	210	1800	< 13
Benzo(k)fluoranthene	< 10	< 10	580	49	< 10	44	< 26	930	2300	< 13
Chrysene	< 10	< 10	2700	240	39	60	< 26	3300	8800	< 13
Dibenzo(a,h)anthracene	< 10	< 10	53	< 10	< 10	< 13	< 26	84	460	< 13
Fluorene	< 10	< 10	11000	2200	130	< 13	< 26	11000	22	< 13
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 500	44	< 10	30	< 26	460	3600	13
Naphthalene	< 10	< 10	3500	860	15	< 13	< 26	170	< 11	< 13
Phenanthrene	< 10	< 10	33000	5600	240	< 13	< 26	38000	180	< 13
Pyrene	< 10	< 10	13000	1300	210	120	< 26	19000	1400	< 13


Sample ID	SPY-01C	SPY-01D	SPY-01D	SPY-01D	SPY-01E	SPY-01E	SPY-01E	SPY-01F	SPY-01F	SPY-01F
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	10	1	5	10	1	5	10	1	5	10
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	6.8	12.9	2.3	5.6	17.3	8	7.9	12	1.4	8
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	17	34.6	20.7	20.3	17.6	20.7	19.6	19.1	14.1	20
Cobalt										
Copper	11.6	23.9	21	11.2	21.8	16.6	12.2	30	19.9	12.2
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	60.5	111	59.9	60.3	43.1	80.8	58.9	66.6	43.1	56.4
Dioxins and Furans (ng/kg)										-
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	SPY-01C	SPY-01D	SPY-01D	SPY-01D	SPY-01E	SPY-01E	SPY-01E	SPY-01F	SPY-01F	SPY-01F
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	10	1	5	10	1	5	10	1	5	10
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	SPY-01C	SPY-01D	SPY-01D	SPY-01D	SPY-01E	SPY-01E	SPY-01E	SPY-01F	SPY-01F	SPY-01F
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	10	1	5	10	1	5	10	1	5	10
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	SPY-01C	SPY-01D	SPY-01D	SPY-01D	SPY-01E	SPY-01E	SPY-01E	SPY-01F	SPY-01F	SPY-01F
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	10	1	5	10	1	5	10	1	5	10
Semivolatile Organic Compounds (ug/kg)			-		-	-				
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 61	190	< 56	< 120	79	< 61	< 61	< 54	< 54	< 61
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 61	< 55	< 56	< 120	< 54	< 61	< 61	< 54	< 54	< 61
2,3,5,6-Tetrachlorophenol	< 61	< 55	< 56	< 120	< 54	< 61	< 61	< 54	< 54	< 61
2,3,5-Trichlorophenol	< 61	< 55	< 56	< 120	< 54	< 61	< 61	< 54	< 54	< 61
2,3,6-Trichlorophenol	< 61	< 55	< 56	< 120	< 54	< 61	< 61	< 54	< 54	< 61
2,4,5-Trichlorophenol	< 61	< 55	< 56	< 120	< 54	< 61	< 61	< 54	< 54	< 61
2,4,6-Trichlorophenol	< 61	< 55	< 56	< 120	< 54	< 61	< 61	< 54	< 54	< 61
3,4,5-Trichlorophenol	< 61	< 55	< 56	< 120	< 54	< 61	< 61	< 54	< 54	< 61
Bis(2-ethylhexyl)phthalate										
Carbazole	< 13	65	< 12	< 24	130	< 13	< 13	50	< 11	< 13
Dibenzofuran	< 13	68	< 12	< 24	14	< 13	< 13	< 11	< 11	< 13
Fluoranthene	< 13	840	< 12	< 24	1800	< 13	< 13	490	< 11	< 13
Pentachlorophenol	< 61	4900	140	< 120	1700	< 61	< 61	660	< 54	< 61
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	< 13	77	< 12	< 24	32	< 13	< 13	< 11	< 11	< 13
Acenaphthylene	< 13	22	< 12	< 24	340	< 13	< 13	52	< 11	< 13
Anthracene	< 13	210	< 12	< 24	340	< 13	< 13	150	< 11	< 13
Benzo(a)anthracene	< 13	190	< 12	< 24	660	< 13	< 13	180	< 11	< 13
Benzo(a)pyrene	< 13	88	< 12	< 24	970	< 13	< 13	150	< 11	< 13
Benzo(b)fluoranthene	< 13	150	< 12	< 24	1700	29	< 13	440	< 11	< 13
Benzo(ghi)perylene	< 13	120	< 12	< 24	1400	15	< 13	390	< 11	< 13
Benzo(k)fluoranthene	< 13	130	< 12	< 24	1200	21	< 13	260	< 11	< 13
Chrysene	< 13	230	< 12	< 24	1100	18	< 13	350	< 11	< 13
Dibenzo(a,h)anthracene	< 13	26	< 12	< 24	240	< 13	< 13	70	< 11	< 13
Fluorene	< 13	96	< 12	< 24	26	< 13	< 13	< 11	< 11	< 13
Indeno(1,2,3-cd)pyrene	< 13	210	< 12	< 24	2500	26	< 13	680	< 11	< 13
Naphthalene	< 13	44	< 12	< 24	< 11	16	< 13	< 11	< 11	< 13
Phenanthrene	< 13	730	< 12	< 24	270	< 13	< 13	31	< 11	< 13
Pyrene	< 13	730	17	< 24	2000	37	< 13	440	< 11	< 13



Sample ID	SPY-01G	SPY-01G	SPY-01G	SPY-01G	SPY-01H	SPY-01H	SPY-01H	SPY-02A	SPY-02A	SPY-02B
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1	5	10	3	1	5	10	0.5	1.5	0.5
Metals (mg/kg)		•				•			•	
Aluminum										
Antimony										
Arsenic	16.8	3.6	6.3	3.5	9.4	4.4	5.9			
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	25.1	19.8	19.9	15.5	12.7	16.9	18.4			
Cobalt										
Copper	13.6	16.9	12	17.7	19.7	21.6	10.9			
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	80.3	58.7	64.1	54.1	35.9	65.5	63.1			
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	SPY-01G	SPY-01G	SPY-01G	SPY-01G	SPY-01H	SPY-01H	SPY-01H	SPY-02A	SPY-02A	SPY-02B
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1	5	10	3	1	5	10	0.5	1.5	0.5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	SPY-01G	SPY-01G	SPY-01G	SPY-01G	SPY-01H	SPY-01H	SPY-01H	SPY-02A	SPY-02A	SPY-02B
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1	5	10	3	1	5	10	0.5	1.5	0.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	SPY-01G	SPY-01G	SPY-01G	SPY-01G	SPY-01H	SPY-01H	SPY-01H	SPY-02A	SPY-02A	SPY-02B
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1	5	10	3	1	5	10	0.5	1.5	0.5
Semivolatile Organic Compounds (ug/kg)		-					-			-
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	3800	< 57	< 59	< 60	< 52	< 62	< 62	< 11	< 12	< 120
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 290	< 57	< 59	< 60	< 52	< 62	< 62			
2,3,5,6-Tetrachlorophenol	< 290	< 57	< 59	< 60	< 52	< 62	< 62	< 11	< 12	< 120
2,3,5-Trichlorophenol	< 290	< 57	< 59	< 60	< 52	< 62	< 62			
2,3,6-Trichlorophenol	< 290	< 57	< 59	< 60	< 52	< 62	< 62			
2,4,5-Trichlorophenol	< 290	< 57	< 59	< 60	< 52	< 62	< 62			
2,4,6-Trichlorophenol	< 290	< 57	< 59	< 60	< 52	< 62	< 62	< 5.5	< 5.8	< 56
3,4,5-Trichlorophenol	< 290	< 57	< 59	< 60	< 52	< 62	< 62			
Bis(2-ethylhexyl)phthalate										
Carbazole	< 58	< 12	< 12	< 12	30	< 13	< 13			
Dibenzofuran	66	< 12	< 12	< 12	< 11	< 13	< 13			
Fluoranthene	2100	< 12	< 12	15	190	63	< 13			
Pentachlorophenol	130000	< 57	< 59	220	390	350	< 62	170	130	650
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)				-						
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene	90	< 12	< 12	< 12	< 11	< 13	< 13			
Acenaphthylene	< 58	< 12	< 12	< 12	70	22	< 13			
Anthracene	220	< 12	< 12	< 12	160	50	< 13			
Benzo(a)anthracene	540	< 12	< 12	< 12	110	33	< 13			
Benzo(a)pyrene	290	< 12	< 12	< 12	180	51	< 13			
Benzo(b)fluoranthene	1300	< 12	< 12	14	420	130	< 13			
Benzo(ghi)perylene	240	< 12	< 12	< 12	370	130	< 13			
Benzo(k)fluoranthene	790	< 12	< 12	< 12	260	90	< 13			
Chrysene	1400	< 12	< 12	16	220	57	< 13			
Dibenzo(a,h)anthracene	100	< 12	< 12	< 12	75	29	< 13			
Fluorene	170	< 12	< 12	< 12	< 11	< 13	< 13			
Indeno(1,2,3-cd)pyrene	560	< 12	< 12	13	620	250	< 13			
Naphthalene	< 58	< 12	< 12	< 12	< 11	< 13	< 13			
Phenanthrene	920	< 12	< 12	< 12	45	24	< 13			
Pyrene	6900	< 12	< 12	30	200	62	< 13			



Sample ID	SPY-02B	SPY-02C	SPY-02C	SPY-02D	SPY-02D	SPY-02E	SPY-02E	SPY-02F	SPY-02F	SPY-02G
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
Metals (mg/kg)			•			•	•	•		
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)			I		T	I	1	I		T
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	SPY-02B	SPY-02C	SPY-02C	SPY-02D	SPY-02D	SPY-02E	SPY-02E	SPY-02F	SPY-02F	SPY-02G
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	SPY-02B	SPY-02C	SPY-02C	SPY-02D	SPY-02D	SPY-02E	SPY-02E	SPY-02F	SPY-02F	SPY-02G
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	SPY-02B	SPY-02C	SPY-02C	SPY-02D	SPY-02D	SPY-02E	SPY-02E	SPY-02F	SPY-02F	SPY-02G
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
Semivolatile Organic Compounds (ug/kg)		•			•			•		•
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol	< 12	< 530	< 11000	< 120	< 54000	< 110	< 110	< 110	< 12000	920
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol	< 12	< 530	< 11000	< 120	< 54000	< 110	< 110	< 110	< 12000	< 520
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5.6	< 270	< 5200	< 56	< 27000	< 55	< 54	< 53	< 5700	< 260
3,4,5-Trichlorophenol										
Bis(2-ethylhexyl)phthalate										
Carbazole										
Dibenzofuran										
Fluoranthene										
Pentachlorophenol	80	2600	63000	630	470000	1500	570	780	320000	2400
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	SPY-02G	SPY-02H	SPY-02H	SPY-02I	SPY-02I	SPY-03	SPY-04	SS-1	SS-10	SS-11
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	02/06/1991	02/06/1991	04/02/1996	02/26/2009	02/26/2009
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0	0	1	0.5	0.5
Metals (mg/kg)					-		-		-	
Aluminum								22800		
Antimony								< 12.5		
Arsenic						< 0.001	0.007	2.6		6.05
Barium								266		
Beryllium								1.7		
Cadmium								< 0.67		
Calcium								2080		
Chromium								30.3	11.6	18.6
Cobalt								27.4		
Copper								20.8	15.1	22.5
Iron								29200		
Lead								5.4		
Magnesium								2030		
Manganese								905		
Mercury								< 0.12		
Nickel								26.9		
Potassium								< 461		
Selenium								< 0.48		
Silver								2.8		
Sodium								69.8		
Thallium								0.44		
Vanadium								70.6		
Zinc								50.9	44.1	43.3
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD									28000	28000
1,2,3,4,6,7,8-HpCDF									4100	< 4500
1,2,3,4,7,8,9-HpCDF									380	260
1,2,3,4,7,8-HxCDD									42	120
1,2,3,4,7,8-HxCDF									1300	300
1,2,3,6,7,8-HxCDD									1500	1800
1,2,3,6,7,8-HxCDF									560	140
1,2,3,7,8,9-HxCDD									170	220
1,2,3,7,8,9-HxCDF									87	26
1,2,3,7,8-PeCDD									13	29
1,2,3,7,8-PeCDF									580	200
2,3,4,6,7,8-HxCDF									310	120
2,3,4,7,8-PeCDF									740	56
2,3,7,8-TCDD									0.42	< 0.78
2,3,7,8-TCDF									43	16
OCDD									190000	240000
OCDF									2600	8200



Sample ID	SPY-02G	SPY-02H	SPY-02H	SPY-02I	SPY-02I	SPY-03	SPY-04	SS-1	SS-10	SS-11
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	02/06/1991	02/06/1991	04/02/1996	02/26/2009	02/26/2009
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0	0	1	0.5	0.5
Total HpCDDs									45000	47000
Total HpCDFs									17000	12000
Total HxCDDs									3800	4400
Total HxCDFs									9500	6500
Total PeCDDs									30	63
Total PeCDFs									5500	1500
Total TCDDs									3.3	4.4
Total TCDFs									280	100
Petroleum Hydrocarbons (mg/kg)					-					
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	SPY-02G	SPY-02H	SPY-02H	SPY-02I	SPY-02I	SPY-03	SPY-04	SS-1	SS-10	SS-11
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	02/06/1991	02/06/1991	04/02/1996	02/26/2009	02/26/2009
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0	0	1	0.5	0.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	SPY-02G	SPY-02H	SPY-02H	SPY-02I	SPY-02I	SPY-03	SPY-04	SS-1	SS-10	SS-11
Sample Date	05/09/2002	05/09/2002	05/09/2002	05/09/2002	05/09/2002	02/06/1991	02/06/1991	04/02/1996	02/26/2009	02/26/2009
Sample Depth (feet bgs)	1.5	0.5	1.5	0.5	1.5	0	0	1	0.5	0.5
Semivolatile Organic Compounds (ug/kg)			•							
2-Methylphenol						< 2500	< 2500			
3-Methylphenol						< 2500	< 2500			
4-Methylphenol						< 2500	< 2500			
2,3,4,5-Tetrachlorophenol	< 120	< 1100	< 11000	600	< 120					
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol	< 120	< 1100	< 11000	< 110	< 120					
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 57	< 510	< 5200	< 51	< 84					
3,4,5-Trichlorophenol										
Bis(2-ethylhexyl)phthalate								< 390		
Carbazole										
Dibenzofuran										
Fluoranthene								2300		381
Pentachlorophenol	1400	16000	68000	550	1300	8400	14000	950		2950
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene								52		< 7.59
Acenaphthylene										210
Anthracene										502
Benzo(a)anthracene								370		356
Benzo(a)pyrene								91		803
Benzo(b)fluoranthene								200		1860
Benzo(ghi)perylene								47		688
Benzo(k)fluoranthene								180		550
Chrysene								430		675
Dibenzo(a,h)anthracene								< 210		334
Fluorene										11.4
Indeno(1,2,3-cd)pyrene								52		777
Naphthalene										9.86
Phenanthrene								240		46.3
Pyrene								1500		601



Sample ID	SS-12	SS-40	SS-8	TP-17	TP-17	TP-18	TP-18	TP-18	TP-18A	TP-18A
Sample Date	02/26/2009	06/17/2010	07/17/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	04/16/2002	04/16/2002
Sample Depth (feet bgs)	0.5	0	1.5	0.5	5	0.3	3	7	7	9
Metals (mg/kg)										
Aluminum										
Antimony										
Arsenic	34.4	8.54	3.72	9.1	2.8	17.8	3.1	278	6.1	7.1
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium	32.1	18.5	15.1	23.8	18.5	31.2	19.1	634		
Cobalt										
Copper	22	19.2	20.8	24.8	14.2	56.3	12.9	90.2		
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc	78.3	105	90.6							
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD	7700	2300	390							
1,2,3,4,6,7,8-HpCDF	410	370	60							
1,2,3,4,7,8,9-HpCDF	64	25	4.6							
1,2,3,4,7,8-HxCDD	64	29	2.5							
1,2,3,4,7,8-HxCDF	69	50	28							
1,2,3,6,7,8-HxCDD	390	120	20							
1,2,3,6,7,8-HxCDF	63	< 36	9.2							
1,2,3,7,8,9-HxCDD	150	52	4.7							
1,2,3,7,8,9-HxCDF	< 7	15	6.8							
1,2,3,7,8-PeCDD	26	12	< 1							
1,2,3,7,8-PeCDF	< 75	10	< 3							
2,3,4,6,7,8-HxCDF	39	17	12							
2,3,4,7,8-PeCDF	74	24	13							
2,3,7,8-TCDD	< 0.93	< 0.85	< 0.64							
2,3,7,8-TCDF	8	3.8	1.2							
OCDD	69000	15000	3400							
OCDF	650	610	41							



Sample ID	SS-12	SS-40	SS-8	TP-17	TP-17	TP-18	TP-18	TP-18	TP-18A	TP-18A
Sample Date	02/26/2009	06/17/2010	07/17/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	04/16/2002	04/16/2002
Sample Depth (feet bgs)	0.5	0	1.5	0.5	5	0.3	3	7	7	9
Total HpCDDs	14000	4000	670							
Total HpCDFs	2500	1000	64							
Total HxCDDs	1600	580	68							
Total HxCDFs	2000	710	160							
Total PeCDDs	97	63	< 1							
Total PeCDFs	680	250	75							
Total TCDDs	32	5.7	1.2							
Total TCDFs	50	42	6.1							
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	SS-12	SS-40	SS-8	TP-17	TP-17	TP-18	TP-18	TP-18	TP-18A	TP-18A
Sample Date	02/26/2009	06/17/2010	07/17/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	04/16/2002	04/16/2002
Sample Depth (feet bgs)	0.5	0	1.5	0.5	5	0.3	3	7	7	9
2-Butanone								62		
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone								370		
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	SS-12	SS-40	SS-8	TP-17	TP-17	TP-18	TP-18	TP-18	TP-18A	TP-18A
Sample Date	02/26/2009	06/17/2010	07/17/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	04/16/2002	04/16/2002
Sample Depth (feet bgs)	0.5	0	1.5	0.5	5	0.3	3	7	7	9
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol						38				
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol						< 30				
2,4,6-Trichlorophenol						< 30				
3,4,5-Trichlorophenol										
Bis(2-ethylhexyl)phthalate										
Carbazole				< 1300			< 330	< 3300		
Dibenzofuran				< 1300			< 330	5200		
Fluoranthene	< 7.4	47.7	716	< 1300			370	6200		
Pentachlorophenol	< 369	< 19.5	374	72000		560	< 1600	150000		
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene			< 7.92							
2-Methylnaphthalene										
Acenaphthene	< 7.4	< 8.67	< 7.92							
Acenaphthylene	< 7.4	< 8.67	26.1							
Anthracene	< 7.4	< 8.67	49.1	< 1300			< 330	< 3300		
Benzo(a)anthracene	< 7.4	< 8.67	473	< 1300			< 330	< 3300		
Benzo(a)pyrene	< 7.4	< 8.67	468	< 1300			< 330	< 3300		
Benzo(b)fluoranthene	14	17.3	487	< 1300			< 330	< 3300		
Benzo(ghi)perylene	15.5	< 8.67	270							
Benzo(k)fluoranthene	< 7.4	< 8.67	145	< 1300			< 330	< 3300		
Chrysene	< 7.4	17.3	401	< 1300			< 330	< 3300		
Dibenzo(a,h)anthracene	< 7.4	< 8.67	95.8							
Fluorene	< 7.4	< 8.67	< 7.92							
Indeno(1,2,3-cd)pyrene	11.8	< 8.67	231	< 1300			< 330	< 3300		
Naphthalene	< 7.4	< 8.67	20.6	< 1300			< 330	3500		
Phenanthrene	< 7.4	15.6	147	< 1300			< 330	13000		
Pyrene	< 7.4	32.9	802	< 1300			350	4600		



Sample ID	TP-18B	TP-18B	TP-18C	TP-18C	TP-18CEN	TP-18CEN	TP-18D	TP-18D	TP-18E	TP-18E
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/25/2002	04/25/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002
Sample Depth (feet bgs)	7	9	7	9	7	9	7	9	7	9
Metals (mg/kg)							•	•	•	•
Aluminum										
Antimony										
Arsenic	4.5	7.1	2.9	9.9	12.9	8.5	1.3	5.3	4.9	5.8
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)		•	•	•	•			1	1	1
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	TP-18B	TP-18B	TP-18C	TP-18C	TP-18CEN	TP-18CEN	TP-18D	TP-18D	TP-18E	TP-18E
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/25/2002	04/25/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002
Sample Depth (feet bgs)	7	9	7	9	7	9	7	9	7	9
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)				•				1	1	-
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Irimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	TP-18B	TP-18B	TP-18C	TP-18C	TP-18CEN	TP-18CEN	TP-18D	TP-18D	TP-18E	TP-18E
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/25/2002	04/25/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002
Sample Depth (feet bgs)	7	9	7	9	7	9	7	9	7	9
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	TP-18B	TP-18B	TP-18C	TP-18C	TP-18CEN	TP-18CEN	TP-18D	TP-18D	TP-18E	TP-18E
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/25/2002	04/25/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002
Sample Depth (feet bgs)	7	9	7	9	7	9	7	9	7	9
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol										
3,4,5-Trichlorophenol										
Bis(2-ethylhexyl)phthalate										
Carbazole										
Dibenzofuran										
Fluoranthene										
Pentachlorophenol										
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene										
Phenanthrene										
Pyrene										



Sample ID	TP-18F	TP-18F	TP-18G	TP-18G	TP-18H	TP-18H	TP-19	TP-19	TP-20	TP-20
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	7	9	7	9	7	9	0.5	4.5	0.2	4.5
Metals (mg/kg)						•			•	•
Aluminum										
Antimony										
Arsenic	9.7	6.8	5.6	4.4	5.6	5.1	29.6	1	16.8	3.4
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium							37	4.1	20.1	24
Cobalt										
Copper							59.7	4.1	27	20.6
Iron										
Lead										
Magnesium										
Manganese										
Mercury										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Thallium										
Vanadium										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										



Sample ID	TP-18F	TP-18F	TP-18G	TP-18G	TP-18H	TP-18H	TP-19	TP-19	TP-20	TP-20
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	7	9	7	9	7	9	0.5	4.5	0.2	4.5
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
TPH										
TPH (as motor oil)(E5030-8015)										
Volatile Organic Compounds (ug/kg)				-		-	-			-
1,1,1,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2,2-Tetrachloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										



Sample ID	TP-18F	TP-18F	TP-18G	TP-18G	TP-18H	TP-18H	TP-19	TP-19	TP-20	TP-20
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	7	9	7	9	7	9	0.5	4.5	0.2	4.5
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										



Sample ID	TP-18F	TP-18F	TP-18G	TP-18G	TP-18H	TP-18H	TP-19	TP-19	TP-20	TP-20
Sample Date	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	04/16/2002	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth (feet bgs)	7	9	7	9	7	9	0.5	4.5	0.2	4.5
Semivolatile Organic Compounds (ug/kg)										
2-Methylphenol										
3-Methylphenol										
4-Methylphenol										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol										
3,4,5-Trichlorophenol										
Bis(2-ethylhexyl)phthalate										
Carbazole							4200			
Dibenzofuran							< 4000			
Fluoranthene							41000			
Pentachlorophenol							22000			
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)					-		-	-		
1-Methylnaphthalene										
2-Methylnaphthalene										
Acenaphthene										
Acenaphthylene										
Anthracene							13000			
Benzo(a)anthracene							10000			
Benzo(a)pyrene							5100			
Benzo(b)fluoranthene							14000			
Benzo(ghi)perylene										
Benzo(k)fluoranthene							4000			
Chrysene							16000			
Dibenzo(a,h)anthracene										
Fluorene										
Indeno(1,2,3-cd)pyrene							< 4000			
Naphthalene							< 4000			
Phenanthrene							9400			
Pyrene							38000			



Sample ID	TP-22	TP-22
Sample Date	05/03/1993	05/03/1993
Sample Depth (feet bgs)	0.5	6
Metals (mg/kg)		
Aluminum		
Antimony		
Arsenic	36.7	3.4
Barium		
Beryllium		
Cadmium		
Calcium		
Chromium	36.7	9.6
Cobalt		
Copper	48.2	8.1
Iron		
Lead		
Magnesium		
Manganese		
Mercury		
Nickel		
Potassium		
Selenium		
Silver		
Sodium		
Thallium		
Vanadium		
Zinc		
Dioxins and Furans (ng/kg)		_
1,2,3,4,6,7,8-HpCDD		
1,2,3,4,6,7,8-HpCDF		
1,2,3,4,7,8,9-HpCDF		
1,2,3,4,7,8-HxCDD		
1,2,3,4,7,8-HxCDF		
1,2,3,6,7,8-HxCDD		
1,2,3,6,7,8-HxCDF		
1,2,3,7,8,9-HxCDD		
1,2,3,7,8,9-HxCDF		
1,2,3,7,8-PeCDD		
1,2,3,7,8-PeCDF		
2,3,4,6,7,8-HxCDF		
2,3,4,7,8-PeCDF		
2,3,7,8-TCDD		
2,3,7,8-TCDF		
OCDD		
OCDF		



Sample ID	TP-22	TP-22
Sample Date	05/03/1993	05/03/1993
Sample Depth (feet bgs)	0.5	6
Total HpCDDs		
Total HpCDFs		
Total HxCDDs		
Total HxCDFs		
Total PeCDDs		
Total PeCDFs		
Total TCDDs		
Total TCDFs		
Petroleum Hydrocarbons (mg/kg)		
Diesel		
Gasoline		
Heavy-Fuel-Oil-Range Hydrocarbons		
Jet fuels		
Kerosene		
Lube-Oil-Range Hydrocarbons		
Mineral spirits		
Naphtha Distillate		
Non-PHC as Diesel		
PHC as Diesel		
TPH		
TPH (as motor oil)(E5030-8015)		
Volatile Organic Compounds (ug/kg)		
1,1,1,2-Tetrachloroethane		
1,1,1-Trichloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
1,1-Dichloroethane		
1,1-Dichloropropene		
1,2,3-Trichlorobenzene		
1,2,3-Trichloropropane		
1,2,4-Trichlorobenzene		
1,2,4-Trimethylbenzene		
1,2-Dibromo-3-chloropropane		
1,2-Dibromoethane		
1,2-Dichlorobenzene		
1,2-Dichloroethane		
1,2-Dichloropropane		
1,3,5-Trimethylbenzene		
1,3-Dichlorobenzene		
1,3-Dichloropropane		
1,4-Dichlorobenzene		
2,2-Dichloropropane		



Sample ID	TP-22	TP-22
Sample Date	05/03/1993	05/03/1993
Sample Depth (feet bgs)	0.5	6
2-Butanone		
2-Chlorotoluene		
2-Hexanone		
4-Chlorotoluene		
4-lsopropyltoluene		
4-Methyl-2-pentanone		
Acetone		
Benzene		
Bromobenzene		
Bromodichloromethane		
Bromoform		
Bromomethane		
Carbon disulfide		
Carbon tetrachloride		
Chlorobenzene		
Chlorobromomethane		
Chloroethane		
Chloroform		
Chloromethane		
cis-1,2-Dichloroethene		
cis-1,3-Dichloropropene		
Dibromochloromethane		
Dibromomethane		
Dichlorodifluoromethane		
Ethylbenzene		
Hexachlorobutadiene		
Isopropylbenzene		
m,p-Xylene		
Methylene chloride		
n-Butylbenzene		
n-Propylbenzene		
o-Xylene		
sec-Butylbenzene		
Styrene		
tert-Butylbenzene		
Tetrachloroethene		
Toluene		
trans-1,2-Dichloroethene		
trans-1,3-Dichloropropene		
Trichloroethene		
Trichlorofluoromethane		
Vinyl chloride		



Sample ID	TP-22	TP-22
Sample Date	05/03/1993	05/03/1993
Sample Depth (feet bgs)	0.5	6
Semivolatile Organic Compounds (ug/kg)		
2-Methylphenol		
3-Methylphenol		
4-Methylphenol		
2,3,4,5-Tetrachlorophenol		
2,3,4,6-Tetrachlorophenol		
2,3,4-Trichlorophenol		
2,3,5,6-Tetrachlorophenol		
2,3,5-Trichlorophenol		
2,3,6-Trichlorophenol		
2,4,5-Trichlorophenol		
2,4,6-Trichlorophenol		
3,4,5-Trichlorophenol		
Bis(2-ethylhexyl)phthalate		
Carbazole	< 1700	
Dibenzofuran	< 1700	
Fluoranthene	< 1700	
Pentachlorophenol	< 8300	
Tetrachlorophenols, Total		
Polycyclic Aromatic Hydrocarbons (ug/kg)		
1-Methylnaphthalene		
2-Methylnaphthalene		
Acenaphthene		
Acenaphthylene		
Anthracene	< 1700	
Benzo(a)anthracene	< 1700	
Benzo(a)pyrene	< 1700	
Benzo(b)fluoranthene	3200	
Benzo(ghi)perylene		
Benzo(k)fluoranthene	< 1700	
Chrysene	1700	
Dibenzo(a,h)anthracene		
Fluorene		
Indeno(1,2,3-cd)pyrene	2000	
Naphthalene	< 1700	
Phenanthrene	< 1700	
Pyrene	< 1700	



## NOTES:

--- = not analyzed. bgs = below ground surface.

mg/kg = milligrams per kilogram.

ng/kg = nanograms per kilogram.

PHC = petroleum hydrocarbons.

TPH = total petroleum hydrocarbons.

ug/kg = micrograms per kilogram.



Sample ID	B-120	B-120	B-120	B-121	B-121	B-121	B-122	B-122	B-122	B-123
Sample Collection Date	06/17/1999	06/17/1999	06/17/1999	06/18/1999	06/18/1999	06/18/1999	09/21/1999	09/21/1999	09/21/1999	09/22/1999
Sample Depth	2.5	5	15	2.5	5	20	2.5	15	20	2.5
Metals (mg/kg)				•		•				
Arsenic							9			
Chromium							13			
Copper							21			
Zinc							67			
Dioxins and Furans (ng/kg)				-		-				
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										
TEQ using WHO 2005										
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)		-	-	-	-	-		-	-	
Diesel	< 10	< 10	< 10	< 10	< 10	< 10	< 10			
Gasoline	< 10	< 10	< 10	< 10	< 10	< 10	< 10			
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	< 25	< 25	< 25			
Jet fuels	< 10	< 10	< 10	< 10	< 10	< 10	< 10			
Kerosene	< 10	< 10	< 10	< 10	< 10	< 10	< 10			
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25	< 25	< 25	< 25	< 25			
Mineral spirits	< 10	< 10	< 10	< 10	< 10	< 10	< 10			

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Sample ID	B-120	B-120	B-120	B-121	B-121	B-121	B-122	B-122	B-122	B-123
Sample Collection Date	06/17/1999	06/17/1999	06/17/1999	06/18/1999	06/18/1999	06/18/1999	09/21/1999	09/21/1999	09/21/1999	09/22/1999
Sample Depth	2.5	5	15	2.5	5	20	2.5	15	20	2.5
Naphtha Distillate	< 10	< 10	< 10	< 10	< 10	< 10	< 10			
Non-PHC as Diesel	< 50	< 50	< 50	< 50	< 50	< 50	< 50			
PHC as Diesel	< 25	< 25	< 25	< 25	< 25	< 25	< 25			
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,2,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										



Sample ID	B-120	B-120	B-120	B-121	B-121	B-121	B-122	B-122	B-122	B-123
Sample Collection Date	06/17/1999	06/17/1999	06/17/1999	06/18/1999	06/18/1999	06/18/1999	09/21/1999	09/21/1999	09/21/1999	09/22/1999
Sample Depth	2.5	5	15	2.5	5	20	2.5	15	20	2.5
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		T	1	1	1	1		1		
2,3,4,5-Tetrachlorophenol							< 50	< 50	< 50	
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol							< 50	< 50	< 50	
2,3,5,6-Tetrachlorophenol							< 50	< 50	< 50	
1-Methylnaphthalene										
2,3,5-Trichlorophenol							< 50	< 50	< 50	
2,3,6-Trichlorophenol							< 50	< 50	< 50	
2,4,5-Trichlorophenol							< 50	< 50	< 50	
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5	< 5	< 5	< 50	< 50	< 50	< 5
2-Methylnaphthalene							< 10	< 10	< 10	
2-Methylphenol										
3,4,5-Trichlorophenol							< 50	< 50	< 50	
3-Methylphenol										


Sample ID	B-120	B-120	B-120	B-121	B-121	B-121	B-122	B-122	B-122	B-123
Sample Collection Date	06/17/1999	06/17/1999	06/17/1999	06/18/1999	06/18/1999	06/18/1999	09/21/1999	09/21/1999	09/21/1999	09/22/1999
Sample Depth	2.5	5	15	2.5	5	20	2.5	15	20	2.5
4-Methylphenol										
Carbazole							< 10	< 10	< 10	
Dibenzofuran							< 10	< 10	< 10	
Pentachlorophenol	9	10	6	< 5	< 5	< 5	< 50	< 10	< 50	
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene							< 10	< 10	< 10	
Acenaphthylene							< 10	< 50	< 10	
Anthracene							< 10	< 10	< 10	
Benzo(a)anthracene							< 10	< 10	< 10	
Benzo(a)pyrene							< 10	< 10	< 10	
Benzo(b)fluoranthene										
Benzo(b)fluoranthene							< 10	< 10	< 10	
Benzo(ghi)perylene							< 10	< 10	< 10	
Benzo(k)fluoranthene							< 10	< 10	< 10	
Chrysene							< 10	< 10	< 10	
Dibenzo(a,h)anthracene							< 10	< 10	< 10	
Fluoranthene							< 10	< 10	< 10	
Fluorene							< 10	< 10	< 10	
Indeno(1,2,3-cd)pyrene							< 10	< 10	< 10	
Naphthalene							< 10	< 10	< 10	
Phenanthrene							< 10	< 50	< 10	
Pyrene							< 10	< 10	< 10	



Sample ID	B-123	B-123	B-123	B-123	B-124	B-124	B-124	B-125	B-125	B-125
Sample Collection Date	09/22/1999	09/22/1999	09/22/1999	09/22/1999	09/23/1999	09/23/1999	09/23/1999	09/24/1999	09/24/1999	09/24/1999
Sample Depth	5	10	15	20	2.5	5	10	2.5	5	10
Metals (mg/kg)			-							
Arsenic					4			5		4
Chromium					15			12		15
Copper					19			17		19
Zinc					61			53		45
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										
TEQ using WHO 2005										
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel					< 10			< 10		< 10
Gasoline					< 10			< 10		< 10
Heavy-Fuel-Oil-Range Hydrocarbons					< 25			< 25		< 25
Jet fuels					< 10			< 10		< 10
Kerosene					< 10			< 10		< 10
Lube-Oil-Range Hydrocarbons					< 25			< 25		< 25
Mineral spirits					< 10			< 10		< 10



Sample ID	B-123	B-123	B-123	B-123	B-124	B-124	B-124	B-125	B-125	B-125
Sample Collection Date	09/22/1999	09/22/1999	09/22/1999	09/22/1999	09/23/1999	09/23/1999	09/23/1999	09/24/1999	09/24/1999	09/24/1999
Sample Depth	5	10	15	20	2.5	5	10	2.5	5	10
Naphtha Distillate					< 10			< 10		< 10
Non-PHC as Diesel					< 50			< 50		< 50
PHC as Diesel					< 25			< 25		< 25
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,2,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										



Sample ID	B-123	B-123	B-123	B-123	B-124	B-124	B-124	B-125	B-125	B-125
Sample Collection Date	09/22/1999	09/22/1999	09/22/1999	09/22/1999	09/23/1999	09/23/1999	09/23/1999	09/24/1999	09/24/1999	09/24/1999
Sample Depth	5	10	15	20	2.5	5	10	2.5	5	10
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)			•	•	•		•		•	•
2,3,4,5-Tetrachlorophenol	< 50				< 50			< 50		< 50
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50				< 50			< 50		< 50
2,3,5,6-Tetrachlorophenol	< 50				< 50			< 50		< 50
1-Methylnaphthalene										
2,3,5-Trichlorophenol	< 50				< 50			< 50		< 50
2,3,6-Trichlorophenol	< 50				< 50			< 50		< 50
2,4,5-Trichlorophenol	< 50				< 50			< 50		< 50
2,4,6-Trichlorophenol	< 50	< 5	< 5	< 5	< 50	< 5	< 5	< 50	< 5	< 50
2-Methylnaphthalene	< 10				< 10			< 10		34
2-Methylphenol										
3,4,5-Trichlorophenol	< 50				< 50			< 50		< 50
3-Methylphenol										



Sample ID	B-123	B-123	B-123	B-123	B-124	B-124	B-124	B-125	B-125	B-125
Sample Collection Date	09/22/1999	09/22/1999	09/22/1999	09/22/1999	09/23/1999	09/23/1999	09/23/1999	09/24/1999	09/24/1999	09/24/1999
Sample Depth	5	10	15	20	2.5	5	10	2.5	5	10
4-Methylphenol										
Carbazole	< 10				< 10			< 10		< 10
Dibenzofuran	< 10				< 10			< 10		11
Pentachlorophenol	< 50	< 5	< 5	< 5	< 50	< 5	< 5	340	< 5	< 50
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	20	< 5	< 5	< 50	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene	< 10				< 10			< 10		18
Acenaphthylene	< 10				< 10			< 50		< 50
Anthracene	< 10				< 10			< 10		< 10
Benzo(a)anthracene	< 10				12			< 10		< 10
Benzo(a)pyrene	< 10				< 10			< 10		< 10
Benzo(b)fluoranthene										
Benzo(b)fluoranthene	< 10				16			< 10		< 10
Benzo(ghi)perylene	< 10				< 10			< 10		< 10
Benzo(k)fluoranthene	< 10				17			< 10		< 10
Chrysene	< 10				24			< 10		< 10
Dibenzo(a,h)anthracene	< 10				< 10			< 10		< 10
Fluoranthene	< 10				73			< 10		< 10
Fluorene	< 10				< 10			< 10		10
Indeno(1,2,3-cd)pyrene	< 10				< 10			< 10		< 10
Naphthalene	< 10				< 10			< 10		40
Phenanthrene	< 10				< 10			< 10		21
Pyrene	< 10				62			< 10		< 10



Sample ID	B-125	B-125	B-126	B-126	B-126	B-126	B-127	B-127	B-127	B-127
Sample Collection Date	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/27/1999	09/27/1999	09/27/1999	09/27/1999
Sample Depth	15	20	5	10	15	20	2.5	5	10	15
Metals (mg/kg)	•									
Arsenic	2	3	3							
Chromium	13	13	12							
Copper	26	22	14							
Zinc	43	36	47							
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										
TEQ using WHO 2005										
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)	r	ī	T	1	1	1	T	r	r	<b></b>
Diesel	< 10	< 10	< 10				< 10		< 10	
Gasoline	< 10	< 10	< 10				< 10		< 10	
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25				< 25		< 25	
Jet fuels	< 10	< 10	< 10				< 10		< 10	
Kerosene	< 10	< 10	< 10				< 10		< 10	
Lube-Oil-Range Hydrocarbons	< 25	< 25	< 25				< 25		< 25	
Mineral spirits	< 10	< 10	< 10				< 10		< 10	

