



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300  
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

March 28, 2017

Mr. Jon Potter  
3408 South Union Avenue  
Tacoma, WA 98409

**Re: Notice of Periodic Review Conducted at the following Hazardous Waste Site:**

- **Site Name:** Abitibi Consolidated Sales Corporation
- **Site Address:** 4302 Chambers Creek Road, Steilacoom, Washington 98388
- **Facility/Site No.:** 57759125
- **Cleanup Site ID No.:** 2884

Dear Mr. Potter,

Under the Model Toxics Control Act (MTCA), Chapter 70.105D RCW, which governs the cleanup of hazardous waste sites in Washington State, the Department of Ecology (Ecology) must conduct a periodic review of all sites with institutional controls and Environmental Covenants every five years. This letter serves to inform you that a periodic review has been conducted at the Abitibi Consolidated Sales Corporation Site.

The periodic review process includes the following steps:

- Confirmation that the Environmental Covenant is still active and recorded with the Title to the property.
- A review of any monitoring data collected since the cleanup was completed or since the last review was conducted.
- A Site visit to confirm the institutional controls and conditions of the Environmental Covenant are being followed.
- A 30-day public comment period on the draft periodic review report.

Mr. Jon Potter  
March 28, 2017  
Page 2

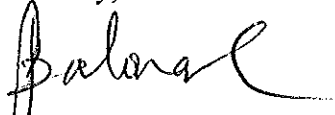
Based on the information collected during this periodic review, the Abitibi Consolidated Sales Corporation Site appears to meet the requirements of Chapter 173-340 WAC, and the selected remedy continues to be protective of human health and the environment. The 30-day public comment period on the draft periodic review report was ended on March 20, 2017.

We received no public comments on the draft report. Enclosed is a copy of the final periodic review report for your information.

A periodic review will continue to be required every five years as long as institutional controls and/or an environmental covenant are required to protect human health and the environment. The next periodic review will be due in March 2022.

If you have any questions regarding this letter or if you would like additional information regarding the cleanup of hazardous waste sites, please call me at (360) 407-6335. Thank you for your cooperation.

Sincerely,



Poojini Balaraju  
Toxics Cleanup Program  
Southwest Regional Office

Enclosure: (1)

By certified mail: [91 7199 9991 7037 0221 7867]

cc: Central Files



**FIRST PERIODIC REVIEW REPORT  
FINAL**

**Abitibi Consolidated Sales Corp  
Facility Site ID#: 57759125  
Cleanup Site ID#: 2884**

**4302 Chambers Creek Road  
Steilacoom, WA 98388**

**Southwest Regional Office  
TOXICS CLEANUP PROGRAM**

**March 2017**

## TABLE OF CONTENTS

<b>1.0 INTRODUCTION .....</b>	<b>1</b>
<b>2.0 SUMMARY OF SITE CONDITIONS .....</b>	<b>2</b>
2.1 Site History .....	2
2.2 Cleanup Levels.....	2
2.3 Site Investigations, Interim Removal Actions and Feasibility Study .....	3
2.3.1 Site Geology and Hydrologic Conditions.....	3
2.3.2 Phase I Environmental Site Assessment .....	4
2.3.3 Phase II Environmental Site Assessment .....	4
2.3.3.1 Area A: The Main Process Area .....	4
2.3.3.2 Area B: Outfall .....	5
2.3.3.3 Area C: Aeration Stabilization Basin .....	6
2.3.3.4 Area D: Potential Mining Process Solids Area .....	6
2.4 Summary of Phase II Environmental Site Assessments Findings .....	6
2.5 Supplemental Field Investigations .....	7
2.6 Interim Removal Action .....	7
2.6.1 Summary of Post Interim Removal Action Findings .....	7
2.7 Feasibility Study .....	9
2.8 Long Term Groundwater Monitoring .....	9
2.9 Environmental Covenant .....	9
<b>3.0 PERIODIC REVIEW.....</b>	<b>12</b>
3.1 Effectiveness of completed cleanup actions.....	12
3.2 New scientific information for individual hazardous substances for mixtures present at the Site .....	12
3.3 New applicable state and federal laws for hazardous substances present at the Site .....	12
3.4 Current and projected Site use .....	12
3.5 Availability and practicability of higher preference technologies.....	13
3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels .....	13
<b>4.0 CONCLUSIONS .....</b>	<b>14</b>
4.1 Next Review.....	14
<b>5.0 REFERENCES .....</b>	<b>15</b>
<b>6.0 APPENDICES .....</b>	<b>17</b>
6.1 Vicinity Map .....	18
6.2 Site Plan .....	19
6.3 Main Process Area / Mill Layout.....	21

6.4 Phase I Environmental Site Assessment Areas: Area A, Area C, and Area D .....22  
6.5 Main Process Area, Area A Soil Sample Locations and Results .....27  
6.6 Supplemental Investigation Sampling Locations and Results .....28  
6.7 In-Place Characterization Soil Sample Locations .....29  
6.8 Approximate Extent of Petroleum Contaminated Soil Excavation Area and  
Conformation Soil Sampling Locations .....30  
6.9 Groundwater Monitoring Well Locations, Groundwater Flow Direction and Post  
Interim Removal Action Groundwater Sample Results .....32  
6.10 Long Term Groundwater Monitoring and Time-Series Concentration Maps .....34  
6.11 Environmental Covenant .....40  
6.12 Photo Log .....45

## 1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup conditions and monitoring data to ensure that human health and the environment are being protected at the Abitibi Consolidated Sales Corp site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under an Agreed Order Number DE 3154 dated November 29, 2006 (AO) between the Abitibi Consolidated Sales Corporation and Ecology. The cleanup actions resulted in concentrations of polycyclic aromatic hydrocarbons (PAHs) in soil and arsenic in groundwater that exceeds MTCA Method B cleanup level. The MTCA Method B cleanup level for soil and groundwater were established under WAC 173-340-740 and WAC 173-340-720, respectively. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- Whenever the department conducts a cleanup action.
- Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- Or, as resources permit, whenever the department issues a no further action (NFA) opinion:
- And one of the following conditions exists:
  - (a) Institutional controls or financial assurance are required as part of the cleanup.
  - (b) Where the cleanup level is based on a practical quantitation limit.
  - (c) Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the Site.
- (b) New scientific information for individual hazardous substances of mixtures present at the Site.
- (c) New applicable state and federal laws for hazardous substances present at the Site.
- (d) Current and projected Site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

---

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

## **2.0 SUMMARY OF SITE CONDITIONS**

### **2.1 Site History**

The Abitibi Consolidated Sales Corporation property is located at 4302 Chambers Creek Road in the Town of Steilacoom, in Thurston County, Washington. The Property is situated near the bank of Chambers Creek, at the northern edge of the City of Steilacoom. Chambers Creek is an estuary of south Puget Sound, and portion of the creek adjacent to the Property is tidally influenced. The Property is bounded by residential land to the west, Western State Hospital and a golf course to the east, and the Property owned by the Steilacoom School District to the south. The Property covers about 83-acres and is characterized by two distinct physiographic areas that are separated by approximately 200-feet of topographic relief: the lower elevation mill process and manufacturing operation area (main process area), and the upland area along the eastern and southwestern Property boundaries where the wastewater treatment plant (Aeriation Stabilization Basin, ASB) was located. A vicinity map and Site Plan are available as Appendix 6.1 and Appendix 6.2, respectively.

Based on the available information, the mill was constructed on fill used to level the lower portion of the Property adjacent to Chambers Creek. The fill was used in the area of the guard shack and between the hog fuel storage and Chambers Creek, including Chambers Creek Road. The mill was in operation between 1919 and December 2000 to manufacture newsprint. The Property was owned by several other owners before it was acquired by Abitibi by way of a merger between Abitibi Price Inc., and Stone Consolidated Corporation in May 1997. The primary operation included the manufacturing of newsprint; however, the auxiliary manufacturing operations included unloading and repulping of purchased Kraft pulp, water filtration, wastewater treatment, and steam generation using hog fuel and natural gas-fired boilers. In addition, petroleum products and chemicals were stored in aboveground storage tanks (ASTs) at various locations within the main process area. The manufacturing operations were permanently shut down in December 2000. The layout of main process area is included as Appendix 6.3.

### **2.2 Cleanup Levels**

WAC 173-340-704 states that MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used.

MTCA Method A soil cleanup level of 30 milligrams per kilogram (mg/kg), and 2000 mg/kg for gasoline-range (TPH-G) and diesel-and-oil range total petroleum hydrocarbons (TPH-D and TPH-O) were selected for the Site. However, due to the nature of the contaminants present at the Site the MTCA Method B cleanup levels were developed for other chemicals based on the risk

---

exposure assumptions, and land use scenarios using the procedures presented in WAC 173-340-700 through 760 and by reviewing Applicable, Appropriate and Relevant Requirements (ARARs).

The shallow impacted groundwater occurs in a fill-alluvial aquifer adjacent to a tidally dominated reach of Chambers Creek. Groundwater beneath the Site discharges to the Chambers Creek. The shallow groundwater in the vicinity of the Site is not used as a drinking water source. Discharge of Site groundwater to surface waters must, therefore, also meet water quality standards for aquatic life and humans eating fish from the surface waters. Hence, applicable, or relevant and appropriate requirements (ARARs) were used in establishing the groundwater cleanup levels. As a part of this, MTCA Method B residential, WAC 173-340-720; Surface Water Quality Standards, WAC 173-201A; National Toxics Rule and Federal Water Quality Standards (RCW 90.48) were evaluated to develop the most stringent groundwater cleanup levels.

## **2.3 Site Investigations, Interim Remedial Action and Feasibility Study**

### **2.3.1 Site Geology and Hydrogeologic Conditions**

The subsurface investigations showed that the geologic units that underlie the Site consists of fill, Quaternary alluvium, and glacial deposits. Several episodes of fill placements are known to have occurred since the initial development of the Property. The fill underlies most of the main process area. The fill is about 5 to 10 feet thick and consists of silty sand and gravel with some concrete and woody debris. The Quaternary alluvium consists of a layer of silt, sand, and gravel deposited by Chambers Creek beneath the fill in the main process area. The sequence of glacial deposits make up the surface material in the areas of the Property at higher elevation and underlie the alluvium and fill in the main process area. The glacial deposits are composed of sands and gravel.

Two water-bearing zones have been identified at the Property: the fill/alluvial aquifer in the lower part of the Property adjacent to Chambers Creek, and the deeper, glacially derived Chambers-Clover Creek aquifer. The fill/alluvial zone sits unconformably on the larger aquifer, and, based on the presence of groundwater seeps at the base of the hill into which the main process area is incised, may be separated from the larger aquifer by zones of lower permeability. Because of regional groundwater discharge patterns to Chambers Creek and Puget Sound, it was unlikely that the mill operations have impacted the Chambers-Clover Creek aquifer.

The groundwater was typically encountered in the fill/alluvial aquifer at depths 5 to 8 feet below ground surface (bgs) at elevations ranging from 10 to 12 feet mean sea level (msl). The groundwater elevation in the vicinity of main process area corresponds with the base of fill material that was likely placed in the 1940s or 1950s. The groundwater flows towards the Chambers Creek at a gradient of approximately 0.01 foot/foot.

### **2.3.2 Phase I Environmental Site Assessment**

In 2001, the Phase I Environmental Site Assessment (ESA) was conducted and was intended to identify potential environmental problem areas as part of a property transaction. The Phase I ESA divided the Property into the following four areas based on the Property history, operational practices/or observed conditions that were indicative of potential hazardous substances releases for conducting a Phase II ESA to better characterize environmental conditions at these areas:

- Area A, the main process area
- Area B, the mill's National Pollutant Discharge Elimination System (NPDES)-permitted wastewater discharge outfall into the South Puget Sound.
- Area C, the Aeration Stabilization Basin (ASB).
- Area D, property to the east of main process area where mining process solids had reportedly been deposited in the past.

A Figure showing the above areas is enclosed as Appendix 6.4.

### **2.3.3 Phase II Environmental Site Assessment**

In 2005, a Phase II ESA was conducted to further assess and characterize the areas of reported or suspected potential releases to soil, groundwater and sediments identified during the Phase I ESA. The following areas were investigated as part of Phase II ESA:

#### **2.3.3.1 Area A, the main process area**

Based on the location specific operation, the Area A was divided into the following five subareas for Phase II ESA and the sampling locations are included as Appendix 6.5:

- Subarea A1: Machine, Maintenance, and Process Buildings

Routine processes and the handling and storage of process chemicals could potentially have resulted in small-scale releases of petroleum compounds and process chemicals could have leached to soil and groundwater around the building. For Phase II work, seven groundwater samples were collected from shallow wells installed downgradient from the main process buildings and groundwater samples analyzed for total petroleum hydrocarbons (TPH), semivolatile organic compounds (SVOCs), and metals. In addition, one surface soil sample was collected from the stained area and analyzed for TPH.

- Subarea A2: Tacoma Public Utilities

In April 1999, mineral oil containing polychlorinated biphenyl's (PCBs) was released from a transformer during a fire in an electrical substation owned by Tacoma Public Utilities (TPU) located between the Steam Plant and the Maintenance Shop on the Property. After the emergency response, PCB contaminated soil was excavated and disposed off-site in accordance with applicable PCB storage and disposal regulations. The final confirmation soil sample results were all below the Toxic Substances Control Act spill cleanup criteria. For the Phase II investigation, two subsurface soil samples were collected for PCBs analysis.

- Subarea A3: Truck Scale Area

In July 1999, during the repair of a fractured pipe in one of the underground sump used to convey the accumulated fluid from the Chip Tower Station (Chip Tower), a release of hydraulic fluid was observed in soil within the excavation, approximately 4.5 feet below ground surface (bgs). Preliminary assessment and site characterization activities indicated that the hydraulic oil was present in the soil at concentrations below the current MTCA Method A cleanup levels. Therefore, no additional remedial actions were conducted. During the Phase II investigation, two subsurface soil samples were collected for TPH-diesel analysis to confirm the previous results.

- Subarea A4: Railroad Tracks and Loading Area

There were no reported releases from railroad or locomotives. However, routine railroad maintenance activities involved the use of solvents, fuels, and wood preservatives that could persist in the environment if they were released. Therefore, in the Phase II work, four subsurface soil samples were collected from the rail bed for the analysis of TPH, SVOCs, and metals.

- Subarea A5: Stock Preparation Area

A number of process chemicals were stored and handled behind the stock preparation area at the rear of the machine buildings. There were no reported releases of any process chemicals. However, some chemicals used in paper and pulp processing can contain SVOCs or metals that could persist in the environment if they were released. For the Phase II investigation, three surface soil samples were collected for TPH, SVOCs, and metals analysis.

### 2.3.3.2 Area B: Outfall

The process wastewater effluent (including storm water from proses area) was biologically treated in an ASB, which included primary and secondary settling basins. Under NPDES Permit, the mill discharged its treated effluent to Puget Sound through an outfall. The outfall consisted of a 30-inch diameter concrete pipe extending 400-feet offshore with a diffuser section making up the last 96 feet of the pipeline was located at an average depth of 25 feet below mean lower low water.

As required condition by the NPDES Permit, a marine sediment study was conducted in September 1995 involving chemical and physical analyses and toxicity testing of sediment collected from the vicinity of Outfall, from an ambient location north of the outfall, and from a control or reference location in Carr Inlet off Fox Island. This study and a subsequent north acute zone boundary study concluded that the chemical concentrations and toxicity values met the Sediment Management Standards in effect at that time. However, for the Phase II investigation, one sample of deposits inside the outfall was composited from three locations within the outfall pipe and analyzed for TPH, SVOCs, metals, PCBs, and other parameters including sulfides, total organic carbon (TOC), total solids, and grain size.

#### **2.3.3.3 Area C: Aeration Stabilization Basin**

The Aeration Stabilization Basin (ASB) was located south of the main process area in a forested area on a hilltop. The perimeter of the 5.3-acre ASB had an earthen berm, and the bottom and side were lined with an impermeable membrane during its use. The ASB's maximum volume capacity was approximately 32 million gallons. During the mill operations, effluent from the primary clarifier overflowed into a clear well. From there it was pumped to the ASB. The effluent in the ASB was biologically treated, and nutrients were added to the ASB to sustain the biomass. It was emptied and permanently taken out of service in 2001. For Phase II investigation, eleven subsurface soil and one composite biomass samples were collected below the liner at the bottom of the ASB (Appendix 6.5, Figure 2-2) and analyzed for TPH, SVOCs, metals and dioxins.

#### **2.3.3.4 Area D: Potential Mining Process Solids Area**

It was reported that mining process solids were reportedly deposited onsite and might have been used as bed material for an access road from the golf course to the high-voltage power lines in the eastern area of the Property. The solids could have included mining process materials from the smelting and refining of copper bearing ores. Since the exact location and extent of the deposit was not known, the area where the fill was likely deposited was extensively excavated and re-graded to expand the buildable area of the Property. The excavated material was disposed of off-site. For Phase II ESA four surface soil samples were collected and analyzed for copper, lead, and arsenic to determine whether mining process solids are present in Area D.

## **2.4 Summary of Phase II ESA Findings**

Results of one of the surface soil samples collected from the railroad spur between Shipping Warehouse and the hot fuel storage area (Subarea A1) contained low levels of heavier-range petroleum hydrocarbons and calculated hazard index for this sample was less than 1, indicating no unacceptable risks from petroleum concentrations.

Benzene (180 µg/l), and gasoline-range petroleum hydrocarbons (TPH-G: 1,700 µg/l) were detected in water samples collected at MP4 and MP3 locations. In addition, heavier-range

---

petroleum hydrocarbons were also detected in a second temporary well (MP3) located down gradient of the hog fuel storage area. The detected benzene concentration exceeded the MTCA

Method B cleanup level of 0.8 µg/l and the calculated hazard index for TPH-G compounds exceeded 1, indicating potential unacceptable risks from petroleum concentrations in the sample.

Arsenic was detected in groundwater samples throughout Areas 1 through 4, with concentrations ranging from 4.4 to 42 µg/l, exceeding its MTCA Method B cleanup level of 0.058 µg/l.

The Phase II ESA concluded that historical releases of petroleum were the likely source of the petroleum compounds detected in the soil and groundwater in the vicinity of the hog fuel storage area. However, the presence of arsenic concentrations above MTCA Method B cleanup levels in groundwater was attributed to naturally occurring background concentration.

## 2.5 Supplemental Field Investigation

In 2005, a supplemental investigation was conducted to identify possible arsenic, benzene, and total petroleum hydrocarbons source areas, assess the extent of groundwater impacts near MP3 and MP4, and assess groundwater conditions adjacent to Chambers Creek. A total of 19 direct-push temporary borings/well points (DP-1 through DP-19) were installed for collecting groundwater samples. In addition, based on visual observation of cores and PID field screening results, two soil samples were collected at DP-13 and DP-16 at 2.5 feet below ground surface (bgs) and 6.5 feet bgs, respectively. All the groundwater and soil samples were analyzed for total petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylenes (BTEX), volatile organic hydrocarbons, and/or arsenic.

Benzene (56 µg/l) and TPH-G (1,300 µg/l) were detected above the MTCA Method B or Method A cleanup levels of 0.8 µg/l and 800 µg/l, respectively. Arsenic concentrations (8 to 10.2 µg/l) were also exceeded the MTCA Method B cleanup level of 0.58 µg/l. Sampling/boring locations, and analytical results are presented as Appendix 6.6.

In February 2006, based on findings of the above Supplemental Field Investigation, an In-Place Characterization was conducted to further define the extent of petroleum-impacted soil in the planned excavation area, and to characterize the impacted soil for offsite disposal. In-Place Characterization sampling locations are included as Appendix 6.7.

## 2.6 Interim Removal Action

In April 2006, the total petroleum hydrocarbons (TPH) impacted soil cleanup was conducted in an area north of the Shipping Warehouse and northwest of the Hog Fuel Storage Area. This removal action included the removal of asphalt and concrete pavement (approximately 159 tons) and the excavation of approximately 3,445 tons of TPH contaminated soil to the MTCA Method A cleanup levels. The asphalt and concrete debris were transported to a recycling facility and the contaminated soil was transported offsite for disposal. Confirmation soil sample locations and approximate extent of excavation area are included as Appendix 6.8.

---

## 2.6.1 Summary of Post Interim Removal Action Findings

### Soils

Results of the Site investigations revealed that arsenic, TPH, and polycyclic aromatic hydrocarbons (PAHs) concentrations in soil were above the MTCA cleanup levels. The arsenic concentrations ranged from 5 mg/kg to 10 mg/kg and only few samples were slightly above the comparison value of 7 mg/kg; however, concentrations were less than the MTCA Method A cleanup level of 20 mg/kg.

The TPH exceedences detected in soil samples were all collected in the Shipping Warehouse Area of the main process area represent the pre-excavation conditions. Results of only one post excavation confirmation soil sample (BDS03) collected at bottom of the excavation had a TPH-G concentration of 41 mg/kg, which exceeded the MTCA Method A cleanup level of 30 mg/kg (Figure 4-1, Appendix 6.8). However, statistically the post excavation condition of the soil in the Shipping Warehouse Area met the MTCA compliance criteria.

Benzo(a)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and benzo(a)pyrene concentrations exceeded the MTCA Method B cleanup levels. These exceedences occurred in the soil samples collected beneath the bedding of the railroad tracks and in the Shipping Warehouse Area of the main process area. Some of the PAHs contaminated soil was removed during the IRA, however some of the PAHs contaminated soil was left in place at bottom of the excavation at BDS19 (Figure 4-1, Appendix 8). The source of the PAH in the railroad area was unknown and most likely was related to railroad operations or historical fill used in the area. Since the low magnitude and extent of PAHs contamination was limited, it was concluded that no further action was needed to address the PAH-impacted soil left on the Site.

### Groundwater

The results of post IRA groundwater sampling indicated that arsenic, TPH, benzene, and PAHs concentrations exceeded the MTCA Method A or Method B cleanup levels. Arsenic was detected in all groundwater samples collected on the Property and the concentrations ranged from 0.0004 to 0.04 mg/L which exceeded the MTCA Method A cleanup level of 0.005 mg/L. Since there was no known source of arsenic at the Site and because the presence of arsenic in groundwater was not linked to identified sources of arsenic in soil, it was concluded that higher arsenic concentrations in groundwater was as a result of reducing conditions on the Site.

The gasoline-and-diesel range total petroleum hydrocarbons (TPH-G: 0.25 mg/L to 1.3 mg/L; TPH-D: 0.51 mg/L to 1 mg/L), benzene (0.015 µg/L to 0.18 µg/L), and PAHs were detected at few sampling locations. Some of these concentrations exceeded the MTCA Method A or Method B cleanup levels. However, the extent of groundwater impact was limited to a small area in the main process area in the vicinity of Shipping Warehouse Area, where the IRA was

---

conducted. It was also concluded that because of limited groundwater impact with low level of above contaminants, it is highly unlikely that Chambers Creek had been or will be adversely impacted by the presence of low levels of contaminant of concerns in the groundwater. Groundwater monitoring well locations and groundwater sample results are included as Appendix 6.9.

## 2.7 Feasibility Study

Following the completion of the above interim removal actions, the RI concluded that no additional cleanup action is needed for the Site soils. However, the RI also concluded that a focused feasibility study is warranted for evaluating the cleanup alternatives for the groundwater at the Site. In May 2009, a feasibility study (FS) was generated to screen remedial technologies to address the residual TPH-G, TPH-D, benzene, and PAHs groundwater contamination remaining on the Site. The screening process resulted in the following three potential alternatives:

1. No further Action;
2. Monitored Natural Attenuation (MNA); and
3. Enhanced Bioremediation

After a detailed evaluation of above alternatives as per the requirements of the MTCA remedy selection process; WAC 173-349-360, and estimated costs for each alternative, Alternative 2, the Monitored Natural Attenuation (MNA) was selected as the preferred final remedy with Ecology's concurrence. This alternative required the filing of an environmental covenant on the property restricting groundwater use and long term groundwater monitoring for contaminants of concern.

## 2.8 Long Term Groundwater Monitoring

Following the soil remediation and FS, a cleanup action plan (CAP) was developed in November 2008 for the selected remedy, MNA was implemented by the Abitibi Consolidated Sales Corporation under an Agreed Order Number DE 3154 (AO) dated November 29, 2006. A conceptual site model (CSM) was developed to properly locate the monitoring wells. With Ecology's approval of the CSM, five groundwater monitoring wells (MW-1 through MW-5) were installed at the Site. A total of seven rounds of quarterly groundwater monitoring was conducted from August 2006 through March 2008. The results of last four rounds of groundwater monitoring were all were all either below the laboratory detection limits or below the MTCA Method A or Method B cleanup levels established for the Site. Groundwater elevation map, groundwater monitoring results and TPH-G, TPH-D, benzene and arsenic time series concentration maps are included as Appendix 6.10. Based on these results, the groundwater monitoring was discontinued in November 2008 with Ecology's approval.

In May 2009 Ecology issued a Final CAP describing the final cleanup action. On March 31, 2010, an Environmental Covenant was filed recorded on the Property. On April 10, 2013,

---

Ecology issued a satisfaction letter to Abitibi Consolidated Sales Corporation for completing the requirements of the AO.

## 2.9 Environmental Covenant

The Environmental Covenant (EC) was recorded for the Site on March 31, 2010. The Covenant was required because the Remedial Action resulted in residual concentrations of arsenic, in the near surface aquifer, which exceeded the MTCA Method B cleanup levels established under WAC 173-340-720 and PAHs, in soils associated with the rail lines, which exceeded the MTCA Method B cleanup levels established under WAC 173-340-740 for the Site. The EC imposes the following limitations:

1. No near surface aquifer groundwater may be taken for domestic, agricultural, or any use from the Property.
2. A portion of the Property contains PAH contaminated soil located in and along the railroad area by the loading dock. Upon demolition of the rail lines any contaminated soil exceeding MTCA standards that is removed shall be disposed of according to regulatory requirements. The creation of a new exposure pathway creates a need for the Owner to notify Ecology of the method of soil removal and where it is to be disposed. The Owner shall not alter, modify, or remove existing structures in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology.
3. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.
4. Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior approval from Ecology.
5. The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action. Title to the property was conveyed from Abitibi Consolidated Sales Corporation to Chambers Creek LLC on February 11, 2010, with notice provided to Ecology in accordance with this section.
6. The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.

7. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this EC. Ecology may approve any inconsistent use only after public notice and comment.
8. The Owner shall allow authorized representatives of Ecology the right to enter the property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect records that are related to the Remedial Action.
9. The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this EC shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

The EC is available as Appendix 6.11.

### **3.0 PERIODIC REVIEW**

#### **3.1 Effectiveness of completed cleanup actions**

Based upon the Site visit conducted on December 2, 2016, there was no observed indications that the integrity of the remedial action has been compromised. A photo log is available as Appendix 6.12. As discussed in section 2.6, a total of approximately 3,445 tons of petroleum contaminated soil was excavated during the IRA and disposed of off-site. However, some PAHs and TPH soil contamination was left in-place on the Site. Slight arsenic exceedances in the groundwater was attributed to the presence of reducing conditions at the Site.

The mill operations were ceased in 2000 and currently the Property is vacant and some of the old structures and ASTs still remain on the Site. The remaining residual PAHs soil contamination is beneath either an old asphalt or old concrete pavement. The asphalt and concrete pavements are in reasonably good condition. These pavement covers continue to provide an adequate barrier to direct exposure pathways (ingestion, contact) to contaminated soils. Additionally, these covers prevent water infiltration, which could increase the mobility of the contaminants to groundwater.

An EC was recorded for the Site and remains active. The Restrictive Covenant restricts groundwater extraction for any use, and activities that may expose contaminated soils contained at the Site. The EC prohibits any use of the property that is inconsistent with the covenant or exposure to the contaminated groundwater at the Site.

#### **3.2 New scientific information for individual hazardous substances for mixtures present at the Site**

There is no new relevant scientific information for hazardous substances remaining at the Site.

#### **3.3 New applicable state and federal laws for hazardous substances present at the Site**

MTCA Method A/ Method B cleanup levels for contaminants of concern at the Site have not changed since the Site cleanup in 2009.

#### **3.4 Current and projected Site use**

The Site is currently a vacant property. At this time, there are no plans for development of the Property. The vacant use of the Property is not likely to have any adverse impact on the risk posed by the hazardous substances contained at the Site.

### **3.5 Availability and practicability of higher preference technologies**

The remedy implemented included the excavation of most of the contaminated soils to unrestricted land use cleanup levels and restrictions on the groundwater use. Containment remains an effective remedy for the limited soil contamination remaining beneath asphalt/concrete pavement. With the implemented remedy with an EC, the Site continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

### **3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels**

The analytical methods used at the time of the remedial action were capable of detection below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

## 4.0 CONCLUSIONS

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Soil cleanup levels have not been met at the Site; however, under WAC 173-340-740(6) (f), the cleanup action is determined to comply with cleanup standards, since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The groundwater cleanup level for arsenic has not been met at the Site. However, the potential exposure pathways have been eliminated through the implementation of an EC which restricts the use of groundwater at the Site. Continued groundwater monitoring for arsenic is not required at the Site, since it was concluded that the slight arsenic exceedence in the groundwater is as a result of naturally occurring reducing conditions at the Site.
- The EC for the property is in place and will be effective in protecting public health from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this review, Ecology has determined that the remedial actions conducted at the Site continue to be protective of human health and the environment. The requirements of the EC are being satisfactorily followed and no additional remedial actions are required at this time. It is the property owner's responsibility to continue to inspect the Site to assure that no new exposure pathways are created at the Site.

### 4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

---

## 5.0 REFERENCES

- CH2M HILL. 2001. Phase I Environmental Site Assessment, West Tacoma Mill  
4302 Chambers Creek Road, Steilacoom, Washington. January 2005.
- CH2M HILL. 2005. Final Phase II Environmental Site Assessment, Abitibi West Tacoma Mill,  
Steilacoom, Washington. May 2005.
- CH2M HILL. 2005. Technical Memorandum, West Tacoma Mill Supplemental Field  
Investigation, May 2005 Groundwater and Soil Sample Results. July 2005.
- CH2M HILL. 2006. Construction Work Plan for Independent Remedial Action, Abitibi West  
Tacoma Mill, Steilacoom, Washington. February 2006.
- Department of Ecology. 2006. Agreed Order Number DE 3154 for conducting a Remedial  
Investigation/Feasibility Study and Developing a Draft Cleanup Action Plan.  
November 29, 2006.
- CH2M HILL. 2007. Final Remedial Investigation/Feasibility Study report, Abitibi West Tacoma  
Mill, Steilacoom, Washington. April 2007.
- CH2M HILL. 2007. West Tacoma Mill Quarterly Groundwater Monitoring – Round 2 Results  
(December 2006) and Proposed Additional Monitoring Well. February 2007.
- CH2M HILL. 2007. West Tacoma Mill Quarterly Groundwater Monitoring – Round 3 Results  
(March 2007) and Installation of MW-5. May 7, 2007.
- CH2M HILL. 2007. West Tacoma Mill Quarterly Groundwater Monitoring – Round 4 Results  
(June 2007). July 11, 2007.
- CH2M HILL. 2007. West Tacoma Mill Quarterly Groundwater Monitoring – Round 5 Results  
(October 2007). November 7, 2007.
- CH2M HILL. 2007. West Tacoma Mill Quarterly Groundwater Monitoring – Round 6 Results  
(December 2007). February 20, 2008.
- CH2M HILL. 2007. West Tacoma Mill Quarterly Groundwater Monitoring – Round 7 Results  
(March 2008). April 28, 2008.
- CH2M HILL. 2008. Draft Cleanup Action Plan for Abitibi Consolidated Sales Corporation  
Property (West Tacoma Mill). June 2008.
- CH2M HILL. Construction Close-Out Report, Abitibi Consolidated West Tacoma Mill  
Steilacoom, Washington.

Department of Ecology. 2008. Ecology Letter Approving the Discontinuation of Groundwater Monitoring. November 12, 2008.

Department of Ecology. 2013. Ecology Letter regarding the Satisfaction of Agreed Order Number DE 3154. April 10, 2013.

Department of Ecology. Site Visit, December 2, 2016.

**6.0 APPENDICES**

### 6.1 Vicinity Map

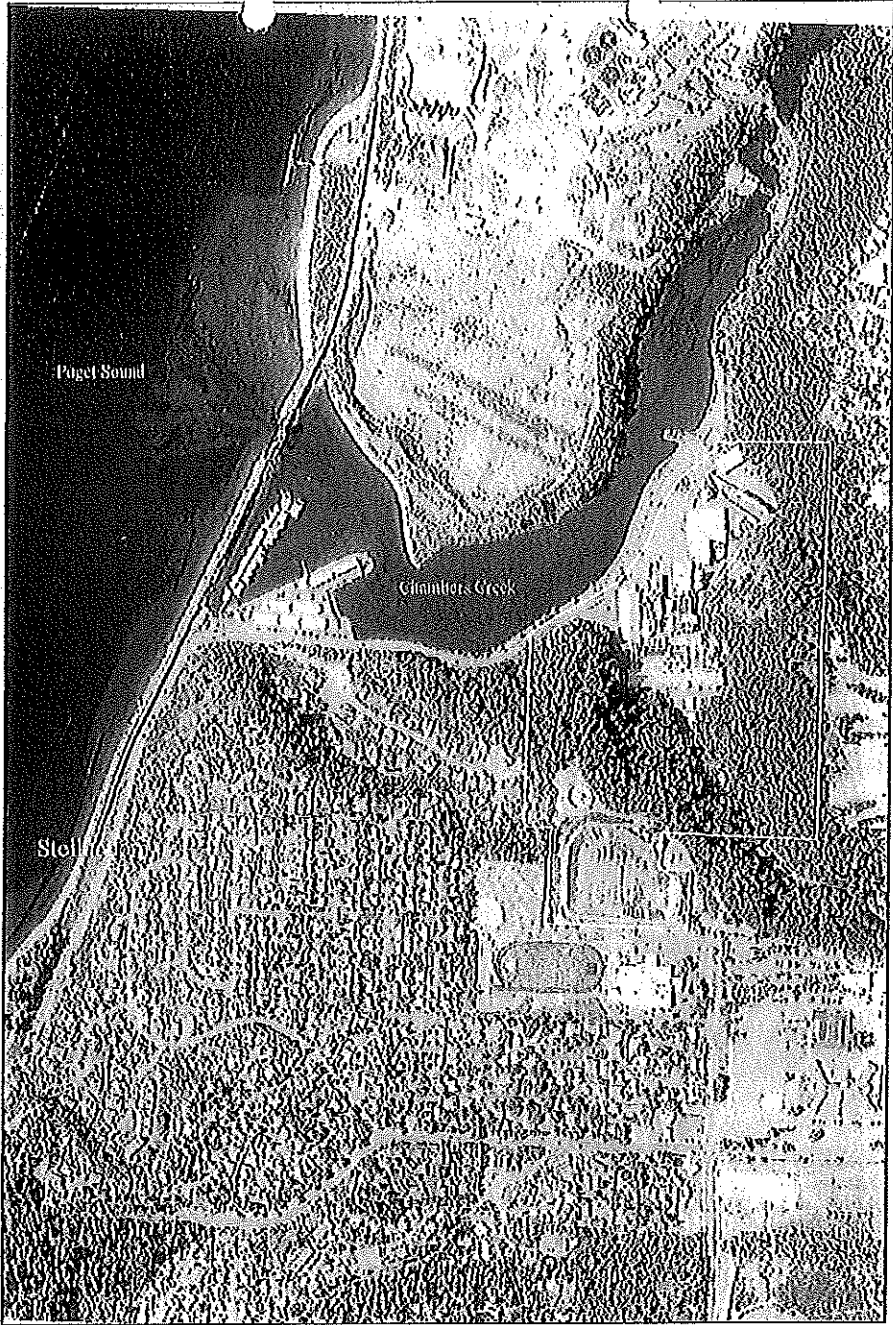
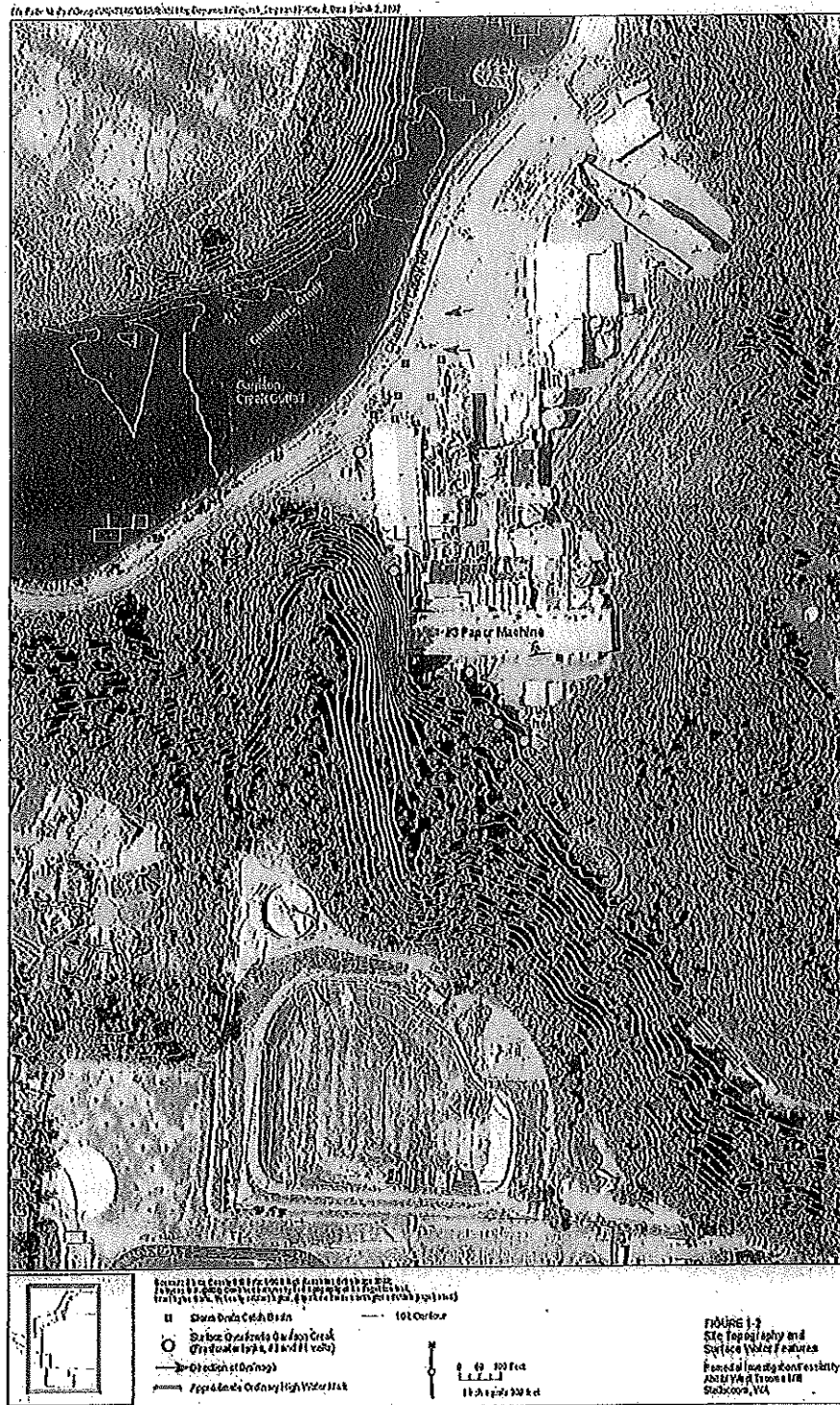
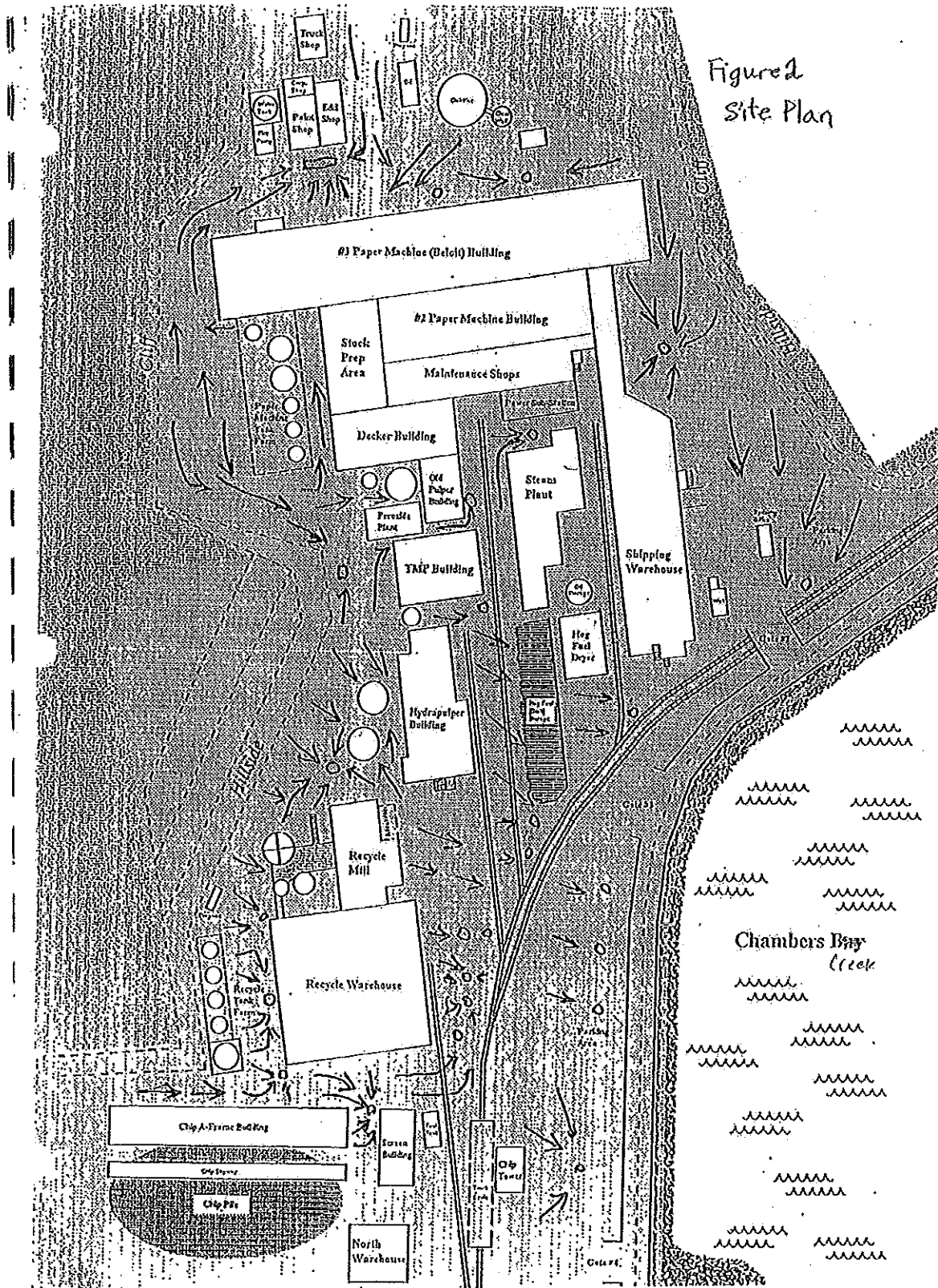