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Sample ID	B-125	B-125	B-126	B-126	B-126	B-126	B-127	B-127	B-127	B-127
Sample Collection Date	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/27/1999	09/27/1999	09/27/1999	09/27/1999
Sample Depth	15	20	5	10	15	20	2.5	5	10	15
Naphtha Distillate	< 10	< 10	< 10				< 10		< 10	
Non-PHC as Diesel	< 50	< 50	< 50				< 50		< 50	
PHC as Diesel	< 25	< 25	< 25				< 25		< 25	
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane							< 5			
1,1,2,2-Tetrachloroethane							< 5			
1,1,1-Trichloroethane							< 5			
1,1,2-Trichloroethane							< 5			
1,1-Dichloroethane							< 5			
1,1-Dichloropropene							< 5			
1,2,3-Trichlorobenzene							< 20			
1,2,3-Trichloropropane							< 5			
1,2,4-Trichlorobenzene							< 20			
1,2,4-Trimethylbenzene							< 20			
1,2-Dibromo-3-chloropropane							< 20			
1,2-Dibromoethane							< 20			
1,2-Dichlorobenzene							< 5			
1,2-Dichloroethane							< 5			
1,2-Dichloropropane							< 5			
1,3,5-Trimethylbenzene							< 20			
1,3-Dichlorobenzene							< 5			
1,3-Dichloropropane							< 5			
1,4-Dichlorobenzene							< 5			
2,2-Dichloropropane							< 5			
2-Butanone							< 20			
2-Chlorotoluene							< 20			
2-Hexanone							< 20			
4-Chlorotoluene							< 20			
4-Isopropyltoluene							< 20			
4-Methyl-2-pentanone							< 20			
Acetone							< 50			
Benzene							< 5			
Bromobenzene							< 5			
Bromodichloromethane							< 5			
Bromoform							< 5			
Bromomethane							< 5			
Carbon disulfide							< 5			
Carbon tetrachloride							< 5			
Chlorobenzene							< 5			
Chlorobromomethane							< 5			



Sample ID	B-125	B-125	B-126	B-126	B-126	B-126	B-127	B-127	B-127	B-127
Sample Collection Date	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/27/1999	09/27/1999	09/27/1999	09/27/1999
Sample Depth	15	20	5	10	15	20	2.5	5	10	15
Chloroethane							< 5			
Chloroform							< 5			
Chloromethane							< 5			
cis-1,2-Dichloroethene							< 5			
cis-1,3-Dichloropropene							< 5			
Dibromochloromethane							< 5			
Dibromomethane							< 5			
Dichlorodifluoromethane							< 5			
Ethylbenzene							< 5			
Hexachlorobutadiene							< 20			
Isopropylbenzene							< 20			
m,p-Xylene							< 5			
Methylene chloride							< 10			
n-Butylbenzene							< 20			
n-Propylbenzene							< 20			
o-Xylene							< 5			
sec-Butylbenzene							< 20			
Styrene							< 5			
tert-Butylbenzene							< 20			
Tetrachloroethene							< 5			
Toluene							< 5			
trans-1,2-Dichloroethene							< 5			
trans-1,3-Dichloropropene							< 5			
Trichloroethene							< 5			
Trichlorofluoromethane							< 5			
Vinyl chloride							< 5			
Semivolatile Organic Compounds (ug/kg)	1	1		1	1	1	1	1	1	<del>.</del>
2,3,4,5-Tetrachlorophenol	< 50	< 50	< 50							
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol	< 50	< 50	< 50							
2,3,5,6-Tetrachlorophenol	< 50	< 50	< 50							
1-Methylnaphthalene										
2,3,5-Trichlorophenol	< 50	< 50	< 50							
2,3,6-Trichlorophenol	< 50	< 50	< 50							
2,4,5-Trichlorophenol	< 50	< 50	< 50							
2,4,6-Trichlorophenol	< 50	< 50	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Methylnaphthalene	< 10	< 10	< 10							
2-Methylphenol										
3,4,5-Trichlorophenol	< 50	< 50	< 50							
3-Methylphenol										



Sample ID	B-125	B-125	B-126	B-126	B-126	B-126	B-127	B-127	B-127	B-127
Sample Collection Date	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/24/1999	09/27/1999	09/27/1999	09/27/1999	09/27/1999
Sample Depth	15	20	5	10	15	20	2.5	5	10	15
4-Methylphenol										
Carbazole	< 10	< 10	12							
Dibenzofuran	< 10	< 10	< 10							
Pentachlorophenol	< 50	< 50	250	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachlorophenols, Total	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene	< 10	< 10	< 10							
Acenaphthylene	< 50	< 50	< 50							
Anthracene	< 10	< 10	16							
Benzo(a)anthracene	< 10	14	180							
Benzo(a)pyrene	< 10	< 10	120							
Benzo(b)fluoranthene										
Benzo(b)fluoranthene	< 10	16	200							
Benzo(ghi)perylene	< 10	< 10	56							
Benzo(k)fluoranthene	< 10	16	200							
Chrysene	< 10	17	290							
Dibenzo(a,h)anthracene	< 10	< 10	17							
Fluoranthene	< 10	18	380							
Fluorene	< 10	< 10	< 10							
Indeno(1,2,3-cd)pyrene	< 10	< 10	73							
Naphthalene	< 10	21	< 10				< 20			
Phenanthrene	23	< 10	24							
Pyrene	< 10	27	880							



Sample ID	B-127	B-128	B-128	B-128	B-129	B-129	B-129	B-130	B-130	B-130
Sample Collection Date	09/27/1999	09/27/1999	09/27/1999	09/27/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999
Sample Depth	20	5	10	20	2.5	5	20	2.5	5	15
Metals (mg/kg)										
Arsenic					4					
Chromium					14					
Copper					24					
Zinc					47					
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										
TEQ using WHO 2005										
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10		< 10	< 10	< 10	< 10	< 10	< 10		
Gasoline	< 10		< 10	< 10	< 10	< 10	< 10	< 10		
Heavy-Fuel-Oil-Range Hydrocarbons	< 25		< 25	< 25	< 25	< 25	< 25	< 25		
Jet fuels	< 10		< 10	< 10	< 10	< 10	< 10	< 10		
Kerosene	< 10		< 10	< 10	< 10	< 10	< 10	< 10		
Lube-Oil-Range Hydrocarbons	< 25		< 25	< 25	180	< 25	< 25	< 25		
Mineral spirits	< 10		< 10	< 10	< 10	< 10	< 10	< 10		

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Sample ID	B-127	B-128	B-128	B-128	B-129	B-129	B-129	B-130	B-130	B-130
Sample Collection Date	09/27/1999	09/27/1999	09/27/1999	09/27/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999
Sample Depth	20	5	10	20	2.5	5	20	2.5	5	15
Naphtha Distillate	< 10		< 10	< 10	< 10	< 10	< 10	< 10		
Non-PHC as Diesel	< 50		< 50	< 50	< 50	< 50	< 50	< 50		
PHC as Diesel	< 25		< 25	< 25	< 25	< 25	< 25	< 25		
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane		< 5	< 5							
1,1,2,2-Tetrachloroethane		< 5	< 5							
1,1,1-Trichloroethane		< 5	< 5							
1,1,2-Trichloroethane		< 5	< 5							
1,1-Dichloroethane		< 5	< 5							
1,1-Dichloropropene		< 5	< 5							
1,2,3-Trichlorobenzene		< 20	< 20							
1,2,3-Trichloropropane		< 5	< 5							
1,2,4-Trichlorobenzene		< 20	< 20							
1,2,4-Trimethylbenzene		< 20	< 20							
1,2-Dibromo-3-chloropropane		< 20	< 20							
1,2-Dibromoethane		< 20	< 20							
1,2-Dichlorobenzene		< 5	< 5							
1,2-Dichloroethane		< 5	< 5							
1,2-Dichloropropane		< 5	< 5							
1,3,5-Trimethylbenzene		< 20	< 20							
1,3-Dichlorobenzene		< 5	< 5							
1,3-Dichloropropane		< 5	< 5							
1,4-Dichlorobenzene		< 5	< 5							
2,2-Dichloropropane		< 5	< 5							
2-Butanone		< 20	< 20							
2-Chlorotoluene		< 20	< 20							
2-Hexanone		< 20	< 20							
4-Chlorotoluene		< 20	< 20							
4-Isopropyltoluene		< 20	< 20							
4-Methyl-2-pentanone		< 20	< 20							
Acetone		< 50	< 50							
Benzene		< 5	< 5							
Bromobenzene		< 5	< 5							
Bromodichloromethane		< 5	< 5							
Bromoform		< 5	< 5							
Bromomethane		< 5	< 5							
Carbon disulfide		< 5	< 5							
Carbon tetrachloride		< 5	< 5							
Chlorobenzene		< 5	< 5							
Chlorobromomethane		< 5	< 5							



Sample ID	B-127	B-128	B-128	B-128	B-129	B-129	B-129	B-130	B-130	B-130
Sample Collection Date	09/27/1999	09/27/1999	09/27/1999	09/27/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999
Sample Depth	20	5	10	20	2.5	5	20	2.5	5	15
Chloroethane		< 5	< 5							
Chloroform		< 5	< 5							
Chloromethane		< 5	< 5							
cis-1,2-Dichloroethene		< 5	< 5							
cis-1,3-Dichloropropene		< 5	< 5							
Dibromochloromethane		< 5	< 5							
Dibromomethane		< 5	< 5							
Dichlorodifluoromethane		< 5	< 5							
Ethylbenzene		< 5	< 5							
Hexachlorobutadiene		< 20	< 20							
Isopropylbenzene		< 20	< 20							
m,p-Xylene		< 5	< 5							
Methylene chloride		< 10	< 10							
n-Butylbenzene		< 20	< 20							
n-Propylbenzene		< 20	< 20							
o-Xylene		< 5	< 5							
sec-Butylbenzene		< 20	< 20							
Styrene		< 5	< 5							
tert-Butylbenzene		< 20	< 20							
Tetrachloroethene		< 5	< 5							
Toluene		< 5	< 5							
trans-1,2-Dichloroethene		< 5	< 5							
trans-1,3-Dichloropropene		< 5	< 5							
Trichloroethene		< 5	< 5							
Trichlorofluoromethane		< 5	< 5							
Vinyl chloride		< 5	< 5							
Semivolatile Organic Compounds (ug/kg)		•	•	•		•	•	•	•	<u></u>
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
1-Methylnaphthalene										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Methylnaphthalene					< 5					
2-Methylphenol										
3,4,5-Trichlorophenol										
3-Methylphenol										



Sample ID	B-127	B-128	B-128	B-128	B-129	B-129	B-129	B-130	B-130	B-130
Sample Collection Date	09/27/1999	09/27/1999	09/27/1999	09/27/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999	09/28/1999
Sample Depth	20	5	10	20	2.5	5	20	2.5	5	15
4-Methylphenol										
Carbazole										
Dibenzofuran					< 5					
Pentachlorophenol	< 5	< 5	< 5	< 5	34	< 5	< 5	< 5	< 5	< 5
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene					< 5					
Acenaphthylene					56					
Anthracene					160					
Benzo(a)anthracene					120					
Benzo(a)pyrene					110					
Benzo(b)fluoranthene										
Benzo(b)fluoranthene					280					
Benzo(ghi)perylene					160					
Benzo(k)fluoranthene					290					
Chrysene					510					
Dibenzo(a,h)anthracene					19					
Fluoranthene					430					
Fluorene					< 5					
Indeno(1,2,3-cd)pyrene					150					
Naphthalene		< 20	< 20		< 5					
Phenanthrene					29					
Pyrene					370					



Sample ID	B-131	B-131	B-131	B-132	B-132	B-132	B-132	B-133	B-133	B-133
Sample Collection Date	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999
Sample Depth	2.5	5	20	2.5	5	15	20	2.5	10	20
Metals (mg/kg)			•							
Arsenic	9			3				2		
Chromium	14			20				18		
Copper	22			19				14		
Zinc	54			36				37		
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										
TEQ using WHO 2005										
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10			< 10	< 10			< 10	< 10	
Gasoline	< 10			< 10	< 10			< 10	< 10	
Heavy-Fuel-Oil-Range Hydrocarbons	< 25			< 25	< 25			< 25	< 25	
Jet fuels	< 10			< 10	< 10			< 10	< 10	
Kerosene	< 10			< 10	< 10			< 10	< 10	
Lube-Oil-Range Hydrocarbons	< 25			< 25	< 25			< 25	< 25	
Mineral spirits	< 10			< 10	< 10			< 10	< 10	

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Sample ID	B-131	B-131	B-131	B-132	B-132	B-132	B-132	B-133	B-133	B-133
Sample Collection Date	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999
Sample Depth	2.5	5	20	2.5	5	15	20	2.5	10	20
Naphtha Distillate	< 10			< 10	< 10			< 10	< 10	
Non-PHC as Diesel	< 50			< 50	< 50			< 50	< 50	
PHC as Diesel	< 25			< 25	< 25			< 25	< 25	
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane					< 5	< 5			< 5	< 5
1,1,2,2-Tetrachloroethane					< 5	< 5			< 5	< 5
1,1,1-Trichloroethane					< 5	< 5			< 5	< 5
1,1,2-Trichloroethane					< 5	< 5			< 5	< 5
1,1-Dichloroethane					< 5	< 5			< 5	< 5
1,1-Dichloropropene					< 5	< 5			< 5	< 5
1,2,3-Trichlorobenzene					< 20	< 20			< 20	< 20
1,2,3-Trichloropropane					< 5	< 5			< 5	< 5
1,2,4-Trichlorobenzene					< 20	< 20			< 20	< 20
1,2,4-Trimethylbenzene					< 20	< 20			< 20	< 20
1,2-Dibromo-3-chloropropane					< 20	< 20			< 20	< 20
1,2-Dibromoethane					< 20	< 20			< 20	< 20
1,2-Dichlorobenzene					< 5	< 5			< 5	< 5
1,2-Dichloroethane					< 5	< 5			< 5	< 5
1,2-Dichloropropane					< 5	< 5			< 5	< 5
1,3,5-Trimethylbenzene					< 20	< 20			< 20	< 20
1,3-Dichlorobenzene					< 5	< 5			< 5	< 5
1,3-Dichloropropane					< 5	< 5			< 5	< 5
1,4-Dichlorobenzene					< 5	< 5			< 5	< 5
2,2-Dichloropropane					< 5	< 5			< 5	< 5
2-Butanone					< 20	< 20			< 20	< 20
2-Chlorotoluene					< 20	< 20			< 20	< 20
2-Hexanone					< 20	< 20			< 20	< 20
4-Chlorotoluene					< 20	< 20			< 20	< 20
4-Isopropyltoluene					< 20	< 20			< 20	< 20
4-Methyl-2-pentanone					< 20	< 20			< 20	< 20
Acetone					< 50	< 50			< 50	< 50
Benzene					< 5	< 5			< 5	< 5
Bromobenzene					< 5	< 5			< 5	< 5
Bromodichloromethane					< 5	< 5			< 5	< 5
Bromoform					< 5	< 5			< 5	< 5
Bromomethane					< 5	< 5			< 5	< 5
Carbon disulfide					< 5	< 5			< 5	< 5
Carbon tetrachloride					< 5	< 5			< 5	< 5
Chlorobenzene					< 5	< 5			< 5	< 5
Chlorobromomethane					< 5	< 5			< 5	< 5



Sample ID	B-131	B-131	B-131	B-132	B-132	B-132	B-132	B-133	B-133	B-133
Sample Collection Date	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999
Sample Depth	2.5	5	20	2.5	5	15	20	2.5	10	20
Chloroethane					< 5	< 5			< 5	< 5
Chloroform					< 5	< 5			< 5	< 5
Chloromethane					< 5	< 5			< 5	< 5
cis-1,2-Dichloroethene					< 5	< 5			< 5	< 5
cis-1,3-Dichloropropene					< 5	< 5			< 5	< 5
Dibromochloromethane					< 5	< 5			< 5	< 5
Dibromomethane					< 5	< 5			< 5	< 5
Dichlorodifluoromethane					< 5	< 5			< 5	< 5
Ethylbenzene					< 5	< 5			< 5	< 5
Hexachlorobutadiene					< 20	< 20			< 20	< 20
Isopropylbenzene					< 20	< 20			< 20	< 20
m,p-Xylene					< 5	< 5			< 5	< 5
Methylene chloride					< 10	< 10			< 10	< 10
n-Butylbenzene					< 20	< 20			< 20	< 20
n-Propylbenzene					< 20	< 20			< 20	< 20
o-Xylene					< 5	< 5			< 5	< 5
sec-Butylbenzene					< 20	< 20			< 20	< 20
Styrene					< 5	< 5			< 5	< 5
tert-Butylbenzene					< 20	< 20			< 20	< 20
Tetrachloroethene					< 5	< 5			< 5	< 5
Toluene					< 5	< 5			< 5	< 5
trans-1,2-Dichloroethene					< 5	< 5			< 5	< 5
trans-1,3-Dichloropropene					< 5	< 5			< 5	< 5
Trichloroethene					< 5	< 5			< 5	< 5
Trichlorofluoromethane					< 5	< 5			< 5	< 5
Vinyl chloride					< 5	< 5			< 5	< 5
Semivolatile Organic Compounds (ug/kg)		1		1		1	1	1	1	1
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
1-Methylnaphthalene										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5	< 5	< 5	< 5	< 5		< 5	< 5	< 5	< 5
2-Methylnaphthalene	< 5			< 5				< 5		
2-Methylphenol										
3,4,5-Trichlorophenol										
3-Methylphenol										



Sample ID	B-131	B-131	B-131	B-132	B-132	B-132	B-132	B-133	B-133	B-133
Sample Collection Date	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999	09/29/1999
Sample Depth	2.5	5	20	2.5	5	15	20	2.5	10	20
4-Methylphenol										
Carbazole										
Dibenzofuran	< 5			< 5				< 5		
Pentachlorophenol	18	< 5	< 5	5.3	< 5		< 5	5.1	< 5	< 5
Tetrachlorophenols, Total	< 5	< 5	< 5	< 5	< 5		< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene	< 5			< 5				< 5		
Acenaphthylene	< 5			< 5				< 5		
Anthracene	< 5			< 5				6		
Benzo(a)anthracene	< 5			6				8		
Benzo(a)pyrene	< 5			7				5		
Benzo(b)fluoranthene										
Benzo(b)fluoranthene	9			9				18		
Benzo(ghi)perylene	< 5			8				6		
Benzo(k)fluoranthene	8			10				18		
Chrysene	8			10				20		
Dibenzo(a,h)anthracene	< 5			< 5				< 5		
Fluoranthene	< 5			12				28		
Fluorene	< 5			< 5				< 5		
Indeno(1,2,3-cd)pyrene	< 5			7				7		
Naphthalene	< 5			< 5	< 20	< 20		< 5	< 20	< 20
Phenanthrene	< 5			6				12		
Pyrene	< 5			9				24		



Sample ID	B-134	B-134	B-134	B-135	B-135	B-135	B-135	B-136	B-136	B-136
Sample Collection Date	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999
Sample Depth	3	10	20	2.5	5	10	20	2.5	5	10
Metals (mg/kg)					-					
Arsenic	2	10	3							
Chromium	17	26	19							
Copper	23	18	27							
Zinc	55	59	48							
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										
TEQ using WHO 2005										
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)										
Diesel	< 10	< 10	< 10							
Gasoline	< 10	< 10	< 10							
Heavy-Fuel-Oil-Range Hydrocarbons	< 25	< 25	< 25							
Jet fuels	< 10	< 10	< 10							
Kerosene	< 10	< 10	< 10							
Lube-Oil-Range Hydrocarbons	< 25	64	< 25							
Mineral spirits	< 10	< 10	< 10							

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Sample ID	B-134	B-134	B-134	B-135	B-135	B-135	B-135	B-136	B-136	B-136
Sample Collection Date	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999
Sample Depth	3	10	20	2.5	5	10	20	2.5	5	10
Naphtha Distillate	< 10	< 10	< 10							
Non-PHC as Diesel	< 50	< 50	< 50							
PHC as Diesel	89	70	< 25							
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,1,1-Trichloroethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,1,2-Trichloroethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,1-Dichloroethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,1-Dichloropropene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,2,3-Trichlorobenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
1,2,3-Trichloropropane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,2,4-Trichlorobenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
1,2,4-Trimethylbenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
1,2-Dibromo-3-chloropropane	< 20	< 20		< 20	< 20			< 20	< 20	< 20
1,2-Dibromoethane	< 20	< 20		< 20	< 20			< 20	< 20	< 20
1,2-Dichlorobenzene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,2-Dichloroethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,2-Dichloropropane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,3,5-Trimethylbenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
1,3-Dichlorobenzene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,3-Dichloropropane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
1,4-Dichlorobenzene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
2,2-Dichloropropane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
2-Butanone	< 20	< 20		< 20	< 20			< 20	< 20	< 20
2-Chlorotoluene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
2-Hexanone	< 20	< 20		< 20	< 20			< 20	< 20	< 20
4-Chlorotoluene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
4-Isopropyltoluene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
4-Methyl-2-pentanone	< 20	< 20		< 20	< 20			< 20	< 20	< 20
Acetone	< 50	< 50		< 50	< 50			< 50	< 50	< 50
Benzene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Bromobenzene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Bromodichloromethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Bromoform	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Bromomethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Carbon disulfide	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Carbon tetrachloride	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Chlorobenzene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Chlorobromomethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5



Sample ID	B-134	B-134	B-134	B-135	B-135	B-135	B-135	B-136	B-136	B-136
Sample Collection Date	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999
Sample Depth	3	10	20	2.5	5	10	20	2.5	5	10
Chloroethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Chloroform	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Chloromethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
cis-1,2-Dichloroethene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
cis-1,3-Dichloropropene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Dibromochloromethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Dibromomethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Dichlorodifluoromethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Ethylbenzene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Hexachlorobutadiene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
Isopropylbenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
m,p-Xylene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Methylene chloride	< 10	< 10		< 10	< 10			< 10	< 10	< 10
n-Butylbenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
n-Propylbenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
o-Xylene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
sec-Butylbenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
Styrene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
tert-Butylbenzene	< 20	< 20		< 20	< 20			< 20	< 20	< 20
Tetrachloroethene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Toluene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
trans-1,2-Dichloroethene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
trans-1,3-Dichloropropene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Trichloroethene	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Trichlorofluoromethane	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Vinyl chloride	< 5	< 5		< 5	< 5			< 5	< 5	< 5
Semivolatile Organic Compounds (ug/kg)							•	•	•	
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
1-Methylnaphthalene										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol		< 50	< 5	< 5		< 5	< 5			
2-Methylnaphthalene	41	32	11							
2-Methylphenol										
3,4,5-Trichlorophenol										
3-Methylphenol										



Sample ID	B-134	B-134	B-134	B-135	B-135	B-135	B-135	B-136	B-136	B-136
Sample Collection Date	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999	09/30/1999
Sample Depth	3	10	20	2.5	5	10	20	2.5	5	10
4-Methylphenol										
Carbazole										
Dibenzofuran	93	300	20							
Pentachlorophenol		470	130	< 5		< 5	< 5			
Tetrachlorophenols, Total		< 50	7.4	< 5		< 5	< 5			
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene	120	660	33							
Acenaphthylene	11	6	< 5							
Anthracene	140	68	16							
Benzo(a)anthracene	280	54	20							
Benzo(a)pyrene	120	17	6							
Benzo(b)fluoranthene										
Benzo(b)fluoranthene	200	33	13							
Benzo(ghi)perylene	64	11	< 5							
Benzo(k)fluoranthene	220	39	16							
Chrysene	440	85	41							
Dibenzo(a,h)anthracene	14	< 5	< 5							
Fluoranthene	1700	440	240							
Fluorene	170	260	26							
Indeno(1,2,3-cd)pyrene	77	12	< 5							
Naphthalene	60	140	39	< 20	< 20			< 20	< 20	< 20
Phenanthrene	820	150	85							
Pyrene	1100	300	150							



Sample ID	B-136	B-136	B-136	B-137	B-137	B-137	B-138	B-138	B-138	B-211
Sample Collection Date	10/01/1999	10/01/1999	10/01/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	11/02/1999
Sample Depth	0	15	20	2.5	5	20	2.5	5	20	2.5
Metals (mg/kg)										
Arsenic										
Chromium										
Copper										
Zinc										
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD										
1,2,3,4,6,7,8-HpCDF										
1,2,3,4,7,8,9-HpCDF										
1,2,3,4,7,8-HxCDD										
1,2,3,4,7,8-HxCDF										
1,2,3,6,7,8-HxCDD										
1,2,3,6,7,8-HxCDF										
1,2,3,7,8,9-HxCDD										
1,2,3,7,8,9-HxCDF										
1,2,3,7,8-PeCDD										
1,2,3,7,8-PeCDF										
2,3,4,6,7,8-HxCDF										
2,3,4,7,8-PeCDF										
2,3,7,8-TCDD										
2,3,7,8-TCDF										
OCDD										
OCDF										
TEQ using WHO 2005										
Total HpCDDs										
Total HpCDFs										
Total HxCDDs										
Total HxCDFs										
Total PeCDDs										
Total PeCDFs										
Total TCDDs										
Total TCDFs										
Petroleum Hydrocarbons (mg/kg)		-	-	-		-		-	-	
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										



Sample ID	B-136	B-136	B-136	B-137	B-137	B-137	B-138	B-138	B-138	B-211
Sample Collection Date	10/01/1999	10/01/1999	10/01/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	11/02/1999
Sample Depth	0	15	20	2.5	5	20	2.5	5	20	2.5
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,1,1-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,1-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,1-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,2,3-Trichlorobenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
1,2,3-Trichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,2,4-Trichlorobenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
1,2,4-Trimethylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
1,2-Dibromo-3-chloropropane		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
1,2-Dibromoethane		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
1,2-Dichlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,3,5-Trimethylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
1,3-Dichlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,3-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
1,4-Dichlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
2,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
2-Butanone		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
2-Chlorotoluene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
2-Hexanone		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
4-Chlorotoluene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
4-Isopropyltoluene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
4-Methyl-2-pentanone		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
Acetone		< 50	< 50	< 50	< 50	< 50	84	150	< 50	
Benzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Bromobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Carbon disulfide		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chlorobromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	

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Sample ID	B-136	B-136	B-136	B-137	B-137	B-137	B-138	B-138	B-138	B-211
Sample Collection Date	10/01/1999	10/01/1999	10/01/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	11/02/1999
Sample Depth	0	15	20	2.5	5	20	2.5	5	20	2.5
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloroform		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
cis-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
cis-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Dibromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Dichlorodifluoromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Hexachlorobutadiene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
Isopropylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
m,p-Xylene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Methylene chloride		< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
n-Butylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
n-Propylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
o-Xylene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
sec-Butylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
Styrene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
tert-Butylbenzene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
Tetrachloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Toluene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
trans-1,2-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
trans-1,3-Dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Trichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Trichlorofluoromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Vinyl chloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Semivolatile Organic Compounds (ug/kg)										
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
1-Methylnaphthalene										
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol										
2,4,6-Trichlorophenol	< 5			< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Methylnaphthalene										
2-Methylphenol										
3,4,5-Trichlorophenol										
3-Methylphenol										



Sample ID	B-136	B-136	B-136	B-137	B-137	B-137	B-138	B-138	B-138	B-211
Sample Collection Date	10/01/1999	10/01/1999	10/01/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	10/04/1999	11/02/1999
Sample Depth	0	15	20	2.5	5	20	2.5	5	20	2.5
4-Methylphenol										
Carbazole										
Dibenzofuran										
Pentachlorophenol	< 5			< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachlorophenols, Total	< 5			< 5	< 5	< 5	< 5	< 5	< 5	< 5
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene										
Acenaphthylene										
Anthracene										
Benzo(a)anthracene										
Benzo(a)pyrene										
Benzo(b)fluoranthene										
Benzo(b)fluoranthene										
Benzo(ghi)perylene										
Benzo(k)fluoranthene										
Chrysene										
Dibenzo(a,h)anthracene										
Fluoranthene										
Fluorene										
Indeno(1,2,3-cd)pyrene										
Naphthalene		< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20	
Phenanthrene										
Pyrene										



Sample ID	B-211	B-211	B-211	B-309	B-310	NPY-01	NPY-02	SS-20	SS-21	SS-21
Sample Collection Date	11/02/1999	11/02/1999	11/02/1999	02/26/2009	02/27/2009	02/06/1991	02/06/1991	02/18/2009	02/18/2009	02/18/2009
Sample Depth	5	10	20	5	5	0	0	0.5	0.5	1.5
Metals (mg/kg)							1			
Arsenic			2					2.4	2.54	
Chromium			9					16.2	8.59	
Copper			24					14.8	13.8	
Zinc			40					49.4	40.8	
Dioxins and Furans (ng/kg)										•
1,2,3,4,6,7,8-HpCDD				4000	3100			38000000	5300	3000
1,2,3,4,6,7,8-HpCDF				280	170			4600000	800	300
1,2,3,4,7,8,9-HpCDF				19	13			< 840000	58	18
1,2,3,4,7,8-HxCDD				21	16			< 840000	29	11
1,2,3,4,7,8-HxCDF				65	38			850000	49	43
1,2,3,6,7,8-HxCDD				230	170			1800000	260	150
1,2,3,6,7,8-HxCDF				< 28	< 18			< 840000	46	23
1,2,3,7,8,9-HxCDD				65	38			< 840000	67	27
1,2,3,7,8,9-HxCDF				23	15			< 840000	23	16
1,2,3,7,8-PeCDD				6.8	4.7			< 840000	11	3.7
1,2,3,7,8-PeCDF				17	12			< 840000	14	14
2,3,4,6,7,8-HxCDF				34	26			< 840000	43	25
2,3,4,7,8-PeCDF				33	22			< 840000	27	27
2,3,7,8-TCDD				0.72	< 0.21			< 170000	0.62	< 0.19
2,3,7,8-TCDF				6.5	5.7			< 170000	5.2	6.1
OCDD				42000	42000			32000000	46000	27000
OCDF				410	210			9200000	3700	330
TEQ using WHO 2005				120	88			1700000	150	84
Total HpCDDs				7800	5600			68000000	9700	5600
Total HpCDFs				960	630			13000000	3000	1000
Total HxCDDs				930	520			6200000	1000	520
Total HxCDFs				920	720			14000000	1500	870
Total PeCDDs				27	4.7			< 840000	65	6.3
Total PeCDFs				280	200			3400000	370	240
Total TCDDs				2.7	< 0.21			< 170000	23	0.42
Total TCDFs				26	14			< 170000	25	24
Petroleum Hydrocarbons (mg/kg)		-				-		-		
Diesel			< 10							
Gasoline			< 10							
Heavy-Fuel-Oil-Range Hydrocarbons			< 25							
Jet fuels			< 10							
Kerosene			< 10							
Lube-Oil-Range Hydrocarbons			< 25							
Mineral spirits			< 10							

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Sample ID	B-211	B-211	B-211	B-309	B-310	NPY-01	NPY-02	SS-20	SS-21	SS-21
Sample Collection Date	11/02/1999	11/02/1999	11/02/1999	02/26/2009	02/27/2009	02/06/1991	02/06/1991	02/18/2009	02/18/2009	02/18/2009
Sample Depth	5	10	20	5	5	0	0	0.5	0.5	1.5
Naphtha Distillate			< 10							
Non-PHC as Diesel			< 50							
PHC as Diesel			< 25							
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,2,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										



Sample ID	B-211	B-211	B-211	B-309	B-310	NPY-01	NPY-02	SS-20	SS-21	SS-21
Sample Collection Date	11/02/1999	11/02/1999	11/02/1999	02/26/2009	02/27/2009	02/06/1991	02/06/1991	02/18/2009	02/18/2009	02/18/2009
Sample Depth	5	10	20	5	5	0	0	0.5	0.5	1.5
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		1	1	1	1	1	1	1		r
2,3,4,5-Tetrachlorophenol			< 50							
2,3,4,6-Tetrachlorophenol										
2,3,4-Trichlorophenol			< 50							
2,3,5,6-Tetrachlorophenol			< 50							
1-Methylnaphthalene										
2,3,5-Trichlorophenol			< 50							
2,3,6-Trichlorophenol			< 50							
2,4,5-Trichlorophenol			< 50							
2,4,6-Trichlorophenol	< 5	< 5	< 50							
2-Methylnaphthalene			< 10							
2-Methylphenol						< 2500	< 2500			
3,4,5-Trichlorophenol			< 50							
3-Methylphenol						< 2500	< 2500			



Sample ID	B-211	B-211	B-211	B-309	B-310	NPY-01	NPY-02	SS-20	SS-21	SS-21
Sample Collection Date	11/02/1999	11/02/1999	11/02/1999	02/26/2009	02/27/2009	02/06/1991	02/06/1991	02/18/2009	02/18/2009	02/18/2009
Sample Depth	5	10	20	5	5	0	0	0.5	0.5	1.5
4-Methylphenol						< 2500	< 2500			
Carbazole			< 10							
Dibenzofuran			< 10							
Pentachlorophenol	< 5	< 5	< 40			2500	8000		< 365	
Tetrachlorophenols, Total	< 5	< 5	< 5							
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene			< 10					< 7.83	< 7.31	
Acenaphthylene			< 50					< 7.83	< 7.31	
Anthracene			< 10					< 7.83	< 7.31	
Benzo(a)anthracene			< 10					< 15.7	13.1	
Benzo(a)pyrene			< 10					< 15.7	13.9	
Benzo(b)fluoranthene								< 15.7	46.7	
Benzo(b)fluoranthene			< 10							
Benzo(ghi)perylene			< 10					< 15.7	17.5	
Benzo(k)fluoranthene			< 10					< 15.7	19	
Chrysene			< 10					< 15.7	29.2	
Dibenzo(a,h)anthracene			< 10					< 15.7	< 7.31	
Fluoranthene			< 10					< 7.83	40.2	
Fluorene			< 10					< 7.83	< 7.31	
Indeno(1,2,3-cd)pyrene			< 10					< 15.7	16.1	
Naphthalene			< 10					< 7.83	< 7.31	
Phenanthrene			< 10					< 7.83	< 7.31	
Pyrene			< 10					< 15.7	31.4	



Sample ID	SS-22	SS-23	SS-23	SS-24	SS-24	SS-25	SS-25	SS-26	SS-26	SS-27
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009
Sample Depth	0.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
Metals (mg/kg)										
Arsenic	1.51	3.04		6.26		1.58		3.37		7.46
Chromium	7.68	13.8		13.5		6.49		19.6		8.19
Copper	5.1	18.2		15.2		39.1		17.2		11.3
Zinc	17.2	98.8		50.1		41		65.6		34.6
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD	270	2500	110	34000	450	1600	89	2400	14000	2000
1,2,3,4,6,7,8-HpCDF	39	250	16	2500	44	470	12	270	1400	170
1,2,3,4,7,8,9-HpCDF	3.6	16	1	91	2.7	41	< 0.99	19	81	8.2
1,2,3,4,7,8-HxCDD	2.4	18	< 0.96	440	2.9	13	< 0.99	13	75	21
1,2,3,4,7,8-HxCDF	6	25	2.8	170	11	33	1.8	28	200	< 21
1,2,3,6,7,8-HxCDD	12	140	5.6	1900	25	79	4.3	120	940	110
1,2,3,6,7,8-HxCDF	4.3	14	1.2	75	4.2	11	< 1.5	20	100	11
1,2,3,7,8,9-HxCDD	5.2	41	1.3	490	6.1	19	1.5	33	200	32
1,2,3,7,8,9-HxCDF	1.8	11	1.2	130	3.2	15	< 0.99	12	77	9.2
1,2,3,7,8-PeCDD	0.93	6.8	< 0.96	76	1.2	3.3	< 0.99	6.1	28	6
1,2,3,7,8-PeCDF	1.1	7.1	< 0.96	89	2.8	6	< 0.99	8.1	65	7.2
2,3,4,6,7,8-HxCDF	3.5	19	1.5	110	5.2	8.6	1	20	130	14
2,3,4,7,8-PeCDF	2.9	15	2	200	8.1	19	1	15	130	12
2,3,7,8-TCDD	< 0.18	0.41	< 0.26	1.6	< 0.2	0.19	< 0.24	0.52	< 1	< 0.26
2,3,7,8-TCDF	0.32	2.5	< 0.31	53	1.7	2.1	< 0.31	3.5	29	2.5
OCDD	2200	24000	1000	240000	3400	15000	890	20000	120000	18000
OCDF	120	570	18	1900	30	2200	47	290	1000	250
TEQ using WHO 2005	9.3	73	4.2	920	16	54	3.3	70	430	58
Total HpCDDs	510	4600	180	67000	820	2900	210	4400	22000	4100
Total HpCDFs	130	850	44	3000	120	2200	39	970	4500	480
Total HxCDDs	58	580	21	7900	89	310	12	470	3100	470
Total HxCDFs	100	630	42	5900	120	980	19	730	3800	490
Total PeCDDs	3.6	44	1.2	270	2.3	20	< 0.99	22	84	20
Total PeCDFs	29	190	16	2500	54	180	5	200	1700	190
Total TCDDs	0.88	9.8	< 0.26	73	0.79	1.8	< 0.24	4.9	1.8	2.7
Total TCDFs	1.2	13	1.9	99	8.3	9.6	< 0.31	12	180	7.3
Petroleum Hydrocarbons (mg/kg)										
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										



Sample ID	SS-22	SS-23	SS-23	SS-24	SS-24	SS-25	SS-25	SS-26	SS-26	SS-27
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009
Sample Depth	0.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,2,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										



Sample ID	SS-22	SS-23	SS-23	SS-24	SS-24	SS-25	SS-25	SS-26	SS-26	SS-27
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009
Sample Depth	0.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		1			[					
2,3,4,6-letrachlorophenol										
2,3,4-Irichlorophenol										
2,3,5,6-letrachlorophenol										
3-ivietnyipnenoi										