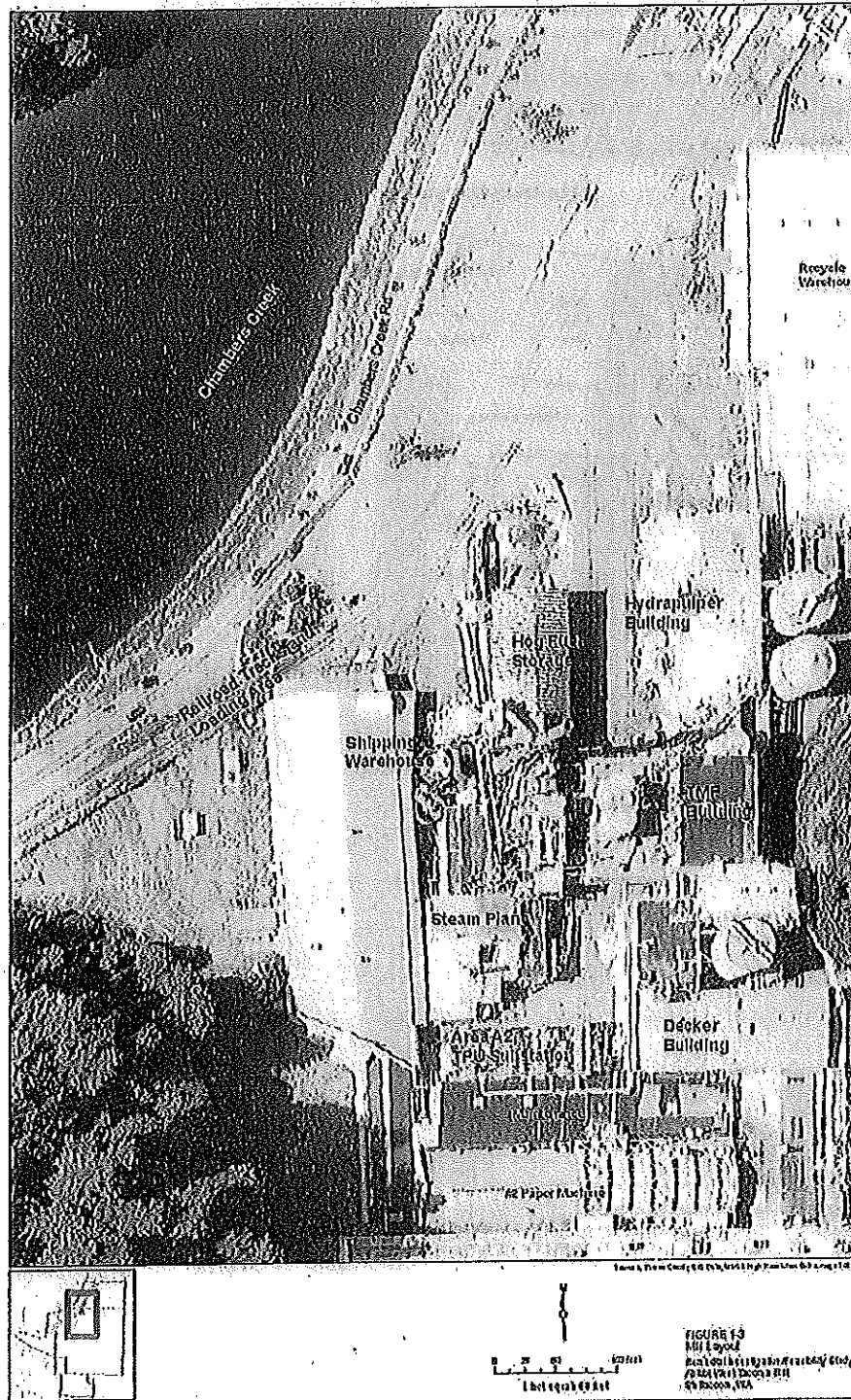
FIGURE 1  
Location Map  
Abitibi West Tacoma Mill  
Stollacoon, WA

## 6.2 Site Plan





### 6.3 Main Process Area / Mill Layout





### 6.5 Main Process Area, Area A Soil Sample Locations and Results

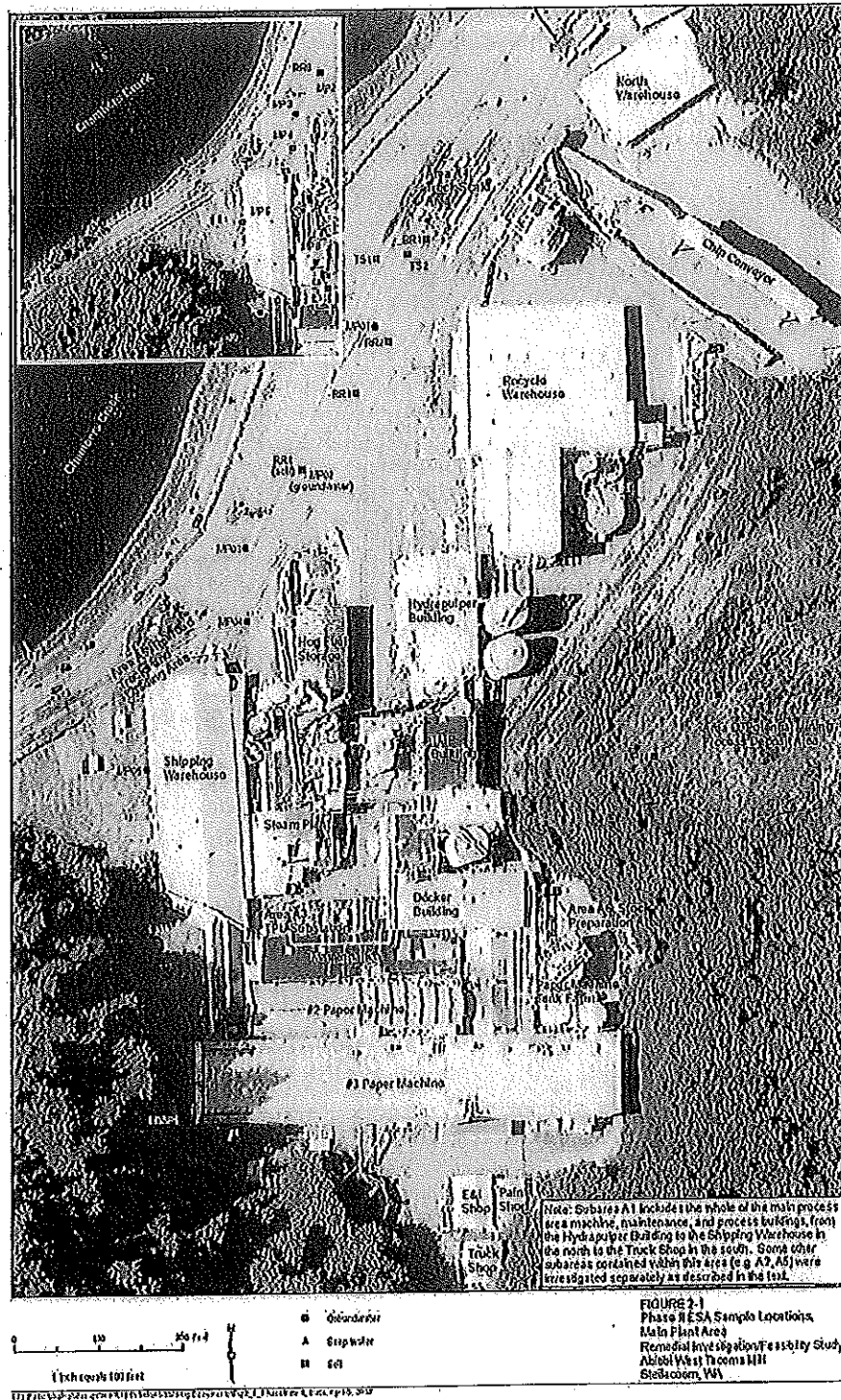


TABLE 3-2  
 Detected Analytical Results for Groundwater, Machine, Maintenance, and Process Sublings (Sub-Area A1)  
 Abitibi West Tacoma Mill Phase II Environmental Site Assessment, Sulliston, Washington