Sample ID	SS-22	SS-23	SS-23	SS-24	SS-24	SS-25	SS-25	SS-26	SS-26	SS-27
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/18/2009
Sample Depth	0.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5	1.5	0.5
4-Methylphenol										
Carbazole										
Dibenzofuran										
Pentachlorophenol	< 404	< 367		1540		< 395		< 394		< 356
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene	< 8.08	< 7.36		< 7.14		< 7.92		< 7.89		< 7.13
Acenaphthylene	< 8.08	< 7.36		8.57		< 7.92		< 7.89		< 7.13
Anthracene	< 8.08	< 7.36		44.3		9.5		< 7.89		8.56
Benzo(a)anthracene	< 16.2	< 7.36		15		26.1		< 7.89		13.5
Benzo(a)pyrene	< 16.2	< 7.36		33.5		29.3		< 7.89		< 14.3
Benzo(b)fluoranthene	< 16.2	11		80.7		72.8		22.9		20
Benzo(b)fluoranthene										
Benzo(ghi)perylene	< 16.2	< 7.36		79.9		24.5		< 7.89		28.5
Benzo(k)fluoranthene	< 16.2	< 7.36		21.4		23		22.1		< 14.3
Chrysene	< 16.2	< 7.36		39.3		58.6		< 7.89		< 7.13
Dibenzo(a,h)anthracene	< 16.2	< 7.36		32.8		11.9		< 7.89		15.7
Fluoranthene	< 8.08	< 7.36		34.3		26.9		< 7.89		12.1
Fluorene	< 8.08	< 7.36		< 7.14		< 7.92		< 7.89		< 7.13
Indeno(1,2,3-cd)pyrene	< 16.2	< 7.36		49.3		24.5		< 7.89		18.5
Naphthalene	< 8.08	< 7.36		< 7.14		< 7.92		< 7.89		< 7.13
Phenanthrene	< 8.08	< 7.36		7.85		11.1		< 7.89		< 7.13
Pyrene	< 16.2	< 7.36		42.8		21.4		< 7.89		10.7



Sample ID	SS-27	SS-28	SS-28	SS-29	SS-29	SS-5	TP-23	TP-23	TP-24	TP-24
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/19/2009	07/16/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth	1.5	0.5	1.5	1.5	0.5	0.3	0.3	4	0.5	3
Metals (mg/kg)										
Arsenic		1.45			3.83	5.62	1.9	4.4	14.9	3.1
Chromium		2.61			5.18	17.6	9.4	12.8	9.6	11
Copper		36.1			14.7	14.1	13.8	8.5	39.5	12.8
Zinc		35.7			38.5	50.7				
Dioxins and Furans (ng/kg)										
1,2,3,4,6,7,8-HpCDD	510	4600	9300	150	1200	3400				
1,2,3,4,6,7,8-HpCDF	41	480	1500	18	130	640				
1,2,3,4,7,8,9-HpCDF	< 2.1	38	100	1.1	8.2	67				
1,2,3,4,7,8-HxCDD	4	19	39	1	8.3					
1,2,3,4,7,8-HxCDF	< 5.6	85	510	5.3	35	67				
1,2,3,6,7,8-HxCDD	33	210	560	8.2	61	150				
1,2,3,6,7,8-HxCDF	2.5	23	150	2.1	10	< 32				
1,2,3,7,8,9-HxCDD	9.2	47	110	3	21	53				
1,2,3,7,8,9-HxCDF	1.9	31	120	1.8	8.9	20				
1,2,3,7,8-PeCDD	1.7	6.8	12	< 0.93	3.5	11				
1,2,3,7,8-PeCDF	2.3	13	78	1	5.1	< 4.1				
2,3,4,6,7,8-HxCDF	4	51	200	< 2	15	54				
2,3,4,7,8-PeCDF	4.1	44	250	< 3.2	17					
2,3,7,8-TCDD	< 0.29	< 0.19	0.37	< 0.26	0.2	0.86				
2,3,7,8-TCDF	1.1	1	23	< 0.4	1.5	2.5				
OCDD	3600	44000	100000	1400	9700	26000				
OCDF	40	930	480	15	140	2200				
TEQ using WHO 2005	15	130	400	5	42	100				
Total HpCDDs	950	7400	15000	310	2500	6400				
Total HpCDFs	120	1600	4500	47	380	710				
Total HxCDDs	120	680	1600	33	300	700				
Total HxCDFs	110	1400	5000	47	450	760				
Total PeCDDs	2.7	24	31	< 0.93	15	57				
Total PeCDFs	43	410	2000	20	150	130				
Total TCDDs	< 0.29	4.5	1.6	< 0.26	1.4	4.2				
Total TCDFs	5	16	220	2	9.4	17				
Petroleum Hydrocarbons (mg/kg)			-	-	-	-				
Diesel										
Gasoline										
Heavy-Fuel-Oil-Range Hydrocarbons										
Jet fuels										
Kerosene										
Lube-Oil-Range Hydrocarbons										
Mineral spirits										

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Sample ID	SS-27	SS-28	SS-28	SS-29	SS-29	SS-5	TP-23	TP-23	TP-24	TP-24
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/19/2009	07/16/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth	1.5	0.5	1.5	1.5	0.5	0.3	0.3	4	0.5	3
Naphtha Distillate										
Non-PHC as Diesel										
PHC as Diesel										
Volatile Organic Compounds (ug/kg)										
1,1,1,2-Tetrachloroethane										
1,1,2,2-Tetrachloroethane										
1,1,1-Trichloroethane										
1,1,2-Trichloroethane										
1,1-Dichloroethane										
1,1-Dichloropropene										
1,2,3-Trichlorobenzene										
1,2,3-Trichloropropane										
1,2,4-Trichlorobenzene										
1,2,4-Trimethylbenzene										
1,2-Dibromo-3-chloropropane										
1,2-Dibromoethane										
1,2-Dichlorobenzene										
1,2-Dichloroethane										
1,2-Dichloropropane										
1,3,5-Trimethylbenzene										
1,3-Dichlorobenzene										
1,3-Dichloropropane										
1,4-Dichlorobenzene										
2,2-Dichloropropane										
2-Butanone										
2-Chlorotoluene										
2-Hexanone										
4-Chlorotoluene										
4-Isopropyltoluene										
4-Methyl-2-pentanone										
Acetone										
Benzene										
Bromobenzene										
Bromodichloromethane										
Bromoform										
Bromomethane										
Carbon disulfide										
Carbon tetrachloride										
Chlorobenzene										
Chlorobromomethane										



Sample ID	SS-27	SS-28	SS-28	SS-29	SS-29	SS-5	TP-23	TP-23	TP-24	TP-24
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/19/2009	07/16/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth	1.5	0.5	1.5	1.5	0.5	0.3	0.3	4	0.5	3
Chloroethane										
Chloroform										
Chloromethane										
cis-1,2-Dichloroethene										
cis-1,3-Dichloropropene										
Dibromochloromethane										
Dibromomethane										
Dichlorodifluoromethane										
Ethylbenzene										
Hexachlorobutadiene										
Isopropylbenzene										
m,p-Xylene										
Methylene chloride										
n-Butylbenzene										
n-Propylbenzene										
o-Xylene										
sec-Butylbenzene										
Styrene										
tert-Butylbenzene										
Tetrachloroethene										
Toluene										
trans-1,2-Dichloroethene										
trans-1,3-Dichloropropene										
Trichloroethene										
Trichlorofluoromethane										
Vinyl chloride										
Semivolatile Organic Compounds (ug/kg)		1		1		1		1		
2,3,4,5-Tetrachlorophenol										
2,3,4,6-Tetrachlorophenol							88		100	
2,3,4-Trichlorophenol										
2,3,5,6-Tetrachlorophenol										
1-Methylnaphthalene						< 7.1				
2,3,5-Trichlorophenol										
2,3,6-Trichlorophenol										
2,4,5-Trichlorophenol							< 30		< 30	
2,4,6-Trichlorophenol							< 30		< 30	
2-Methylnaphthalene						< 7.1				
2-Methylphenol										
3,4,5-Trichlorophenol										
3-Methylphenol										


Sample ID	SS-27	SS-28	SS-28	SS-29	SS-29	SS-5	TP-23	TP-23	TP-24	TP-24
Sample Collection Date	02/18/2009	02/18/2009	02/18/2009	02/18/2009	02/19/2009	07/16/2008	05/03/1993	05/03/1993	05/03/1993	05/03/1993
Sample Depth	1.5	0.5	1.5	1.5	0.5	0.3	0.3	4	0.5	3
4-Methylphenol										
Carbazole										
Dibenzofuran										
Pentachlorophenol		< 372			< 369	116	1100		4400	
Tetrachlorophenols, Total										
Polycyclic Aromatic Hydrocarbons (ug/kg)										
Acenaphthene		< 7.46			< 7.39	8.51				
Acenaphthylene		< 7.46			< 7.39	31.2				
Anthracene		< 7.46			12.6	49.7				
Benzo(a)anthracene		< 7.46			8.12	110				
Benzo(a)pyrene		< 7.46			28.1	116				
Benzo(b)fluoranthene		< 7.46			44.3	400				
Benzo(b)fluoranthene										
Benzo(ghi)perylene		< 7.46			53.2	83.7				
Benzo(k)fluoranthene		< 7.46			19.2	75.9				
Chrysene		< 7.46			10.3	205				
Dibenzo(a,h)anthracene		< 7.46			25.1	43.3				
Fluoranthene		< 7.46			17	514				
Fluorene		< 7.46			7.39	14.9				
Indeno(1,2,3-cd)pyrene		< 7.46			42.8	91.5				
Naphthalene		< 7.46			< 7.39	7.8				
Phenanthrene		< 7.46			7.39	175				
Pyrene		< 7.46			17	392				



Sample ID	TP-25	TP-25	TP-26	TP-26	١
Sample Collection Date	05/03/1993	05/03/1993	05/03/1993	05/03/1993	02/0
Sample Depth	0.5	5	0.4	4.5	
Metals (mg/kg)			-		-
Arsenic	59.2	5.1	10.4	5.6	
Chromium	57.6	14.6	14.2	7.6	
Copper	65	13.8	18	13.4	
Zinc					
Dioxins and Furans (ng/kg)					
1,2,3,4,6,7,8-HpCDD					
1,2,3,4,6,7,8-HpCDF					
1,2,3,4,7,8,9-HpCDF					
1,2,3,4,7,8-HxCDD					
1,2,3,4,7,8-HxCDF					
1,2,3,6,7,8-HxCDD					
1,2,3,6,7,8-HxCDF					
1,2,3,7,8,9-HxCDD					
1,2,3,7,8,9-HxCDF					
1,2,3,7,8-PeCDD					
1,2,3,7,8-PeCDF					
2,3,4,6,7,8-HxCDF					
2,3,4,7,8-PeCDF					
2,3,7,8-TCDD					
2,3,7,8-TCDF					
OCDD					
OCDF					
TEQ using WHO 2005					
Total HpCDDs					
Total HpCDFs					
Total HxCDDs					
Total HxCDFs					
Total PeCDDs					
Total PeCDFs					
Total TCDDs					
Total TCDFs					
Petroleum Hydrocarbons (mg/kg)			-		
Diesel					
Gasoline					
Heavy-Fuel-Oil-Range Hydrocarbons					
Jet fuels					
Kerosene					
Lube-Oil-Range Hydrocarbons					
Mineral spirits					





Sample ID	TP-25	TP-25	TP-26	TP-26	١
Sample Collection Date	05/03/1993	05/03/1993	05/03/1993	05/03/1993	02/0
Sample Depth	0.5	5	0.4	4.5	
Naphtha Distillate					
Non-PHC as Diesel					
PHC as Diesel					
Volatile Organic Compounds (ug/kg)					
1,1,1,2-Tetrachloroethane					
1,1,2,2-Tetrachloroethane					
1,1,1-Trichloroethane					
1,1,2-Trichloroethane					
1,1-Dichloroethane					
1,1-Dichloropropene					
1,2,3-Trichlorobenzene					
1,2,3-Trichloropropane					
1,2,4-Trichlorobenzene					
1,2,4-Trimethylbenzene					
1,2-Dibromo-3-chloropropane					
1,2-Dibromoethane					
1,2-Dichlorobenzene					
1,2-Dichloroethane					
1,2-Dichloropropane					
1,3,5-Trimethylbenzene					
1,3-Dichlorobenzene					
1,3-Dichloropropane					
1,4-Dichlorobenzene					
2,2-Dichloropropane					
2-Butanone					
2-Chlorotoluene					
2-Hexanone					
4-Chlorotoluene					
4-Isopropyltoluene					
4-Methyl-2-pentanone					
Acetone					
Benzene					
Bromobenzene					
Bromodichloromethane					
Bromoform					
Bromomethane					
Carbon disulfide					
Carbon tetrachloride					
Chlorobenzene					
Chlorobromomethane					





Sample ID	TP-25	TP-25	TP-26	TP-26	١
Sample Collection Date	05/03/1993	05/03/1993	05/03/1993	05/03/1993	02/0
Sample Depth	0.5	5	0.4	4.5	
Chloroethane					
Chloroform					
Chloromethane					
cis-1,2-Dichloroethene					
cis-1,3-Dichloropropene					
Dibromochloromethane					
Dibromomethane					
Dichlorodifluoromethane					
Ethylbenzene					
Hexachlorobutadiene					
Isopropylbenzene					
m,p-Xylene					
Methylene chloride					
n-Butylbenzene					
n-Propylbenzene					
o-Xylene					
sec-Butylbenzene					
Styrene					
tert-Butylbenzene					
Tetrachloroethene					
Toluene					
trans-1,2-Dichloroethene					
trans-1,3-Dichloropropene					
Trichloroethene					
Trichlorofluoromethane					
Vinyl chloride					
Semivolatile Organic Compounds (ug/kg)					
2,3,4,5-Tetrachlorophenol					
2,3,4,6-Tetrachlorophenol					
2,3,4-Trichlorophenol					
2,3,5,6-Tetrachlorophenol					
1-Methylnaphthalene					
2,3,5-Trichlorophenol					
2,3,6-Trichlorophenol					
2,4,5-Trichlorophenol					
2,4,6-Trichlorophenol					
2-Methylnaphthalene					
2-Methylphenol					< 2
3,4,5-Trichlorophenol					
3-Methylphenol					< 1





Sample ID	TP-25	TP-25	TP-26	TP-26	W-
Sample Collection Date	05/03/1993	05/03/1993	05/03/1993	05/03/1993	02/04/
Sample Depth	0.5	5	0.4	4.5	0
4-Methylphenol					< 25
Carbazole					
Dibenzofuran					
Pentachlorophenol					< 25
Tetrachlorophenols, Total					
Polycyclic Aromatic Hydrocarbons (ug/kg)					
Acenaphthene					
Acenaphthylene					
Anthracene					
Benzo(a)anthracene					
Benzo(a)pyrene					
Benzo(b)fluoranthene	640				
Benzo(b)fluoranthene					
Benzo(ghi)perylene					
Benzo(k)fluoranthene					
Chrysene	1100				
Dibenzo(a,h)anthracene					
Fluoranthene	4900				
Fluorene					
Indeno(1,2,3-cd)pyrene					
Naphthalene					
Phenanthrene	4200				
Pyrene	2600				

W-9
/04/1991
0
< 2500
< 2500



NOTES:

--- - not analyzed.

mg/kg = milligrams per kilogram.

ng/kg = nanograms per kilogram.

PHC = petroleum hydrocarbons.

TEQ = toxicity equivalent. Calculated using World Health Organization 2005 methodology.

ug/kg = micrograms per kilogram.



Sample ID	B-1	B-1	B-2	B-3	B-5	B-6	B-6	B-7	B-7
Sample Collection Date	04/06/2000	04/06/2000	04/06/2000	11/07/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000
Sample Depth (feet bas)	2.5	10	2.5	0	10	2.5	10	2.5	10
Metals (mg/kg)									
Arsenic									
Barium									
Cadmium									
Chromium									
Copper									
Lead									
Mercury									
Selenium									
Silver									
Zinc									
Dioxins and Furans (ng/kg)									
1,2,3,4,6,7,8-HpCDD									
1,2,3,4,6,7,8-HpCDF									
1,2,3,4,7,8,9-HpCDF									
1,2,3,4,7,8-HxCDD									
1,2,3,4,7,8-HxCDF									
1,2,3,6,7,8-HxCDD									
1,2,3,6,7,8-HxCDF									
1,2,3,7,8,9-HxCDD									
1,2,3,7,8,9-HxCDF									
1,2,3,7,8-PeCDD									
1,2,3,7,8-PeCDF									
2,3,4,6,7,8-HxCDF									
2,3,4,7,8-PeCDF									
2,3,7,8-TCDD									
2,3,7,8-TCDF									
OCDD									
OCDF									
Total HpCDDs									
Total HpCDFs									
Total HpCDFs									
Total HxCDDs									
Total HxCDFs									
Total PeCDDs									
Total PeCDFs									
Total TCDDs									
Total TCDFs									
TEQ using WHO 2005									
Petroleum Hydrocarbons (mg/kg)				1	1	1			
C10-C22 Diesel-Range Organics				< 50					
C4-C12 Gasoline-Range Organics				< 20					



Sample ID	B-1	B-1	B-2	B-3	B-5	B-6	B-6	B-7	B-7
Sample Collection Date	04/06/2000	04/06/2000	04/06/2000	11/07/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000
Sample Depth (feet bgs)	2.5	10	2.5	0	10	2.5	10	2.5	10
Diesel	< 50	< 50	< 50	240	< 50	< 50	< 50	< 50	< 50
Gasoline	< 20	< 20	< 20		< 20	< 20	< 20	< 20	< 20
Heavy-Oil-Range Hydrocarbons	< 100	< 100	< 100		< 100	< 100	< 100	< 100	< 100
TPH (as motor oil) (E5030-8015)				1300					
Semivolatile Organic Compounds (ug/kg)									
2,3,4,6-Tetrachlorophenol									
2,4,5-Trichlorophenol									
2,4,6-Trichlorophenol									
Pentachlorophenol	< 50	< 50	< 50		< 50	< 50	< 50	< 50	< 50
Polycyclic Aromatic Hydrocarbons (ug/kg)									
1-Methylnaphthalene									
2-Methylnaphthalene									
Acenaphthene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Acenaphthylene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Anthracene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Benzo(a)anthracene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Benzo(a)pyrene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Benzo(b)fluoranthene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Benzo(ghi)perylene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Benzo(k)fluoranthene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Chrysene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Dibenzo(a,h)anthracene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Fluoranthene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Fluorene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Naphthalene	< 10	< 10	< 10		< 10	22	< 10	< 10	< 10
Phenanthrene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10
Pyrene	< 10	< 10	< 10		< 10	< 10	< 10	< 10	< 10



Sample ID	B-8	B-8	B-9	B-9	B-9	S-1	SS-37	SS-38	SS-39
Sample Collection Date	04/06/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000	06/17/2010	06/17/2010	06/17/2010
Sample Depth (feet bas)	2.5	10	2.5	5	10	0	0	0	0
Metals (mg/kg)									
Arsenic			3.8				7.2	8.32	9.81
Barium			118						
Cadmium			< 0.2						
Chromium			18.2				14.5	19.7	14.7
Copper							14.1	38.9	10.6
Lead			27.4						
Mercury			< 0.1						
Selenium			< 1						
Silver			< 0.3						
Zinc							161	153	93.9
Dioxins and Furans (ng/kg)		•	•		•	•	•		•
1,2,3,4,6,7,8-HpCDD							1000	1400	110
1,2,3,4,6,7,8-HpCDF							140	150	22
1,2,3,4,7,8,9-HpCDF							10	14	1.4
1,2,3,4,7,8-HxCDD							10	15	1.3
1,2,3,4,7,8-HxCDF							23	28	2.7
1,2,3,6,7,8-HxCDD							56	62	5.5
1,2,3,6,7,8-HxCDF							14	15	1.9
1,2,3,7,8,9-HxCDD							30	36	3.2
1,2,3,7,8,9-HxCDF							6.1	6.6	0.95
1,2,3,7,8-PeCDD							7.1	8.3	0.95
1,2,3,7,8-PeCDF							3.9	5	0.75
2,3,4,6,7,8-HxCDF							13	20	2.7
2,3,4,7,8-PeCDF							14	13	3
2,3,7,8-TCDD							0.67	0.55	< 0.13
2,3,7,8-TCDF							2.3	2.3	< 0.35
OCDD							6200	8900	700
OCDF							200	230	40
Total HpCDDs							1700	2500	180
Total HpCDFs							150	160	60
Total HpCDFs									
Total HxCDDs							280	370	30
Total HxCDFs							220	210	33
Total PeCDDs							34	42	4
Total PeCDFs							110	120	29
Total TCDDs							8.9	12	< 0.13
Total TCDFs							30	35	9.1
TEQ using WHO 2005							41	50	5.3
Petroleum Hydrocarbons (mg/kg)									•
C10-C22 Diesel-Range Organics									
C4-C12 Gasoline-Range Organics									



Sample ID	B-8	B-8	B-9	B-9	B-9	S-1	SS-37	SS-38	SS-39
Sample Collection Date	04/06/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000	04/06/2000	06/17/2010	06/17/2010	06/17/2010
Sample Depth (feet bgs)	2.5	10	2.5	5	10	0	0	0	0
Diesel	< 50	< 50	< 50		< 50	< 50			
Gasoline	< 20	< 20	< 20		< 20	< 20			
Heavy-Oil-Range Hydrocarbons	< 100	< 100	< 100		< 100	< 100			
TPH (as motor oil) (E5030-8015)									
Semivolatile Organic Compounds (ug/kg)									
2,3,4,6-Tetrachlorophenol									
2,4,5-Trichlorophenol									
2,4,6-Trichlorophenol									
Pentachlorophenol	< 50	< 50	< 50	< 50	< 50	< 50	< 19.9	< 19.8	< 18.4
Polycyclic Aromatic Hydrocarbons (ug/kg)									
1-Methylnaphthalene									
2-Methylnaphthalene									
Acenaphthene	< 10	< 10	< 10	< 10	< 10	< 10	< 8.86	< 8.81	< 8.19
Acenaphthylene	< 10	< 10	< 10	< 10	< 10	< 10	< 8.86	< 8.81	< 8.19
Anthracene	< 10	< 10	< 10	< 10	< 10	< 10	< 8.86	< 8.81	< 8.19
Benzo(a)anthracene	< 10	< 10	13	< 10	< 10	< 10	< 8.86	< 8.81	8.19
Benzo(a)pyrene	< 10	< 10	13	< 10	< 10	< 10	< 8.86	13.2	9.83
Benzo(b)fluoranthene	< 10	< 10	18	< 10	< 10	< 10	< 8.86	14.1	16.4
Benzo(ghi)perylene	< 10	< 10	11	< 10	< 10	< 10	< 8.86	20.3	12.3
Benzo(k)fluoranthene	< 10	< 10	< 10	< 10	< 10	< 10	< 8.86	< 8.81	< 8.19
Chrysene	< 10	< 10	16	< 10	< 10	< 10	< 8.86	< 8.81	12.3
Dibenzo(a,h)anthracene	< 10	< 10	< 10	< 10	< 10	< 10	< 8.86	< 8.81	< 8.19
Fluoranthene	< 10	< 10	35	< 10	< 10	< 10	< 8.86	10.6	39.3
Fluorene	< 10	< 10	< 10	< 10	< 10	< 10	< 8.86	< 8.81	< 8.19
Indeno(1,2,3-cd)pyrene	< 10	< 10	< 10	< 10	< 10	< 10	< 8.86	13.2	9.01
Naphthalene	< 10	< 10	23	< 10	< 10	< 10	< 8.86	< 8.81	< 8.19
Phenanthrene	< 10	< 10	27	< 10	< 10	< 10	< 8.86	< 8.81	18
Pyrene	< 10	< 10	35	< 10	< 10	< 10	< 8.86	11.4	27



Sample ID	SS-41	SS-42	SS-6	TP-21	
Sample Collection Date	08/09/2010	08/10/2010	07/17/2008	05/03/1993	05
Sample Depth (feet bgs)	0	0	0.3	0.5	
Metals (mg/kg)			0.70	I .	1
Arsenic			2.78	4	
Barium					
Cadmium					
Chromium			18.2	11.7	
Copper			19.5	10.4	
Lead					
Mercury					
Selenium					
Silver					
Zinc			67.6		
Dioxins and Furans (ng/kg)					-
1,2,3,4,6,7,8-HpCDD	460	2400	970		
1,2,3,4,6,7,8-HpCDF	76	370	160		
1,2,3,4,7,8,9-HpCDF	5.8	26	15		
1,2,3,4,7,8-HxCDD	6.3	37	7.1		
1,2,3,4,7,8-HxCDF	< 16	< 86	43		
1,2,3,6,7,8-HxCDD	25	150	45		
1,2,3,6,7,8-HxCDF	7.3	44	< 17.0		
1,2,3,7,8,9-HxCDD	15	74	25		
1,2,3,7,8,9-HxCDF	3.8	19	13		
1,2,3,7,8-PeCDD	2.9	20	3.9		
1,2,3,7,8-PeCDF	2.5	12	3.9		
2,3,4,6,7,8-HxCDF	7.4	44	15		
2,3,4,7,8-PeCDF	5.8	35	9.6		
2,3,7,8-TCDD	< 0.23	1.1	< 0.65		
2,3,7,8-TCDF	< 0.7	4.1	< 1.4		
OCDD	3300	15000	7800		
OCDF	84	330	410		
Total HpCDDs	860	4400	1800		
Total HpCDFs	190	860	170		
Total HpCDFs					
Total HxCDDs	140	950	210		
Total HxCDFs	180	970	270		
Total PeCDDs	12	120	14		
Total PeCDFs	70	430	63		
Total TCDDs	1.1	13	2.1		
Total TCDFs	4.2	57	5.6		
TEQ using WHO 2005	19	110	36		1
Petroleum Hydrocarbons (mg/kg)				•	1
C10-C22 Diesel-Range Organics					
C4-C12 Gasoline-Range Organics					1

TP-21
05/03/1993
5
3.5
21
17



Sample ID	SS-41	SS-42	SS-6	TP-21	
Sample Collection Date	08/09/2010	08/10/2010	07/17/2008	05/03/1993	05
Sample Depth (feet bgs)	0	0	0.3	0.5	
Diesel					
Gasoline					
Heavy-Oil-Range Hydrocarbons					
TPH (as motor oil) (E5030-8015)					
Semivolatile Organic Compounds (ug/kg)		-	-	-	-
2,3,4,6-Tetrachlorophenol				< 30	
2,4,5-Trichlorophenol				< 30	
2,4,6-Trichlorophenol				< 30	
Pentachlorophenol			53.2	77	
Polycyclic Aromatic Hydrocarbons (ug/kg)		-			-
1-Methylnaphthalene			< 6.95		
2-Methylnaphthalene			< 6.95		
Acenaphthene			< 6.95		
Acenaphthylene			< 6.95		
Anthracene			12.5		
Benzo(a)anthracene			13.2		
Benzo(a)pyrene			18.1		
Benzo(b)fluoranthene			47.3		
Benzo(ghi)perylene			20.9		
Benzo(k)fluoranthene			11.8		
Chrysene			26.4		
Dibenzo(a,h)anthracene			6.95		
Fluoranthene			32.7		
Fluorene			< 6.95		
Indeno(1,2,3-cd)pyrene			14.6		
Naphthalene			< 6.95		
Phenanthrene			13.9		
Pyrene			26.4		

TP-21
05/03/1993
5



#### NOTES:

-- = not analyzed.

bgs = below ground surface.

mg/kg = milligrams per kilogram.

ng/kg = nanograms per kilogram.

TEQ = toxicity equivalent. Calculated using World Health Organization 2005 methodology.

TPH = total petroleum hydrocarbons.

ug/kg = micrograms per kilogram.

# **APPENDIX B** RAILROAD AVENUE AND PORT MARINA PROPERTY SAMPLE ANALYTICAL RESULTS





		Analyte	1,2,3,4,6,7,8-	HpCDD	1,2,3,4,6,7,8-	HpCDF	1,2,3,4,7,8,9-	HpCDF	1,2,3,4,7,8-H	IxCDD	1,2,3,4,7,8-	HxCDF
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5										
B1	04/06/2000	10										
B2	04/06/2000	2.5										
B2	04/06/2000	2.5										
B3	04/06/2000	2.5										
B3	04/06/2000	5										
B4	04/06/2000	2.5										
B4	04/06/2000	5										
B4	04/06/2000	10										
B5	04/06/2000	2.5										
B5	04/06/2000	10										
B6	04/06/2000	2.5										
B6	04/06/2000	10										
B7	04/06/2000	2.5										
B7	04/06/2000	10										
B8	04/06/2000	2.5										
B8	04/06/2000	10										
B9	04/06/2000	2.5										
B9	04/06/2000	5										
B9	04/06/2000	10										
S-1	04/06/2000	0										
SS-37	06/17/2010	0	1000000		140000		10000		10000		23000	
SS-38	06/17/2010	0	1400000		150000		14000		15000		28000	
SS-39	06/17/2010	0	110000		22000		1400	J	1300	J	2700	J
SS-41	08/09/2010	0	460000		76000		5800		6300		16000	U
SS-42	08/10/2010	0	2400000		370000		26000		37000		86000	U
SS-6	07/17/2008	0.3	970000		160000		15000		7100		43000	
TP-21	05/03/1993	0.5										
TP-21	05/03/1993	5										



		Analyte	1,2,3,6,7,8-H	IxCDD	1,2,3,6,7,8-1	HxCDF	1,2,3,7,8,9-	IxCDD	1,2,3,7,8,9-	IxCDF	1,2,3,7,8-Pe	eCDD
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5										
B1	04/06/2000	10										
B2	04/06/2000	2.5										
B2	04/06/2000	2.5										
B3	04/06/2000	2.5										
B3	04/06/2000	5										
B4	04/06/2000	2.5										
B4	04/06/2000	5										
B4	04/06/2000	10										
B5	04/06/2000	2.5										
B5	04/06/2000	10										
B6	04/06/2000	2.5										
B6	04/06/2000	10										
B7	04/06/2000	2.5										
B7	04/06/2000	10										
B8	04/06/2000	2.5										
B8	04/06/2000	10										
B9	04/06/2000	2.5										
B9	04/06/2000	5										
B9	04/06/2000	10										
S-1	04/06/2000	0										
SS-37	06/17/2010	0	56000		14000		30000		6100		7100	
SS-38	06/17/2010	0	62000		15000		36000		6600		8300	
SS-39	06/17/2010	0	5500		1900	J	3200	J	950	J	950	J
SS-41	08/09/2010	0	25000		7300		15000		3800	J	2900	J
SS-42	08/10/2010	0	150000		44000		74000		19000		20000	
SS-6	07/17/2008	0.3	45000		17000	U	25000		13000		3900	
TP-21	05/03/1993	0.5										
TP-21	05/03/1993	5										



		Analyte	1,2,3,7,8-Pe	eCDF	1-Methylnaph	nthalene	2,3,4,6,7,8-	IxCDF	2,3,4,6-Tetrachle	prophenol	2,3,4,7,8-Pe	eCDF
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5										
B1	04/06/2000	10										
B2	04/06/2000	2.5										
B2	04/06/2000	2.5										
B3	04/06/2000	2.5										
B3	04/06/2000	5										
B4	04/06/2000	2.5										
B4	04/06/2000	5										
B4	04/06/2000	10										
B5	04/06/2000	2.5										
B5	04/06/2000	10										
B6	04/06/2000	2.5										
B6	04/06/2000	10										
B7	04/06/2000	2.5										
B7	04/06/2000	10										
B8	04/06/2000	2.5										
B8	04/06/2000	10										
B9	04/06/2000	2.5										
B9	04/06/2000	5										
B9	04/06/2000	10										
S-1	04/06/2000	0										
SS-37	06/17/2010	0	3900	J			13000				14000	
SS-38	06/17/2010	0	5000				20000				13000	
SS-39	06/17/2010	0	750	J			2700	J			3000	J
SS-41	08/09/2010	0	2500	J			7400				5800	
SS-42	08/10/2010	0	12000				44000				35000	
SS-6	07/17/2008	0.3	3900		6.95	U	15000				9600	
TP-21	05/03/1993	0.5							30	U		
TP-21	05/03/1993	5										



		Analyte	2,3,7,8-TC	CDD	2,3,7,8-10	CDF	2,4,5-Trichlord	phenol	2,4,6-Trichlord	phenol	2-Methylnaph	nthalene
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5										
B1	04/06/2000	10										
B2	04/06/2000	2.5										
B2	04/06/2000	2.5										
B3	04/06/2000	2.5										
B3	04/06/2000	5										
B4	04/06/2000	2.5										
B4	04/06/2000	5										
B4	04/06/2000	10										
B5	04/06/2000	2.5										
B5	04/06/2000	10										
B6	04/06/2000	2.5										
B6	04/06/2000	10										
B7	04/06/2000	2.5										
B7	04/06/2000	10										
B8	04/06/2000	2.5										
B8	04/06/2000	10										
B9	04/06/2000	2.5										
B9	04/06/2000	5										
B9	04/06/2000	10										
S-1	04/06/2000	0										
SS-37	06/17/2010	0	670	J	2300							
SS-38	06/17/2010	0	550	J	2300							
SS-39	06/17/2010	0	130	U	350	U						
SS-41	08/09/2010	0	230	U	700	U						
SS-42	08/10/2010	0	1100		4100							
SS-6	07/17/2008	0.3	650	U	1400	U					6.95	U
TP-21	05/03/1993	0.5					30	U	30	U		
TP-21	05/03/1993	5										



		Analyte	Acenapht	hene	Acenaphth	iylene	Anthrace	ene	Arsenio	2	Barium	า
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5	10	U	10	U	10	U				
B1	04/06/2000	10	10	U	10	U	10	U				
B2	04/06/2000	2.5	10	U	10	U	10	U				
B2	04/06/2000	2.5	10	U	10	U	10	U				
B3	04/06/2000	2.5	10	U	10	U	10	U	4400		163000	
B3	04/06/2000	5	10	U	10	U	10	U				
B4	04/06/2000	2.5	10	U	10	U	10	U	6300		336000	
B4	04/06/2000	5	10	U	10	U	10	U				
B4	04/06/2000	10	10	U	10	U	10	U				
B5	04/06/2000	2.5	10	U	10	U	10	U				
B5	04/06/2000	10	10	U	10	U	10	U				
B6	04/06/2000	2.5	10	U	10	U	10	U				
B6	04/06/2000	10	10	U	10	U	10	U				
B7	04/06/2000	2.5	10	U	10	U	10	U				
B7	04/06/2000	10	10	U	10	U	10	U				
B8	04/06/2000	2.5	10	U	10	U	10	U				
B8	04/06/2000	10	10	U	10	U	10	U				
B9	04/06/2000	2.5	10	U	10	U	10	U	3800		118000	
B9	04/06/2000	5	10	U	10	U	10	U				
B9	04/06/2000	10	10	U	10	U	10	U				
S-1	04/06/2000	0	10	U	10	U	10	U				
SS-37	06/17/2010	0	8.86	U	8.86	U	8.86	U	7200			
SS-38	06/17/2010	0	8.81	U	8.81	U	8.81	U	8320			
SS-39	06/17/2010	0	8.19	U	8.19	U	8.19	U	9810			
SS-41	08/09/2010	0										
SS-42	08/10/2010	0										
SS-6	07/17/2008	0.3	6.95	U	6.95	U	12.5		2780			
TP-21	05/03/1993	0.5							4000			
TP-21	05/03/1993	5							3500			



		Analyte	Benzo(a)anth	nracene	Benzo(a)py	yrene	Benzo(b)fluor	anthene	Benzo(ghi)pe	erylene	Benzo(k)fluora	anthene
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5	10	U	10	U	10	U	10	U	10	U
B1	04/06/2000	10	10	U	10	U	10	U	10	U	10	U
B2	04/06/2000	2.5	10	U	10	U	10	U	10	U	10	U
B2	04/06/2000	2.5	10	U	10	U	10	U	10	U	10	U
B3	04/06/2000	2.5	15	U	17	U	38		20		10	U
B3	04/06/2000	5	10	U	10	U	10	U	10	U	10	U
B4	04/06/2000	2.5	10	U	10	U	19		10	U	10	U
B4	04/06/2000	5	10	U	10	U	10	U	10	U	10	U
B4	04/06/2000	10	10	U	10	U	10	U	10	U	10	U
B5	04/06/2000	2.5	10	U	10	U	10	U	10	U	10	U
B5	04/06/2000	10	10	U	10	U	10	U	10	U	10	U
B6	04/06/2000	2.5	10	U	10	U	10	U	10	U	10	U
B6	04/06/2000	10	10	U	10	U	10	U	10	U	10	U
B7	04/06/2000	2.5	10	U	10	U	10	U	10	U	10	U
B7	04/06/2000	10	10	U	10	U	10	U	10	U	10	U
B8	04/06/2000	2.5	10	U	10	U	10	U	10	U	10	U
B8	04/06/2000	10	10	U	10	U	10	U	10	U	10	U
B9	04/06/2000	2.5	13	U	13	U	18		11		10	U
B9	04/06/2000	5	10	U	10	U	10	U	10	U	10	U
B9	04/06/2000	10	10	U	10	U	10	U	10	U	10	U
S-1	04/06/2000	0	10	U	10	U	10	U	10	U	10	U
SS-37	06/17/2010	0	8.86	U	8.86	U	8.86	U	8.86	U	8.86	U
SS-38	06/17/2010	0	8.81	U	13.2		14.1		20.3		8.81	U
SS-39	06/17/2010	0	8.19		9.83		16.4		12.3		8.19	U
SS-41	08/09/2010	0										
SS-42	08/10/2010	0										
SS-6	07/17/2008	0.3	13.2		18.1		47.3		20.9		11.8	
TP-21	05/03/1993	0.5										
TP-21	05/03/1993	5										



		Analyte	Cadmiu	IM	Chromit	um	Chryser	ne	Coppe	er	Dibenzo(a,h)ar	thracene
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5					10	U			10	U
B1	04/06/2000	10					10	U			10	U
B2	04/06/2000	2.5					10	U			10	U
B2	04/06/2000	2.5					10	U			10	U
B3	04/06/2000	2.5	530				22				10	U
B3	04/06/2000	5					10	U			10	U
B4	04/06/2000	2.5	200	U			10	U			10	U
B4	04/06/2000	5					10	U			10	U
B4	04/06/2000	10					10	U			10	U
B5	04/06/2000	2.5					10	U			10	U
B5	04/06/2000	10					10	U			10	U
B6	04/06/2000	2.5					10	U			10	U
B6	04/06/2000	10					10	U			10	U
B7	04/06/2000	2.5					10	U			10	U
B7	04/06/2000	10					10	U			10	U
B8	04/06/2000	2.5					10	U			10	U
B8	04/06/2000	10					10	U			10	U
B9	04/06/2000	2.5	200	U			16				10	U
B9	04/06/2000	5					10	U			10	U
B9	04/06/2000	10					10	U			10	U
S-1	04/06/2000	0					10	U			10	U
SS-37	06/17/2010	0			14500		8.86	U	14100		8.86	U
SS-38	06/17/2010	0			19700		8.81	U	38900		8.81	U
SS-39	06/17/2010	0			14700		12.3		10600		8.19	U
SS-41	08/09/2010	0										
SS-42	08/10/2010	0										
SS-6	07/17/2008	0.3			18200		26.4		19500		6.95	
TP-21	05/03/1993	0.5			11700				10400			
TP-21	05/03/1993	5			21000				17000			