Sample ID:	MP1	MP2	MP3	MP4	MP5	MP6	MP7
Sample Date:	06/02/2005	06/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005	09/02/2005
MTCA Method B CUI							
Extractable Petroleum Hydrocarbons (EPH)							
C10-C12 Aromatics	NC	40 U	150	NC	NC	NC	NC
C12-C16 Aromatics	NC	40 U	140	NC	NC	NC	NC
C16-C21 Aromatics	NC	40 U	100	NC	NC	NC	NC
C21-C26 Aliphatics	NC	40 U	76	NC	NC	NC	NC
C27-C32 Aromatics	NC	40 U	40	NC	NC	NC	NC
Mexala, Dissolved	NC	40 U	40	NC	NC	NC	NC
Arsenic	0.058	NC	NC	NC	NC	NC	NC
Barium	1,120	58	55	22	14	6.0	13
Lead	15 <sup>a</sup>	2.0	3.0	15	13	3.0	1.0
Semi-Volatile Organic Compounds (SVOCs)							
2-Methylnaphthalene	1.0	1.0 U	30	1.6	1.3	1.0 U	1.0 U
4-Methylnaphthalene	1.0	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Acenaphthene	1.0	1.0 U	33	1.0 U	1.0 U	1.0 U	1.0 U
Anthracene	1.0	1.0 U	3.7	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trimethylbenzene	6.3	1.5	1.0 U	2.4	2.2	1.0 U	1.0 U
Chrysene	4.4	1.0	9.5	1.0 U	1.0 U	1.0 U	1.0 U
Dibenzofuran	1.0	1.0 U	16	1.0 U	1.0 U	1.0 U	1.0 U
Fluorene	640	1.0	3.0	1.0 U	1.0 U	1.0 U	1.0 U
Fluoranthene	640	1.0	18	1.0 U	1.0 U	1.0 U	1.0 U
Indene	1.0	1.0 U	180	1.2	1.4	1.0 U	1.0 U
Naphthalene	1.0	1.0 U	22	1.0 U	1.0 U	1.0 U	1.0 U
Phenanthrene	1.0	1.0 U	22	1.0 U	1.0 U	1.0 U	1.0 U
Pyrene	1.0	1.0 U	1.0 U	1.2 Y	1.1 Y	1.0 U	1.0 U
Benzo(a)pyrene	480	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total Petroleum Hydrocarbons (TPH)							
Diesel Range	NC	630	630	630 U	630 U	630 U	630 U
Gas Range	NC	250	250	250 U	250 U	250 U	250 U
Volatile Petroleum Hydrocarbons (VPH)							
Benzene	0.30	NC	NC	72	80	NC	NC
C10-C12 Aliphatics	NC	NC	NC	110	120	NC	NC
C10-C12 Aromatics (PID)	NC	NC	NC	480	500	NC	NC
C6-C8 Aliphatics	NC	NC	NC	1,700	1,700	NC	NC
C6-C8 Aromatics	NC	NC	NC	57	64	NC	NC
C8-C10 Aliphatics	NC	NC	NC	160	160	NC	NC
C8-C10 Aromatics (PID)	NC	NC	NC	11	11	NC	NC
m,p-Xylene	1,000 <sup>a</sup>	NC	NC	45	44	NC	NC
Toluene	1,000	NC	NC	7.1	7.4	NC	NC

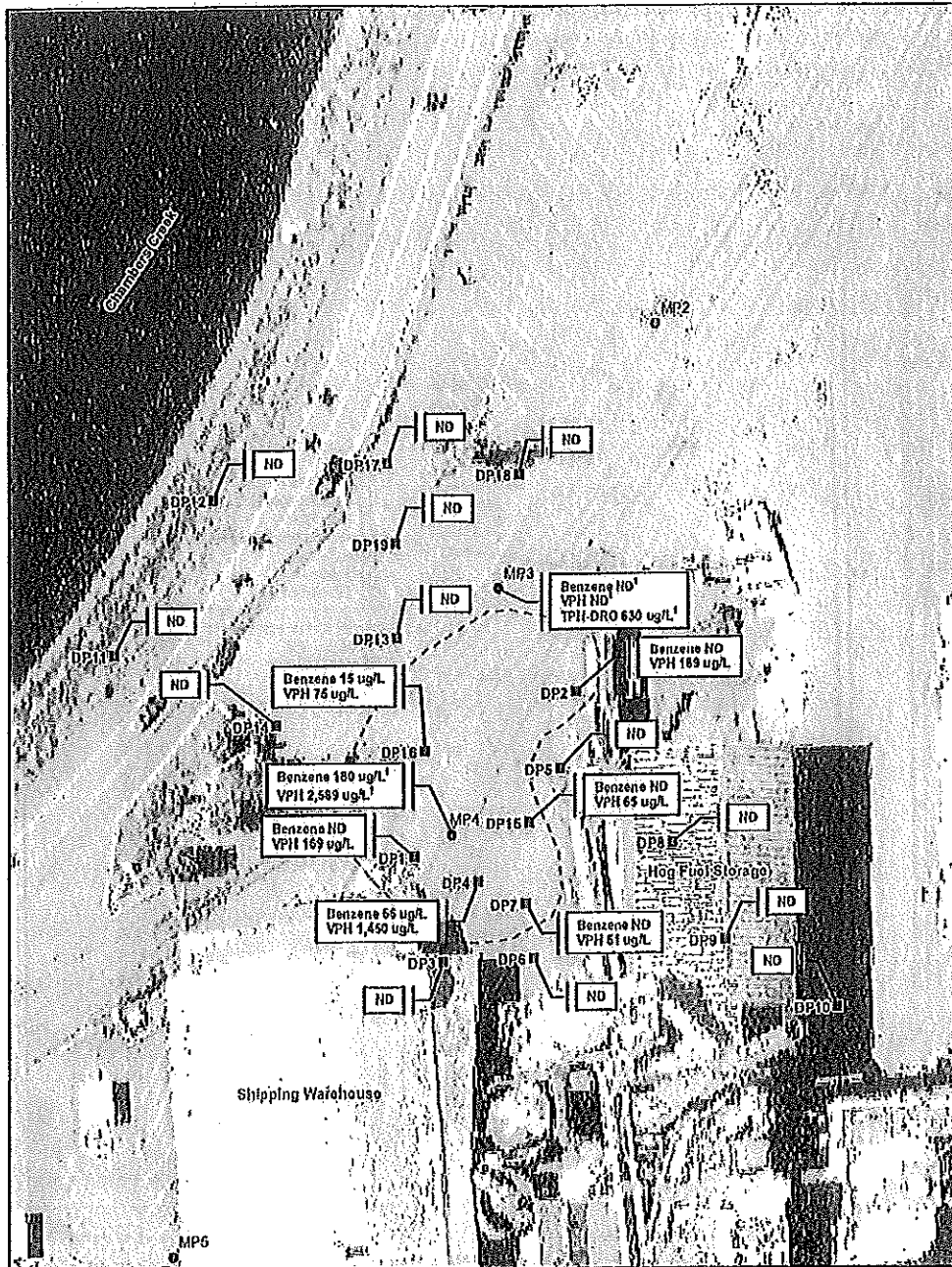
Notes:  
 Shaded values indicate concentrations that exceed given cleanup level.  
 Hazard indices were calculated for EPH and VPH results using MTCA Method C.  
 Hazard indices for all samples were less than 1.  
 \* MTCA Method B Cleanup Levels for Groundwater:  
 \*\* MTCA Method A Cleanup Levels for Groundwater (WAC 173-340).  
 CUI is for total naphthalene (combined naphthalene, 1-methyl naphthalene, and 2-methyl naphthalene).  
 CUI is for anthracene.  
 CUI is for total xylenes.  
 \*\* = 10: analysis  
 U = analysis detected below reported value. This reporting limit was raised due to chromatographic interference.  
 Y = analysis detected below reported value. This reporting limit was raised due to chromatographic interference.

### 6.5. Aeration Stabilization Basin Soil Sampling Locations



FIGURE 22  
Sampling Locations,  
Aeration Stabilization Basin  
Phase II Environmental Site Assessment  
Abitibi Wood Tacoma Mill  
Stellacoost, WA

## 6.6 Supplemental Investigation Sampling Locations and Results

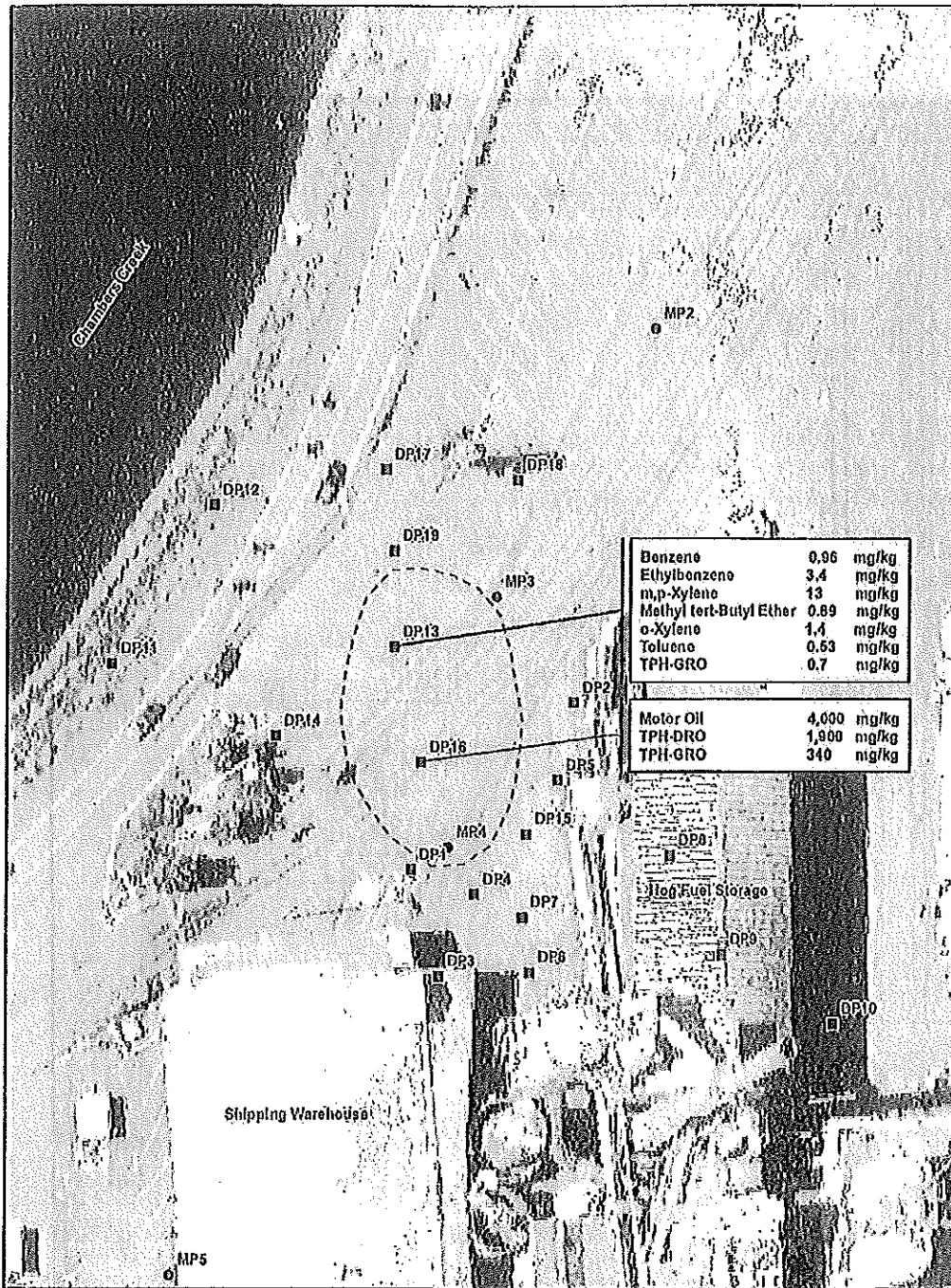


Notes: VPH results shown are the sum of individual carbon range results. See Table 3 for details.

Results from samples collected in February 2005 are not directly comparable to May results because of differences in sampling techniques and normal variability in groundwater quality over time.