		Analyte	Diesel		Dioxin TEQ (Mammals)	Endosulfan II	Fluoranth	ene	Fluoren	e	Gasolin	е
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5	50000	U			10	U	10	U	20000	U
B1	04/06/2000	10	50000	U			10	U	10	U	20000	U
B2	04/06/2000	2.5	50000	U			10	U	10	U	20000	U
B2	04/06/2000	2.5	50000	U			10	U	10	U	20000	U
B3	04/06/2000	2.5	50000	U			29		10	U	20000	U
B3	04/06/2000	5	50000	U			10	U	10	U	20000	U
B4	04/06/2000	2.5	50000	U			12		10	U	20000	U
B4	04/06/2000	5	50000	U			10	U	10	U	20000	U
B4	04/06/2000	10	50000	U			10	U	10	U	20000	U
B5	04/06/2000	2.5	50000	U			10	U	10	U	20000	U
B5	04/06/2000	10	50000	U			10	U	10	U	20000	U
B6	04/06/2000	2.5	50000	U			10	U	10	U	20000	U
B6	04/06/2000	10	50000	U			10	U	10	U	20000	U
B7	04/06/2000	2.5	50000	U			10	U	10	U	20000	U
B7	04/06/2000	10	50000	U			10	U	10	U	20000	U
B8	04/06/2000	2.5	50000	U			10	U	10	U	20000	U
B8	04/06/2000	10	50000	U			10	U	10	U	20000	U
B9	04/06/2000	2.5	50000	U			35		10	U	20000	U
B9	04/06/2000	5	50000	U			10	U	10	U	20000	U
B9	04/06/2000	10	50000	U			10	U	10	U	20000	U
S-1	04/06/2000	0	50000	U			10	U	10	U	20000	U
SS-37	06/17/2010	0			0.041		8.86	U	8.86	U		
SS-38	06/17/2010	0			0.05		10.6		8.81	U		
SS-39	06/17/2010	0			0.0053		39.3		8.19	U		
SS-41	08/09/2010	0			0.019							
SS-42	08/10/2010	0			0.11							
SS-6	07/17/2008	0.3			0.037		32.7		6.95	U		
TP-21	05/03/1993	0.5										
TP-21	05/03/1993	5										



		Analyte	Indeno(1,2,3-c	d)pyrene	Lead		Mercu	гy	Naphthal	ene	OCDE	)
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5	10	U					10	U		
B1	04/06/2000	10	10	U					10	U		
B2	04/06/2000	2.5	10	U					10	U		
B2	04/06/2000	2.5	10	U					10	U		
B3	04/06/2000	2.5	16		38300		100	U	39			
B3	04/06/2000	5	10	U					10	U		
B4	04/06/2000	2.5	10	U	53300		100	U	13			
B4	04/06/2000	5	10	U					10	U		
B4	04/06/2000	10	10	U					10	U		
B5	04/06/2000	2.5	10	U					10	U		
B5	04/06/2000	10	10	U					10	U		
B6	04/06/2000	2.5	10	U					22			
B6	04/06/2000	10	10	U					10	U		
B7	04/06/2000	2.5	10	U					10	U		
B7	04/06/2000	10	10	U					10	U		
B8	04/06/2000	2.5	10	U					10	U		
B8	04/06/2000	10	10	U					10	U		
B9	04/06/2000	2.5	10	U	27400		100	U	23			
B9	04/06/2000	5	10	U					10	U		
B9	04/06/2000	10	10	U					10	U		
S-1	04/06/2000	0	10	U					10	U		
SS-37	06/17/2010	0	8.86	U					8.86	U	6200000	J
SS-38	06/17/2010	0	13.2						8.81	U	8900000	J
SS-39	06/17/2010	0	9.01						8.19	U	700000	
SS-41	08/09/2010	0									3300000	
SS-42	08/10/2010	0									15000000	
SS-6	07/17/2008	0.3	14.6						6.95	U	7800000	
TP-21	05/03/1993	0.5										
TP-21	05/03/1993	5										



		Analyte	OCDF		Oil		Pentachloro	phenol	Phenanth	rene	Pyrene	5
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B1	04/06/2000	10			100000	U	50	U	10	U	10	U
B2	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B2	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B3	04/06/2000	2.5			100000	U	100	U	18		35	
B3	04/06/2000	5			100000	U	50	U	10	U	10	U
B4	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B4	04/06/2000	5			100000	U	50	U	10	U	10	U
B4	04/06/2000	10			100000	U	50	U	10	U	10	U
B5	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B5	04/06/2000	10			100000	U	50	U	10	U	10	U
B6	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B6	04/06/2000	10			100000	U	50	U	10	U	10	U
B7	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B7	04/06/2000	10			100000	U	50	U	10	U	10	U
B8	04/06/2000	2.5			100000	U	50	U	10	U	10	U
B8	04/06/2000	10			100000	U	50	U	10	U	10	U
B9	04/06/2000	2.5			100000	U	50	U	27		35	
B9	04/06/2000	5			100000	U	50	U	10	U	10	U
B9	04/06/2000	10			100000	U	50	U	10	U	10	U
S-1	04/06/2000	0			100000	U	50	U	10	U	10	U
SS-37	06/17/2010	0	200000				19.9	U	8.86	U	8.86	U
SS-38	06/17/2010	0	230000				19.8	U	8.81	U	11.4	
SS-39	06/17/2010	0	40000				18.4	U	18		27	
SS-41	08/09/2010	0	84000									
SS-42	08/10/2010	0	330000									
SS-6	07/17/2008	0.3	410000				53.2		13.9		26.4	
TP-21	05/03/1993	0.5					77					
TP-21	05/03/1993	5										



	Analyte Selenium		Silver		Total HpCDDs		Total HpCDFs		Total HxCDDs			
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5										
B1	04/06/2000	10										
B2	04/06/2000	2.5										
B2	04/06/2000	2.5										
B3	04/06/2000	2.5	1000	U	300	U						
B3	04/06/2000	5										
B4	04/06/2000	2.5	1000	U	300	U						
B4	04/06/2000	5										
B4	04/06/2000	10										
B5	04/06/2000	2.5										
B5	04/06/2000	10										
B6	04/06/2000	2.5										
B6	04/06/2000	10										
B7	04/06/2000	2.5										
B7	04/06/2000	10										
B8	04/06/2000	2.5										
B8	04/06/2000	10										
B9	04/06/2000	2.5	1000	U	300	U						
B9	04/06/2000	5										
B9	04/06/2000	10										
S-1	04/06/2000	0										
SS-37	06/17/2010	0					1700000		150000		280000	
SS-38	06/17/2010	0					2500000		160000		370000	
SS-39	06/17/2010	0					180000		60000		30000	
SS-41	08/09/2010	0					860000		190000		140000	
SS-42	08/10/2010	0					4400000		860000		950000	
SS-6	07/17/2008	0.3					1800000		170000		210000	
TP-21	05/03/1993	0.5										
TP-21	05/03/1993	5										



Analyte			Total HxC	DFs	Total PeCDDs		Total PeCDFs		Total TCDDs		Total TCDFs		Zinc	
Sample Location	Sample Date	Depth (ft bgs)	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
B1	04/06/2000	2.5												
B1	04/06/2000	10												
B2	04/06/2000	2.5												
B2	04/06/2000	2.5												
B3	04/06/2000	2.5												
B3	04/06/2000	5												
B4	04/06/2000	2.5												
B4	04/06/2000	5												
B4	04/06/2000	10												
B5	04/06/2000	2.5												
B5	04/06/2000	10												
B6	04/06/2000	2.5												
B6	04/06/2000	10												
B7	04/06/2000	2.5												
B7	04/06/2000	10												
B8	04/06/2000	2.5												
B8	04/06/2000	10												
B9	04/06/2000	2.5												
B9	04/06/2000	5												
B9	04/06/2000	10												
S-1	04/06/2000	0												
SS-37	06/17/2010	0	220000		34000		110000		8900		30000		161000	
SS-38	06/17/2010	0	210000		42000		120000		12000		35000		153000	
SS-39	06/17/2010	0	33000		4000	J	29000		130	U	9100		93900	
SS-41	08/09/2010	0	180000		12000		70000		1100		4200			
SS-42	08/10/2010	0	970000		120000		430000		13000		57000			
SS-6	07/17/2008	0.3	270000		14000		63000		2100		5600		67600	
TP-21	05/03/1993	0.5												
TP-21	05/03/1993	5												



NOTES:

-- = not analyzed.

ft bgs = feet below ground surface.

J = Reporting limit is an estimate.

Q = qualifier.

U = not detected at or above method reporting limit.

ug/kg = micrograms per kilogram.

# APPENDIX C SAMPLING AND ANALYSIS PLAN



# SAMPLING AND ANALYSIS PLAN

## FORMER PACIFIC WOOD TREATING CO. SITE FACILITY ID 1019, CLEANUP SITE ID 3020



Prepared for PORT OF RIDGEFIELD

RIDGEFIELD, WASHINGTON June 9, 2021 Project No. 9003.01.55

Prepared by Maul Foster & Alongi, Inc. 109 East 13th Street, Vancouver, WA 98660 SAMPLING AND ANALYSIS PLAN FORMER PACIFIC WOOD TREATING CO. SITE FACILITY ID 1019, CLEANUP SITE ID 3020 The material and data in this report were prepared under the supervision and direction of the undersigned.

MAUL FOSTER & ALONGI, INC.

Phil Wiescher, PhD Senior Environmental Scientist

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DIOXIN AND FURAN ANALYSIS, DATA VALIDATION, AND TEQ CALCULATION RULES MEMORANDUM

FOLLOWING PLAN:

TABLES

- 2-1 SAMPLE HANDLING SUMMARY
- 3-1 INDICATOR HAZARDOUS SUBSTANCES

CLARC	Cleanup Levels and Risk Calculation
COC	chain of custody
CUL	cleanup level
dioxins	chlorinated dibenzo-p-dioxins and dibenzofurans
DRO	diesel-range organic
Ecology	Washington State Department of Ecology
GRO	gasoline-range organic
HCID	hydrocarbon identification
IDW	investigation-derived waste
IHS	indicator hazardous substances
LCS	laboratory control sample
LDS	laboratory duplicate sample
LRIS	Lake River Industrial Site
MFA	Maul Foster & Alongi, Inc.
MS/MSD	matrix spike and matrix spike duplicate
MTCA	Model Toxics Control Act
NWTPH	Northwest Total Petroleum Hydrocarbons
РАН	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
РСР	pentachlorophenol
Port	Port of Ridgefield
QA	quality assurance
QC	quality control
RRO	residual-range organic
SAP	Sampling and Analysis Plan
SIM	selective ion monitoring
SMCMP	Soil Management and Cap Maintenance Plan
SVOC	semivolatile organic compound
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

Maul Foster & Alongi, Inc. (MFA) has prepared this sampling and analysis plan (SAP) on behalf of the Port of Ridgefield (Port) to describe the methods and procedures for collecting and analyzing soil that is proposed for use as clean capping material, as well as soil that is intended for off-site disposal. The guidance presented in this SAP is applicable for soil sampling and analysis activities that are required for the Lake River Industrial Site (LRIS) (also known as Miller's Landing), the Railroad Avenue property, the Port Marina property, and the Railroad Overpass property as defined in the Soil Management and Cap Maintenance Plan, to which this document is an appendix.

#### 1.1 Sampling and Analysis Objectives

The objective of this SAP is to establish procedures for collection of data sufficient for their intended use. This SAP describes methods that will be used to achieve the following objectives:

- To analyze soil for indicator hazardous substances (IHSs) to determine the appropriate off-site disposal method. Sample results will be compared to the relevant Model Toxics Control Act (MTCA) soil cleanup levels (CULs) found in the Washington State Department of Ecology's (Ecology) Cleanup Levels and Risk Calculation (CLARC) database at the time of sampling and analysis.
- To ensure that imported soil capping material is not contaminated at concentrations higher than the relevant MTCA soil CULs found in the CLARC database at the time of sampling and analysis.
- To provide suitable sampling techniques, sample analysis methods, and data verification procedures that ensure data quality.

Samples will be collected as described in Section 2 of this SAP. Following sample collection, samples will be submitted for analysis and screened against CULs, consistent with Section 3. The quality of the data should be evaluated, using the standard data validation protocols presented in Section 4, before off-site disposal or acceptance as clean fill.



Procedures to be followed for specific scenarios are provided in this section.

#### 2.1 Sampling of Excavated Soils for Off-Site Disposal

Soil should be stockpiled to facilitate the sampling method and organization. Composite sampling will best characterize each stockpile to complete a waste profile for the landfill. To address variability of the soil, choose the most representative stockpile volume and number of samples appropriate for the area in question. The disposal facility may be consulted to determine the minimum needed for waste-profiling purposes.

A representative soil sample will be collected by compositing five subsamples of the material source. The sampler will dig to a depth of 1 foot with a clean shovel and will collect the subsample by hand with clean, disposable gloves. Gloves will be changed, and the shovel will be decontaminated between composited samples, consistent with the procedures specified in Section 2.3. Subsamples will be selected to obtain representative material, based on visual inspection and best professional judgment. To the extent possible, subsamples should consist of fine-particle-sized material, with larger rocks removed. Subsamples will be homogenized in a clean container (e.g., a decontaminated stainless-steel bowl or a dedicated container) before being transferred into laboratory-supplied, 16-ounce glass jars. Glass jars are to be preserved as specified in Table 2-1 and samples are to be analyzed as described in Section 3.1.

### 2.2 Sampling of Imported Soil Cap Material

Soil imported to the site to be used as clean cap material should be tested prior to acceptance. Soil will be sampled and analyzed before delivery to the site to certify that it meets the design acceptance criteria. The contractor or contractor's designee will complete soil sampling at the minimum frequency specified by the contract documents. The number of samples required will be based on the likelihood of contamination present, estimated amount of fill needed, and homogeneity of the fill source. For each volume of soil represented by a composite sample, the material should be tracked in a manner that allows rejection of the material if necessary, based on representative analytical results.

A representative soil sample will be collected by compositing, at a minimum, five subsamples of the material at the source. The sampler will dig to a depth of 1 foot with a clean shovel and will collect the subsample by hand with clean, disposable gloves. Gloves will be changed, and the shovel will be decontaminated between composited samples, consistent with the procedures specified in Section 2.3. Subsamples will be selected to obtain a representative sample, based on visual inspection and best professional judgment. To the extent possible, subsamples should consist primarily of fine-particle-sized material, with larger rocks removed. Subsamples will be homogenized in a clean container (e.g., a decontaminated stainless-steel bowl or a dedicated container) before being transferred into laboratory-supplied, 16-ounce glass jars.

#### 2.3 Decontamination

Sampling equipment will be decontaminated at a location away from surface water, but near the sampling location (i.e., equipment will not be removed from the site to be decontaminated). Sampling equipment will be decontaminated using the following procedure:

- Rinse with clean tap or deionized water.
- Wash with nonphosphate detergent.
- Rinse with deionized water.
- Air dry.

All liquids used to decontaminate equipment will be considered investigation-derived waste (IDW) and will be disposed of as outlined in the following section.

#### 2.4 Investigation-Derived Waste

IDW may include soil cuttings and decontamination fluids. The IDW will be segregated (e.g., soil and water will be containerized separately). Drums (tops and sides) will be labeled with their contents, the volume of material, the date of collection, and the origin of the material. At the end of each workday, the drums will be sealed and transferred to a designated secured area on the property, where they will be stored pending waste profiling, transport, and off-site disposal at a permitted facility.

#### 2.5 Sample Handling, Preservation, and Custody

The samples will be placed on ice in a shipping container with chain-of-custody (COC) paperwork and transported to an accredited laboratory for analysis. Samples should be preserved according to the requirements in Table 2-1, attached.

## 3 ANALYTICAL PROCEDURES AND QUALITY ASSURANCE CRITERIA

Samples that have been collected following the procedures in Section 2 will be analyzed following the methods presented in this section. Analytical results will be evaluated relative to CULs. Additional details on the analytical methods, quality control (QC) procedures required by the laboratory, and screening levels are provided below.

The IHSs were contaminants of concern on the properties in the past. IHSs vary across properties. The IHSs for the LRIS are:

• Metals: arsenic, barium, chromium, copper, and zinc
- Polycyclic aromatic hydrocarbons (PAHs), including carcinogenic PAHs: 2-methylnaphthalene, acenaphthene, anthracene, fluoranthene, fluorene, naphthalene, pyrene
- Semivolatile organic compounds (SVOCs): dibenzofuran
- Volatile organic compounds (VOCs): 1,1,2,2-tetrachloroethane, 1,2,4-trimethylbenzene, styrene
- Chlorinated phenolics: pentachlorophenol (PCP)
- Petroleum hydrocarbons: diesel-range organics (DROs), residual-range organics (RROs), gasoline-range organics (GROs)
- Chlorinated dibenzo-p-dioxins and dibenzofurans (dioxins)

IHSs for the Railroad Avenue, Railroad Overpass properties, and Port Marina property are limited to dioxins. IHSs and associated CULs can be found in Table 3-1.

# 3.1 Analytical Methods for Excavated Soils

It is the responsibility of the party generating the impacted soil to verify current disposal requirements with the disposal facility. Soil excavated from the LRIS (Cells 1, 2, 3, and 4) during construction activities and intended for off-site disposal requires the following analyses, based on the associated waste codes and IHSs:<sup>1</sup>

- PAHs and SVOCs, including acenaphthene, anthracene, benz(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, dibenz(a,h)anthracene, dibenzofuran, fluorene, indeno(1,2,3-c,d)pyrene, naphthalene, PCP, phenanthrene, pyrene, and styrene by U.S. Environmental Protection Agency (USEPA) Method 8270 selected ion monitoring (SIM)
- 1,1,2,2-Tetrachloroethane, 1,2,4-trimethylbenzene, and styrene by USEPA Method 8260
- Dioxin/furans by USEPA Method 1613B
- Arsenic, chromium, and lead by toxicity characteristic leaching procedure USEPA Method 1311

Soil excavated from the Railroad Avenue property, Railroad Overpass Property and Port Marina property during construction activities requires the following analysis:

• Dioxin/furans by USEPA Method 1613B

Environmental analytical results will be compared to CULs provided in Table 3-1.

<sup>&</sup>lt;sup>1</sup> Analysis for petroleum hydrocarbons is not required because they are not associated with the waste codes and there are no applicable MTCA screening values.

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# 3.1.1 Screening Levels for Excavated Soils

A comparison of IHS concentrations with soil CULs will determine the characterization and handling requirements. Soil CULs are provided in Table 3-1. The laboratory should be notified of the required reporting limits for proper sample screening.

# 3.2 Analytical Methods for Imported Clean Soil Cap Material

Soil intended for use as clean cap material requires the following analyses, at a minimum (note that additional analyses may be requested by the Port or Ecology, upon their obtaining information about the location and/or prior use of the intended fill source):

- Petroleum hydrocarbons by Northwest Total Petroleum Hydrocarbons (NWTPH) hydrocarbon identification (HCID) method
- Thirteen priority pollutant metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) by USEPA Method 6020/7471

If hydrocarbons are detected by the HCID analysis, follow up quantification testing will be required as described below:

- GRO detections by HCID require follow up analyses of:
  - GROs by NWTPH-Gx
  - VOCs, including benzene, ethylbenzene, toluene, xylene, 1,2-dibromoethane, 1-2dichloroethane, and methyl tertiary-butyl ether by USEPA Method 8260
- DRO detections by HCID require follow up analyses of:
  - DROs by NWTPH-Dx
  - PAHs by USEPA Method 8270 SIM
  - Polychlorinated biphenyls (PCBs) by USEPA Method 8082
- RRO detections by HCID require follow up analyses of:
  - RROs by NWTPH-Dx
  - VOCs, including 1,2-dibromoethane, 1,2-dichloroethane, methyl tertiary-butyl ether, and halogenated VOCs, by USEPA Method 8260
  - PCBs by USEPA Method 8082

Additional testing may be required in order to determine the physical characteristics of the soil for geotechnical engineering purposes. Environmental analytical results will be compared to the criteria described in Section 3.2.1.

# 3.2.1 Screening Levels for Imported Materials

Sample results for the analytes listed above must be below the lowest MTCA soil CULs found in the CLARC database at the time of sampling and analysis. The laboratory should be notified of the required reporting limits for proper sample screening.

# 3.3 Laboratory Quality Control Procedures

The laboratory will follow the QC procedures required by each analytical method. The laboratory QC will be used to assess the accuracy and precision of the laboratory analysis. The QC procedures that may be required by the method are described below. The acceptance criteria established by the analytical laboratory and the guidelines referenced in Section 4.2 of this SAP will be used to assess the suitability of laboratory QC.

# 3.3.1 Calibration Verification

Instruments will initially be calibrated at the start of the project or sample run, as required, and when any ongoing calibration does not meet control criteria. The number of points used in the initial calibration is defined in the analytical method. Calibration will be continued as specified in the analytical method to track instrument performance. If a continuing calibration does not meet control limits, analysis of project samples will be suspended until the source of the control failure is either eliminated or reduced to within control specifications. Any project samples analyzed while the instrument was outside control limits will be reanalyzed.

# 3.3.2 Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate (MS/MSD) samples are analyzed to assess the matrix effects on the accuracy of analytical measurements. MS/MSD samples will be prepared by spiking investigative samples with known amounts of analytes before extraction, preparation, and analysis. The MS/MSD samples will be used to assess accuracy and precision of the analytical method by measuring the target compounds' recovery in the investigative matrices.

## 3.3.3 Method Blanks

Method blanks are prepared using analyte-free (reagent) water and are processed with the same methodology (e.g., extraction, digestion) as the associated investigative samples. Method blanks are used to document contamination from laboratory analytical processes. A method blank in every analytical batch shall be prepared and analyzed.

The results from the method blank analyses are used to verify that reagents and preparation do not impart unacceptable bias to the investigative sample results. The presence of analytes in the method blank sample will be evaluated against method-specific thresholds. If analytes are present in the method blank above the method-specific threshold, corrective action will be taken to eliminate the source of contamination before analysis proceeds. Investigative samples of an analytical batch associated with method blank results outside acceptance limits will be qualified, as appropriate.

# 3.3.4 Laboratory Control Samples

Laboratory control samples (LCSs) are prepared by spiking laboratory-certified, reagent-grade water with the analytes of interest or with a certified reference material that has been prepared and analyzed. The result for percent recovery of the LCS is a data quality indicator of the accuracy of the analytical method and laboratory performance.

# 3.3.5 Laboratory Duplicate Samples

Laboratory duplicate samples (LDSs) are prepared by the laboratory by splitting an investigative sample into two separate aliquots and separately preparing and analyzing each aliquot. The results for relative percent difference of the primary investigative sample and the respective LDSs are used to measure precision in the analytical method and laboratory performance. For nonaqueous matrices, sample heterogeneity may affect the measured precision for the LDSs.

# 3.3.6 Surrogate/Labeled Analogue Compounds

Surrogates and labeled analogue compounds are used to evaluate the recovery of an analyte from individual samples. Surrogate recoveries will be reported by the laboratory and will be used to assess data quality.

# 3.4 Analytical Data Reporting

The analytical laboratory will provide analytical data packages that include laboratory quality assurance (QA) and QC results to permit independent and conclusive determination of data quality. Data quality will be determined by the reviewer, using the data evaluation procedures described in Section 4. The results of the evaluation will be used to determine whether project data quality objectives are being met.

Required laboratory data deliverables, including electronic deliverables, are listed below.

- Transmittal cover letter
- Case narrative
- Analytical results
- COC
- QA/QC results
- Qualifier definitions

# 4 DATA VALIDATION AND USABILITY

Data verification is confirmation by examination and provision of objective evidence that specified requirements have been fulfilled (USEPA, 2001). Data verification includes evaluating the

completeness, correctness, and compliance of a specific data set against the method, procedural, or contractual specifications (USEPA, 2002). Data validation is confirmation by examination and provision of objective evidence that the particular requirements for specific intended use have been fulfilled (USEPA, 2001). Data validation is an analyte- and sample-specific process that extends the evaluation of data beyond method, procedural, or contractual compliance (i.e., data verification) to the analytical quality of a specific data set (USEPA, 2002). Data verification and validation will be consistent with the procedures outlined in Sections 4.1 and 4.2, respectively.

The specific data reduction, verification, reporting procedures, and assigned personnel will vary for each laboratory; however, all procedures will be completed in accordance with the laboratory's QA plan and standard operating procedures.

# 4.1 Data Verification

Data verification will consist of a completeness check that is performed before the data review process continues to determine whether the required information (the complete data package) is available for further review. It applies to both hard-copy and electronic deliverables. The following QC checks for data reviews will be performed for all generated data:

- Verify that batch QC was implemented properly and analyzed at the required frequency.
- Verify that holding times for extraction and analyses and for sample reservation were met.
- Verify that the quantitation limits and method detection limits were suitable for screening against the required CULs.
- Verify that all project and QC sample results were properly reported and flagged.
- Review COC documentation to verify completeness of the sample set for each data package submitted.
- Assess the impact of laboratory QC procedures and samples.

The laboratory analyst will be responsible for the reduction of raw data generated at the laboratory bench and to verify that the data reduction performed by the laboratory instrument is correct.

The following QC check for data verification will be performed for all generated data:

• Verify that calibrations and calibration checks comply with laboratory criteria.

This QC check will be performed by laboratory analysts, the assigned laboratory project manager or supervisor, laboratory QC specialists, or a combination of these personnel. After the data reports have been reviewed and verified, the laboratory reports will be signed and released for distribution.

# 4.2 Data Validation Methods

The validation of analytical data will be performed for 100 percent of the data report packages for each analysis type generated by each analytical laboratory. The data validation review will include

review of the following items from the Tier II (S2AVE) laboratory data reports: consistency with the COC, holding times, surrogate recoveries, MS recoveries, field duplicate agreement, MSD and laboratory duplicate precision, and method blank analyses. Refer to USEPA (2009) for S2AVE-level data validation and verification requirements (USEPA, 2009).

Data validation reports will provide the appropriate data validation label (i.e., S2AVE or S4VEM). The data validator will review data and assign data qualifiers to sample results, following sections of the USEPA procedures for inorganic data (USEPA, 2010), organic data (USEPA, 2008b), and dioxins (USEPA, 2011); the dioxin rules memorandum (see Appendix) developed by MFA and approved by Ecology; and method-specific guidelines (e.g., USEPA, 2008a).

The purpose of this independent review will be to verify that the laboratory QC program is adequate and that the laboratory met the performance criteria. A full data validation will be performed on the first data package generated for the specific project and contractor laboratory. If problems are encountered, an independent Tier IV (S4VEM) data validation review of laboratory performance criteria may be performed.

Data qualifiers are used to classify sample data as to their conformance to QC requirements. The most common qualifiers are listed below:

- J—Estimate, qualitatively correct but quantitatively suspect.
- R—Reject, data not suitable for any purpose.
- U—Not detected at a specified detection limit.

Poor surrogate recovery, blank contamination, or calibration problems, among other things, can cause the sample data to be qualified. Whenever sample data are qualified, the reasons for the qualifications will be stated in the data validation report. QC criteria not defined in the guidelines for evaluating analytical data are adopted, where appropriate, from the analytical method. The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

MFA. 2014. Soil management and cap maintenance plan, railroad overpass property. Prepared for the Port of Ridgefield. Prepared by Maul Foster & Alongi, Inc., Vancouver, Washington. May 9.

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# TABLES





## Table 2-1 Sample Handling Summary Port of Ridgefield Ridgefield, Washington

Analyte	Method	Suggested Volume	Container	Number of Containers	Preservative	Storage Temperature	Holding Time from Collection
Polycyclic Aromatic Hydrocarbons <sup>(a)</sup>	EPA 8270 SIM	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Semivolatile Organic Compounds <sup>(a)</sup>	EPA 8270 SIM	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Volatile Organic Compounds <sup>(a)</sup>	EPA 8260	4 ounces	EPA 5035 kit <sup>(b)</sup>	1	none	4 degrees C	14 days
Dioxins and Furans	EPA 1613B	4 ounces	Amber Glass Jar	1	none	4 degrees C	one year
Total Petroleum Hydrocarbons— Diesel and Oil	NWTPH-Dx	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Total Petroleum Hydrocarbons— Gasoline	NWTPH-Gx	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Metals	EPA 6020	4 ounces	Glass Jar	1	none	4 degrees C	six months

NOTES:

C = Celsius.

EPA = U.S. Environmental Protection Agency.

NWTPH = Northwest Total Petroleum Hydrocarbons.

SIM = selected ion monitoring.

SMCMP = Soil Management and Cap Maintenance Plan.

<sup>(a)</sup>Indicate on the chain of custody only those compounds described in Section 3 of the Sampling and Analysis Plan.

<sup>(b)</sup>5035 sample kit includes 1 pre-tared 40 mL VOA container with 5 mL of sodium bisulfate, 2 pre-tared 40 mL VOA containers with 5 mL of methanol and 1 two ounce jar for moisture content determination.



## Table 3-1 Indicator Hazardous Substances Port of Ridgefield Ridgefield, Washington

Indicator Hazardous Substances	Soil Cleanup Level	Basis	Property
Metals (mg/kg)			•
Arsenic	5.81	Ecology background <sup>(a)</sup>	LRIS Cells 1,2,3, and 4
Barium	102	MTCA Ecological Indicator Concentration <sup>(b)</sup>	LRIS Cells 1,2,3, and 4
Chromium	67	MTCA Ecological Indicator Concentration <sup>(b)</sup>	LRIS Cells 1,2,3, and 4
Copper	217	MTCA Ecological Indicator Concentration <sup>(b)</sup>	LRIS Cells 1,2,3, and 4
Zinc	360	MTCA Ecological Indicator Concentration <sup>(b)</sup>	LRIS Cells 1,2,3, and 4
Chlorinated Phenolics (mg/kg)			
Pentachlorophenol	4.5/8.3	MTCA Ecological Indicator Concentration <sup>(b)</sup> ; MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Carcinogenic PAHs (mg/kg)		•	-
сРАН ТЕQ	0.14	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Noncarcinogenic PAHs (mg/kg)			
Acenaphthene	4800	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Fluoranthene	3200	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Fluorene	3200	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
2 Methylnaphthalene	320	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Naphthalene	1600	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Pyrene	2400	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
SVOCs (mg/kg)			
Dibenzofuran	160	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
VOCs (mg/kg)			
Naphthalene	1600	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Styrene	33	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
1,1,2,2-Tetrachloroethane	5	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
1,2,4-Trimethylbenzene	4000	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Petroleum Hydrocarbons (mg/kg	g)		
GRO	30	MTCA Method A <sup>(d)</sup>	LRIS Cells 1,2,3, and 4
DRO/RRO	2000	MTCA Method A <sup>(d)</sup>	LRIS Cells 1,2,3, and 4
Dioxins (ng/kg)			
Dioxin TEQ—Human Health	11	MTCA Method B <sup>(c)</sup>	LRIS Cells 1,2,3, and 4
Dioxin TEQ—Ecological	9.8	Terrestrial ecological CUL <sup>(e)</sup>	Port Marina property and Railroad Avenue property
Furan TEQ—Ecological	11.4	Terrestrial ecological CUL <sup>(e)</sup>	Port Marina property and Railroad Avenue property

## Table 3-1 Indicator Hazardous Substances Port of Ridgefield Ridgefield, Washington



#### NOTES:

CULs may be reviewed and updated by Ecology. Values should be compared with current values shown in CLARC database.

CLARC = cleanup levels and risk calculation.

cPAH TEQ = carcinogenic PAH toxicity equivalent.

CUL = cleanup level.

DRO = diesel-range organic.

Ecology = Washington State Department of Ecology.

GRO = gasoline-range organic.

LRIS = Lake River Industrial Site.

mg/kg = milligrams per kilogram.

MTCA = Model Toxics Control Act.

ng/kg = nanograms per kilogram.

PAH = polycyclic aromatic hydrocarbon.

RRO = residual-range organic.

SMCMP = Soil Management and Cap Maintenance Plan.

SVOC = semivolatile organic compound.

TEQ = toxicity equivalent.

VOC = volatile organic compound.

<sup>(a)</sup>Ecology Publication No. 94-115, Natural Background Soil Metals Concentrations in Washington State, Clark County.

<sup>(b)</sup>MTCA Ecological Indicator Concentration for protection of wildlife (Table 749-3).

<sup>(c)</sup>MTCA Method B, direct contact (ingestion only), unrestricted land use.

<sup>(d)</sup>MTCA Method A Industrial/Unrestricted Land Use Table Value.

<sup>(e)</sup>Site-specific terrestrial ecological CUL. Calculation methods for ecological dioxin and furan TEQs are provided in the site Remedial Investigation/Feasibility Study.

# **APPENDIX** DIOXIN AND FURAN ANALYSIS, DATA VALIDATION, AND TEQ CALCULATION RULES MEMORANDUM





June 27, 2013 9003.01.49

Date:

Project:

RE: Dioxin and Furan Analysis, Data Validation, and TEQ Calculation Rules

The term dioxin is used to refer to a family of toxic chemicals that share a similar chemical structure and a common mechanism of toxic action. While there are 210 dioxin congeners, typically only the 17 most toxic congeners are reported by laboratories. The reported concentrations of the 17 dioxin congeners typically are validated to assess usability and then a toxicity equivalence (TEQ) is calculated from the reported results to evaluate the toxicity of these compounds as a whole. The purpose of this memo is to provide an approach for dioxin data validation and TEQ calculation for the former Pacific Wood Treating site. Further, analytical method recommendations and requirements for laboratory deliverables are provided to enable consistent data validation and TEQ calculation using data from a variety of laboratories.

Critical to consistent data use is consistent use of terminology. Terms used in this memorandum are defined below.

- Method Detection Limit (MDL)—The minimum concentration of a compound that can be measured and reported with 99 percent confidence that the value is greater than zero according to the Washington State Department of Ecology's (Ecology), Model Toxics Control Act (MTCA) (Ecology, 2007).
- Estimated Detection Limit (EDL)—The sample- and analyte-specific EDL is an estimate made by the laboratory of the concentration of a given analyte that would have to be present to produce a signal with a peak height of at least 2.5 times the background noise signal level (U.S. Environmental Protection Agency [USEPA], 2005).
- Practical Quantitation Limit (PQL)—The lowest concentration that can be reliably measured within specified limits of precision, accuracy, representativeness, completeness, and comparability during routine laboratory operating conditions, using Ecology-approved methods (Ecology, 2007). This value is usually the lowest concentration used to calibrate the instrument after being adjusted for sample volume, sample extract volume, cleanups performed, and injection volume. PQLs should be no greater than 10 times the MDL (Ecology, 2007) and no greater than what is established by the USEPA in 40 Code of Federal Regulations (CFR) 136, 40 CFR 141-143, or 40 CFR 260-270.

- Estimated Maximum Potential Concentration (EMPC)—An EMPC is a value calculated for a reported analyte when the signal-to-noise ratio is at least 2.5:1 for both quantitation ions, but the ion abundance ratio criteria used for analyte confirmation are not met (USEPA, 2005). An EMPC value represents the maximum possible result of an analyte that could not be positively identified. The inability to positively identify the analyte could be a result of matrix interference, a coeluting compound, or low response.
- Toxic Equivalency Factor (TEF)—The factor by which each congener is multiplied in order to calculate its toxicity relative to 2,3,7,8-TCDD (Ecology, 2007). These values are summed to calculate the TEQ. TEFs depend on the endpoint being examined (i.e., birds, fish, mammals).
- TEQs—Concentrations of each congener are adjusted and summed to reflect their potency relative to 2,3,7,8-TCDD, one of the most toxic congeners. The TEQ is the sum of congener results multiplied by their specific TEF (Ecology, 2007).

## ANALYTICAL METHODS

Dioxins are analyzed generally by USEPA Method 1613B or 8290, using a high-resolution gas chromatograph paired with a high-resolution mass spectrometer. A laboratory's PQL is usually the same for both methods. While the methods are very similar, Method 1613B is preferred, as it requires more rigorous quality assurance and quality control (QA/QC) through the use of six more internal standards than Method 8290. Because analytical technology and methodology have advanced rapidly since the methods were written, many laboratories combine elements of both methods to obtain the best results possible (Hoffman, E., and D. Fox 2010). Often the preparation and analyses are run using Method 1613B (for the additional QA/QC), while the calculations will be performed by Method 8290 (in order to obtain the sample- and analyte-specific EDLs). Method 1613B with calculated EDLs is the preferred method.

### LABORATORY DELIVERABLES

It is important to work closely with the laboratory performing the dioxin analyses because different laboratories report data in different ways. The following items should be requested to ensure that the analytical report and electronic data deliverable (EDD) will contain all of the requisite information to validation the data and calculate TEQs:

- EDLs<sup>1</sup> and PQLs should be included in the final analytical report. EDLs, MDLs, and PQLs should all be included in the EDD.
- Results should be reported to the sample- and analyte-specific EDL. Results below the PQL but above the EDL will be qualified as estimates (J).
- EMPC results should be reported at the EMPC value (EMPC values will be assigned a "U" qualifier [the analyte was not detected at or above the concentration qualified] at the time of validation).

#### R:\9003.01 Port of Ridgefield\Report\49\_2013.07.01 RIFS\Appendix F Dioxin Rules\Appendix F Dioxin Rules.docx

<sup>&</sup>lt;sup>1</sup> Note that USEPA Method 1613B does not provide for the calculation of EDLs; therefore, the laboratory must use the calculation approach provided in Method 8290 to report the required limits.

TEQ concentrations will not be requested from the laboratory. If the laboratory provides TEQ concentrations, they will not be used because the data have not been validated TEQs should be calculated only after the data are validated.

### VALIDATION

Dioxin data are validated much like other organic data, but there are a few issues that do not typically arise in other organic data sets. In addition to standard validation procedures (USEPA 2005), the following scenarios should be addressed in the fashion described below, consistent with other Ecology sites (Ecology and Environment and G. L. Glass, 2011):

- EMPC reported values should be assigned a U qualifier at the reported EMPC value.
- EMPC values that appear to be significantly elevated should be investigated further with the laboratory and may be assigned an R qualifier (unusable) when applicable.
- Non-detected results should be assigned a U qualifier and reported at the EDL value.

Further dioxin validation guidelines can be found in the National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) and Chlorinated Dibenzofurans (CDFs) Data Review (USEPA 2005). Data must be validated before TEQs are calculated.

#### TEQS

To express the overall toxicity of the 17 reported dioxins, the concentration of each congener is adjusted based on its toxicity relative to the most toxic congener, 2,3,7,8-TCDD, and then all 17 are added together. The adjustment factors, the TEFs, are provided by the 2005 World Health Organization. TEQs are commonly calculated by one of the following two methods:

- 1. Non-detected values (U) are set as one half of the EDL. Values that are detected, even as estimates (J), should be used at face value. Multiply congener values by their corresponding TEF and then sum all of the products.
- 2. Non-detected values (U) are set as 0. Values that are detected, even as estimates (J), should be used at face value. Multiply congener values by their corresponding TEF and then sum all of the products.

These methods result in two different TEQ values that can be shown as TEQ (U=1/2) and TEQ (U=0). TEQs should not be calculated to more significant figures than the original data. The table below illustrates these methods:

Dioxin	Result (ng/kg)	TEC <sup>1</sup> (U=1/2) (ng/kg)	TEC <sup>1</sup> (U=0) (ng/kg)	TEF Mammals
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	44	44	44	0.0003
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3000 J	3000	3000	0.0003
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	41	41	41	0.01
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	510	510	510	0.01
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	2.9 U	1.45	0	0.01
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	6.9 U	3.45	0	0.1
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	7.4	7.4	7.4	0.1
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	5.2 U	2.6	0	0.1
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	27	27	27	0.1
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	0.5 U	0.25	0	0.1
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	22	22	22	0.1
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	3.4 U	1.7	0	0.03
1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	3.2 U	1.6	0	1
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	2.4	2.4	2.4	0.1
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	3 U	1.5	0	0.3
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	1.4 U	0.7	0	0.1
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.23 U	0.115	0	1
Total Heptachlorodibenzofuran (HpCDF)	99	99	99	
Total Heptachlorodibenzo-p-dioxin (HpCDD)	1,100	1100	1100	
Total Hexachlorodibenzofuran (HxCDF)	97 J	97	97	
Total Hexachlorodibenzo-p-dioxin (HxCDD)	250	250	250	
Total Pentachlorodibenzofuran (PeCDF)	44	44	44	
Total Pentachlorodibenzo-p-dioxin (PeCDD)	32 J	32	32	
Total Tetrachlorodibenzofuran (TCDF)	19	19	19	
Total Tetrachlorodibenzo-p-dioxin (TCDD)	8.2	8.2	8.2	
TEQ (U=1/2)	15.2			
TEQ (U=0)	12.3			
NOTES:				

Table
Example of Handling Non-Detects and Resulting TEQs

--- = no value. ng/kg = nanograms per kilogram. 1TEC is analyte-specific TEF adjusted concentration.

The difference between TEQ (U=1/2) and TEQ (U=0) values gives data reviewers an idea of how much the EDL substitution affects the TEQ summation (Hoffman, E., and D. Fox 2010). While MTCA does not specify using the TEQ (U=1/2) method, it is the method that has been historically used at the Port of Ridgefield and will continue to be used.

#### SUMMARY

- USEPA Method 1613B is recommended for dioxin analysis (with Method 8290 EDL calculations).
- The laboratory must report a PQL and EDL for each sample and each congener, and provide a PQL, EDL, and MDL for each sample and each congener in the EDD.
- Results should be reported to the sample- and analyte-specific EDL. Results below the PQL but above the EDL will be qualified as estimates (J).
- EMPC results should be reported at the EMPC value (EMPC values will be assigned a "U" qualifier at the time of validation). However, if the EMPC is significantly elevated, additional qualification may be appropriate.
- Non-detected results should be assigned a U qualifier and reported at the EDL value.
- Laboratory data must be validated before a TEQ is calculated.
- TEQs should be calculated as follows: non-detected values (U) are set as one half of the EDL. Values that are detected, even as estimates (J), should be used at face value. Multiply congener values by their corresponding TEF and then sum all of the products.

#### REFERENCES

Ecology. 2007. Model Toxics Control Act statute and regulation. Publication No. 94-06. Washington State Department of Ecology. November.

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Hoffman, E., and D. Fox. 2010. Polychlorinated dioxins and furans (PCDD/F): revisions to the supplemental quality assurance project plan (SQAPP). U.S. Environmental Protection Agency. November.

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# APPENDIX D MEMO RE: UPLAND OFF-PROPERTY DIOXIN WASTE DESIGNATION





To:	Craig Rankine	Date:	December 20, 2012
From:	Madi Novak March Warah	Project:	9003.01.39
	Steve Taylor, PE		
RE:	Upland Off-Property Dioxin Waste Designation Former Pacific Wood Treating Site, Ridgefield, Wa Agreed Order No. 01TCPSR-3119	shington	

On behalf of the Port of Ridgefield, (Port), Maul Foster & Alongi, Inc. (MFA) has prepared this memorandum to determine the waste designation for soils containing dibenzo-p-dioxins and furans (collectively referred to as dioxins) off-property of the Lake River Industrial Site (LRIS) in Ridgefield, Washington. The LRIS is the location of the former Pacific Wood Treating Corporation (PWT) facility where historical operations primarily involved pressure-treating wood products with oil-based treatment solutions containing creosote, pentachlorophenol (PCP), and water-based mixtures of copper, chromium, arsenic, and/or zinc.

Soils that are located off property of the LRIS in the adjoining residential neighborhood and McCuddy's Marina parking area (i.e., off-property area) contain dioxins. However, the source of the dioxins is not readily apparent. Sources of dioxins at the PWT facility may have included spent formulations from wood preserving processes, combustion of waste by PWT and a previous shingle mill, combustion of fuels at the facility, and by trucks and trains traveling adjacent to the facility and to the offsite properties.

The U.S. Environmental Protection Agency (USEPA) has prepared a document clarifying RCRA policy for remediation waste<sup>1</sup> which provides the following on page 5 of the document.

Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste and, therefore, provided the material in question does not

<sup>&</sup>lt;sup>1</sup> USEPA, 1998. Management of Remediation Waste under RCRA. Office of Solid Waste and Emergency Response. Ref. EPA530-F-98-026. October 14.

<sup>2001</sup> NW 19th Avenue, Suite 200 | Portland, Oregon 97209 | p. 971 544 2139 | f. 971 544 2140 | www.maulfoster.com

Project No. 9003.01.39

Craig Rankine December 20, 2012 Page 2

exhibit a characteristic of hazardous waste, RCRA requirements do not apply... This approach was confirmed in the final NCP<sup>2</sup> preamble. See, 53 FR 51444, December 21, 1988 for proposed NCP preamble discussion; 55 FR 8758, March 13, 1990 for final NCP preamble discussion.

There are no historical records of a release off- property from PWT's operation that would result in the determination that the off-property soils are a listed hazardous waste, specifically the F032, F034 and F035 listings that are assigned to *wastewater, process residuals, preservative drippage, and spent formulations from wood preserving processes that used chlorophenolic formulations, creosote or arsenic based treating solutions respectively.* These waste codes have been applied to soils on the property because of known releases on the property.

The soil containing dioxins that is located offsite of the former PWT facility (i.e., LRIS) is not designated as hazardous waste under the guidelines provided by USEPA. The operation that generated the dioxin compounds cannot be determined because there are several potential sources (including the wood treating operations) that could have led to contamination of soils in the offsite areas. Given this information, the F032, F034 and F035 listed hazardous waste codes are not applicable to the soil that could be generated during any future remedial action in the off-property area.

The soil sample results have also been reviewed for possible designation as a characteristic hazardous waste or a Washington state-only dangerous waste Per WAC 173-303-100 Dangerous Waste Criteria. The concentration of dioxins, polycyclic aromatic hydrocarbons (PAHs) and halogenated organic compounds (HOCs) were reviewed in accordance with the WAC 173-303-100 requirements as follows:

Toxic Dangerous Wastes - The equivalent concentration for the toxic constituents (metals, PAHs, HOCs, and dioxins) is below the 0.001 percent threshold in WAC 173-303-100(5), and the material does not designate as a state-only toxic waste.

Persistent Dangerous Wastes - PAHs, HOCs, and dioxins are below the 0.01 percent threshold for characterizing a material as a persistent dangerous waste as described in WAC 173-303-100(6).

Based on the above review, the soil to be generated during the off-property remedial action would not designate as a Washington state-only dangerous waste.

<sup>&</sup>lt;sup>2</sup> National Contingency Plan

# APPENDIX E CAMU DOCUMENTATION





#### STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000 711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

June 8, 2011

Ms. Laurie Olin Director of Operations Port of Ridgefield P.O. Box 55 111 West Division Ridgefield, WA 98642

RE: CAMU-eligible soils at the Pacific Wood Treating/Port of Ridgefield Site Facility Site ID 1019

Dear Ms. Olin:

This letter documents the Department of Ecology's (Ecology's) determination that contaminated soils from Pacific Wood Treating Site are Corrective Action Management Unit (CAMU)-eligible waste under the Dangerous Waste Regulations (Chapter 173-303 WAC). These soils may be disposed off-site at a designated hazardous waste landfill according to WAC 173-303-646920.

In a March 16 e-mail to Jennifer King, Ecology stated that adequate information had been submitted by Maul Foster & Alongi, Inc, the Port of Ridgefield's consultant, for Ecology to tentatively approve placement of soils from the Pacific Wood Treating Site in an off-site dangerous waste landfill as CAMU-eligible waste.

The Dangerous Waste Regulations require Ecology to determine principal hazardous constituents (PHCs) in the soils and proposed treatment levels for each PHC. For the Pacific Wood Treating Site these are found in Appendix A (Corrective Action Management Unit Documentation) in *Cells 1 and 2 Interim Action Work Plan, Former Pacific Wood Treating Corporation*, dated April 13, specifically in the table entitled "Table Proposed Treatment Levels for CAMU Disposal, Port of Ridgefield - Lake River Industrial Site, Ridgefield, Washington."

The Dangerous Waste Regulations require Ecology to provide public notice and a reasonable opportunity for public comment before approving placement of CAMU-eligible waste in an off-

Ms. Laurie Olin June 8, 2011 Page 2

site landfill. The recent public comment period (April 25 to May 25, 2011) on the interim action work plan included information and a request to comment about the off-site disposal of site soils as CAMU-eligible waste. No comments were received specific to the CAMU-eligible waste proposal.

The federal regulations (40 CFR 264.555) outline the remaining requirements for approving placement of CAMU-eligible waste in an off-site landfill. Part 264.555(e) outlines the necessary procedures for public comment and regulatory approval at the landfill before CAMU-eligible waste may be placed in the off-site landfill. Ecology understands that soils from the Pacific Wood Treating Site will be sent to the Chemical Waste Management (CWM) Subtitle C Facility in Arlington, Oregon, and that this facility is permitted to accept CAMU-eligible waste. For each cleanup generating a CAMU-eligible waste, CWM must request an additional permit modification from the Oregon Department of Environmental Quality (DEQ), including the source of the CAMU waste, its PHCs, and the applicable treatment requirements. Public notice by CWM is also required (40 CFR § 264.555(d)-(e)). The DEQ may object to the off-site placement of CAMU-eligible wastes may not be placed in the landfill until DEQ has notified CWM that DEQ does not object to its placement.

WAC 173-303-646910(6) requires generators of CAMU-eligible wastes sent to an off-site dangerous waste landfill to comply with the reporting, tracking, and recordkeeping requirements of 40 CFR 268.7(a)(4).

If you have any questions about this letter, please contact me at 360-407-6359.

Sincerely,

terson

Kaia Petersen Licensed Hydrogeologist Department of Ecology Hazardous Waste and Toxics Reduction Southwest Regional Office kaia.petersen(accy.wa.gov

 cc: Craig Rankine, Department of Ecology, <u>craig.rankine@ecv.wa.gov</u> Jennifer King, Maul Foster & Alongi, Inc., <u>iking@maulfoster.com</u> Rich Duval, Oregon Department of Environmental Quality, <u>duval.rich@deq.state.or.us</u>

# **APPENDIX F** GEOTEXTILE SPECIFICATION AND PLANTING LIST



# APPENDIX F – GEOTEXTILE SPECIFICATION AND PLANTING LIST

PORT OF RIDGEFIELD 2012 INTERIM ACTION GRADING TECHNICAL SPECIFICATIONS GEOTEXTILE PRODUCT DESCRIPTION SHEET PLANT LIST

#### SECTION 31 05 19

#### GEOSYNTHETICS

#### PART 1 GENERAL

#### 1.1 SUMMARY

A. This Section describes the requirements for the supply and installation of the geotextiles specified for erosion and sediment control and geotextile demarcation material.

#### 1.2 SUBMITTALS

The CONTRACTOR shall submit the following to the ENGINEER per Section 01 33 00:

A. SD-01 (Preconstruction Submittals)

- 1. Product samples, data sheets, and complete description meeting or exceeding the specifications in this Section for materials supplied by Contractor.
- 2. Manufacturer's quality control testing reports summarizing the testing requirements specified in Part 2 of this Section for materials supplied by Contractor.
- 3. Manufacturer's instructions for storage, installation, and repair.
- 4. Product sample and data sheets.

#### 1.3 FIELD MEASUREMENTS

A. CONTRACTOR shall verify actual quantities required with field measurements prior to ordering, fabricating, or installing geosynthetics (except demarcation geotextile) to ensure proper quantities are delivered to the site.

#### 1.4 COORDINATION

A. The CONTRACTOR shall inform the ENGINEER prior to installation of geosynthetics so that ENGINEER may be present to observe installation.

#### 1.5 MEASUREMENT AND PAYMENT

A. Measurement and payment shall be incidental to other Bid Items.

#### PART 2 PRODUCTS

#### 2.1 GEOSYNTHETICS

#### 2.1.1 SEDIMENT FENCE GEOTEXTILE

A. Sediment fence shall have the following MINIMUM properties:

Property	Test Method	Minimum Average Roll Value
Water Permittivity	ASTM D4491	0.02 sec <sup>-1</sup>
Grab Tensile Strength	ASTM D4632	180 lbs minimum for extra strength fabric.
	10111 21002	100 lbs minimum for standard strength fabric.
Grab Tensile Strength	ASTM D4632	30% maximum
Ultraviolet Resistance	ASTM D 4355	70% minimum
		60 mm maximum for slit film wovens (#30 sieve).
Polymeric mesh Apparent Opening Size	ASTM D4751	0.30 mm maximum for all other geotextile types (#50 sieve).
		0.15 mm minimum for all fabric types (#100 sieve).

- B. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of 6-inch overlap.
- C. Wood, steel or equivalent posts shall be used. Wood posts shall have minimum dimensions of 2 inches by 2 inches by 3 feet minimum length, and shall be free of defects such as knots, splits, or gouges.
- D. Steel posts shall consist of either size No. 6 rebar or larger, ASTM A 120 steel pipe with a minimum diameter of 1-inch, U, T, L, or C shape steel posts with a minimum weight of 1.35 lbs./ft. or other steel posts having equivalent strength and bending resistance to the post sizes listed. The spacing of the support posts shall be a maximum of 6 feet.
- E. Fence back-up support, if used, shall consist of steel wire with a maximum mesh spacing of 2 inches, or a prefabricated polymeric mesh. The strength of the wire or polymeric mesh shall be equivalent to or greater than 180 lbs. grab tensile strength. The polymeric mesh must be as resistant to ultraviolet radiation as the geotextile it supports.
- F. Sediment Fence geotextile shall be installed per Part 3.1 of this Section.

#### 2.1.2 DEMARCATION GEOTEXTILE

A. The CONTRACTOR shall provide demarcation geotextile (SKAPS GT-160 non-woven geotextile or approved equal) having the following MINIMUM properties:

Property	Test Method	Minimum Average Roll Value
California Bearing Ratio Puncture Resistance	ASTM D6241	410 lbs
Apparent Opening Size	ASTM D4751	0.212 mm

B. Demarcation Geotextile shall be installed per Part 3.2 of this Section.

#### 2.1.3 SEPARATION GEOTEXTILE FOR STABILIZED CONSTRUCTION ENTRANCE

A. A separation geotextile shall be placed under the spalls to prevent fine sediment from pumping up into the rock pad. The geotextile shall meet the following standards:

Property	Test Method	Minimum Average Roll Value
Mullen Burst Strength	ASTM D3786-80a	400 psi min.
Grab Tensile Strength	ASTM D4751	200 psi min.
Grab Tensile Elongation	ASTM D4632	30% maximum
Ultraviolet Resistance	ASTM D4355	70% minimum
Apparent Opening Size	ASTM D4751	20-45 (U.S. standard sieve size)

B. Separation geotextile for stabilized construction entrance shall be installed per Part 3.3 of this Section.

#### PART 3 EXECUTION

#### 3.1 SEDIMENT FENCE GEOTEXTILE

- A. The CONTRACTOR shall install and maintain temporary silt fences at the locations shown in the Plans. The silt fences shall be constructed in the areas of clearing, grading, or drainage prior to starting those activities. A silt fence shall not be considered temporary if the silt fence must function beyond the life of the contract. The silt fence shall prevent soil carried by runoff water from going beneath, through, or over the top of the silt fence, but shall allow the water to pass through the fence.
- B. The minimum height of the top of silt fence shall be 2 feet and the maximum height shall be 2.5 feet above the original ground surface.
- C. The geotextile shall be sewn together at the point of manufacture, or at an approved location as determined by the Engineer, to form geotextile lengths as required. All sewn seams shall be located at a support post. Alternatively, two sections of silt fence can be overlapped, provided the Contractor can demonstrate, to the satisfaction of the ENGINEER, that the overlap is long enough and that the adjacent fence sections are close enough together to prevent silt laden water from escaping through the fence at the overlap.
- D. The geotextile shall be attached on the up-slope side of the posts and support system with staples, wire, or in accordance with the manufacturer's recommendations. The geotextile shall be attached to the posts in a manner that reduces the potential for geotextile tearing at the staples, wire, or other connection device. Silt fence back-up support for the geotextile in the form of a wire or plastic mesh is dependent on the properties of the geotextile selected for use. If wire or plastic back-up mesh is used, the mesh shall be

fastened securely to the up-slope of the posts with the geotextile being up-slope of the mesh back-up support.

- E. The geotextile at the bottom of the fence shall be buried in a trench to a minimum depth of 4 inches below the ground surface. The trench shall be backfilled and the soil tamped in place over the buried portion of the geotextile, such that no flow can pass beneath the fence and scouring cannot occur. When wire or polymeric back-up support mesh is used, the wire or polymeric mesh shall extend into the trench a minimum of 3 inches.
- F. The fence posts shall be placed or driven a minimum of 18 inches. A minimum depth of 12 inches is allowed if topsoil or other soft subgrade soil is not present and a minimum depth of 18 inches cannot be reached. Fence post depths shall be increased by 6 inches if the fence is located on slopes of 3:1 or steeper and the slope is perpendicular to the fence. If required post depths cannot be obtained, the posts shall be adequately secured by bracing or guying to prevent overturning of the fence due to sediment loading.
- G. Silt fences shall be located on contour as much as possible, except at the ends of the fence, where the fence shall be turned uphill such that the silt fence captures the runoff water and prevents water from flowing around the end of the fence.
- H. If the fence must cross contours, with the exception of the ends of the fence, gravel check dams placed perpendicular to the back of the fence shall be used to minimize concentrated flow and erosion along the back of the fence. The gravel check dams shall be approximately 1-foot deep at the back of the fence. It shall be continued perpendicular to the fence at the same elevation until the top of the check dam intercepts the ground surface behind the fence. The gravel check dams shall consist of crushed surfacing base course, gravel backfill for walls, or shoulder ballast. The gravel check dams shall be located every 10 feet along the fence where the fence must cross contours. The slope of the fence line where contours must be crossed shall not be steeper than 3:1.

#### 3.2 DEMARCATION GEOTEXTILE INSTALLATION

- A. CONTRACTOR shall install demarcation geotextile on top of finished subgrade (see Section 02 61 13 EARTHWORK).
- B. Material shall be laid flat and smooth so it is in direct contact with the subgrade with a 6-inch minimum overlap. The surface shall be free of sharp materials that may puncture or tear the geotextile.
- C. The ENGINEER shall verify adequate placement and coverage prior to backfill of the excavation area.
- D. Demarcation materials shall not be exposed to sunlight or other open environmental factors for greater than 48 hours.
- E. Demarcation materials shall be staked or stapled to prevent movement of demarcation material during soil placement and damage or removal of material by wind prior to soil placement.

"Project Name" 2012 INTERIM ACTION GRADING TECHNICAL SPECIFICATIONS

#### 3.3 SEPARATION GEOTEXTILE FOR STABILIZED CONSTRUCTION ENTRANCE

A. Install separation geotextile for stabilized construction entrance per manufacturer's instructions and Stormwater Management Manual for Western Washington (2005 Edition) (SMMWW).

#### 3.4 PROTECTION

- A. Protect geosynthetics during installation from clogging, tears, and other damage.
- B. Damaged geosynthetics shall be repaired or replaced.
- C. Adequate ballast (e.g. sand bags) shall be used to prevent uplift by wind.

#### 3.5 REPAIRS

- A. Repair all torn or damaged geotextile in accordance with manufacturer recommendations.
- B. Geotextile rolls which cannot be repaired shall be removed and replaced.
- C. Damage resultant of installation or other construction activities shall be performed at no additional cost to the OWNER.

-- End of Section --



# **Geotextile Product Description Sheet**

## SKAPS GT-160 Nonwoven Geotextile

SKAPS GT-160 is a needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, which are formed into a random network for dimensional stability. SKAPS GT-160 resists ultraviolet deterioration, rotting, biological degradation, naturally encountered basics and acids. Polypropylene is stable within a pH range of 2 to 13. SKAPS GT-160 conforms to the physical property values listed below:

PROPERTY	TEST METHOD	UNIT	M.A.R.V. (Minimum Average Roll Value)
Weight (Typical)	ASTM D 5261	oz/yd² (g/m²)	6.0 (203)
Grab Tensile	ASTM D 4632	lbs (kN)	160 (0.711)
Grab Elongation	ASTM D 4632	%	50
Trapezoid Tear Strength	ASTM D 4533	lbs (kN)	60 (0.267)
CBR Puncture Resistance	ASTM D 6241	lbs (kN)	410 (1.82)
Permittivity*	ASTM D 4491	sec <sup>-1</sup>	1.5
Water Flow*	ASTM D 4491	gpm/ft <sup>2</sup> (l/min/m <sup>2</sup> )	110 (4480)
AOS*	ASTM D 4751	US Sieve (mm)	70 (0.212)
UV Resistance	ASTM D 4355	%/hrs	70/500

PACKAGING		
Roll Dimensions (W x L) – ft	12.5 x 360 / 15 x 300	
Square Yards Per Roll	500	
Estimated Roll Weight – Ibs	195	

\* At the time of manufacturing. Handling may change these properties.

This information is provided for reference purposes only and is not intended as a warranty or guarantee. SKAPS assumes no liability in connection with the use of this information.

**SKAPS Industries,** 335 Athena Drive, Athens GA 30601 Phone:(706)-354-3700, Fax(706)-354-3737,

www.skaps.com

Made in U.S.A.

# List of Plants without a Taproot

#### Trees

Abies concolor Acer japonicum\* Acer macrophyllum Acer palmatum\* Acer rubrum\* Betula papyrifera\* Betula pendula Carpinus betulus\* Cercidiphyllum japonicum Cornus florida Fagus sylvatica\* Fraxinus pennsylvanica\* Larix occidentalis

#### Shrubs

Kalmia latifolia

Lonicera japonica\*

White Fir Japanese Maple Big-Leaf Maple Japanese Maple Red Maple Paper Maple Weeping Birch European Hornbeam Katsuratree

Flowering Dogwood European Beech Green Ash Western Larch

Mountain Laurel

Japanese Honeysuckle

Picea pungens\* Picea sitchensis Platanus x acerfolia Populus balsamifera Prunus emarginata Prunus serrulata Psuedotsug menziesii Salix sp. Styrax japonicas Thuja occidentalis\* Thuja plicata Tilia cordata Colorado Spruce Sitka Spruce London Plane Tree Black Cottonwood Bitter Cherry Japanese Flowering Cherry Douglas Fir Willows Japanese Snowball Arborvitae Western Red Cedar Little Leaf Linden

Abelia x grandifolia	Glossy Abelia	Mahonia aquifolium	Compact Oregon Grape
Acer circinatum	Vine Maple	"Compacta"	
Andromeda polifolia	Bog Rosemary	Oemleria cerasiformis	Indian Plum
Arcostaphylos uvu-ursi	Kinnikinnik	Physocarpus capitatus	Western Ninebark
Azalea sp*	Azalea	Rosa Gymnocarpa	Baldhip Rose
Berberis Thunbergii*	Japanese Barberry	Rhododendron sp.*	Rhododendrons
Clethra alnifolia	Summersweet Clethra	Sambucus cerulean	Blue Elderberry
Cornus alba*	Dogwood	Sambucus racemosa	Red Elderberry
Cornus siricea*	Redosier Dogwood	Symphoricarpos albus	Snowberry
Deutzia oracilis	Slender Deutzia	Vaccinium corymbosum	Highbush blueberry
Euonymus fortunei*	Wintercreeper	Viburnum davidii	Davids Viburnum
Luonymus jorumei	Euonymus	Vaccinium ovatum	Evergreen huckleberry
Gautheria shallon	Salal	Viburnum lantana	Wayfaring Tree
Hamamelis mollis*	Chinese Witchhazel		Viburnum
Hamamelis Virginia	Witch Hazel	Viburnum opulus*	European Cranberrybush

## **Ground Cover**

The following list includes anticipated ground cover for the site. However, other perennial herbaceous plants, annual flowers, grasses, sedges, ferns, and mosses are acceptable as well.

Aruncus dioicus	Goat's Beard	Helictotrichon sempervirens	Blue Oat Grass
Belchnum spicant	Deer Fern	Miscanthus Sinensis	Maiden Grass
Calluna vulgaris*	Scotch Heather	Pennisetum alopecuroides	Fountain Grass
Camassia quamash	Common Camas	Sesleria autumnalis	Autumn Moor Grass
Cornus Canadensis	Bunchberry	Anemone hybrida	Japanese Anemone
Dicentra Formosa	Bleeding Heart	Narcissus	Daffodil
Fragaria chiloensis	Coastal Strawberry	Echinacea purpurea	Purple Cone Flower
Fragaria vesca	Woodland Strawberry	Hemerocallis	Daylily
Maianthemum dilatatum	False Lily-of-the-Valley	Liriope muscari	Lilyturf
Oxalis oregano	Wood Sorrel	Rudbekia hirta	Black-eyed Susan
Polystichum munitum	Sword Fern	Sedum	Stonecrop
Vancouveria hexandra	Inside-out Flower	Lawn mixes	
Carex	Sedges		
Deschampsia caespitosa	Tufted Hair Grass		

#### \*Including varieties

Note: This list is not all inclusive and other plant material may be added if it does not have a tap root. Data for list were obtained from the following sources:

- U.S. Forest Service Handbook 654 <u>http://www.na.fs.fed.us/pubs/silvics\_manual/table\_of\_contents.shtm</u>
- U.S. Forest Service Shrub list <u>http://www.fs.fed.us/database/feis/plants/shrub/</u>
- USDA Natural Resources Conservation Service—Plants Data Base <a href="http://plants.usda.gov/index.html">http://plants.usda.gov/index.html</a>
- The Complete Plant Selection Guide for Landscape Design by Marc C. Stoecklein

# APPENDIX G



# REVISED LAKE RIVER RIPARIAN ENHANCEMENT PLAN

# ADDENDUM TO THE JOINT AQUATIC RESOURCES PERMIT APPLICATION LAKE RIVER REMEDIAL ACTION 111 W DIVISION STREET RIDGEFIELD, WASHINGTON

NWS-2013-875

Prepared for **PORT OF RIDGEFIELD** January 17, 2014 Project No. 9003.01.40

Prepared by Maul Foster & Alongi, Inc. 400 E Mill Plain Blvd., Suite 400, Vancouver WA 98660


Maul Foster & Alongi, Inc. has prepared this riparian enhancement plan as a supplement to the Lake River Remedial Action Joint Aquatic Resources Permit Application (JARPA) (Reference Number NWS-2013-875). The purpose of the remedial action is to address historical contamination in the sediments in Lake River adjacent to the former Lake River Industrial Site (LRIS) (now referred to as Miller's Landing). The remedial action was designed to create a net benefit to the environment and will involve dredging and excavation of contaminated sediment in areas exceeding remediation levels, placing clean sand to control sediment residuals and enhance the recovery of low-level contamination, and bank stabilization (see Attachment 1 to the JARPA for a more detailed project description).

Mitigation sequencing has been incorporated throughout the design process for the project, which has been overseen by the Washington State Department of Ecology (Ecology). To effectively stabilize the bank, predominantly non-native and some native vegetation will be removed or covered. Removal of native shrubs and trees will be off-set through re-vegetation of the riverbank with natives following construction. This is consistent with federal regulations specifying that compensatory mitigation is required to ensure that impacts to the aquatic environment are minimized and offset (33 CFR, Parts 325 and 332, April 10, 2008). Per the regulations, a minimum 1:1 acreage or linear foot compensation must be provided (CFR 332.3(f)). In a letter from the U.S. Army Corps of Engineers (COE) on December 31, 2013, a 2:1 mitigation ratio (based on lineal feet) was requested to account for potential temporal impacts.

The purpose of this riparian enhancement plan is to (1) demonstrate that the proposed riparian enhancement meets and exceeds the 2:1 mitigation ratio, (2) describe measures that will be taken to improve habitat quality on the riverbank, and (3) outline plans for monitoring and maintenance.

MFA initially submitted a riparian enhancement plan on November 25, 2013 and received comments and a request for a revised riparian enhancement plan from the COE on December 31, 2013. During a conversation on January 8, 2014 the approach to the riparian enhancement documented herein was selected.

#### 1. BACKGROUND

Lake River is west of the former LRIS (now known as Miller's Landing) and the Ridgefield National Wildlife Refuge. The LRIS was used as a wood processing and shipping site between 1964 and 1993, and cleanup actions have been conducted at the LRIS since 2000. Through the completion of a remedial investigation and feasibility study conducted under an Agreed Order, it was determined that Lake River sediments are contaminated at levels that present unacceptable risk to human health and to ecological receptors. Therefore, Ecology requires remedial actions in Lake River to address legacy contamination in the remedy area (see Exhibit C1.0). The remedial action provides environmental benefit, as it addresses unacceptable risks to ecological receptors, primarily by dredging contaminated sediment and eliminating the potential for erosion of contaminated soils into the aquatic environment.

#### 2. PLAN OVERVIEW

Miller's Landing is a former industrial site that is planned for redevelopment with a mix of uses, including commercial, office, retail, and open space. The river bank at Miller's Landing is planned for recreational use, with trails and open grassy areas, and accommodates enhancements to habitat. The riparian habitat enhancement concept for Miller's Landing is to improve the physical characteristics of the riverbank and establish a native plant community. The enhancement concept includes:

- Grading the riverbank and adding fish mix rounded rock (7-inch median) from the toe of the slope to between approximately +11 and +14 feet National Geodetic Vertical Datum of 1929 (NGVD).
- Installing native trees, shrubs and groundcover in three discrete groves (planting groves 1, 2, and 3).
- Planting native grasses on the riverbank.

The native planting areas are located on the riverbank Cell 2, kayak launch, and Cell 3 reaches (see Exhibits L1.0 and L1.1). In the Cell 2 and kayak launch reaches, the planting area generally extends from ordinary high-water mark (OHW) of +14 feet NGVD to the gravel trail and includes native grasses and two discrete groves; the landward extent of the planting area generally follows the top of the riverbank. The planting area in the Cell 3 reach is comprised of one discrete grove; note native grasses were previously planted in the Cell 3 reach.

#### 3. COMPENSATORY MITIGATION

The riverbank will be re-graded and fish mix rounded rock will be installed from the toe of the slope to between approximately +11 and +14 feet NGVD. These bank stabilization elements were designed to account for Lake River wave action and to reduce soil erosion. Construction includes the removal or covering of vegetation. Existing vegetation is primarily non-native, however some natives are present. Removal of native vegetation requires compensatory mitigation and mitigation will be achieved with native vegetation plantings.

A survey of existing native tree and shrub vegetation was completed by MFA ecologists on January 10, 2014. Conditions were overcast, with some light rain. Temperatures were in the mid-40s (Fahrenheit). Native vegetation was identified and logged with a differential global positioning system along the entire shoreline between the water elevation (approximately +7 feet NGVD) and jurisdictional OHW (+14 NGVD) (see the Figure). A photo array showing shoreline vegetation and associated descriptions are provided in the Appendix.

Shrubs, groundcover, and some trees are generally present up to +11 NGVD. This vegetation is predominantly comprised of non-native California false indigo (*Amorpha californica*), reed canary grass (*Phalaris arundinacea*), Himalayan blackberry (*Rubus armeniacus*), and low growing groundcover. Above +11 NGVD, grasses<sup>1</sup> and non-native weeds (e.g., Queen Anne's lace) are dominant.

<sup>&</sup>lt;sup>1</sup> Grasses are non-native in Cell 2. In Cell 3, native grasses were recently planted.

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A total of 148 lineal feet of native tree and shrub vegetation was measured along the approximately 1,840 feet long shoreline (see the Figure). Some native herbaceous forbs (knotweed [*Polygonum sp.*] less than 3 feet tall) identified as nuisance species (Portland Bureau of Planning and Sustainability Portland Plant List) were not included in the evaluation. Note that native vegetation was generally isolated and surrounded by non-native vegetation.<sup>2</sup> Natives identified include Oregon ash, cottonwood species, and willow species; leaves were generally absent and twigs were collected to support identification.

The proposed native tree and shrub plantings (planting groves 1, 2, and 3) span approximately 500 lineal feet. The proposed tree and shrub plantings exceed the 148 lineal feet of existing native vegetation to be removed (3.4:1 ratio). The proposed plantings will therefore provide the required compensation (2:1 mitigation ratio based on lineal feet) for unavoidable impacts to aquatic resources (CFR 332.3(f)).

#### 4. RIPARIAN AREA GOALS, OBJECTIVES, AND PERFORMANCE STANDARDS

Goal: Enhance habitat functions and values of the riverbank.

**Objective 1:** Reduce and control non-native vegetation.

**Performance Standard 1:** During all monitoring periods, non-native, invasive plant species will not exceed 20 percent aerial cover in the planting areas.

**Objective 2:** Improve physical structure of riverbank habitat.

**Performance Standard 2:** Fish mix rounded rock material (7-inch median) will cover 100% of the riverbank from the toe of the slope to a minimum elevation between +11 feet and +14 NGVD. Turf reinforcement mat (TRM) will be in place from the fish mix extent to the top of the bank (approximately +22 NGVD).

**Objective 3:** Enhance the riverbank plant community.

**Performance Standard 3.1:** Planted, native tree and shrub species will achieve 100 percent survival during the first and second years after the site is planted. If dead plantings are replaced, the performance standard will be met.

**Performance Standard 3.2:** During the third through fifth years after planting, native tree and shrub species will achieve 80 percent survival. If dead plantings are replaced, the performance standard will be met.

#### Alternatively:

**Performance Standard 3.2:** Native tree and shrub species will provide 15 percent aerial cover in the third year and 25 percent aerial cover in the fifth year in the planting areas.

<sup>&</sup>lt;sup>2</sup> Non-native vegetation was generally present and dense along the entire shoreline, with the exception of the Division St. kayak launch area (no vegetation present).

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#### 5. GRADING AND PLANTING PLAN

#### 5.1. GRADING

The existing bank below +11 feet NGVD will be stabilized with a minimum 2-foot-thick layer of fish mix rounded rock (7-inch median) from the toe of the bank slope to a minimum elevation of approximately +11 feet NGVD. Fish mix will be placed on a filter layer consisting of filter gravel and/or filter fabric to prevent erosion of underlying bank soils. Fish mix will be placed at no greater than a 4H:1V slope. Above 11 feet NGVD, fish mix will be transitioned at a less-than-2-foot thickness to the existing clean soil cap grades. In the Cell 2 archaeological reach, the minimum 2-foot-thick layer of fish mix will extend farther up the bank to stabilize soils that, because of the presence of archaeological artifacts, were not regraded during the upland cleanup.

The fish mix is required to prevent further erosion of the bank and subsequent potential release of contaminants. Additionally, the fish mix will serve to protect known archaeological artifacts in the Lake River bank. Existing bank debris either will be removed prior to placement of fish mix or will be entirely covered by the fish mix.

TRM will be placed and seeded from the top of the bank down to the fish mix extents. The planted TRM will provide a reinforced, vegetated system to minimize erosion of the clean soil cap during high-water events.

#### 5.2. PLANT LIST

Native plants and grasses will be installed on the riverbank between OHW (+14 feet NGVD) and the gravel trail in the Cell 2 north, Cell 2 south, and kayak launch reaches (see Exhibits L1.0 and L1.1). As described above, fish mix will extend farther up the bank (above OHW) in the Cell 2 archaeological reach; native plants will be installed above the fish mix extents in this reach and a discrete grove extends landward of the gravel trail. In addition, a discrete native tree, shrub, and groundcover grove will be planted in the Cell 3 reach (see Exhibit L1.1). The planting plan has been designed to cluster native trees and shrubs in three groves to provide habitat structural diversity while protecting scenic views. The planting groves span approximately 500 lineal feet. The open areas between the clustered trees are planted or will be planted with native grasses. The total native plant area will extend approximately 1,750 feet and be approximately 2.7 acres.

The plants specified for the mitigation site are intended to provide diversity in each stratum and will provide cover and habitat in both the short and long terms. The proposed plant list includes seven species of native trees and seven species of native shrubs, along with variety of native grasses, legumes, and wildflowers.

Table	Planting	List
	· · · · · · · · · · · · · · · · · · ·	

Common Name	Scientific Na	me	Size*	Qty		Spacing	
Trees							
Douglas Fir	Pseudotsuga menzi	iessii	5 gal	4 Per		planting plan	
Western Red Cedar	Thuja plicata		5 gal	4	Per	planting plan	
Oregon Ash	Fraxinus latifolia		3 gal	4	Per	Per planting plan	
Pacific Crabapple	Malus fusca		3 gal	7	20'-0	)'', O.C.	
Pacific Willow	Salix lasiandra		1 gal	8	20'-0	)'', O.C.	
Scouler's Willow	Salix scouleriana		1 gal	4	15'-0	)", O.C.	
Chokecherry	Prunus virginiana		3 gal	13	15'-0	)″, O.C.	
Shrubs	·						
Snowberry	Symphoricarpos alk	ous	1 gal	58	3'-0'	3'-0", o.c.	
Nootka Rose	Rosa nutkana		1 gal	62	3'-0'	3'-0", o.c.	
Evergreen Huckleberry	Vaccinium ovatum		1 gal	41	3'-0'	3'-0", o.c.	
Red Flowering Currant	Ribes sanquineum		1 gal	61	4'-0'	4'-0", o.c.	
Douglas' Spiraea	Spiraea douglasii		1 gal	68	4'-0", o.c.		
Red-Osier Dogwood	Cornus stolonifera		1 gal	51	5'–0″, o.c.		
Ninebark	Physocarpus capita	atus	1 gal	33	6'-0'', O.C.		
Common Name		Examples			Туре		
Groundcover							
Low-Growing Native Grasses and Wildflowers		Ex: Yarrow and Red Fescue			Seed		
Low-Growing Native Grasses		Ex: Buffalo Grass and Red Fescue			Seed		
Taller Native Grasses		Ex: Tufted Hairgrass and Blue Wildrye			Seed		

\*If specified sizes are not available, bare root stock may be substituted.

#### 5.3. PLANTING SPECIFICATIONS

Plants will be installed according to the following specifications.

#### Planting

- Plant the site with native species according to the planting list.
- Lay out the plants according to the planting plan.
- Plant containerized and bareroot trees and shrubs with shovel or comparable tool. Position the plants' root crowns so that they are at or slightly above the level of the surrounding soil surface.
- Firmly compact the soil around the plants to eliminate air spaces.
- Install anti-herbivore devices, such as seedling protection tubes or mesh protection netting, around the stems of plants as appropriate. Secure with stakes.
- Irrigate all newly installed plants as weather conditions warrant.