**FIGURE 1**  
 Groundwater Analytical Results  
 Phase II Environmental Site Assessment  
 Supplemental Field Investigation  
 Abitibi West Tacoma Mill  
 Steilacoom, WA

File Path: Z:\NARS\DISAST\Figures\groundwater\Date June 13 2005

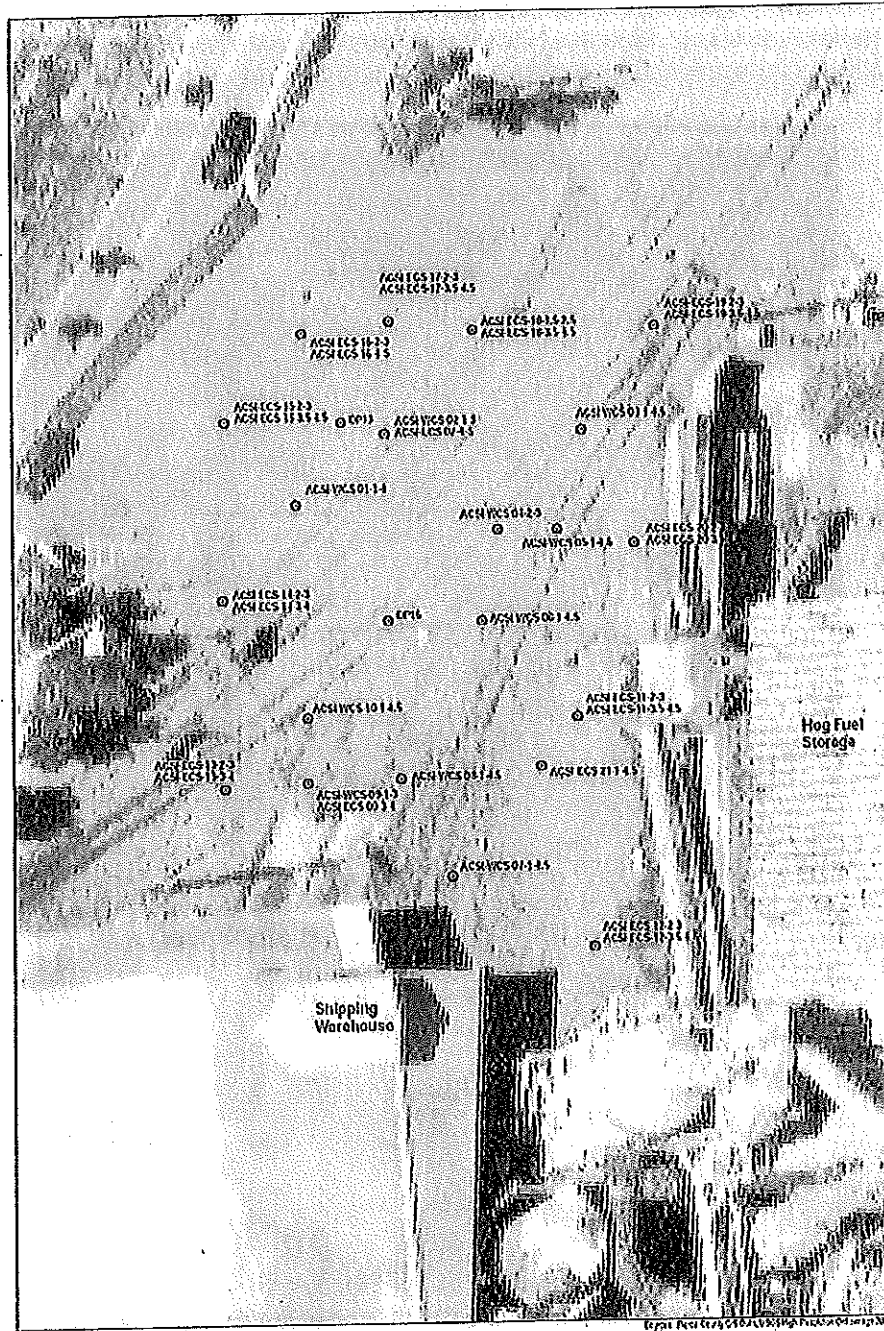


**FIGURE 2**  
 Soil Analytical Results  
 Phase II Environmental Site Assessment  
 Supplemental Field Investigation  
 Abitibi West Tacoma Mill  
 Stoilacoom, WA

○ February 2005 sampling location  
 ■ May 2005 sampling location  
 - - - Assumed extent of TPH in Soil  
 Note: See Table 4 for detailed results.

T:\Abitibi\GIS\G9\Abitibi\fig2\_siteloc.dwg Date: June 13, 2005

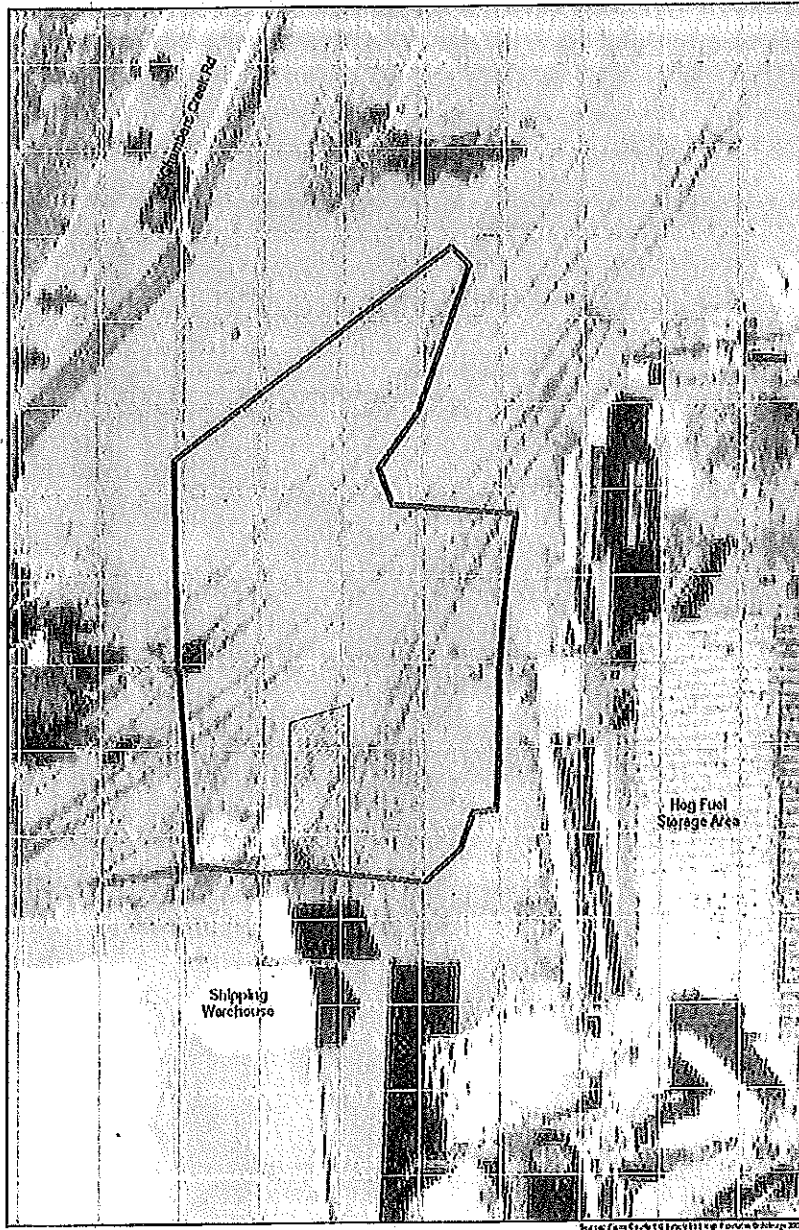
## 6.7 In-Place Characterization Soil Sample Locations



○ In-place characterization sampling location

Figure 2-4  
In-Place Characterization Sampling Locations  
Remedial Investigation Feasibility Study  
West Tacoma Mill  
St Albans, VA

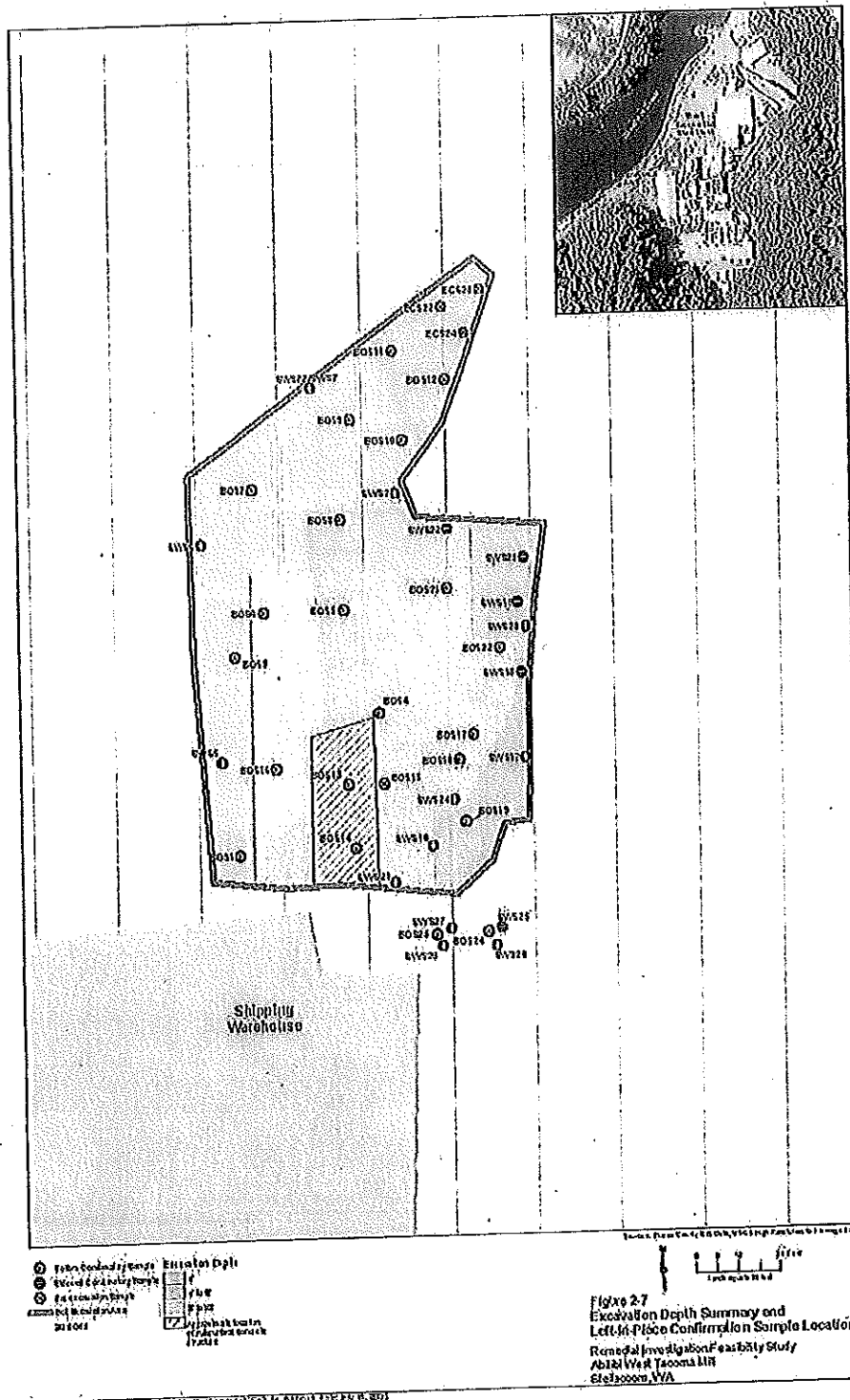
### 6.8 Approximate Extent of Petroleum Contaminated Soil Excavation Area and Conformation Soil Sampling Locations



Soil Excavation Area  
211004  
Approximate Locations  
of Soil Sampling  
2007



Figure 2-5  
Soil Excavation Area  
Remedial Investigation Feasibility Study  
Abitibi West Tacoma Mill  
Stellarton, VA

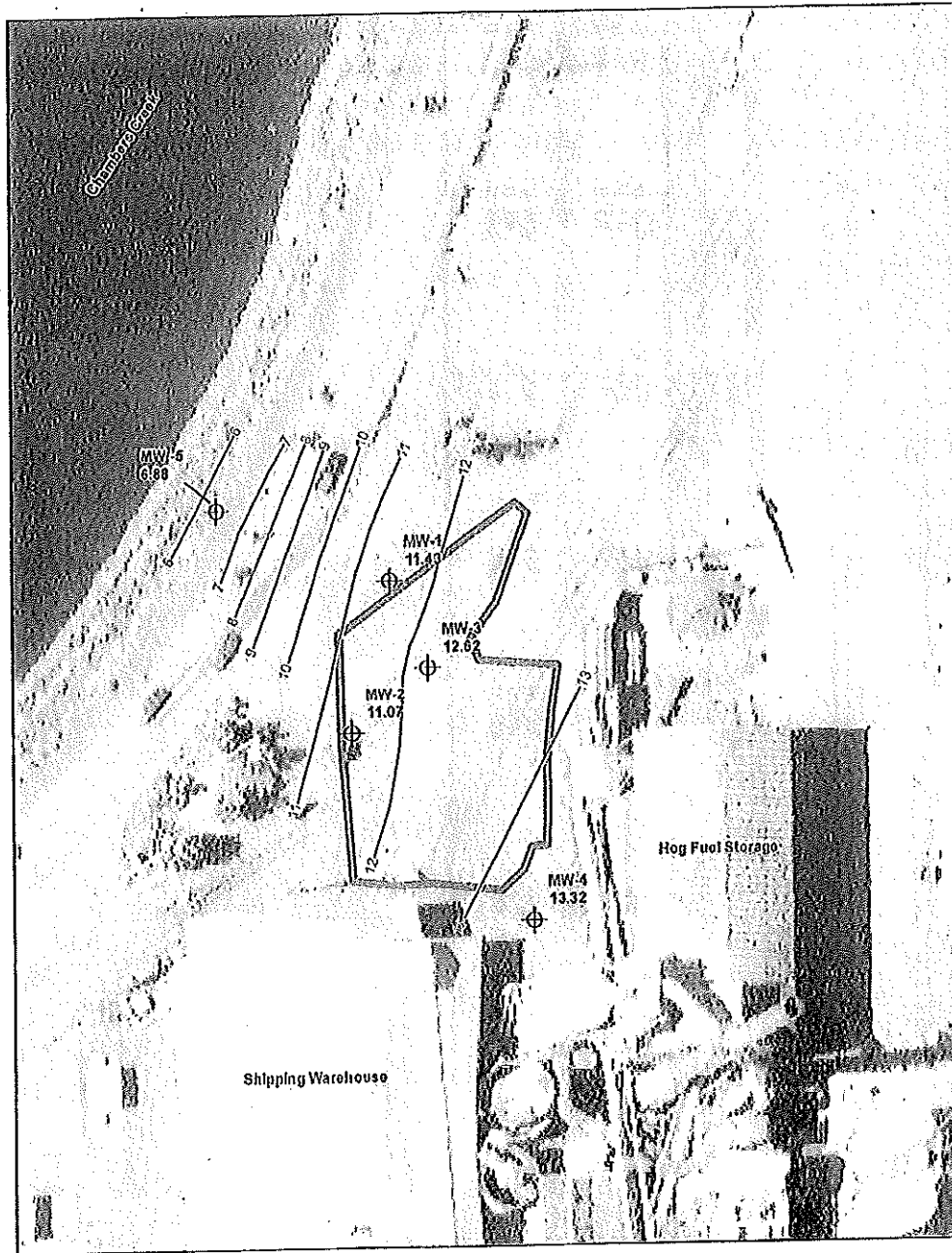








## 6.10 Long Term Groundwater Monitoring Results and Time – Series Concentration Maps



File Path: W:\toolGroups\WRI\GIS\AbitibiMapDocuments\Fig1\_GroundwaterElev\_032008.mxd, Date: April 24, 2008