#### **Bareroot Stock**

- Bareroot stock will be a minimum size of 18 to 36 inches tall.
- Bareroot stock will be kept cool and moist before planting.
- The bareroot stock will have well-developed roots and sturdy stems with an appropriate root-to-shoot ratio.
- No damaged or desiccated roots or diseased plants will be accepted.
- Unplanted bareroot stock will be properly stored at the end of each planting day to prevent desiccation.

#### 5.4. SCHEDULE

#### Year 1: 2015

•	January 2015-Precision	dredging	and	installation	of	the	fish	mix	rounded
	rock is scheduled to be co	ompleted.							

- January-March-Plant installation.
- April–October–Irrigation and maintenance.
- June–August—Conduct monitoring.
- November–December–Replace dead or failing plants as needed.

#### Year 2: 2016

- April–October–Irrigation and maintenance.
- June-August—Conduct monitoring.

#### Year 3: 2017

- April–October–Irrigation as needed and maintenance.
- June–August—Conduct monitoring.

#### Year 4: 2018

- April–October– Irrigation as needed and Maintenance.
- June–August—Conduct monitoring.

#### Year 5: 2019

- April–October– Irrigation as needed and Maintenance.
- June-August-Conduct monitoring.

#### 5.5. MAINTENANCE

The planting areas will be maintained during the monitoring period to support native plant establishment and to control non-native invasive species. Maintenance will include the following activities.

**Irrigation**—An irrigation system will be established. In the first year following planting, the irrigation system will be set to allow for 0.5 inch of precipitation two times per week between June 15 and October 1. In the second year following planting, the irrigation system will be set to allow for 0.5 inch of precipitation once per week between June 15 and October 1.

**Non-native Invasive Control**—Non-native plants will be controlled through mechanical means, including hand removal, brush cutting, and mowing. These activities will be conducted two to three times per growing season, or as needed, during the monitoring period, from approximately April 1 through October 1.

**Plant Replacement**—Dead or failing plantings may be replaced to meet the performance standards. Dead or failing plants will be evaluated to determine the cause of the decline. Alternate native species may be selected as replacement plants if it appears that these will have a better chance of survival. Replacement plants will be installed as described for the original installation.

#### 5.6. MONITORING PLAN

Planting areas will be inspected and monitored annually for five years. The goal of the monitoring inspections is to determine the survival rate of the installed plant material, to determine the extent of non-native invasive plant encroachment, and to identify maintenance tasks that are required to meet performance standards. Monitoring in the planting areas will include:

- Establishing photo documentation points.
- Comparing the number of planted native trees and shrubs to the number surviving.
- Identifying invasive plant material percent aerial cover and implementing removal as needed.

#### **Monitoring Report**

Following each inspection, a monitoring report will be prepared that notes observations made. The report will be submitted to the U.S. Army Corps of Engineers (COE) and will indicate if the planting is successful, not successful, or moving toward successful establishment. The information will indicate performance metrics and will contain photographs and a written description of the planting areas. The report will include the following information:

- The date of the inspection.
- Photodocumentation from established photo points to compare plant growth between monitoring inspections. The photos will be used to support

the findings and recommendations referenced in the report and to assist in assessing whether the project is successful for the monitoring period.

- A site location map indicating the monitoring area and locations of specific photo locations.
- A description of the conditions of the planting project.
- Conclusions. (If performance standards are not being met, a brief explanation of the difficulties will be included.)
- Recommendations for maintenance and adaptive management.

#### 6. ADAPTIVE MANAGEMENT

The monitoring and maintenance events will provide a basis of information for evaluating the success of the project and for making any recommendations for adaptive management that may be needed. If the COE or the Port of Ridgefield (the Port) believes that adaptive management of the riparian area is needed, they will collaboratively discuss options, and the Port will present a written proposal to the COE, identifying specific issues and measures for addressing them. Upon receiving written approval by the COE, the Port will proceed to implement the adaptive management measures.

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

# EXHIBITS







	L O N G I L O N G I 209 139 om
	MEA JOB #: 9003.01.40 ISSUE DATE: 01/15/14 CHECKED: M.NOVAK DRAWN: C.RLEY M A U L F O ST E R A 2001 W 19TH AVPULE. PONE: PONELAND. OR 971.542.27 PHONE: PHONE. PONELAND. OR 971.542.27 PHONE: PHONE. PONELAND. OR 971.542.27 PHONE: PHONE. P
QTY COMMON NAME S S S S S S S S S S S S S	REMEDIAL ACTION VEGETATION PLAN LAKE RIVER PORT OF RIDGEFIELD RIDGEFIELD, WASHINGTON
LA. TARKOW & RED FESCUE LOW GROWING NATIVE GRASSES EX: BUFFALO GRASS & RED FESCUE TALLER NATIVE GRASSES EX: TUFTED HAIRGRASS & BLUE WILDRYE	EXHIBIT L1.0



# FIGURE







Source: Aerial photograph obtained from NAIP (2013). Points and lines measured using Trimble GeoExplorer (MFA).

Note: NGVD = National Geodetic Vertical Datum

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This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or tion sources to ascertain the usability of the informatio

Legend ✓ Ordinary High Water (+14 Vegetation Measurement Line (Field GPS Measurement) • Tape Measurement Point

Total Native Vegetation Measured: 148 linear feet

Figure Lake River **Shoreline Native Vegetation** NWS-2013-875 Lake River Remedial Action Port of Ridgefield Ridgefield, Washington 0 75 150 Township 4N, Range 1W, W.M Section 24 

Feet

# APPENDIX





#### Photo No. 1 Shoreline looking southwest towards Port marina: reed canary grass, false indigo, and blackberry. South of Cell 3.

### **APPENDIX**—**PHOTOGRAPHS**

Project Name: Project Number: 9003.01.40 Location:

Lake River Remedial Action 111 West Division Street Ridgefield, Washington



#### Photo No. 2

Native black cottonwood and reed canary grass, looking west. Cell 3 south.





Willow species and reed canary grass, looking west. Cell 3 south.

## APPENDIX—PHOTOGRAPHS

Project Name:Lake RiverProject Number:9003.01.40Location:111 West D

Lake River Remedial Action r: 9003.01.40 111 West Division Street Ridgefield, Washington



#### Photo No. 4

Knotweed (Polygonum sp.), reed canary grass, and blackberry, looking southwest. Cell 3 south.





Oregon ash, and reed canary grass, looking northwest. Cell 3 middle.

## **APPENDIX**—**PHOTOGRAPHS**

Project Name:Lake RiverProject Number:9003.01.40Location:111 West D

Lake River Remedial Action r: 9003.01.40 111 West Division Street Ridgefield, Washington





#### Photo No. 6

Knotweed (dark brown), reed canary grass, and thistle, looking south. Cell 3 north.



False indigo bush and reed canary grass, looking north. Cell 2 south.

### **APPENDIX**—**PHOTOGRAPHS**

Project Name:Lake RiverProject Number:9003.01.40Location:111 West D

Lake River Remedial Action r: 9003.01.40 111 West Division Street Ridgefield, Washington



#### Photo No. 8

Willow species (center) surrounded by false indigo bushes, reed canary grass, and knotweed (dark brown), looking south. Cell 2 south.





Oregon ash shrub in foreground, reed canary grass and false indigo in background, looking west. Cell 2 middle.

### **APPENDIX**—**PHOTOGRAPHS**

Project Name: Project Number: 9003.01.40 Location:

Lake River Remedial Action 111 West Division Street Ridgefield, Washington



Photo No. 10

Native cottonwood in foreground, false indigo bushes in background, looking west. Cell 2 middle.





Photo No. 11 Willow sp. shrub in foreground, reed canary grass and false indigo in background. Cell 2 middle.

### **APPENDIX**—**PHOTOGRAPHS**

Project Name: Project Number: Location:

Lake River Remedial Action 9003.01.40 111 West Division Street Ridgefield, Washington



#### Photo No. 12

Reed canary grass, false indigo bushes, and small Oregon ash to the right, looking northwest. Cell 2 middle.





20' tall native tree (tentatively identified as an ash species based on seed pods) in foreground surrounded by false indigo bushes; native 14' (ash) tree on the right, looking west. Cell 2 north.

### **APPENDIX**—**PHOTOGRAPHS**

Project Name: Project Number: Location:

Lake River Remedial Action r: 9003.01.40 111 West Division Street Ridgefield, Washington



#### Photo No. 14

Native tree (tentatively identified as an ash species based on seed pods), looking west. Cell 2 north.



## APPENDIX H MONITORING WORKSHEET



#### SITE INSPECTION SUMMARY REPORT PORT OF RIDGEFIELD CAP VISUAL MONITORING

Project Number:	9001.01.49		
Date:			
Weather:			
Completed By:			
River Level:	24hr Precip:		
Photograph Requi	rements:		
Overview photo	graph of each cap component to capture composite view of entire cap.		
Any noted chan	ges or damage to the cap.		
General Observati	ions:		
General cap co	ndition and smoothness.		
Stormwater flow	characteristics (if monitoring conducted during wet weather).		
Activity on the sit	te.		
Visible changes s	since previous inspection.		
Standing water o	or areas of concentrated surface water flow.		
Visible demarca	tion fabric.		
Specific Observati	ons: To be noted with photographs, measurements, and locations:		
Vegetated Cap:			
Vegetative c	over with estimated coverage.		
Areas of surfa	ace erosion (rills/gullies, concentrated sediment deposits).		
Standing wat	Standing water or concentrated surface water flow.		
Cracking of soil surface perpendicular or parallel to riverbank.			
Invasive species present (location and quantity).			
Gravel Cap:			
Surface erosi	Surface erosion or displacement of gravel.		
Pumping of subgrade soils to gravel surface.			
Damage, tracking, or penetrations.			
Asphalt Cap:			
Settling or bu	Iging indicating differential settlement or heaving.		
Cracking or k	puckling indicating lateral expansion or contraction.		
Measurements:			
Length and dep	th of any surface erosion or damage.		
Estimated areal of	coverage of vegetation on soil cap.		
Depth of gravel	and soil caps at edges adjacent to pavement cap.		

#### SITE INSPECTION SUMMARY REPORT PORT OF RIDGEFIELD CAP VISUAL MONITORING

Project Number:	9001.01.49
Date:	
Weather:	
Completed By:	
River Level:	24hr Precip:
General Observati	ions:
Specific Observati	increase to be noted with photography maggirements and locations:
Vegetated Cap	ions: To be noted with photographs, measurements, and locations.
Gravel Cap:	
Asphalt Cap:	
Magguramonts	
measurements:	

#### SITE INSPECTION SUMMARY REPORT PORT OF RIDGEFIELD CAP VISUAL MONITORING

Project Number:	9001.01.49		
Date:			
Locatio (Station or Coo	on ordinates)	Observations	Photo Log

## APPENDIX B-2 SOIL MANAGEMENT AND CAP MAINTENANCE PLAN, RAILROAD OVERPASS PROPERTY



## SOIL MANAGEMENT AND CAP MAINTENANCE PLAN

RAILROAD OVERPASS PROPERTY



Prepared for **PORT OF RIDGEFIELD** May 9, 2014 Project No. 9003.01.49

Prepared by Maul Foster & Alongi, Inc. 400 E Mill Plain Blvd., Suite 400, Vancouver WA 98660

### SOIL MANAGEMENT AND CAP MAINTENANCE PLAN

RAILROAD OVERPASS PROPERTY The material and data in this plan were prepared under the supervision and direction of the undersigned.

MAUL FOSTER & ALONGI, INC.

Madi Warah

Madi Novak Senior Environmental Scientist

And ettil

Joshua Elliott, PE Project Engineer

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#### APPENDIX D

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FOLLOWING PLAN:

FIGURES

- 1-1 PROPERTY LOCATION
- 1-2 PROPERTY AND SITE OVERVIEW
- 1-3 DECISION FLOWCHART FOR SOIL MANAGEMENT
- 3-1 ECOLOGICAL DIOXIN TEQ IN SOIL

DESIGN DRAWINGS

CFR	Code of Federal Regulations
CUL	cleanup level
Ecology	Washington State Department of Ecology
LRIS	Lake River Industrial Site
MFA	Maul Foster & Alongi, Inc.
HAZWOPER	Hazardous Waste Operations and Emergency Response
MTCA	Model Toxics Control Act
OSHA	Occupational Safety and Health Act
Port	Port of Ridgefield
Property	the Port's Railroad Overpass property
RCRA	Resource Conservation and Recovery Act
RI/FS	remedial investigation and feasibility study
SAP	Sampling and Analysis Plan
SMCMP	Soil Management and Cap Maintenance Plan
USEPA	U.S. Environmental Protection Agency
WAC	Washington Administrative Code

## INTRODUCTION

Maul Foster & Alongi, Inc. (MFA) has prepared this Soil Management and Cap Maintenance Plan (SMCMP) on behalf of the Port of Ridgefield (Port) for the Port's Railroad Overpass property (the Property), which is near the former Pacific Wood Treating Co. (PWT) site in Ridgefield, Washington (Figure 1-1). Information pertaining to the soil management, cap description, and cap maintenance for the Property is provided here; a separate SMCMP pertains to the following nearby Port-owned properties: the Lake River Industrial Site (LRIS) (also known as Miller's Landing), the Railroad Avenue property, and the Port Marina property (see Figure 1-2) (MFA, 2014).

This SMCMP has been prepared in accordance with the requirement of Washington Administrative Code (WAC) 173-340-440 and related provisions of the November 2007 update of the Washington State Model Toxics Control Act (MTCA). This document addresses soil management procedures to be followed in the event of future development or of any condition in which the protective cap is breached. This document also addresses monitoring and maintenance procedures associated with the Property's protective cap. A decision matrix flow chart for conducting ground-disturbing work on the site is provided as Figure 1-3.

The Property is located south of the LRIS; see Figure 1-2. The Property is bordered to the north by W Mill Street, to the east by the Burlington Northern-Santa Fe Railway, and to the south and west by McCuddy's Marina. The Property is located in section 24, township 4 north, range 1 west, Willamette Meridian.

## 2 PROJECT ROLES AND RESPONSIBILITIES

The roles and responsibilities for management of the Property are discussed below. The individuals identified below may change, and it is the responsibility of the party performing work to obtain up-to-date information.

#### 2.1 Port of Ridgefield

The Port is the current owner of the Property. The Port will be considered the generator of all wastes removed from the Property, for as long as the Port holds ownership. If ownership of the Property changes, waste generation allocation will change to the new property owner. It is the Port (or subsequent owner) that will ultimately determine whether excavated material is managed on site or off site, with the assistance and approval of the Washington State Department of Ecology (Ecology). The Port, as long as it is an owner of the Property, must main records as specified in Section 6.6 and must provide these records to any subsequent property owner. The current director of operations is Laurie Olin, 360-887-3873.

#### 2.2 Maul Foster & Alongi, Inc.

MFA is the environmental consultant and engineer for the project. MFA has performed and will continue to perform technical analysis and evaluation of plans related to future development; conduct sampling and evaluation of site activities, as necessary; document environmental conditions; and certify compliance with long-term monitoring and maintenance plans and this SMCMP. MFA will assist the Port with regulatory compliance and waste-handling determinations and can be reached at (360) 694-2691.

#### 2.3 Washington State Department of Ecology

Ecology will continue to provide environmental oversight for future redevelopment projects that will encounter impacted site soil. The current Ecology project manager is Craig Rankine, (360) 690-4795.

## B RESIDUAL CONTAMINATION IN SOIL

Dioxins are the only indicator hazardous substance for the Property. It is assumed that some dioxin contamination remains below the protective cap. Therefore, all work on the Property that breaches the protective cap must adhere to the soil-management procedures outlined in this document.

Figure 3-1 shows the sampling location and dioxin ecological toxicity equivalence concentrations relative to the ecological cleanup level (CUL) of 9.8 nanograms per kilogram. An interpolation of estimated dioxin concentrations was developed during remedial design, based on the sample concentration on samples collected from the Property and the Port-owned off-property areas. The estimated concentration contours are shown on Figure 3-1.

## 4 SOIL MANAGEMENT PROCEDURES

Before the start of any work that will expose soil below the protective cap at the Property, a soilhandling work plan may be required. The soil-handling work plan should identify the quantity of soil cap to be worked or moved and where it will be staged; the quantity of impacted soil to be disturbed; and where it will be placed on site, stockpiled, or disposed of. The work plan should show the original cap layout and the restoration of an equally protective cap, as applicable.

The following sections describe the general protocol for soil handling associated with specific construction conditions. Construction conditions outside those defined below will require evaluation on a case-by-case basis to establish a protocol. The following conditions may be encountered during standard site-development activities.
# 4.1 Protective Cap Soil

Depending on the type of project, construction activities may be limited to disturbance of the protective cap zone. Disturbances of the protective soil cap (i.e., above demarcation fabric) will not involve any special health and safety requirements (outside standard construction health and safety protocols). Care shall be taken to maintain cap integrity during construction activities taking place on the protective cap. If the protective soil cap is disturbed, reconstruction will be required. Ruts in the protective cap are to be filled with clean fill to avoid ponding. Grading or moving cap material from one location to another will not be permitted if it creates an area in the cap that does not meet the minimum thickness. Cap surface slopes must be maintained for adequate stormwater flow, and best management practices must be implemented to prevent erosion of cap material. Details on cap restoration are provided in Section 5.

# 4.2 Soil beneath Cap

All construction activities that require excavation below the established or reconfigured cap (e.g., soil cap and demarcation fabric, pavement, concrete, building) and that will result in the disturbance of soil that may be impacted are required to comply with the protocol presented in this section. Impacted soil below the cap may be breached during general construction activities, including but not limited to the following: utility or stormwater conveyance construction, underground structure or building foundation construction, and general earthwork and earth-moving activities. Worker safety requirements pertaining to handling of impacted soil are provided in Section 6.2.

Soil above the demarcation fabric is clean fill. Should the soil cap become contaminated (e.g. contact or be mixed with soil from below the demarcation fabric), clean soil must be imported and used as replacement soil. Impacted soil beneath the demarcation fabric must be handled separately from the clean protective cap soil in order to:

- Avoid cross-contamination of clean protective cap soil.
- Allow reuse of the protective cap for soil cap restoration activities.
- Limit the amount of soil to be handled as impacted soil.
- Ascertain the disposal status of impacted soil.

Soil excavated below the demarcation fabric will be assumed to be impacted by dioxins unless proven otherwise. Therefore, the soil must be segregated from other soils. Impacted soil can be handled either by placing it where it was originally excavated, by placing and capping at a new on-site location consistent with Ecology-approved cap options (see Section 5), or by disposing of the impacted soil off site.

The impacted soil that is generated from construction activities should not be placed on any portions of the clean soil cap, temporarily or otherwise. Impacted soil, regardless of where the soil is stored, should be placed on and covered by an impermeable liner at all times. Impacted soil can be stockpiled for up to 90 days without requiring a Resource Conservation and Recovery Act (RCRA) permit. A RCRA permit must be obtained to store impacted soil longer than 90 days.

When impacted soil is excavated, stockpiling should be limited to the extent possible. If soil must be stockpiled on top of the protective soil cap, then stockpiles of impacted soil should be placed as close to the excavation as possible with the smallest footprint possible, and should be placed on and covered with an impermeable liner. The existing grade should be cleared of debris and any objects that have the potential to puncture the liner. A berm, constructed of imported or unimpacted site soil, compost socks, hay bales, sandbags, or equivalent material as approved by the supervising engineer, is to be installed along the perimeter of the impacted soil stockpile. The liner bottom and cover must extend up and over the perimeter berm so there is no impacted soil contact with precipitation or stormwater runoff. Impacted soil is to remain covered except when the stockpile is in use. Impacted soil *must not* be mixed with cap soil. If impacted soil is released on the cap surface, the impacted cap surface is to be removed and handled as impacted soil. Any soil cap that is removed must be replaced with a clean soil cap or other Ecology-approved cap.

When excavation activity is expected to go below the established cap, the demarcation fabric should be cut away from the boundary of the proposed excavation. To avoid creating a tear or gap in the fabric beyond the excavation area, the fabric may not be pulled or torn by excavation equipment at the boundary of the excavation. Replacement fabric will be overlapped with existing fabric to the extent possible to maintain a consistent fabric covering.

The current cap configuration, thicknesses, and materials for the Property are shown in the attached design drawings. A description of cap types approved by Ecology for the Property is provided in Section 5. If activities on the Property are expected to result in handling of impacted soils in a manner inconsistent with this plan or using a cap profile different from that previously approved, Ecology approval must be secured as described in Section 5.2.

# 4.2.1 Replacement at Original Excavation

Impacted soil placed into its original excavation (around foundations, pipes, or underground structures) should be compacted as directed by the engineer. New demarcation fabric matching the existing fabric specifications shall be installed over the re-placed impacted soil where the fabric will not be covered by an impervious surface, to form continuous coverage with adjacent fabric edges. Impervious surfaces are in and of themselves the demarcation layer.

When impacted soil is excavated and slated for placement at a different on-property location, it is expected that the impacted soil will be transferred directly to its new location to limit stockpiling to the extent possible. If soil must be stockpiled on top of the protective soil cap, then stockpiles of impacted soil should be placed as close to the excavation as possible, should cover the least possible amount of cap area, and should be placed on and covered with an impermeable liner. The existing grade should be cleared of debris and any objects that have the potential to puncture the liner. A berm constructed of imported or unimpacted site soil, compost socks, hay bales, sandbags, or equivalent material as approved by the supervising engineer is to be installed along the perimeter of the impacted-soil stockpile. The liner bottom and cover must extend up and over the perimeter berm so that there is no impacted-soil contact with precipitation or stormwater runoff. Impacted soil is to remain covered except when in use. Impacted soil *must not* be mixed with cap soil. If

impacted soil is released on the cap surface, the impacted cap surface is to be removed and handled as impacted soil. Any soil cap that is removed must be replaced with clean soil.

# 4.2.2 New Placement Location

If impacted soil cannot be re-placed in the original excavation, then the impacted soil may be used as backfill at other areas of the Property below an Ecology-approved cap. Instances that may potentially warrant a new placement location include large excavations for subgrade, footing, or utility trenches, where re-placement in the original location is not possible. Upon approval of a new placement location (e.g., beneath landscaping area, roadbed, building structure, constructed staging area), the material must be capped consistent with minimum capping guidelines described in Section 5 of this SMCMP. If new capping profiles or materials are proposed (other than those listed below), approval from Ecology will be required.

# 4.3 Off-Site Disposal

# 4.3.1 Analysis

Analysis is required for all soil generated from the Property prior to off-site disposal. Dioxin/furan congeners with tetra-, penta-, and hexa- prefixes must be analyzed by U.S. Environmental Protection Agency (USEPA) Method 1613. Appendix A provides sampling and analytical requirements.

# 4.3.2 Disposal

Based on the findings of a memorandum from MFA to Ecology, a copy of which is provided with this SMCMP as Appendix B, hazardous-waste codes are not applicable to soil that could be generated from the Property. This determination was based on the guidelines provided by the USEPA document clarifying the management of remediated waste (USEPA, 1998). If soil sample results exceed the current and relevant MTCA ecological or human health CUL for dioxins, then the soil must be disposed of at a Subtitle D landfill. If results are below the current and relevant MTCA ecological or human health CUL, then there are no special handling or disposal requirements. The soil may be used as clean soil cap if it is found to meet all other clean cap analytical requirements as described in the Sampling and Analysis Plan (SAP) found in Appendix A. The MTCA ecological CULs were established as the CULs for the cleanup of the Property. The CULs for all human health should be evaluated at the time of soil characterization.



The soil cap profiles have been designed to ensure the appropriate degree of protectiveness for ecological and human receptors from the impacted material that remains on the Property. The following describes the cap conditions post remedial action at the Property.

A soil cap of varying thicknesses (but at a 2-foot minimum) is to be installed over the site. The cap area is 1.42 acres. Design drawings for the proposed cap are attached. The cap consists of demarcation fabric installed over contaminated fill or existing grade. If the soil cap is disturbed, the cap must be reconstructed to match the preconstruction cap thickness and configuration.

When redevelopment of the Property requires alteration of the cap types and/or configuration, the Port will notify Ecology 30 days before construction. The following are Ecology-approved cap options.

Type of Use	Typical Section
Landscaping/green space	
<2 feet soil	Geotextile as demarcation; no landscaping; impermeable surface required (e.g., pavement, impermeable liner to prevent infiltration, buildings)
2 to 3 feet soil	• Geotextile as demarcation layer; ground cover; gravel surfaces, or other surface as approved by Ecology; and any grasses as outlined in the final remedial investigation and feasibility study (RI/FS) (MFA, 2013)
3 to 6 feet soil	Geotextile as demarcation layer; shrubs or trees; gravel surfaces, or other surface as approved by Ecology; and any grasses as outlined in final RI/FS (MFA, 2013)
>6 feet soil	<ul> <li>No geotextile and no vegetation planting restrictions</li> </ul>
Parking	Impermeable surface (min. thickness 3 inches) with clean subbase as necessary for construction
Building/structure	Slab-on-grade (min. thickness 3 inches) with subbase as necessary for construction
Sidewalk/pathway	Impermeable surface (min. thickness 2.5 inches) with clean subbase as necessary for construction or gravel surface with minimum 2 feet clean fill

# Table Capping Options

# 5.1 Soil Cap Requirements

Import soil to be used as clean capping material will require approval from Ecology, and will follow guidelines that include, but are not limited to, the following.

The owner of the proposed fill material must hire a qualified environmental professional to obtain representative samples of the proposed fill material for laboratory analysis. The engineer and/or environmental professional will conduct sampling in accordance with the SAP found in Appendix A. Samples will be analyzed by a certified environmental testing laboratory. The owner of the proposed fill material is responsible for any and all costs associated with the sampling and analysis of fill material, unless an agreement is made that states otherwise. The final determination for acceptance of clean soil will be made at the discretion of the Port, in consultation with Ecology. The analysis described in the SAP will be used as a guide for decision making.

# 5.1.1 Geotextile

Geotextile to be used as the demarcation layer must at least meet the minimum technical specifications of nonwoven SKAPS GT-160 Geotextile<sup>TM</sup> or equivalent. Specifications for this geotextile are provided in Appendix C.

# 5.1.2 Vegetation

Vegetation should be restored according to the guidelines identified in the terrestrial ecological evaluation, which can be found in the final RI/FS for the LRIS (MFA, 2013). A planting list is provided in Appendix C. Areas of 2-foot-minimum cap thickness are to be planted with grasses and vegetation that have shallow root systems. Shallow-rooted trees, shrubs, and grasses are allowed in areas of 3-foot-minimum cap thickness.

# 5.2 Other Capping Material

Other capping material that may be used includes impermeable surfaces such as building foundations and footings and concrete surfaces or structures. If other surfacing materials are desired as part of future redevelopment activities (other than those listed in the table above), Ecology's approval is required.



The generation of impacted soil triggers the requirement to implement specific site controls. These controls are required in order to protect the adjacent environment and reduce potential exposure of the nearby public to the impacted soil material that remains capped at the Property.

# 6.1 Fencing and Signage

In the event of redevelopment activities that generate impacted soil, fencing should be maintained in order to restrict public access to areas of the Property that are no longer contained by a cap. Signage shall be posted on the fencing separating the public from uncapped areas.

# 6.2 Worker Health and Safety

All future redevelopment activities that penetrate the cap, and that thereby generate impacted soil, are to be conducted according to WAC 173-340-810; the Occupational Safety and Health Act (OSHA) of 1970 (29 U.S. Code Sec. 651 et seq.); the Washington Industrial Safety and Health Act (Chapter 49.17 Revised Code of Washington); and relevant regulations. The developer will be required to prepare a health and safety plan before beginning work; this plan should be available for review by the Port and/or Ecology by request. The health and safety plan shall, at a minimum, set

forth the requirements and protections for working in areas containing soil that may be chemically impacted, and shall include the following:

- Current Hazardous Waste Operations and Emergency Response (HAZWOPER) certification for workers disturbing impacted soil
- Indicator hazardous substances and site background
- Personal protective equipment
- Personal hygiene and decontamination protocols
- Medical surveillance
- Hazard communication and site control
- Recordkeeping and reporting

# 6.2.1 Qualified Personnel

The developer will retain a contractor that will complete the development work in compliance with OSHA regulations (29 Code of Federal Regulations [CFR] § 1910.120 and § 1926.65); workers in any area of the Property that is temporarily uncapped during construction and those who will come in contact with impacted soil must be qualified personnel. The qualified personnel must have received the HAZWOPER standard 40-hour training and/or received refresher training in the past year. Managers and supervisors directly overseeing the working crew must have received an additional eight hours of specialized training in hazardous-waste management supervision.

# 6.3 Land Use Restrictions

The environmental covenant for the Property provides additional land use restrictions, and should be referenced and complied with when a new land use is proposed. Because impacted soil remains on the Property, there may be requirements associated with development and limitations to specific land uses.

# 6.4 Hazard Communication

Appropriate training must be provided for personnel who will come in contact with potentially contaminated material. Additionally, all waste containers must be labeled consistent with 29 CFR  $\S$  1910.1200.

All contractors doing work on site must be provided the Consent Decree before starting work.

# 6.5 Notification and Reporting

Ecology approval must be obtained prior to alteration of approved cap types and/or configuration. As indicated in Section 5.2, Ecology must be provided notice that alternate cap types/configuration are under consideration. This notice should be provided well in advance of development to allow

time for the approval process. Ecology will review the request and provide approval or will request additional information or analysis within 30 days. Construction of the alternate cap/types or configuration will not begin until receipt of Ecology approval.

The contractor shall maintain weekly reports of field activities during any active construction that disturbs soil or other cap material on the Property. The Port will prepare or oversee the preparation of a project completion report to document the management of impacted soil for each project in which such work is conducted. The report will document the management techniques used and the approximate volumes of materials handled, and will provide placement or disposal information, disposal manifests, and analytical data generated during management of the impacted material. The contractor's weekly reports and project completion reports will be maintained by the Port in a cap monitoring and construction master file.

# 6.6 Recordkeeping

The Port and any subsequent property owner must maintain records, documenting the following:

- On-site placement of excavated soil, including delineation of the disposal areas and estimated volumes
- Off-site disposal of excavated soil, including waste characterization, shipping manifests, and disposal certificates
- Cap breach reports, including where the cap was breached, methods for replacement, figures showing areas of cap disturbance, materials used, and any analytical results

# 7 PROTECTIVE CAP MONITORING AND MAINTENANCE

The protective cap requires regular and routine inspection to evaluate and maintain its integrity. Monitoring and, if required, maintenance should be conducted annually, at a minimum. This will provide an opportunity to correct small, localized failures before they become larger, more detrimental failures. In addition to annual inspection, an inspection is to take place after a large natural disaster occurs in close proximity to the Property, or after any other large-scale disturbance occurs near or at the Property. As the cap is the main barrier of protection between remaining impacted soil and human and ecological receptors, it is imperative that the cap maintain its intended integrity. This section outlines the monitoring and inspection procedure for each of the protective capping materials.

Monitoring personnel should complete the worksheet provided in Appendix D. The purpose of the monitoring event is to document existing conditions of capping materials and structures. The documentation can be used as a reference in evaluating the severity of cap degradation, if any, to determine if corrective action is required.

# 7.1 Soil Cap Inspection

The following describe the minimum observation and monitoring requirements per soil cap inspection. All recorded observations (using the worksheet in Appendix D) should be accompanied by photographs documenting the following:

- Overall cap condition
- Visible rills or gullies
- Evidence of stormwater ponding or concentrated flow
- Exposed demarcation fabric

# 7.2 Vegetation Inspection

The inspection for vegetation should be qualitative and quantitative. The following lists the minimum observation and monitoring requirements per inspection of site vegetation:

- Overall vegetation condition
- Overall vegetation percent coverage
- Areas of nonestablished or failing vegetation
- Areas of dead or dying vegetation
- Observance of invasive species

# 7.3 Corrective Action

If evidence of erosion or failure is observed in any of the abovementioned caps, the person conducting the inspection and reporting should consult with an engineer familiar with cap materials and structures. The engineer may decide that additional analysis or observation is necessary in order to determine if the damage will reduce the effectiveness of the protective cap. Corrective action will be evaluated on a case-by-case basis according to the type and/or severity of damage and the urgency. The following should be conducted in order to document damage and to evaluate a plan for corrective action:

- 1. Engineer's internal review of inspection reports and photographs
- 2. Site visit by the engineer to review damage
- 3. Additional measurement or analysis (survey, sample collection, or analysis)
- 4. Consultation with Ecology regarding the damage or deterioration and the engineering assessment
- 5. Proposal for repair prepared by the engineer (if determined necessary)
- 6. Obtaining and supervising a contractor completing repair work

# 7.4 Soil Cap and Vegetation Maintenance

Soil cap and vegetation maintenance will be conducted based on the findings of the annual monitoring report. If areas of the soil cap have eroded, replacement of the eroded areas with soil and vegetation will be required. This may require additional seeding and/or planting.

All vegetated areas should include a survey for invasive species as part of the routine maintenance. An attempt shall be made to eliminate observed invasive species, such as Himalayan blackberry and reed canary grass.

The services undertaken in completing this plan were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This plan is solely for the use and information of our client unless otherwise noted. Any reliance on this plan by a third party is at such party's sole risk.

Opinions and recommendations contained in this plan apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this plan.

MFA. 2013. Final former PWT site remedial investigation and feasibility study. Former Pacific Wood Treating Co. site. Prepared for the Port of Ridgefield. Maul Foster & Alongi, Inc. July 1.

MFA. 2014. Soil management and cap maintenance plan. Former Pacific Wood Treating Co. Site. Prepared for the Port of Ridgefield, Maul Foster & Alongi, Inc. Forthcoming.

USEPA. 1998. Management of remediation waste under RCRA. EPA530-F-98-026. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. October 14.

# FIGURES



File: X:\9003.01 Port of Ridgefield\49\Projects\01\Railroad Overpass SMCMP\Fig1-1\_Property Location.m:







This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



## Figure 1-1 Property Location

Railroad Overpass Property Ridgefield, Washington





Print Date: 5/7/201

Source: Aerial imagery (2013) obtained from National Agriculture Imagery Program (NAIP).

<u>Notes:</u> 1. LRIS = Lake River Industrial Site 2. WWTP = Wastewater Treatment Plant



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

# Legend

Railroad Overpass Property



City of Ridgefield WWTP



# Figure 1-2 Property and Site Overview

Railroad Overpass Property Ridgefield, Washington



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# Figure 3-1 Ecological Dioxin TEQ in Soil

Railroad Overpass Property Ridgefield, Washington

# Legend

- Soil Sample Location
- Ecological CUL Contour (9.8 ng/kg)



Overpass Property Boundary

### Dioxin TEQ (ng/kg)



High : 11.2

Low : 2.1

- Notes: 1. ng/kg = nanograms per kilogram 2. Interpolation created using IDW default parameters in ArcGIS 10.2. 3. CUL = cleanup level



Source: Aerial photograph obtained from ESRI, Inc. ArcGIS Online.



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# DRAWINGS





### **GENERAL NOTES:**

- 1. HORIZONTAL DATUM: NAD 83/91, WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, US-FEET, BASED ON RTK-GPS TIES FROM CLARK COUNTY GEODETIC CONTROL POINT NUMBER "1" (POINT ID 1241)
- VERTICAL DATUM: NGVD 1929-47 (CLARK COUNTY DATUM) BASED ON DIFFERENTIAL LEVEL LOOP FROM CLARK COUNTY GEODETIC CONTROL POINT NUMBER "1" (POINT ID 1241), ELEVATION=109.255 (CLARK COUNTY DATUM).
- SURVEY DATA COLLECTED BY MINISTER AND GLAESER SURVEYING, INC., 2200 E. EVERGREEN BOULEVARD, VANCOUVER, WA 98661, (360) 694-3313 ON THE FOLLOWING DATES: 05-14-07 THRU 06-03-07, 06-29-10 THRU 07-01-10, 09-15-10 AND 07-12-13.
- 4. EXISTING UTILITIES SHOWN ON THE PLANS ARE PER SURFACE LOCATIONS AND RECORD DRAWINGS. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. IF CONFLICT EXISTS, NOTIFY THE ENGINEER AND UTILITY COMPANY. PROCEED ONLY AS DIRECTED AND PER STANDARD POLICY AND REGULATIONS (INCIDENTAL TO STORM SEWER PIPE AND OTHER UTILITY CONFLICTS).
- AT THE END OF EACH DAY, THE CONTRACTOR SHALL CLEAN UP THE PROJECT AREA AND LEAVE IT IN A NEAT AND SECURED MANNER. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT FREE OF DEBRIS AND UNUSED MATERIAL.
- IF EXISTING CURB AND SIDEWALK DESIGNATED TO REMAIN ARE DAMAGED, THE CURB AND/OR SIDEWALK SHALL BE REMOVED AND REPLACED TO THE ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- 7. CONTRACTOR TO COORDINATE UTILITY RELOCATIONS WITH CLARK PUBLIC UTILITIES FOR POWER, QWEST FOR TELEPHONE, NW NATURAL FOR GAS AND COMCAST FOR CABLE TV.
- 8. CONTRACTOR SHALL MAINTAIN INGRESS/EGRESS FROM ALL PRIVATE PROPERTY DRIVEWAYS DURING CONSTRUCTION.
- 9. SEE SHEET 27 TO 31 FOR STANDARD CITY OF RIDGEFIELD AND WSDOT STANDARD DETAILS.
- 10. RETAINING WALLS 4 FEET AND TALLER MUST OBTAIN A SEPARATE CITY OF RIDGEFIELD BUILDING PERMIT.

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FEDERAL CONTRACT No.TA-4214FEDERAL AID No.HSR-STPD-1085(004)

AGENCY APPROVAL SET

Hatching Legend
Proposed Asphalt Concrete
Proposed Cement Concrete
Proposed Truncated Domes
Proposed Gravel Road
Proposed Gravel





![](_page_669_Figure_0.jpeg)

Spacing Botween Barriers

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Strow Bale Sodiment Barriers In Discuss of Socies

2 - 2"x2"x3" pegs each bale

Figure 3-3B

Straw Bale Sediment Barriet

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taled hay in star

Notes: \*Embed bales 4 to 6 incher

Drive stakes minimum 12<sup>e</sup> into ground surface.

aust be 6" mir pt. Dimust be 6" r higher than pt. C

Broston Control Plans Technical Guidance Handbook

approved and vegetation/landscaping is established.

ensure their continued functioning. the 48 hours following a storm event.

the duration of the project.

#### Standard Notes for Sediment Fences:

1) The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum

around surface.

area has been permanently stabilized.