Table 1  
 Results for Detected Analytes  
 Quarterly Monitoring Well Sampling, March 2008  
 Abitibi West Tacoma Mill, Steilacoom, Washington

Sample ID	ACS1-GWS-07-01	ACS1-GWS-07-02	ACS1-GWS-07-200	ACS1-GWS-07-03	ACS1-GWS-07-05
Location ID	MMW-01	MMW-02	MMW-02	MMW-03	MMW-05
Sample Date	20-Mar-08	20-Mar-08	20-Mar-08	20-Mar-08	20-Mar-08
Compound	Units	Comparison Value	Duplicate of ACS1-GWS-07-02		
<b>Petroleum Hydrocarbons</b>					
Diesel Range Hydrocarbons	mg/L	0.5	0.25 U	0.25 U	0.25 U
Gasoline Range Hydrocarbons	mg/L	0.8	0.16	0.63	0.1 U
Motor Oil	mg/L	-	0.5 U	0.5 U	0.5 U
<b>Dissolved Metals</b>					
Arsenic	ug/L	0.058	1.7	7.3	1.6
<b>Volatile Organic Compounds</b>					
Ethylbenzene	ug/L	300	0.25 U	0.72	0.25 U
m,p-Xylene	ug/L	16,000	0.5 U	1	0.5 U
Toluene	ug/L	640	0.57	0.61	0.25 U
<b>Semivolatile Organic Compounds</b>					
1-Methylnaphthalene	ug/L	2.4	2.3	1.1	1 U

Notes:

U=compound not detected above indicated detection limit  
 Shading indicates exceedance of comparison value  
 Bolding indicates detected values

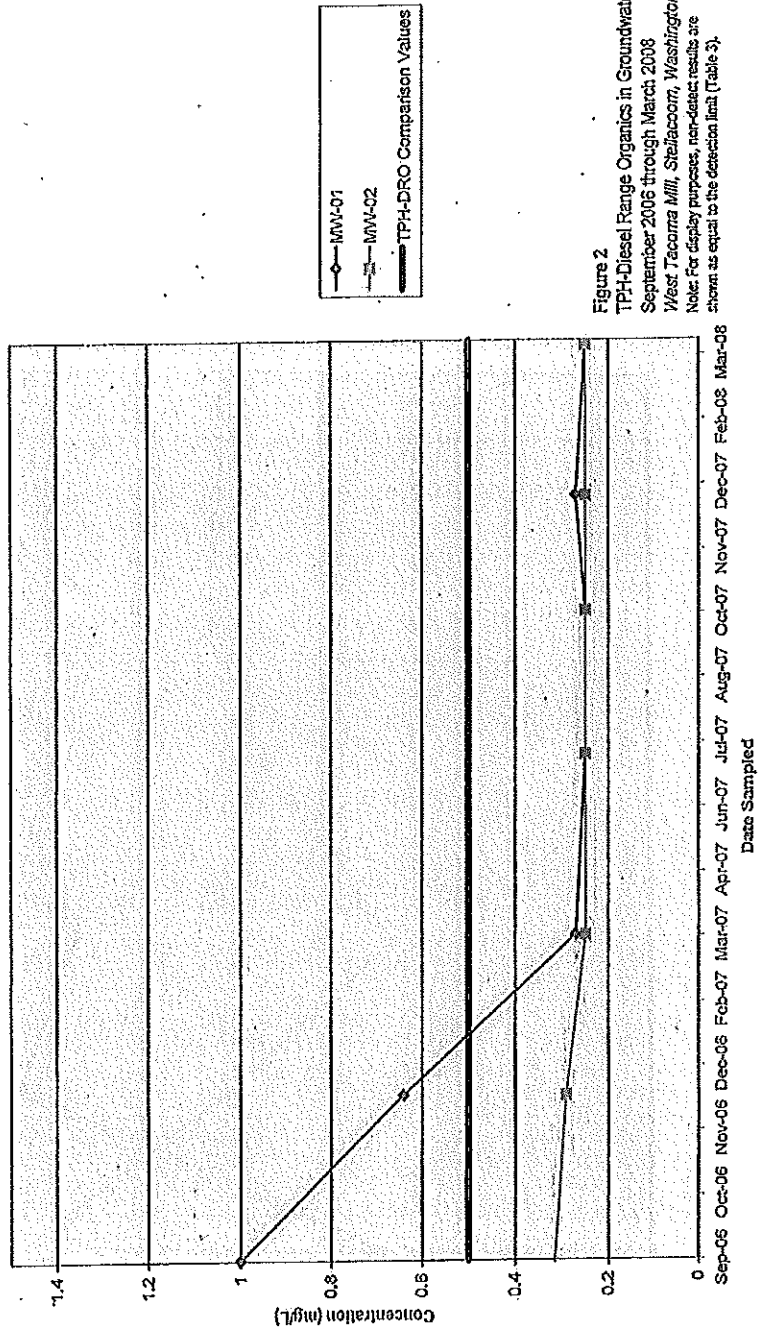


Figure 2  
 TPH-Diesel Range Organics in Groundwater  
 September 2006 through March 2008  
 West Tacoma Mill, Steilacoom, Washington  
 Note: For display purposes, non-detect results are  
 shown as equal to the detection limit (Table 3).

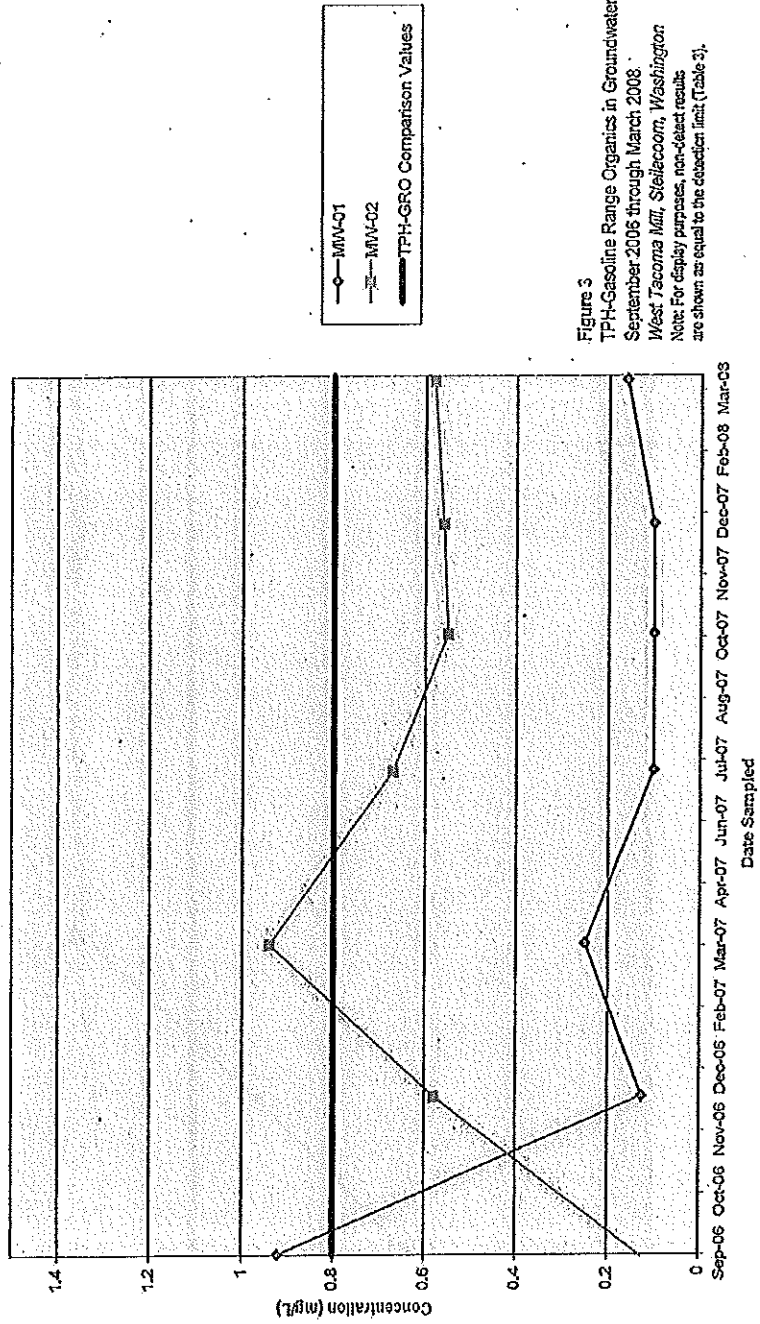


Figure 3  
 TPH-Gasoline Range Organics in Groundwater  
 September 2006 through March 2008  
 West Tacoma Mill, Skellecoom, Washington  
 Note: For display purposes, non-detect results  
 are shown as equal to the detection limit (Table 3).

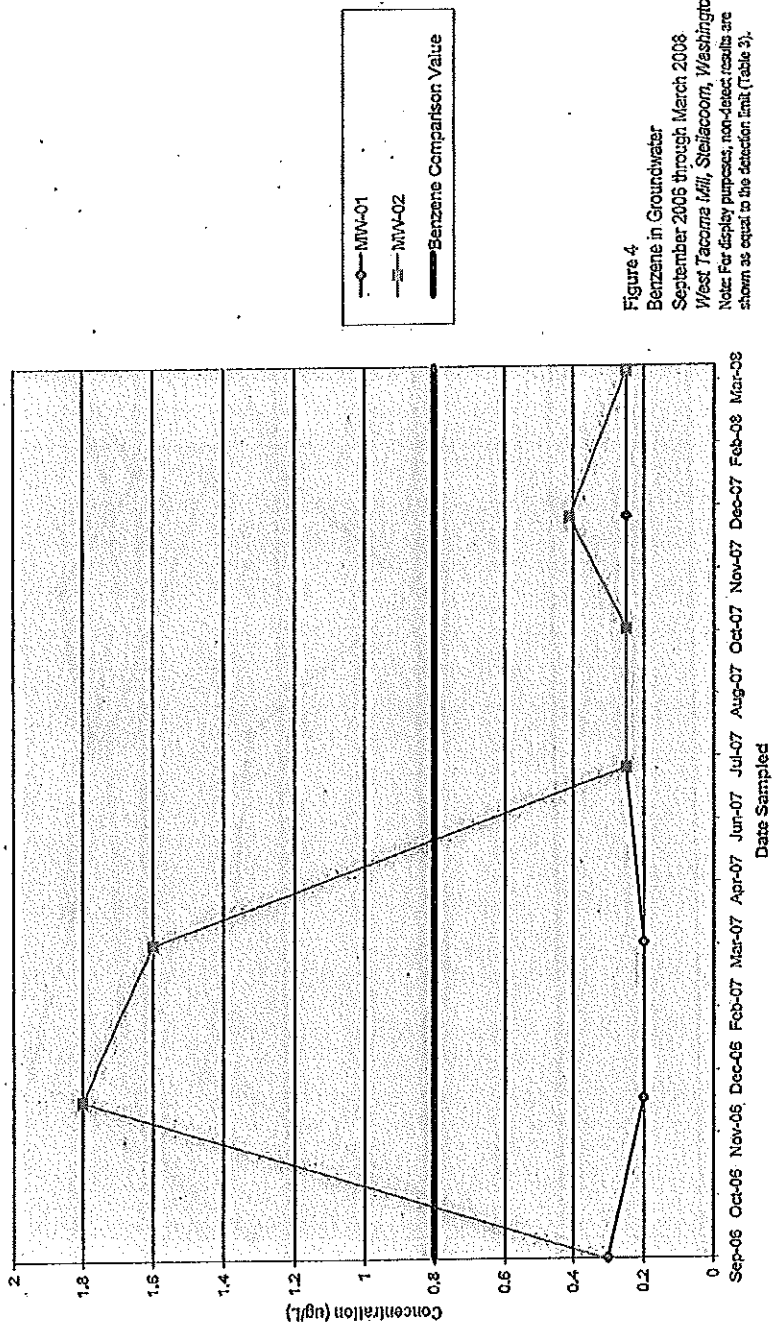


Figure 4  
 Benzene in Groundwater  
 September 2006 through March 2008  
 West Tacoma Hill, Steilacoom, Washington  
 Note: For display purposes, non-detect results are shown as equal to the detection limit (Table 3).