![](_page_669_Figure_13.jpeg)

![](_page_669_Figure_14.jpeg)

![](_page_669_Figure_15.jpeg)

![](_page_669_Figure_16.jpeg)

![](_page_669_Figure_17.jpeg)

AGENCY APPROVAL SET

1) Approval of this erosion/sedimentation control (ESC) plan does not constitute an approval of permanent road or drainage design (e.g. size and location of roads, pipes, restrictors, channels, retention facilities,

2) The implementation of these ESC plans and the construction, maintenance, replacement, and upgrading of these ESC facilities is the responsibility of the applicant/contractor until all construction is completed and

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3) The boundaries of the clearing limits shown on this plan shall be clearly flagged in the field prior to construction. During the construction period, no disturbance beyond the flagged clearing limits shall be permitted. The flagging shall be maintained by the applicant/contractor for the duration of construction. 4) The ESC facilities shown on this plan must be constructed in conjunction with all clearing and grading activities, and in such a manner as to insure that sediment and sediment laden water do not enter the drainage system, roadways, or violate applicable water standards.

the construction period, these ESC facilities shall be upgraded as needed for unexpected storm events and to ensure that sediment and sediment-laden water do not leave the site.

6) The ESC facilities shall be inspected daily by the applicant/contractor and maintained as necessary to

7) The ESC facilities on inactive site shall be inspected and maintained a minimum of once a month or within

catch basins and conveyance lines shall be cleaned prior to paving. The cleaning operation shall not slush sediment laden water into the downstream system.

spaced a maximum of 8 feet apart and driven securely into the ground a minimum of 24 inches.

side of the posts using heavy-duty wire staples at least 1 inch long, tie wire or hog rings. The wire shall extend into the trench a minimum of 4 inches and shall not extend more than 36 inches above the original

4) The standard strength filter fabric shall be stapled or wired to the fence, and 12 inches of the fabric shall be extended into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of the above standard note for standard strength filter fabric applying.

6) Sediment fences shall be removed when they have served their useful purpose, but not before the upslope

during prolonged rainfall. Any required repairs shall be made immediately

![](_page_669_Figure_35.jpeg)

FEDERAL AID No. HSR-STPD-1085(004)

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![](_page_670_Figure_0.jpeg)

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	9	RELOCATE (R), ADJUST (A) OR REMOVE (RM) EXISTING WATER SERVICE AS REQUIRED & DIRECTED.								
	10	REMOVE (RM), PROTECT (P) OR TRIM (T) EXISTING TREE AS INDICATED ON PLAN.					•	1		
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![](_page_672_Figure_0.jpeg)

![](_page_673_Figure_0.jpeg)

# APPENDIX A SAMPLING AND ANALYSIS PLAN

![](_page_674_Picture_1.jpeg)

# DRAFT SAMPLING AND ANALYSIS PLAN

FORMER PACIFIC WOOD TREATING CO. SITE

![](_page_675_Picture_2.jpeg)

Prepared for **PORT OF RIDGEFIELD** May 9, 2014 Project No. 9003.01.49

Prepared by Maul Foster & Alongi, Inc. 400 E Mill Plain Blvd, Suite 400 Vancouver, WA 98660

# DRAFT SAMPLING AND ANALYSIS PLAN

FORMER PACIFIC WOOD TREATING CO. SITE The material and data in this report were prepared under the supervision and direction of the undersigned.

MAUL FOSTER & ALONGI, INC.

Madi Warah

Madi Novak Senior Scientist

Erik Naylor Staff Environmental Scientist

R:\9003.01 Port of Ridgefield\Report\49\_2014.05.09 Final SMCMP\Appendix A - SAP\SMCMP SAP.docx

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REFERENCES

TABLES

CLARC	Cleanup Levels and Risk Calculation
COC	chain of custody
CUL	cleanup level
dioxins and furans	dibenzo-p-dioxins and dibenzofurans
DRO	diesel-range organic
Ecology	Washington State Department of Ecology
GRO	gasoline-range organic
HCID	hydrocarbon identification
IDW	investigation-derived waste
IHS	indicator hazardous substances
LCS	laboratory control sample
LDS	laboratory duplicate sample
MFA	Maul Foster & Alongi, Inc.
MS/MSD	matrix spike and matrix spike duplicate
MTCA	Model Toxics Control Act
NWTPH	Northwest Total Petroleum Hydrocarbons
PCB	polychlorinated biphenyl
Port	Port of Ridgefield
QA/QC	quality assurance
QC	quality control
RRO	residual-range organic
SAP	Sampling and Analysis Plan
SMCMP	Soil Management and Cap Maintenance Plan
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

Maul Foster & Alongi, Inc. (MFA) has prepared this Sampling and Analysis Plan (SAP) on behalf of the Port of Ridgefield (Port) to describe the methods and procedures for collecting and analyzing soil that is proposed for use as clean capping material, as well as soil that is intended for off-site disposal. The guidance presented in this SAP is applicable for soil sampling and analysis activities that are required for the Railroad Overpass Property as defined in the Soil Management and Cap Maintenance Plan (SMCMP).

# 1.1 Sampling and Analysis Objectives

The objective of this SAP is to establish procedures for collection of data sufficient for their intended use. This SAP describes methods that will be used to achieve the following objectives:

- To analyze soil for indicator hazardous substances (IHSs) to determine the appropriate off-site disposal method. Sample results will be compared to the relevant Model Toxics Control Act (MTCA) soil cleanup levels (CULs) found in the Washington State Department of Ecology's (Ecology) Cleanup Levels and Risk Calculation (CLARC) database at the time of sampling and analysis.
- To ensure that imported soil capping material is not contaminated at concentrations greater than the relevant MTCA soil CULs found in the CLARC database at the time of sampling and analysis.
- To provide suitable sampling techniques, sample analysis methods, and data verification procedures that ensure data quality.

Samples will be collected as described in Section 2 of this SAP. Following sample collection, samples will be submitted for analysis and screened against CULs, consistent with Section 3. The quality of the data should be evaluated, using the standard data validation protocols presented in Section 4, before off-site disposal or acceptance as clean fill.

![](_page_679_Picture_8.jpeg)

Procedures to be followed for specific scenarios are provided in this section.

# 2.1 Sampling of Excavated Soils for Off-Site Disposal

Soil should be stockpiled in order to facilitate the sampling method and organization. Composite sampling will best characterize each stockpile in order to complete a waste profile for the landfill. To

address variability of the soil, choose the most representative stockpile volume and number of samples appropriate for the area in question. The disposal facility may be consulted to determine the minimum needed for waste-profiling purposes.

A representative soil sample will be collected by compositing five subsamples of the material source. The sampler will dig to a depth of 1 foot with a clean shovel and will collect the subsample by hand with clean, disposable gloves. Gloves will be changed and the shovel will be decontaminated between composited samples, consistent with the procedures specified in Section 2.3. Subsamples will be selected to obtain representative material, based on visual inspection and best professional judgment. To the extent possible, subsamples should consist of fine-particle-sized material, with larger rocks removed. Subsamples will be homogenized in a clean container (e.g., a decontaminated stainless-steel bowl or a dedicated container) before being transferred into laboratory-supplied, 16-ounce glass jars. Glass jars are to be preserved as specified in Section 2.5 and samples are to be analyzed as described in Section 3.1.

# 2.2 Sampling of Imported Soil Cap Material

Soil imported to the site to be used as clean cap material should be tested prior to acceptance. Soil will be sampled and analyzed before delivery to the site to certify that it meets the design acceptance criteria. The contractor or contractor's designee will complete soil sampling of soil at the minimum frequency specified by the contract documents. The number of samples required will be based on the likelihood of contamination present, estimated amount of fill needed, and homogeneity of the fill source. For each volume of soil represented by a composite sample, the material should be tracked in a manner that allows rejection of the material if necessary, based on representative analytical results.

A representative soil sample will be collected by compositing, at a minimum, five subsamples of the material at the source. The sampler will dig to a depth of 1 foot with a clean shovel and will collect the subsample by hand with clean, disposable gloves. Gloves will be changed and the shovel will be decontaminated between composited samples, consistent with the procedures specified in Section 2.3. Subsamples will be selected to obtain a representative sample, based on visual inspection and best professional judgment. To the extent possible, subsamples should consist primarily of fine-particle-sized material, with larger rocks removed. Subsamples will be homogenized in a clean container (e.g., a decontaminated stainless-steel bowl or a dedicated container) before being transferred into laboratory-supplied, 16-ounce glass jars.

# 2.3 Decontamination

Sampling equipment will be decontaminated at a location away from surface water, but near the sampling location (i.e., equipment will not be removed from the site to be decontaminated). Sampling equipment will be decontaminated using the following procedure:

- Rinse with clean tap or deionized water.
- Wash with nonphosphate detergent.

- Rinse with deionized water.
- Air dry.

All liquids used to decontaminate equipment will be considered investigation-derived waste (IDW) and will be disposed of as outlined in the following section.

# 2.4 Investigation-Derived Waste

IDW may include soil cuttings and decontamination fluids. The IDW will be segregated (e.g., soil and water will be containerized separately). Drums (tops and sides) will be labeled with their contents, the volume of material, the date of collection, and the origin of the material. At the end of each workday, the drums will be sealed and transferred to a designated secured area on the property, where they will be stored pending waste profiling, transport, and off-site disposal at a permitted facility.

# 2.5 Sample Handling, Preservation, and Custody

The samples will be placed on ice in a shipping container with chain-of-custody (COC) paperwork and transported to an accredited laboratory for analysis. Samples should be preserved according to the requirements in Table 1, attached.

# 3 ANALYTICAL PROCEDURES AND QUALITY ASSURANCE CRITERIA

Samples that have been collected following the procedures in Section 2 will be analyzed following the methods presented in this section. Analytical results will be evaluated relative to CULs. Additional details on the analytical methods, quality control (QC) procedures required by the laboratory, and screening levels are provided below.

# 3.1 Analytical Methods for Excavated Soils

It is the responsibility of the party generating the impacted soil to verify current disposal requirements with the disposal facility.

Soil excavated from the Railroad Overpass Property during construction activities will be analyzed for dioxin and furan congeners with tetra-, penta-, and hexa- prefixes, by U.S. Environmental Protection Agency (USEPA) Method 1613b.

# 3.1.1 Screening Levels for Excavated Soils

A comparison of IHS concentrations with soil CULs will determine the characterization and handling requirements. CULs for dioxins and furans are provided in Table 2.

# 3.2 Analytical Methods for Imported Clean Soil Cap Material

Soil intended for use as clean cap material at the Railroad Overpass Property requires the following analyses, at a minimum (note that additional analyses may be requested by the Port or Ecology, upon obtaining information about the location and/or prior use of the intended fill source):

- Petroleum hydrocarbons by Northwest Total Petroleum Hydrocarbons (NWTPH) hydrocarbon identification (HCID) method
- Thirteen priority pollutant metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) by USEPA Method 6010/6020/7471

If hydrocarbons are detected in the HCID analysis, followup quantification testing will be required as described below:

- Gasoline-range organic (GRO) detections in HCID require followup analyses of:
  - GROs by NWTPH-Gx
  - Volatile organic compounds (VOCs) benzene, ethylbenzene, toluene, xylene, 1,2dibromoethane, 1-2-dichloroethane, and methyl tertiary-butyl ether by USEPA Method 8260B
- Diesel-range organic (DRO) detections in HCID require followup analyses of:
  - DROs by NWTPH-Dx
  - Polycyclic aromatic hydrocarbons by USEPA Method 8270 selective ion monitoring
  - Polychlorinated biphenyls (PCBs) by USEPA Method 8082
- Residual-range organic (RRO) detections in HCID require followup analyses of:
  - RROs by NWTPH-Dx
  - VOCs, including 1,2-dibromoethane, 1,2-dichloroethane, methyl tertiary-butyl ether, and halogenated VOCs, by USEPA Method 8260B
  - PCBs by USEPA Method 8082

# 3.2.1 Screening Levels for Imported Materials

Sample results for the analytes listed above must be below the lowest MTCA soil CULs found in the CLARC database at the time of sampling and analysis. The laboratory should be notified of the required reporting limits for proper sample screening.

# 3.3 Laboratory Quality Control Procedures

The laboratory will follow the QC procedures required by each analytical method. The laboratory QC will be used to assess the accuracy and precision of the laboratory analysis. The QC procedures that may be required by the method are described below. The acceptance criteria established by the analytical laboratory and the guidelines referenced in Section 4.2 of this SAP will be used to assess the suitability of laboratory QC.

# 3.3.1 Calibration Verification

Instruments will initially be calibrated at the start of the project or sample run, as required, and when any ongoing calibration does not meet control criteria. The number of points used in the initial calibration is defined in the analytical method. Calibration will be continued as specified in the analytical method to track instrument performance. If a continuing calibration does not meet control limits, analysis of project samples will be suspended until the source of the control failure is either eliminated or reduced to within control specifications. Any project samples analyzed while the instrument was outside control limits will be reanalyzed.

# 3.3.2 Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate (MS/MSD) samples are analyzed to assess the matrix effects on the accuracy of analytical measurements. MS/MSD samples will be prepared by spiking investigative samples with known amounts of analytes before extraction, preparation, and analysis. The MS/MSD samples will be used to assess accuracy and precision of the analytical method by measuring the target compounds' recovery in the investigative matrices.

# 3.3.3 Method Blanks

Method blanks are prepared using analyte-free (reagent) water and are processed with the same methodology (e.g., extraction, digestion) as the associated investigative samples. Method blanks are used to document contamination from laboratory analytical processes. A method blank shall be prepared and analyzed in every analytical batch.

The results from the method blank analyses are used to verify that reagents and preparation do not impart unacceptable bias to the investigative sample results. The presence of analytes in the method blank sample will be evaluated against method-specific thresholds. If analytes are present in the method blank above the method-specific threshold, corrective action will be taken to eliminate the source of contamination before analysis proceeds. Investigative samples of an analytical batch associated with method blank results outside acceptance limits will be qualified, as appropriate.

# 3.3.4 Laboratory Control Samples

Laboratory control samples (LCSs) are prepared by spiking laboratory-certified, reagent-grade water with the analytes of interest or with a certified reference material that has been prepared and
analyzed. The result for percent recovery of the LCS is a data quality indicator of the accuracy of the analytical method and laboratory performance.

# 3.3.5 Laboratory Duplicate Samples

Laboratory duplicate samples (LDSs) are prepared by the laboratory by splitting an investigative sample into two separate aliquots and separately preparing and analyzing each aliquot. The results for relative percent difference of the primary investigative sample and the respective LDSs are used to measure precision in the analytical method and laboratory performance. For nonaqueous matrices, sample heterogeneity may affect the measured precision for the LDSs.

# 3.3.6 Surrogate/Labeled Analogue Compounds

Surrogates and labeled analogue compounds are used to evaluate the recovery of an analyte from individual samples. Surrogate recoveries will be reported by the laboratory and will be used to assess data quality.

# 3.4 Analytical Data Reporting

The analytical laboratory will provide analytical data packages that include laboratory quality assurance (QA) and QC results to permit independent and conclusive determination of data quality. Data quality will be determined by the reviewer, using the data evaluation procedures described in Section 4. The results of the evaluation will be used to determine whether project data quality objectives are being met.

Required laboratory data deliverables, including electronic deliverables, are listed below.

- Transmittal cover letter
- Case narrative
- Analytical results
- COC
- QA/QC results
- Qualifier definitions

# 4 DATA VALIDATION AND USABILITY

Data verification is confirmation by examination and provision of objective evidence that specified requirements have been fulfilled (USEPA, 2001). Data verification includes evaluating the completeness, correctness, and compliance of a specific data set against the method, procedural, or contractual specifications (USEPA, 2002). Data validation is confirmation by examination and provision of objective evidence that the particular requirements for specific intended use have been fulfilled (USEPA, 2001). Data validation is an analyte- and sample-specific process that extends the

evaluation of data beyond method, procedural, or contractual compliance (i.e., data verification) to the analytical quality of a specific data set (USEPA, 2002). Data verification and validation will be consistent with the procedures outlined in Sections 4.1 and 4.2, respectively.

The specific data reduction, verification, reporting procedures, and assigned personnel will vary for each laboratory; however, all procedures will be completed in accordance with the laboratory's QA plan and standard operating procedures.

# 4.1 Data Verification

Data verification will consist of a completeness check that is performed before the data review process continues in order to determine whether the required information (the complete data package) is available for further review. It applies to both hard-copy and electronic deliverables. The following QC checks for data reviews will be performed for all generated data:

- Verify that batch QC was implemented properly and analyzed at the required frequency.
- Verify that holding times for extraction and analyses and for sample reservation were met.
- Verify that the quantitation limits and method detection limits were suitable for screening against the required CULs.
- Verify that all project and QC sample results were properly reported and flagged.
- Review COC documentation to verify completeness of the sample set for each data package submitted.
- Assess the impact of laboratory QC procedures and samples.

The laboratory analyst will be responsible for the reduction of raw data generated at the laboratory bench and to verify that the data reduction performed by the laboratory instrument is correct.

The following QC check for data verification will be performed for all generated data:

• Verify that calibrations and calibration checks comply with laboratory criteria.

This QC check will be performed by laboratory analysts, the assigned laboratory project manager or supervisor, laboratory QC specialists, or a combination of these personnel. After the data reports have been reviewed and verified, the laboratory reports will be signed and released for distribution.

# 4.2 Data Validation Methods

The validation of analytical data will be performed for 100 percent of the data report packages for each analysis type generated by each analytical laboratory. The data validation review will include review of the following items from the Tier II (S2AVE) laboratory data reports: consistency with the COC, holding times, surrogate recoveries, MS recoveries, field duplicate agreement, MSD and

laboratory duplicate precision, and method blank analyses. Refer to USEPA (2009) for S2AVE-level data validation and verification requirements.

Data validation reports will provide the appropriate data validation label (i.e., S2AVE or S4VEM). The data validator will review data and assign data qualifiers to sample results, following sections of the USEPA procedures for inorganic data (USEPA, 2010), organic data (USEPA, 2008b), and dioxins (USEPA, 2011); the dioxin rules memorandum (MFA, 2012) developed by MFA and approved by Ecology; and method-specific guidelines (e.g., USEPA, 2008a).

The purpose of this independent review will be to verify that the laboratory QC program is adequate and that the laboratory met the performance criteria. A full data validation will be performed on the first data package generated for the specific project and contractor laboratory. If problems are encountered, an independent Tier IV (S4VEM) data validation review of laboratory performance criteria may be performed.

Data qualifiers are used to classify sample data as to their conformance to QC requirements. The most common qualifiers are listed below:

- J—Estimate, qualitatively correct but quantitatively suspect.
- R—Reject, data not suitable for any purpose.
- U—Not detected at a specified detection limit.

Poor surrogate recovery, blank contamination, or calibration problems, among other things, can cause the sample data to be qualified. Whenever sample data are qualified, the reasons for the qualifications will be stated in the data validation report. QC criteria not defined in the guidelines for evaluating analytical data are adopted, where appropriate, from the analytical method.

The services undertaken in completing this plan were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This plan is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this plan apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this plan.

MFA. 2012. Dioxin and furan analysis, data validation, and TEQ calculation rules. Maul Foster & Alongi, Inc. December.

MFA. 2014. Draft soil management and cap maintenance plan for Port of Ridgefield railroad overpass property. Maul Foster & Alongi, Inc. April.

USEPA. 2001. EPA requirements for quality assurance project plans. EPA QA/R-5. EPA/240-B-01/003. U.S. Environmental Protection Agency. March.

USEPA. 2002. Guidance for quality assurance project plans. EPA QA/G-5. EPA/240/R-02/009. U.S. Environmental Protection Agency. December.

USEPA. 2008a. Test methods for evaluating solid waste, physical/chemical methods. 3d ed., final update IV. EPA Publication SW-846. U.S. Environmental Protection Agency. January.

USEPA. 2008b. USEPA contract laboratory program, national functional guidelines for organics data review. EPA 540/R-08/01. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. June.

USEPA. 2009. Guidance for labeling externally validated laboratory analytical data for Superfund use. EPA 540/R-08/005. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. January.

USEPA. 2010. USEPA contract laboratory program, national functional guidelines for inorganic Superfund data review. EPA 540/R-10/011. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. January.

USEPA. 2011. USEPA contract laboratory program national functional guidelines for chlorinated dibenzo-p-dioxins (CDDs) and chlorinated dibenzofurans (CDFs) data review. EPA-540-R-11\_016. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. September.

# TABLES



# Table 1Sample-Handling SummaryRailroad Overpass Property SMCMPSampling and Analysis Plan

Analyte	Method	Suggested Volume	Container	Number of Containers	Preservative	Storage Temperature	Holding Time from Collection
Soil		• •	-	•	• •		
Polycyclic Aromatic Hydrocarbons <sup>a</sup>	USEPA 8270	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Semivolatile Organic Compounds <sup>a</sup>	USEPA 8270	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Volatile Organic Compounds <sup>a</sup>	USEPA 8260	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Dioxins and Furans	USEPA 1613b	4 ounces	Glass Jar	1	none	4 degrees C	30 days <sup>b</sup>
Total Petroleum Hydrocarbons— Diesel and Oil	NWTPH-Dx	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Total Petroleum Hydrocarbons— Gasoline	NWTPH-Gx	4 ounces	Glass Jar	1	none	4 degrees C	14 days
Metals	USEPA 1311/6010	4 ounces	Glass Jar	1	none	4 degrees C	six months
NOTES:							
C = Celsius.							
NWTPH = Northwest Total Petroleum Hydrocarbons.							
SMCMP = Soil Management and Cap Mainter	SMCMP = Soil Management and Cap Maintenance Plan.						

USEPA = U.S. Environmental Protection Agency.

<sup>a</sup>Indicate on the chain of custody only those compounds described in Section 3 of the Sampling and Analysis Plan.

<sup>b</sup>One year if frozen.

# Table 2 Indicator Hazardous Substances Railroad Overpass Property SMCMP Sampling and Analysis Plan

Indicator Hazardous Substances	Soil Cleanup Level (ng/kg)	Basis		
Dioxin TEQ—Ecological	9.8	Chlorinated dibenzo-p-dioxins TEQ for ecological receptors <sup>a</sup>		
Furan TEQ— Ecological	11.4	Chlorinated dibenzofurans TEQ for ecological receptors <sup>a</sup>		
NOTES:				
CUL = cleanup level.				
ng/kg = nanograms per kilogram.	ng/kg = nanograms per kilogram.			
TEQ = toxicity equivalence.				
<sup>a</sup> Site-specific terrestrial ecological CUL. Calculation methods for ecological dioxin and furan TEQs are provided in the site Remedial Investigation/Feasibility Study.				

# APPENDIX B

MEMORANDUM RE: UPLAND OFF-PROPERTY DIOXIN WASTE DESIGNATION





To:	Craig Rankine	Date:	December 20, 2012
From:	Madi Novak March Warah	Project:	9003.01.39
	Steve Taylor, PE		
RE:	Upland Off-Property Dioxin Waste Designation Former Pacific Wood Treating Site, Ridgefield, Wa Agreed Order No. 01TCPSR-3119	shington	

On behalf of the Port of Ridgefield, (Port), Maul Foster & Alongi, Inc. (MFA) has prepared this memorandum to determine the waste designation for soils containing dibenzo-p-dioxins and furans (collectively referred to as dioxins) off-property of the Lake River Industrial Site (LRIS) in Ridgefield, Washington. The LRIS is the location of the former Pacific Wood Treating Corporation (PWT) facility where historical operations primarily involved pressure-treating wood products with oil-based treatment solutions containing creosote, pentachlorophenol (PCP), and water-based mixtures of copper, chromium, arsenic, and/or zinc.

Soils that are located off property of the LRIS in the adjoining residential neighborhood and McCuddy's Marina parking area (i.e., off-property area) contain dioxins. However, the source of the dioxins is not readily apparent. Sources of dioxins at the PWT facility may have included spent formulations from wood preserving processes, combustion of waste by PWT and a previous shingle mill, combustion of fuels at the facility, and by trucks and trains traveling adjacent to the facility and to the offsite properties.

The U.S. Environmental Protection Agency (USEPA) has prepared a document clarifying RCRA policy for remediation waste<sup>1</sup> which provides the following on page 5 of the document.

Where a facility owner/operator makes a good faith effort to determine if a material is a listed hazardous waste but cannot make such a determination because documentation regarding a source of contamination, contaminant, or waste is unavailable or inconclusive, EPA has stated that one may assume the source, contaminant or waste is not listed hazardous waste and, therefore, provided the material in question does not

<sup>&</sup>lt;sup>1</sup> USEPA, 1998. Management of Remediation Waste under RCRA. Office of Solid Waste and Emergency Response. Ref. EPA530-F-98-026. October 14.

<sup>2001</sup> NW 19th Avenue, Suite 200 | Portland, Oregon 97209 | p. 971 544 2139 | f. 971 544 2140 | www.maulfoster.com

Project No. 9003.01.39

Craig Rankine December 20, 2012 Page 2

exhibit a characteristic of hazardous waste, RCRA requirements do not apply... This approach was confirmed in the final NCP<sup>2</sup> preamble. See, 53 FR 51444, December 21, 1988 for proposed NCP preamble discussion; 55 FR 8758, March 13, 1990 for final NCP preamble discussion.

There are no historical records of a release off- property from PWT's operation that would result in the determination that the off-property soils are a listed hazardous waste, specifically the F032, F034 and F035 listings that are assigned to *wastewater, process residuals, preservative drippage, and spent formulations from wood preserving processes that used chlorophenolic formulations, creosote or arsenic based treating solutions respectively.* These waste codes have been applied to soils on the property because of known releases on the property.

The soil containing dioxins that is located offsite of the former PWT facility (i.e., LRIS) is not designated as hazardous waste under the guidelines provided by USEPA. The operation that generated the dioxin compounds cannot be determined because there are several potential sources (including the wood treating operations) that could have led to contamination of soils in the offsite areas. Given this information, the F032, F034 and F035 listed hazardous waste codes are not applicable to the soil that could be generated during any future remedial action in the off-property area.

The soil sample results have also been reviewed for possible designation as a characteristic hazardous waste or a Washington state-only dangerous waste Per WAC 173-303-100 Dangerous Waste Criteria. The concentration of dioxins, polycyclic aromatic hydrocarbons (PAHs) and halogenated organic compounds (HOCs) were reviewed in accordance with the WAC 173-303-100 requirements as follows:

Toxic Dangerous Wastes - The equivalent concentration for the toxic constituents (metals, PAHs, HOCs, and dioxins) is below the 0.001 percent threshold in WAC 173-303-100(5), and the material does not designate as a state-only toxic waste.

Persistent Dangerous Wastes - PAHs, HOCs, and dioxins are below the 0.01 percent threshold for characterizing a material as a persistent dangerous waste as described in WAC 173-303-100(6).

Based on the above review, the soil to be generated during the off-property remedial action would not designate as a Washington state-only dangerous waste.

<sup>&</sup>lt;sup>2</sup> National Contingency Plan

# $\begin{array}{c} \text{APPENDIX } C \\ \text{GEOTEXTILE SPECIFICATION AND PLANTING LIST} \end{array}$



#### SECTION 31 05 19

#### GEOSYNTHETICS

#### PART 1 GENERAL

#### 1.1 SUMMARY

A. This Section describes the requirements for the supply and installation of the geotextiles specified for erosion and sediment control and geotextile demarcation material.

#### 1.2 SUBMITTALS

The CONTRACTOR shall submit the following to the ENGINEER per Section 01 33 00:

- A. SD-01 (Preconstruction Submittals)
  - 1. Product samples, data sheets, and complete description meeting or exceeding the specifications in this Section for materials supplied by Contractor.
  - 2. Manufacturer's quality control testing reports summarizing the testing requirements specified in Part 2 of this Section for materials supplied by Contractor.
  - 3. Manufacturer's instructions for storage, installation, and repair.
  - 4. Product sample and data sheets.

#### 1.3 FIELD MEASUREMENTS

A. CONTRACTOR shall verify actual quantities required with field measurements prior to ordering, fabricating, or installing geosynthetics (except demarcation geotextile) to ensure proper quantities are delivered to the site.

#### 1.4 COORDINATION

A. The CONTRACTOR shall inform the ENGINEER prior to installation of geosynthetics so that ENGINEER may be present to observe installation.

#### 1.5 MEASUREMENT AND PAYMENT

- A. Measurement and payment shall be incidental to other Bid Items.
- PART 2 PRODUCTS

#### 2.1 GEOSYNTHETICS

#### 2.1.1 SEDIMENT FENCE GEOTEXTILE

A. Sediment fence shall have the following MINIMUM properties:

Property	Test Method	Minimum Average Roll Value	
Water Permittivity	ASTM D4491	0.02 sec <sup>-1</sup>	
Grab Tensile Strength	ASTM D4632	180 lbs minimum for extra strength fabric.	
		100 lbs minimum for standard strength fabric.	
Grab Tensile Strength	ASTM D4632	30% maximum	
Ultraviolet Resistance	ASTM D 4355	70% minimum	
		60 mm maximum for slit film wovens (#30 sieve).	
Polymeric mesh Apparent Opening Size	ASTM D4751	0.30 mm maximum for all other geotextile types (#50 sieve).	
		0.15 mm minimum for all fabric types (#100 sieve).	

- B. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum of 6-inch overlap.
- C. Wood, steel or equivalent posts shall be used. Wood posts shall have minimum dimensions of 2 inches by 2 inches by 3 feet minimum length, and shall be free of defects such as knots, splits, or gouges.
- D. Steel posts shall consist of either size No. 6 rebar or larger, ASTM A 120 steel pipe with a minimum diameter of 1-inch, U, T, L, or C shape steel posts with a minimum weight of 1.35 lbs./ft. or other steel posts having equivalent strength and bending resistance to the post sizes listed. The spacing of the support posts shall be a maximum of 6 feet.
- E. Fence back-up support, if used, shall consist of steel wire with a maximum mesh spacing of 2 inches, or a prefabricated polymeric mesh. The strength of the wire or polymeric mesh shall be equivalent to or greater than 180 lbs. grab tensile strength. The polymeric mesh must be as resistant to ultraviolet radiation as the geotextile it supports.
- F. Sediment Fence geotextile shall be installed per Part 3.1 of this Section.

#### 2.1.2 DEMARCATION GEOTEXTILE

A. The CONTRACTOR shall provide demarcation geotextile (SKAPS GT-160 non-woven geotextile or approved equal) having the following MINIMUM properties:

Property	Test Method	Minimum Average Roll Value
California Bearing Ratio Puncture Resistance	ASTM D6241	410 lbs
Apparent Opening Size	ASTM D4751	0.212 mm

B. Demarcation Geotextile shall be installed per Part 3.2 of this Section.

#### 2.1.3 SEPARATION GEOTEXTILE FOR STABILIZED CONSTRUCTION ENTRANCE

A. A separation geotextile shall be placed under the spalls to prevent fine sediment from pumping up into the rock pad. The geotextile shall meet the following standards:

Property	Test Method	Minimum Average Roll Value
Mullen Burst Strength	ASTM D3786-80a	400 psi min.
Grab Tensile Strength	ASTM D4751	200 psi min.
Grab Tensile Elongation	ASTM D4632	30% maximum
Ultraviolet Resistance	ASTM D4355	70% minimum
Apparent Opening Size	ASTM D4751	20-45 (U.S. standard sieve size)

B. Separation geotextile for stabilized construction entrance shall be installed per Part 3.3 of this Section.

#### PART 3 EXECUTION

#### 3.1 SEDIMENT FENCE GEOTEXTILE

- A. The CONTRACTOR shall install and maintain temporary silt fences at the locations shown in the Plans. The silt fences shall be constructed in the areas of clearing, grading, or drainage prior to starting those activities. A silt fence shall not be considered temporary if the silt fence must function beyond the life of the contract. The silt fence shall prevent soil carried by runoff water from going beneath, through, or over the top of the silt fence, but shall allow the water to pass through the fence.
- B. The minimum height of the top of silt fence shall be 2 feet and the maximum height shall be 2.5 feet above the original ground surface.
- C. The geotextile shall be sewn together at the point of manufacture, or at an approved location as determined by the Engineer, to form geotextile lengths as required. All sewn seams shall be located at a support post. Alternatively, two sections of silt fence can be overlapped, provided the Contractor can demonstrate, to the satisfaction of the ENGINEER, that the overlap is long enough and that the adjacent fence sections are close enough together to prevent silt laden water from escaping through the fence at the overlap.
- D. The geotextile shall be attached on the up-slope side of the posts and support system with staples, wire, or in accordance with the manufacturer's recommendations. The geotextile shall be attached to the posts in a manner that reduces the potential for geotextile tearing at the staples, wire, or other connection device. Silt fence back-up support for the geotextile in the form of a wire or plastic mesh is dependent on the properties of the geotextile selected for use. If wire or plastic back-up mesh is used, the mesh shall be

fastened securely to the up-slope of the posts with the geotextile being up-slope of the mesh back-up support.

- E. The geotextile at the bottom of the fence shall be buried in a trench to a minimum depth of 4 inches below the ground surface. The trench shall be backfilled and the soil tamped in place over the buried portion of the geotextile, such that no flow can pass beneath the fence and scouring cannot occur. When wire or polymeric back-up support mesh is used, the wire or polymeric mesh shall extend into the trench a minimum of 3 inches.
- F. The fence posts shall be placed or driven a minimum of 18 inches. A minimum depth of 12 inches is allowed if topsoil or other soft subgrade soil is not present and a minimum depth of 18 inches cannot be reached. Fence post depths shall be increased by 6 inches if the fence is located on slopes of 3:1 or steeper and the slope is perpendicular to the fence. If required post depths cannot be obtained, the posts shall be adequately secured by bracing or guying to prevent overturning of the fence due to sediment loading.
- G. Silt fences shall be located on contour as much as possible, except at the ends of the fence, where the fence shall be turned uphill such that the silt fence captures the runoff water and prevents water from flowing around the end of the fence.
- H. If the fence must cross contours, with the exception of the ends of the fence, gravel check dams placed perpendicular to the back of the fence shall be used to minimize concentrated flow and erosion along the back of the fence. The gravel check dams shall be approximately 1-foot deep at the back of the fence. It shall be continued perpendicular to the fence at the same elevation until the top of the check dam intercepts the ground surface behind the fence. The gravel check dams shall consist of crushed surfacing base course, gravel backfill for walls, or shoulder ballast. The gravel check dams shall be located every 10 feet along the fence where the fence must cross contours. The slope of the fence line where contours must be crossed shall not be steeper than 3:1.

#### 3.2 DEMARCATION GEOTEXTILE INSTALLATION

- A. CONTRACTOR shall install demarcation geotextile on top of finished subgrade (see Section 02 61 13 EARTHWORK).
- B. Material shall be laid flat and smooth so it is in direct contact with the subgrade with a 6-inch minimum overlap. The surface shall be free of sharp materials that may puncture or tear the geotextile.
- C. The ENGINEER shall verify adequate placement and coverage prior to backfill of the excavation area.
- D. Demarcation materials shall not be exposed to sunlight or other open environmental factors for greater than 48 hours.
- E. Demarcation materials shall be staked or stapled to prevent movement of demarcation material during soil placement and damage or removal of material by wind prior to soil placement.

#### 3.3 SEPARATION GEOTEXTILE FOR STABILIZED CONSTRUCTION ENTRANCE

A. Install separation geotextile for stabilized construction entrance per manufacturer's instructions and Stormwater Management Manual for Western Washington (2005 Edition) (SMMWW).

#### 3.4 PROTECTION

- A. Protect geosynthetics during installation from clogging, tears, and other damage.
- B. Damaged geosynthetics shall be repaired or replaced.
- C. Adequate ballast (e.g. sand bags) shall be used to prevent uplift by wind.

#### 3.5 REPAIRS

- A. Repair all torn or damaged geotextile in accordance with manufacturer recommendations.
- B. Geotextile rolls which cannot be repaired shall be removed and replaced.
- C. Damage resultant of installation or other construction activities shall be performed at no additional cost to the OWNER.
- -- End of Section --



# **Geotextile Product Description Sheet**

# SKAPS GT-160 Nonwoven Geotextile

SKAPS GT-160 is a needle-punched nonwoven geotextile made of 100% polypropylene staple fibers, which are formed into a random network for dimensional stability. SKAPS GT-160 resists ultraviolet deterioration, rotting, biological degradation, naturally encountered basics and acids. Polypropylene is stable within a pH range of 2 to 13. SKAPS GT-160 conforms to the physical property values listed below:

PROPERTY	TEST METHOD	UNIT	M.A.R.V. (Minimum Average Roll Value)
Weight (Typical)	ASTM D 5261	oz/yd² (g/m²)	6.0 (203)
Grab Tensile	ASTM D 4632	lbs (kN)	160 (0.711)
Grab Elongation	ASTM D 4632	%	50
Trapezoid Tear Strength	ASTM D 4533	lbs (kN)	60 (0.267)
CBR Puncture Resistance	ASTM D 6241	lbs (kN)	410 (1.82)
Permittivity*	ASTM D 4491	sec <sup>-1</sup>	1.5
Water Flow*	ASTM D 4491	gpm/ft <sup>2</sup> (l/min/m <sup>2</sup> )	110 (4480)
AOS*	ASTM D 4751	US Sieve (mm)	70 (0.212)
UV Resistance	ASTM D 4355	%/hrs	70/500

PACKAGING		
Roll Dimensions (W x L) – ft	12.5 x 360 / 15 x 300	
Square Yards Per Roll	500	
Estimated Roll Weight – Ibs	195	

\* At the time of manufacturing. Handling may change these properties.

This information is provided for reference purposes only and is not intended as a warranty or guarantee. SKAPS assumes no liability in connection with the use of this information.

**SKAPS Industries,** 335 Athena Drive, Athens GA 30601 Phone:(706)-354-3700, Fax(706)-354-3737,

www.skaps.com

Made in U.S.A.

# List of Plants without a Tap Root

### Trees

Abies concolor Acer japonicum\* Acer macrophyllum Acer palmatum\* Acer rubrum\* Betula papyrifera\* Betula pendula Carpinus betulus\* Cercidiphyllum japonicum Cornus florida Fagus sylvatica\* Fraxinus pennsylvanica\* Larix occidentalis

### Shrubs

Abelia x grandifolia Acer circinatum Andromeda polifolia Arcostaphylos uvu-ursi Azalea sp\* Berberis Thunbergii\* Clethra alnifolia Cornus alba\* Cornus siricea\* Deutzia gracilis Euonymus fortunei\* Gautheria shallon

Hamamelis mollis\* Hamamelis Virginia Kalmia latifolia Lonicera japonica\*

White Fir Japanese Maple **Big-Leaf Maple** Japanese Maple Red Maple Paper Maple Weeping Birch European Hornbeam Katsuratree Flowering Dogwood European Beech

Green Ash

Western Larch

Japanese Honeysuckle

Picea pungens\* Picea sitchensis Platanus x acerfolia Populus balsamifera Prunus emarginata Prunus serrulata Psuedotsug menziesii Salix sp. Styrax japonicas Thuja occidentalis\* Thuja plicata Tilia cordata

Colorado Spruce Sitka Spruce London Plane Tree Black Cottonwood Bitter Cherry Japanese Flowering Cherry Douglas Fir Willows Japanese Snowball Arborvitae Western Red Cedar Little Leaf Linden

Glossy Abelia	Mahonia aquifolium	Compact Oregon Grape	
Vine Maple	"Compacta"		
Bog Rosemary	Oemleria cerasiformis	Indian Plum	
Kinnikinnik	Physocarpus capitatus	Western Ninebark	
Azalea <del>s</del>	Rosa Gymnocarpa	Baldhip Rose	
Japanese Barberry	Rhododendron sp.*	Rhododendrons	
Summersweet Clethra	Sambucus cerulean	Blue Elderberry	
Dogwood	Sambucus racemosa	Red Elderberry	
Redosier Dogwood	Symphoricarpos albus	Snowberry	
Slender Deutzia	Vaccinium corymbosum	Highbush blueberry	
Wintercreeper	Viburnum davidii	Davids Viburnum	
Euonymus	Vaccinium ovatum	Evergreen huckleberry	
Salal	Viburnum lantana	Wayfaring Tree	
Chinese Witchhazel		Viburnum	
Witch Hazel	Viburnum opulus*	European Cranberrybush	
Mountain Laurel		Grandenty Subir	

# **Ground Cover**

The following list includes anticipated ground cover for the site. However, other perennial herbaceous plants, annual flowers, grasses, sedges, ferns, and mosses are acceptable as well.