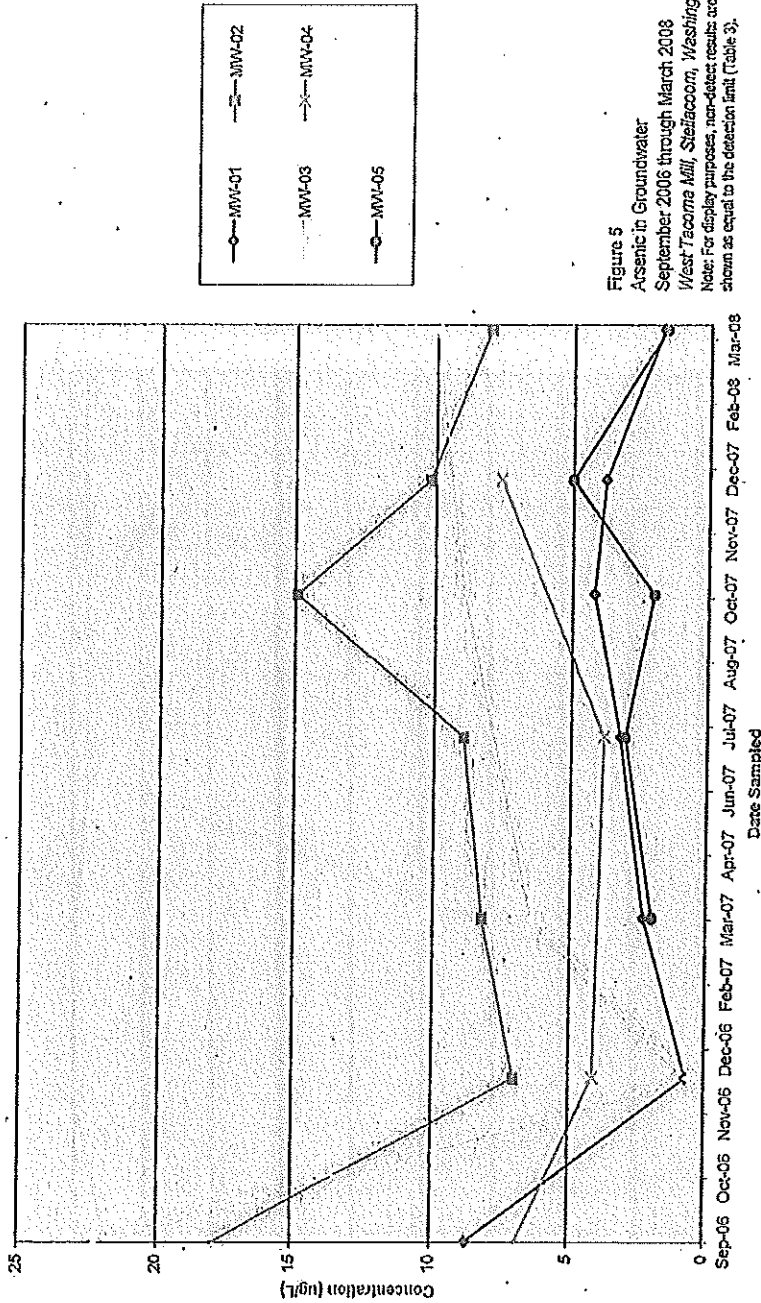


Figure 5  
 Arsenic in Groundwater  
 September 2006 through March 2008  
 West Tacoma Mill, Steiacciom, Washington  
 Note: For display purposes, non-detect results are shown as equal to the detection limit (Table 3).

## 6.11 Environmental Covenant

201003310170 5 PGS  
03/31/2010 10:41:26 AM \$66.00  
PIERCE COUNTY, WASHINGTON

RECEIVED

'10 APR -9 P1:44

WA STATE  
DEPARTMENT OF ECOLOGY  
SW REGIONAL OFFICE

After Recording Return to:  
Marv Coleman, Site Manager / Inspector  
Department of Ecology  
Southwest Regional Office  
Toxics Cleanup Program  
P.O. Box 47775  
Olympia, WA 98504-7775

### Environmental Covenant

**Grantor:** Abitibi Consolidated Sales Corporation

**Grantee:** State of Washington, Department of Ecology

**Legal:** Section 29 Township 20 Range 02 Quarter 44 : BEG NW COR OF GROUNDS WESTERN WASH HOSP E 633 FT N 1574 FT W 1015 FT M/L TO SWLY LI OF PURPOSED STEIL CK WATERWAY TH ON A COMPOUND C TO R 650 FT M/L TO INT A R/A LI TO S LI OF THOS M CHAMBERS DLC SD LI BEING 943 FT W OF BEG TH S ALG SD LI 900 FT TO A PT 360 FT N OF S LI OF SD DC TH E 242 FT TH S 360 FT TO S LI OF SD DC TH E ALG SD LI 701 FT TO BEG SUBJ TO EASE TO CITY OF TACOMA.

and  
Section 29 Township 20 Range 02 Quarter 44 : COM ON S LI OF CHAMBERS DC IN SEC 32 AT A PT 855.8 FT W OF SEC LI BET SECS 32 & 33 BEING SE COR OF CASCADE PAPER CO PROP TH N 1574 FT TO N LI OF SD PROP TO POB TH CONT N 606 FT TH W 615 FT TO ELY LI OF STEIL WESTON RD TH ALG SD RD SWLY 700 FT M/L TO N LI OF SD CASCADE PAPER CO PROP TH E 855 FT M/L TO POB SUBJ TO CITY OF TACOMA EASE.

**Tax Parcel Nos.:** Parcel Nos. 0220294002, 0220294007.

**Cross Reference:** Agreed Order No. DE 3154

Grantor, Abitibi Consolidated Sales Corporation, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant (hereafter "Covenant") made this day of March, 2010 in favour of the State of Washington Department of Ecology (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, 2007 Wash. Laws ch. 104, sec. 12.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Abitibi Consolidated Sales Corporation, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Covenant. The Remedial Action conducted at the property is described in the following document:

Draft Cleanup Action Plan For Abitibi Consolidated Sales Corporation Property (West Tacoma Mill), dated September 2008.

This document is on file at Ecology's Southwest Regional Office.

This Covenant is required because the Remedial Action resulted in residual concentrations of arsenic (As), in the near surface aquifer, which exceed the Model Toxics Control Act Method B Cleanup Level established under WAC 173-340-720 and polynuclear aromatic hydrocarbons (PAHs), in soils associated with the rail lines, which exceed the Model Toxics Control Act Method B Cleanup Level established under WAC 173-340-740 remaining at the site.

The undersigned, Abitibi Consolidated Sales Corporation, is the fee owner of real property (hereafter "Property") in the County of Pierce, State of Washington that is subject to this Covenant. The Property is legally described as follows: Section 29 Township 20 Range 02 Quarter 44 : BEG NW COR OF GROUNDS WESTERN WASH HOSP E 633 FT N 1574 FT W 1015 FT M/L TO SWLY LI OF PURPOSED STEIL CK WATERWAY TH ON A COMPOUND C TO R 650 FT M/L TO INT A R/A LI TO S LI OF THOS M CHAMBERS DLC SD LI BEING 943 FT W OF BEG TH S ALG SD LI 900 FT TO A PT 360 FT N OF S LI OF SD DC TH E 242 FT TH S 360 FT TO S LI OF SD DC TH E ALG SD LI 701 FT TO BEG SUBJ TO EASE TO CITY OF TACOMA,  
and  
Section 29 Township 20 Range 02 Quarter 44 : COM ON S LI OF CHAMBERS DC IN SEC 32 AT A PT 855.8 FT W OF SEC LI BET SECS 32 & 33 BEING SE COR OF CASCADE PAPER CO PROP TH N 1574 FT TO N LI OF SD PROP TO POB TH CONT N 606 FT TH W 615 FT TO ELY LI OF STEIL WESTON RD TH ALG SD RD SWLY 700 FT M/L TO N LI OF SD CASCADE PAPER CO PROP TH E 855 FT M/L TO POB SUBJ TO CITY OF TACOMA EASE.

Abitibi Consolidated Sales Corporation makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be

binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 1.

1. No near surface aquifer groundwater may be taken for domestic, agricultural, or any use from the Property.

2. A portion of the Property contains PAH contaminated soil located in and along the railroad area by the loading dock. Upon demolition of the rail lines any contaminated soil exceeding MTCA standards that is removed shall be disposed of according to regulatory requirements. The creation of a new exposure pathway creates a need for the Owner to notify Ecology of the method of soil removal and where it is to be disposed. The Owner shall not alter, modify, or remove existing structures in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology.

Section 2.

Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 3.

Any activity on the Property that may result in the release or exposure to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 4.

The Owner of the property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action. Title to the property was conveyed from Abitibi Consolidated Sales Corporation to Chambers Creek LLC on February 11, 2010, with notice provided to Ecology in accordance with this section.

Section 5.

The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the use of the Property.

Section 6.

The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Covenant. Ecology may approve any inconsistent use only after public notice and comment.

Section 7.

The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the property, to determine compliance with this Covenant, and to inspect records that are related to the Remedial Action.

Section 8.

The Owner of the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

ABITIBI CONSOLIDATED SALES CORPORATION



Name of Signatory

JACQUES P. VACHON - SECRETARY

Title

Dated: MARCH 25, 2010

CANADA  
PROVINCE OF QUEBEC  
DISTRICT OF MONTREAL

On this 25<sup>th</sup> day of March 2010, I certify that Jacques P. Vachon

\_\_\_\_\_ 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 Secretary [type of authority] of Abitibi Consolidated Sales Corporation to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.

[Signature]  
\_\_\_\_\_  
Commissioner of Oaths

My Commission expires October 8, 2010.

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

[Signature]  
Rebecca S. Lawson, P.E., LHG  
Regional Section Manager  
Toxics Cleanup Program

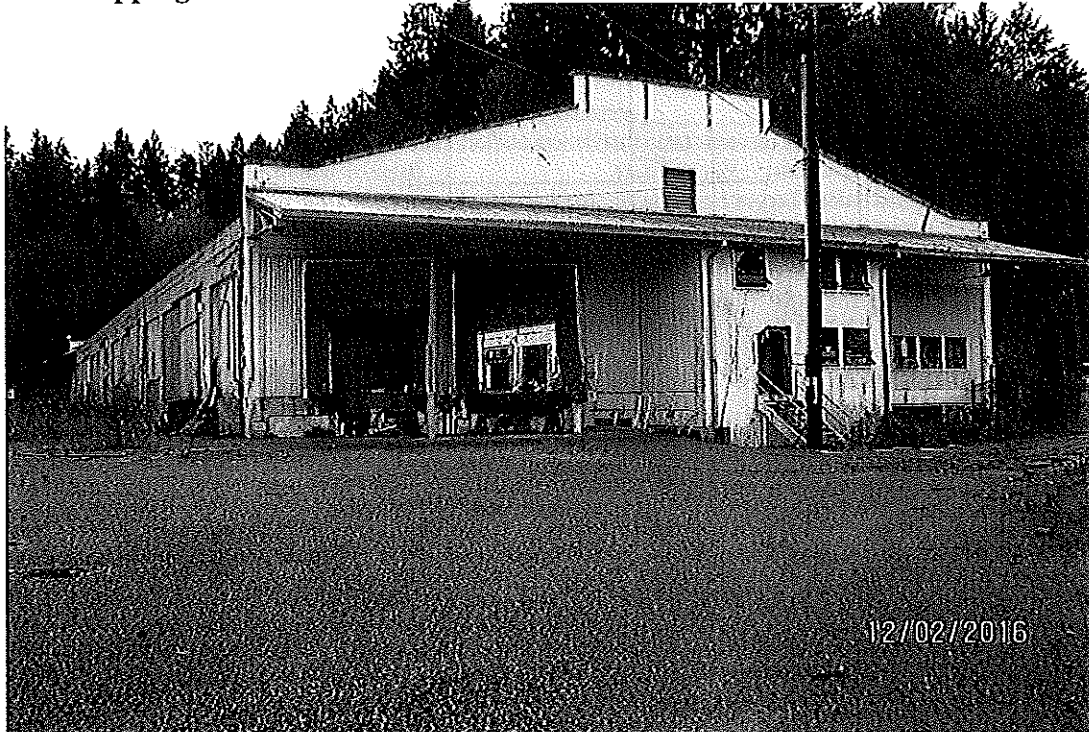
Dated: 3/24/2018



---

## 6.12 Photo Log

**Photo 1: Shipping Warehouse Building – From the Southwest**



**Photo 2: Shipping Warehouse Building (SWB) and Aboveground Fuel Storage Tanks (AFSTs) – From the Southeast**



**Photo 3: Hog Fuel Storage Tank, AFSTs and SWB – From the West**



**Photo 4: Aboveground Fuel/Petroleum/Chemical Storage Tanks – From Southwest**



**Photo 5: Railroad Tracks and Recycle Warehouse—From the East**



**Photo 6: Asphalt Paved and Unpaved Areas and Recycle Warehouse Building—From the East**



**Photo 7: Aeration Stabilization Basin– From the West**



**Photo 8: Wastewater/Processed Water Treatment Clarifier – From the East**