Aruncus dioicus	Goat's Beard	Helictotrichon sempervirens	Blue Oat Grass
Belchnum spicant	Deer Fern	Miscanthus Sinensis	Maiden Grass
Calluna vulgaris*	Scotch Heather	Pennisetum alopecuroides	Fountain Grass
Camassia quamash	Common Camas	Sesleria autumnalis	Autumn Moor Grass
Cornus Canadensis	Bunchberry	Anemone hybrida	Japanese Anemone
Dicentra Formosa	Bleeding Heart	Narcissus	Daffodil
Fragaria chiloensis	Coastal Strawberry	Echinacea purpurea	Purple Cone Flower
Fragaria vesca	Woodland Strawberry	Hemerocallis	Daylily
Maianthemum dilatatum	False Lily-of-the-Valley	Liriope muscari	Lilyturf
Oxalis oregano	Wood Sorrel	Rudbekia hirta	Black-eyed Susan
Polystichum munitum	Sword Fern	Sedum	Stonecrop
Vancouveria hexandra	Inside-out Flower	Lawn mixes	
Carex	Sedges		
Deschampsia caespitosa	Tufted Hair Grass		

#### \*Including varieties

Note: This list is not all inclusive and other plant material may be added if it does not have a tap root. Data for list were obtained from the following sources:

- U.S. Forest Service Handbook 654 <u>http://www.na.fs.fed.us/pubs/silvics\_manual/table\_of\_contents.shtm</u>
- U.S. Forest Service Shrub list <u>http://www.fs.fed.us/database/feis/plants/shrub/</u>
- USDA Natural Resources Conservation Service—Plants Data Base <a href="http://plants.usda.gov/index.html">http://plants.usda.gov/index.html</a>
- The Complete Plant Selection Guide for Landscape Design by Marc C. Stoecklein

# APPENDIX D MONITORING WORKSHEET



Project Number:	9001.01.49		
Date:			
Weather:			
Completed By:			
River Level:	24hr Precip:		
Photograph Requir	rements:		
Overview photo	graph of each cap component to capture composite view of entire cap.		
Any noted chan	ges or damage to the cap.		
General Observati	ons:		
General cap cor	ndition and smoothness.		
Stormwater flow	characteristics (if monitoring conducted during wet weather).		
Activity on the sit	ie.		
Visible changes s	since previous inspection.		
Standing water o	or areas of concentrated surface water flow.		
Visible demarcat	tion fabric.		
Specific Observati	ons: To be noted with photographs, measurements, and locations:		
Vegetated Cap:			
Vegetative cover with estimated coverage.			
Areas of surface erosion (rills/gullies, concentrated sediment deposits).			
Standing water or concentrated surface water flow.			
Cracking of soil surface perpendicular or parallel to riverbank.			
Invasive species present (location and quantity).			
Gravel Cap:	Gravel Cap:		
Surface erosi	Surface erosion or displacement of gravel.		
Pumping of s	Pumping of subgrade soils to gravel surface.		
Damage, tra	Damage, tracking, or penetrations.		
Asphalt Cap:			
Settling or bu	Settling or bulging indicating differential settlement or heaving.		
Cracking or b	buckling indicating lateral expansion or contraction.		
Measurements:			
Length and dept	th of any surface erosion or damage.		
Estimated areal of	Estimated areal coverage of vegetation on soil cap.		
Depth of gravel	and soil caps at edges adjacent to pavement cap.		

Project Number:	9001.01.49	
Date:		
Weather:		
Completed By:		
River Level:	24hr Precip:	
General Observation	ions:	
Specific Observation	ions. To be noted with photographs, measurements, and	Locations:
Vegetated Cap:	:	
Gravel Cap:		
Asphalt Cap		
Asphan Cap.		
Measurements:		

Project Number:	9001.01.49		
Date:			
Location (Station or Coordinates)		Observations	Photo Log

# APPENDIX B-3 ANNUAL PROTECTIVE CAP MONITORING FORMS – 2017 TO 2022



Project Number:	9001.01.49				
Date:	10/29/17				
Weather:	PARTLY CLOUDY, 56°F				
Completed By: LINDSEY (ROSBY					
River Level: 1.	35 FT (STND) 24hr Precip: NONE				
Photograph Requi	rements:				
Overview photograph of each cap component to capture composite view of entire cap.					
Any noted chan	ges or damage to the cap.				
General Observat	ions:				
General cap co	ndition and smoothness.				
Stormwater flow	characteristics (if monitoring conducted during wet weather).				
Activity on the si	te.				
Visible changes	since previous inspection.				
Standing water o	or areas of concentrated surface water flow.				
Visible demarca	tion fabric.				
Specific Observati	ons: To be noted with photographs, measurements, and locations:				
Vegetated Cap:					
Vegetative c	over with estimated coverage.				
Areas of surfa	ace erosion (rills/gullies, concentrated sediment deposits).				
Standing wat	er or concentrated surface water flow.				
Cracking of soil surface perpendicular or parallel to riverbank.					
Invasive spec	sies present (location and quantity).				
Gravel Cap:					
Surface erosion or displacement of gravel.					
Pumping of su	Pumping of subgrade soils to gravel surface.				
Damage, tracking, or penetrations.					
Asphalt Cap:					
Settling or bulging indicating differential settlement or heaving.					
Cracking or b	puckling indicating lateral expansion or contraction.				
Measurements:					
Length and depth of any surface erosion or damage.					
Estimated areal coverage of vegetation on soil cap.					
Depth of gravel of	Depth of gravel and soil caps at edges adjacent to pavement cap.				

Project Number: 9001.01.49				
Date: 10/29/17				
Weather: Porty Survey Slorf				
Completed By: LINDSEY CROSBY				
River Level: 1.35 (STHD) 24hr Precip: NONSE				
General Observations:				
CAP CONDITIONS WERE INSPECTED THROUGHOUT THE 2016-2017 CONSTRUCTION SEASON WHILE MERA STAPP WERE OVERSEEINLY OFF - PROPERTY				
PORTION CLEAR up WORK. CAP INSPECTIONS BEACTER COMPLETED				
CONSISTENT WITH THE DEAPT OPERATIONS FLAN.				
OVERALL CAP IN GOOD CONDITION. SOME STATIONY WATER AND				
DEAD VEGETATION DUE TO KENATTOPIZED VEHILE TRAFFIL ON CAP.				
NO VISIBLE DEMARCIATION FABRUE. ACTIVITES INCLUDE CAP MAINTERNINE.				
Specific Observations: To be noted with photographs, measurements, and locations:				
Vegetated Cap:				
OVERAL GOOD VEGETATION COVERAGE. SOME MATTING EXPOSED.				
STATIONY WATER OBSERVED AT WEST SIDE OF CUTY ALLESS				
ROAD NEAR THE BUAT LAUNCH PARKING AREA. AREAS OF				
DEAD GRASS AND STANDING WATER RESULT OF RUTS				
AND DEPRESSIONS MADE BY NON-PORT VEHILLES DRIVEN				
AND PARKING ON CAP. NO SOIL CRALKS.				
Gravel Cap:				
OVERALL GOOD CONDITION, NO EROSION OBSERVED.				
SOME DISTURBED GRAVEL LOHENE VEHICLES HAVE TURNEN				
AROUND ON THE TROADWAY.				
Asphalt Cap				
WONE ADD GOOD MINOR DEGRADATION TRAVELING				
IN ONCE MINER (SEE OBSOLVATIONS HAGE).				
Measurements:				
DOINTIED HILDATE COVELAGE OF VEGLEMATION ON SOIL CAP 9510,				
GRAVEL AND SOIL CAPS APPEARL TO BE AT DESIGN DEPTH AT AD SALENT FANGMET CAP.				
SEE OBSERVATIONS PAGE FOR BRUSION MEASURE-OUTS				

11 . 1

10

Project Number: 9001.01.49				
Date: 10/29/17				
Location (Station or Coordinates)	Observations	Photo Log		
45° 49'10"N 122° 45'02	UN OVERALL CAP LONDITION - (3000)	1		
122°45'01"W 45°49'03"N	2'XO.5' EROSION AT CATCH BASIN INLET	2		
122° 45' 00" W 45° 49' 04" N	10'X 20' DEAD VEGETATION VEHILLE RUTS	3		
1220 45' 00" W 45° 49' 02.8" N	8'X10' VEHILLE RUTS STANDING WATER	4		
122 45' 56"W 45° 49' 03"N	10'KIS' DEAD VEGETATION / VETTICLE RUTS	5		
45° 49' 02" N 122° 49' 49' 127" N	201 VSO' AND STATIONY WATER DUE TO	7		
15 " 49' 06"N 22" 45' 59"W	INCONSISTENT VEGETATION COVERAGE DUE TO VEHILLE TRAFFIC.	8		
150 491 8.11"N 22° 45' Di8"W	1'X0.5' PAVELING OF ASPHALT	11		
	*			
		ì		
		+		
		1		

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Overall Cap Condition (Cell 2, looking N) **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



**Photo No.** 2

Minor erosion at catch basin in Cell 2





Inconsistent vegetation cover due to unauthorized vehicle traffic (Cell 3, looking SW) **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



Photo No. 4

Standing water due to unauthorized vehicle traffic (Cell 3, looking N)





Standing water/inconsistent vegetation cover due to unauthorized vehicle traffic (Cell 3, looking E)

# **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



**Photo No.** 6

Inconsistent vegetative cover due to unauthorized vehicle traffic (Cell 3, looking S).





Standing water/inconsistent vegetative cover due to unauthorized vehicle traffic (Cell 3, looking S)

# **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



### Photo No. 8

Inconsistent vegetative cover due to unauthorized vehicle traffic (Cell 3, looking W)





<u>Gravel access road (</u> <u>looking N)</u> **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



**Photo No.** 10

Gravel access road (looking S)





Asphalt degradation at pin/spike 45d49'08.14"N 122d45'00.82"W

# **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



Photo No. 12 Asphalt Roadway (looking E)





**PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington

**Photo No.** 13

Asphalt walkway (Cell 3, looking S)



Project Number:	9001.01.49				
Date: 10/16/18					
Weather:	SUNNY, 780F				
Completed By: BROOKE HARMON					
River Level:	1.5 ft (STND) 24hr Precip: NONE				
Photograph Requ	Jirements:				
Overview photo	ograph of each cap component to capture composite view of entire cap.				
Any noted cha	nges or damage to the cap.				
General Observa	itions:				
General cap co	ondition and smoothness.				
Stormwater flov	v characteristics (if monitoring conducted during wet weather).				
Activity on the s	site.				
Visible changes	s since previous inspection.				
Standing water	or areas of concentrated surface water flow.				
Visible demarca	ation fabric.				
Specific Observa	tions: To be noted with photographs, measurements, and locations:				
Vegetated Cap	D:				
Vegetative	cover with estimated coverage.				
Areas of surf	face erosion (rills/gullies, concentrated sediment deposits).				
Standing wo	ater or concentrated surface water flow.				
Cracking of	soil surface perpendicular or parallel to riverbank.				
Invasive spe	cies present (location and quantity).				
Gravel Cap:					
Surface eros	sion or displacement of gravel.				
Pumping of	Pumping of subgrade soils to gravel surface.				
Damage, tro	Damage, tracking, or penetrations.				
Asphalt Cap:					
Settling or bulging indicating differential settlement or heaving.					
Cracking or	Cracking or buckling indicating lateral expansion or contraction.				
Measurements:					
Length and depth of any surface erosion or damage.					
Estimated areal	Estimated areal coverage of vegetation on soil cap.				
Depth of gravel	Depth of gravel and soil caps at edges adjacent to pavement cap.				
Project Number:	9001.01.49				
----------------------	---				
Date:	10/16/18				
Weather:	SUNNY, 78°F				
Completed By:	BROOKE HARMON				
River Level: 1.5	Pt (STND) 24hr Precip: NONE				
General Observati	ons:				
OVER ALL	CAP IN GOOD CONDITION. DEAD VEGETATION				
IN SOME	AREAS DUE TO UNAUTHORIZED VEHICLE TRAFFICION				
CAP. NO	VISIBLE DEMARCATION FABRIC.				
CAP INSP OREATION	ECTION COMPLETED CONSISTENT VITH THE DEAFT > PLAN.				
Specific Observation	ons: To be noted with photographs, measurements, and locations:				
Vegetated Cap:					
OVER AI	-L GOOD VEGETATION COVERAGE. AREAS OF				
DEAD	GRASS FROM RUTS AND DEPRESSIONS				
PARKIN	BY INON-PORT VEHICLES DRIVING AND IG ON CAP. NO SOIL CRACKS.				
Gravel Cap:					
OVERALL	GOOD CONDITION. NO EROSION OBSERVED.				
Some D	DISTURBED GRAVEL WHERE VEHICLES HAVE				
TUENED	AROUND.				
Asphalt Cap:					
OVERALL	CONDITION GOOD. MINOR DEGRADATION / PAVELING				
IN ON	IE AREA. S. CMALL CRACKS IN ONE AREA,				
AND	HEAVY COULDNENT STEEL TRACK MARKS IN ONE AREA.				
(SEE	OBSERVATIONS PAGE).				
Measurements:					
ESTIMATE	D AERIAL COVERAGE OF VEGETATION ON SOIL CAP 85%				
GRAVEL	AND SOIL CAPS APPEAR TO BE AT DESIGN DEDTH				
AT AD	JALENT PAVEMENT CAP.				
SEE D	BREVATIONS PAGE FOR EROSION/DEAD VEGETATION MEASURMENTS.				

Project Number:	9001.01.49	•	
Date:	10/16/19		
Location (Station or Coordinates)		Observations	Photo Log
45°49'03. 122°45'01.3	.61 N 29 W	GOOD OVERALL GAP CONDITION	1
45° 49 ' 14.0 122 ° 45'01.	36 W	2' × 0.5' EROSION AT CATCH BASIN INVET	2
45° 49.03.1 122° 45'00	40 N .60 W	10' × 20' DEAD VEGETATION /VEHICLE BUTS	3
45 "49' 02."	74 N 50 W	10'x 30' AND VEHICLE BUTS	₹ 4
45047 62.	57N .78W	20' × 40' DEAD VEGETATION / VEHICLE EUTS	5
122 44-58	01W	40' × 40' DEAD REGETATION VEHICLE RUTS	6
122 44 57	16W	40'x 20' DEAD VEGETATION / VEHICLE BUTS	7
122 45'03	.32W	5 × 20' VEHICLE RUTS	8
45°49'06.5	12 W	5'×2' MINOR DISTURBED GRAVEL	9
122 45'02.8	0W	20' × 10' STEEL TRACK MARKS ON ASPHALT	to
122 ° 45'02	13N .98W	0.5'X0.5' RAVELING OF ASPHALT	14
122 45 0	.73N 3.26W	0.5' × 4' ASPHALT CEALKS	14
		•	
		50 State 1	2





Overall Cap Condition (Cell 2, looking north) **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



Photo No. 2

Minor erosion at catch basin in Cell 2



## **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington

Photo No. 3

Inconsistent vegetation cover due to unauthorized vehicle traffic (Cell 3, looking north)



## Photo No. 4

Inconsistent vegetation cover due to unauthorized vehicle traffic (Cell 3, looking south)





Inconsistent vegetation cover due to unauthorized vehicle traffic (Cell 3, looking east)

## **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



### **Photo No.** 6

Inconsistent vegetative cover due to unauthorized vehicle traffic (Cell 3, looking south).





Inconsistent vegetative cover due to unauthorized vehicle traffic (Cell 3, looking south)

## **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



Photo No. 8

Inconsistent vegetative cover due to unauthorized vehicle traffic (Cell 3, looking east)



Gravel access road (looking north) **PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



**Photo No.** 10

Asphalt degradation



## **PHOTO LOG** Project Name: Cap Visual Monitoring

Project Number: 9003.01.49 Location: Port of Ridgefield, Washington

**Photo No.** 11

Asphalt degradation



**Photo No.** 12

Asphalt roadway (looking east)





**PHOTO LOG** Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington

**Photo No.** 13

Asphalt walkway (Cell 3, looking south)



**Photo No.** 14

Asphalt degradation



Project Number: 9	9003.01.49		
Date:	11/6/2019		
Weather:	Clear, 45°F		
Completed By:	Meaghan Pollock		
River Level: † 0.5	56 ft (STND) 24hr Precip: None		
Dholograph Boguiro	omonie:		
	ements.		
	graph of each cap component to capitale composite view of chine cap.		
General cap con	adition and smoothness		
Stermurator flow of	charactoristics (if monitoring conducted during wet weather)		
Activity on the site			
Visible changes sir	tince previous inspection		
Standing water or	or areas of concentrated surface water flow		
Visible demarcati	lion fabric		
	ons: To be noted with photographs, measurements, and locations:		
Vogetated Cap:			
Vegetated Cap.	over with estimated coverage		
Areas of surfac	ace erosion (rills/guillies, concentrated sediment deposits)		
Standing wate	rer or concentrated surface water flow		
Cracking of so	oil surface perpendicular or parallel to riverbank.		
	Crucking of soli solidae perpendicular of parallel to the bank.		
Gravel Cap:			
Surface erosio	on or displacement of aravel.		
Pumping of su	Pumping of subgrade soils to gravel surface		
Damage, tracking, or penetrations,			
Asphalt Cap:			
Settling or bulging indicating differential settlement or heaving.			
Cracking or bu	buckling indicating lateral expansion or contraction.		
Measurements:			
Length and depth	th of any surface erosion or damage.		
Estimated areal c	coverage of vegetation on soil cap.		
Depth of gravel a	and soil caps at edges adjacent to pavement cap.		

Project Number:	9003.01.49
Date:	11/6/2019
Weather:	Cleer, 45° F
Completed By:	Meaghan Pollock
River Level: 1 0.5	6 FI. (STND) 24hr Precip: None
General Observatio	ons:
Overall i areas due	ap is in youd condition. Dead vegetation in some to unauthonized vehicle traffic on cap. No
	emercanism pabric.
Cap inspece plan.	tom completes consistent with the draft operations
Specific Observation	ons: To be noted with photographs, measurements, and locations:
Vegetated Cap:	
Overall go futs due on cap vehicle t eroded so Gravel Cap: Overall go Some di	Not vegetative coverage. Aveas of dead grass in to non-Port authomized vehicles driving and parking Note damage across Cell 43 area. Unanthenized Hattic on Cell 3 to Menny porking lot has significantly oil cap. Dod condition. No erosion of demovication fabric observed. Sturbed gravel noted from vehicles turning available
on surfac Asphalt Cap: Ourall go 2018 inspec	vel condition. Minor degradution noted (same as
Magguromonta	
Estimated a Crivanel and pavement See observ	evial coverage of vegetation on soil cap is 50%. soil caps appear to be at design depth at adjacent at cap. rations page for evosion/deard vegetation menunements.

Project Number:	9003.01.49		
Date:	e: 11/6/2019		
Location (Station or Coordinates)		Observations	Photo Log
45 49 14,07 N		Good overall cap condition cell 1	
45.44 15,46 1	V V	(rood overall cap condition Cell Z	2
45 491 2.33 A	J W	(1002 overall cap condition Cell 3	3
45 44 22.33	N 0 W	Crood overall cap condition Celly	4
45 441 14.25	N W	3' > 0.5' ension at catch bacin	5
45° 44.1.89 N 122° 451.04	ω	3.5' × 1.5' erour at catch basin	6
45-49-11,77 1	ບ ພ	10' × 20' dead vegetation/vehicle vuts	7
45° 49' 12,49 122° 45' 5.22	N W	10'x13' surficial damage caused by voles	<u> </u>
45° 44° 2.17 N 122° 441 58.3°	5 W	20'x40' erosion in cell 3	9
43° 44' 2.84 A	у Ч W	50'x 60' dead vegetation /vehicle vuts	10
450 490 1.81 N 1220 441 56. 42	. w	30'x60' dead vegetatm/vehicle ruts	11
45044117.70	N W	30'x60' disturbed gravel/dead negetation	12
45 - 44 7.84 N 122 47 59.73	V	25'x25' distriked gravel	13
450 49 5. 34 1	/ 5 W	0.25 × 0.25 vareling asphalt	14
45 49 34.07 122 45 0	- N N	Good asphalt cap condition Celly	15



### Photo No. 1.

**Description** Good overall cap condition, facing northeast (Cell 1)

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



### Photo No. 2.

Description Good overall cap condition, facing south (Cell 2)





## Photo No. 3.

Description Good overall cap condition, facing northeast (Cell 3)

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



### Photo No. 4.

Description Good overall cap condition, facing north (Cell 4)





### Photo No. 5.

Description Minor erosion at catch basin in Cell 2, facing west

Photo No. 6.

**Description** Erosion at catch basin in Cell 3 PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington





## Photo No. 7.

## **Description** Inconsistent vegetation cover due to

unauthorized vehicle traffic in Cell 3, facing west

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



## Photo No. 8.

### **Description**

Inconsistent vegetation cover due to unauthorized vehicle traffic in Cell 3, facing northeast





## Photo No. 9.

## Description

Inconsistent vegetation due to unauthorized vehicle traffic in Cell 2, facing northeast

Photo No. 10.

Description Disturbed gravel and soil cap in Cell 2, facing west PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington







#### Photo No. 11.

**Description** Disturbed gravel cap in Cell 3, facing southwest

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



Photo No. 12.

**Description** Asphalt degradation, Cell 3



#### <u>Photo No. 13.</u>

Description Asphalt cap in Cell 4, facing south

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



#### Photo No. 14.

#### **Description**

Surface rills caused by voles in Cell 2, facing north



### <u>Photo No. 15.</u>

### **Description**

Significant erosion of soil cap in Cell 3 due to unauthorized vehicle traffic between gravel access road and marina parking lot, facing southeast

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.49 Location: Port of Ridgefield, Washington



Project Number:	9001.01.49
Date:	11/11/2020
Weather:	PARTLY HOUDY SO"F
Completed By:	B. HAP MOAL
River Level: 🗡	2.5 PT 24hr Precip: 0.07"
General Observati	
	ons:
DEAD	CAP IS IN GOOD CONDITION.
CHO VE	46 TATION IN JUNE ALGAS DUG JU UNAVINUM CO
VEHICLE	TRAPFIC ON CAP. AND NO DISIBLE DEMARKATION
FABRIC.	
CAP INS	ECTION COMPLETED CONSISTENT WITH OPERATIONS PLAN
Specific Observation	ons: To be noted with photographs, measurements, and locations:
Vegetated Cap:	
OVERAN	GOOD VELETATION CONFRAME AND AT
DEAD	GLASS FROM RUTE AND REAL STREETS
MADE	BY NON-PORT VEHICLES DOWNAR AND RADERIAL
ON CA	P. SOU STOLKPILE ALSO ACLADED AND LANCO
FOR	OKEPASS CONSTRUCTION. NO SOIL CRACKS.
Gravel Cap:	
OVERAC	L GOOD CONDITION. NO EROSION OBSERVED
Some	DISTURBED GRAVEL WHERE VEHICLES HAVE
TUEN	to kenno
Asphalt Cap:	
6 COM	CONDITION IS GOOD. MINOR DEGIDE DATION /
U CAI	C CUCHTOR IS HAMAK RAMP. SMALL CRAFKE
CALEC	ING BRAT OF MALL BALAN BREAK
+ Hg	ANY Equipment include manage usserved
Measurements:	
ESTIMAT	5D AGRIM COVERAGE OF VEGETATTON ON
Soil C	AP 15 70 %, GRAVEL + SOIL LAPS APPEAR
TO 55	A DEMIGN DEPTH AT A O JACENT POWENENT CASD.
SEE 63	SERVARIONS PALE FOR GRONION/ PEAD VERFORMON MERSURARY

2 of 3

Project Number: 9001.01.49		
Date: 11 11 201		
Location (Station or Coordinates)	Observations	Photo Log
N 45. 49. 17.339 W122 44'58.379	GOOD ONERMY CAP CONDITION IN CELL I	1
W 122° 45' 60.739	GOOD OVER ALL CAR CONDITION IN CELLZ	2
N 450 49101818 W 1220 45'00.798	20' × 30' INCONSISTENT UGGETATION	3
W 122 45:01.127	20' × 30' INCONSISTENT VELEDATION	4
W 1220 45'01,492	3' x 0.5' EXOSION AT LATCH BASIN	5
W 122°45'01.037	3.5' x 1.5' ERONOW AT CATCH BASIN	6
W 12245'00.000	80 'x 50' DEAD VERETATION / VEHILLE RUTS	7
W 122 45'00.162	50' × 50' DENO VEREMITION / VEHICLE RUTS	8
W 120 45 00.269	3' × 30' IN CONSISTENT VEGETATION	9
W 122 45 01.618	20' × 20' DISTURDED GRANEL	10
W 1220 44159 730	18'x 3' DISTURBED GRAVEL	11
N 15° 49'07.740 W 1220 45'05.348	6' * 0.25' ASPHMA CLARK	12
N 45° 49'07 907 W 122 45'03.600	20' × 10' TRACK MADERS ON ASPHALT	13
~ 12 45 47 07 .578 ~ 12 45 63.959	50' × 50' INCONSIGNATION	14
W 45° 47'01.854 W 112° 44'57.797	20" x 20' DEAD VERENTION /VEHICLE RUS	15

3 of 3

Scanned with CamScanner



## Photo No. 1.

Description Good overall cap condition, facing northeast (Cell 1)

## PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington



### Photo No. 2.

Description

Good overall cap condition, facing south (Cell 2)





## Photo No. 3.

**Description** Fair overall cap condition, facing northeast (Cell 3)

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington



## Photo No. 4.

### **Description**

Fair overall cap condition, facing east (Cell 3)





### Photo No. 5.

**Description** Minor erosion at catch basin in Cell 2

### Photo No. 6.

**Description** Erosion at catch basin in Cell 3

## PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington





## Photo No. 7.

### **Description**

Inconsistent vegetation cover due to unauthorized vehicle traffic in Cell 3, facing west

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington



### Photo No. 8.

#### **Description**

Disturbed gravel and inconsistent vegetation cover due to unauthorized vehicle traffic in Cell 3, facing south





## Photo No. 9.

## **Description**

Inconsistent vegetation due to unauthorized vehicle traffic in Cell 2, facing south

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington



### Photo No. 10.

### **Description**

Disturbed gravel and soil cap in Cell 2, facing east





#### Photo No. 11.

**Description** Disturbed gravel cap in Cell 3, facing southwest

## PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington



Photo No. 12.

**Description** Asphalt degradation, Cell 3



### Photo No. 13.

**Description** Asphalt degradation, Cell 3

## PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington



## Photo No. 14.

#### **Description**

Inconsistent vegetation due to unauthorized vehicle traffic in Cell 3, facing south





### Photo No. 15.

### **Description**

Erosion of soil cap in Cell 3 due to unauthorized vehicle traffic between gravel access road and marina parking lot, facing northeast

# PHOTOGRAPHS

Project Name: Cap Visual Monitoring Project Number: 9003.01.55 Location: Port of Ridgefield, Washington



Contracting and the second se second second sec	,这些人,我们就是你的,你们的你们,你们就是你的你,你们就是你的你,你们们就是你们的你,你们就是你们的你,你们就是你们的你?""你们,你们就是你的你,我们就是你
Project Number:	9001.01.49
Date:	12/2/2021
Weather:	portly cloudy, light breeze, nigh 405
Completed By:	M. POllock
River Level: +3,87	7 COSIS at Columbia Kiver 24hr Precip: 0,00 ' (NOME)
Concerd Observati	on UP2 at st. FRIens Ner A Grany
General Observal	ons: The second second The second se
Overall C	ap is in yood condition.
beend neg	statm in some oners the to unauthorized
venicle h	rafficon cap. No visible demoration fabric.
Pondry an	& visible soil on south east parton of cap where
former of completes	verpuss construction equipment wasstaged. Capinspetion
Specific Observation	ons: To be noted with photographs, measurements, and locations:
Vegetated Cap:	
overall y	005 regetative coverage. A vers of deece grass from
cuts and	depressions made by non-part vehicles aring and
parking	on cap. Overpass construction equipment staying
aven h	us been cleened. Poor negetation coverage and
stormuned porton o	impondy observed in farmer staging onen on southeast Frap.
Graver Cap:	a lange a lange la Concert
overan	good condition. No crossion observer. source
disturked	gravel where vehicles have turned around.
	na se a calendar e a calendar de la construcción de la calendar e a la dela de la construcción de la dela del Construcción de la calendar de la construcción de la calendar de la calendar de la construcción de la construcció
naar 1990. Digen oor stadigen oor stadigen Digen oor stadigen oor stadigen oor stadigen oor stadigen oor stadigen oor stad	1997年1月11日,1997年1月11日,1997年1月11日,1997年1月11日,1997年1月1日,1997年1日,1997年1月11日,1997年1月11日,1997年1日日,1997年1日。 1997年1月11日,1997年1月11日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1 1997年1月11日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997年1日,1997
Asphalt Cap	
General	condition is good. Money dearridgetran / namely-
east of	Kayale vama small walks diagon equals
ha ck	for the provide of the second of the org
	ur is observer.
Measurements:	
Estomated	aerral coverage & vegetation on soil cap is
65%, gra	vel + soil caps apper to be at design depth at
acjucent depid wee	pavement cap sie observortenspage Ar erosion 1

Project Number: 9001.01.49		
Date: 12/2/	2021	
Location (Station or Coordinates)	Observations	Photo Log
N 45=49+13,766 W 1220 44+ 54,010	Good overall condition in cell 1.	- <b>N</b> -
N 45º 49' 17:850 W 122º 45' 6:070	(nood overall cap condition in cell 2.	Z
N 450 491 9,240 W 1220 451 4,530	houd cap condition in cell Z. Note time	3
N 45° 49' 9,220 W 122° 95' 4,810	Good cap conditm in cell Z.	Ч
220 451 14,480 W 1220 451 1,130	3'n 0.31 erosion at catch basin	5
N 43 0 44 01.420 W122 0 45 0 01.050	3,3 ' × 1,5' evosion at catch basin.	6
N 120 441 59,950	80' × 50' Lead vegetation / vehicle ruts	7
N 45° 441 91200 W 122° 441 581570	100' × 60' Level vegetertran/punded stormed	8
N 450 441 21880 W 1220 441 56.730	20' × 50' dead vigetorm/vehicle nots	9
N 45 44 1440 W 1220 451 1.450	20' × 25' disturbed granel	10
N 45 491 7740 W 122 441 59,560	10'×4' disturbed gravel	<u> </u>
N 45' 44' 7.740 W 122º 45' 3,080	6' × 0.25" asphalt crack	12
N 45°49' 7,910 W 122º 45' 3,540	20' × 10' track merks in asphalt	13
W 1220 451 3,760	50' × 50' munistent Vegetaton	14
N 45°49' 1.840 ~ 1220 44' 57.490	20' × 20' den & vegetartom /vehicle nits	15
به طعة عوامة عنه المعالي المر المحالي المحالي	6'× 10' doad vegetation / vehiclent	16
n for de la constant de la constant for la constant de la constant de la constant la constant de la constant de la constant de la constant de la constant la constant de la cons la constant de la const		
nardi (nardi) eta (nardi) Realizzaria (nardi) eta (nardi) Realizzaria (nardi) eta (nardi) eta (nardi)		



#### Photo No. 1.

Description Good overall cap condition, facing northeast (Cell 1)

# PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



#### Photo No. 2.

Description Good overall cap condition, facing south (Cell 2)





## Photo No. 3.

Description Good overall cap condition, facing northeast (Cell 3)

# PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



#### Photo No. 4.

### **Description**

Good overall cap condition, facing east (Cell 3)





### Photo No. 5.

**Description** Minor erosion at catch basin in Cell 2

# PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



## Photo No. 6.

**Description** Erosion at catch basin in Cell 3




## Photo No. 7.

Description

Inconsistent vegetation cover due to unauthorized vehicle traffic in Cell 3, facing west

## PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



#### Photo No. 8.

#### Description

Disturbed gravel and inconsistent vegetation cover in location of former overpass construction equipment staging area in Cell 3, facing south





## <u>Photo No. 9.</u>

### **Description**

Inconsistent vegetation due to unauthorized vehicle traffic in Cell 2, facing north

## PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



#### Photo No. 10.

#### **Description**

Disturbed gravel and soil cap in Cell 2, facing east





#### <u>Photo No. 11.</u>

**Description** Disturbed gravel cap in Cell 3, facing southwest

## PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



## <u>Photo No. 12.</u>

Description Asphalt degradation, Cell 3





### Photo No. 13.

**Description** Asphalt degradation, Cell 3

# PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



#### Photo No. 14.

#### **Description**

Inconsistent vegetation due to unauthorized vehicle traffic in Cell 3, facing south





## <u>Photo No. 15.</u>

### **Description**

Erosion of soil cap in Cell 3 due to unauthorized vehicle traffic between gravel access road and marina parking lot, facing northeast

# PHOTOGRAPHS

Project Name: Project Number: Location: Cap Visual Monitoring 9003.01.56 Port of Ridgefield, Washington



### Photo No. 16.

#### Description

Inconsistent vegetation due to unauthorized vehicle traffic in Cell 3, facing southwest



## SITE INSPECTION SUMMARY REPORT PORT OF RIDGEFIELD CAP VISUAL MONITORING

Project Number:	<del>9001.01.4</del> 9 Maoo3. 01.056		
Date:	11 - 15 - 2022		
Weather:	clear, cool, high 30s		
Completed By:	M. Pollock		
River Level: +2.6	۱ 📿 ۱۵۵۵ 24hr Precip: ۲۵٬۰		
V	Columbia Kiver M St. Helens Nokk yange		
General Observations:			
- Overall cap is in your condition.			
rope.			
- Northeast and north central parties of cell 3 has been gravelied.			
- some venicle traffic on cap. no with the deman cadran facture.			
- ap inspectra completed consistent with operations along			
Specific Observations: To be noted with photographs, measurements, and locations:			
Vegetated Cap:			
overall good vegeterthe concrage, knew of duck and som			
into and depressions made by new-part newsilly drives as the			
Former on	perpuss construction sterrise area on Call 2 hus been		
a gove the	(many law 2 and a law and )		
ground	capproximately 2 acre anon		
Gravel Cap: Overall arens of armed. Asphalt Cap: General of Icay Merks ob	good condition. No erosion observed . Some disturbed growel where vehicles have turned condition is good. Miner Legradoom /raveling east jak vump. Small cracks & heavy equipment track served.		
Estimates Estimates upproximates Soil cups See observe	aental conense of nigetation an soil capis 75%, 7 Lacres d'soil cap has been graveled. Creavel and appear to be at design depth at adjacent pavement cap. ations page for erosim ( dead nightation measurements,		

#### SITE INSPECTION SUMMARY REPORT PORT OF RIDGEFIELD CAP VISUAL MONITORING

Project Number: <del>9001.01.</del>	49 M 9003.0 1.05 6	
Date:   -15	5-2022	
Location (Station or Coordinates	e) Observations	Photo Log
N 45•4914.049 W 122•44158.429	(1002 overall cap condition in Cell 1	١
N 45.41.18.140 W 122.4512.469	Good overall cap condition in cell 2	Z
N 45.49.41.849 W 122. 45.1.400	Good averall cap condition in cell 3	3
N 45 44 3.140 W 122,44 57.30 9	Note time tracks in grass.	ч
W (221458.400	3'×0.5' crossion at catch basin incell2.	5
W 122°45 0.960	2' × 0.3' erosion at cotch basin in cells.	6
W 121144151,479	graveled area on cell3.	7
W 122º 45 10.080	gravelet ana an cell3.	જ
W 1220 44151.760	gravebed aven an Cell3.	9
W 12214511.679 N 4514917.690	20' × 15' distributed gravel an cell?	lo
W (220 450 3-29 9 N 4104917 550	6' × 0.25" asphalt crack an cell 3.	11
W 12204513,48 A N 4504919.864	20' × 10' trades in asphilt on cell 3.	12
W 1220 4500.159 N 450494.839	10' × 20' dead vegetation vehicle vits cell?.	13
V 120 44.57.840 N 47049 3.140	20' × 20' dead vegetaton /vehicle no cells	14
Nº 122. 44,38,320 N 45.49,21,320	20'x 30' dant vigetaten lichiche nits all'3.	13
W 122 . 451 0.030	(1002 overall cap conditmin celly.	16
<u>V</u>		



#### Photo No. 1.

**Description** Good overall cap condition, facing northeast (Cell 1)

## PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



#### Photo No. 2.

(Cell 2)

**Description** Good overall cap condition, facing south





## Photo No. 3.

Description Good overall cap condition, facing northeast (Cell 3)

# PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



### Photo No. 4.

#### **Description**

Good overall cap condition, facing west (Cell 3). Note vehicle ruts in grass.





### Photo No. 5.

**Description** Minor erosion at catch basin in Cell 2

## PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



#### Photo No. 6.

### **Description**

Minor erosion at catch basin in Cell 3. Note rock placed on far side of catch basin to limit erosion.





### Photo No. 7.

**Description** Northern portion of graveled area in Cell 3, facing west

# PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



#### Photo No. 8.

#### **Description**

Northern portion of graveled area in Cell 3, facing southeast





### Photo No. 9.

**Description** Graveled area in Cell 3, facing north

# PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



#### Photo No. 10.

#### **Description**

Minor disturbed gravel and soil cap in Cell 2, facing southeast





## <u>Photo No. 11.</u>

**Description** Asphalt degradation, Cell 3

## PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



## Photo No. 12.

Description Asphalt degradation, Cell 3





### Photo No. 13.

#### **Description**

Inconsistent vegetation due to unauthorized vehicle traffic in Cell 2, facing west

# PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



### Photo No. 14.

#### **Description**

Erosion of soil cap in Cell 3 due to unauthorized vehicle traffic between gravel access road and marina parking lot, facing northeast





### <u>Photo No. 15.</u>

### **Description**

Erosion of soil cap in Cell 3 due to unauthorized vehicle traffic between gravel access road and marina parking lot, facing north

# PHOTOGRAPHS

Project Name: Project Number: Location: Date: Cap Visual Monitoring M9003.01.056 Port of Ridgefield, Washington November 15, 2022



### Photo No. 16.

#### **Description**

Minor erosion of soil cap in Cell 4 due to unauthorized vehicle traffic, facing north

