



Periodic Review

Intalco Aluminum Corporation
4050 Mountain View Road
Ferndale, WA

Facility Site ID#: 16
Cleanup Site ID#: 2280

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Toxics Cleanup Program

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1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup Site conditions and monitoring data to assure human health and the environment are being protected at the Intalco Aluminum Corporation Ferndale facility (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Remedial activities at this Site were undertaken under Consent Decree No. 07-2-00181-2 between Ecology and Intalco Aluminum Corporation for the cleanup of Beach I (BI) and Beach II (Beach II) Landfills, and the Closed Construction Debris Landfill (CCDL). Closure of a solid waste landfill, known as the Double-Lined Landfill (DLL) was also performed under the Consent Decree.

BI cleanup activities were started June 16, 2005 and completed November 29, 2005. BII cleanup activities were started July 6, 2005 and completed November 25, 2005. Closure of the CCDL was started May 15, 2006 and completed October 4, 2006. DLL closure began March 16, 2007 and was completed September 14, 2007. The cleanup actions resulted in concentrations of fluoride, PAHs and polychlorinated biphenyls (PCBs) less than MTCA cleanup levels remaining in the soils at the BI and BII landfills.

The MTCA cleanup levels for soil are established under WAC 173-340-740. The MTCA cleanup levels for groundwater are established under WAC 173-340-720. WAC 173-340-420(2) requires Ecology to conduct a periodic review of a Site every five years under the following conditions:

1. Whenever the department conducts a cleanup action
2. Whenever the department approves a cleanup action under an order, agreed order or consent decree
3. Or, as resources permit, whenever the department issues a no further action opinion,
4. and one of the following conditions exists at the site:
 - (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; or
 - (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 Ecology 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.

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- (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; and.
 - (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

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

Cleanup activities conducted under the Consent Decree also included the closure of Intalco's Triple-Lined Landfill (TLL). Since closure activities for the TLL were completed following closure of the other landfills, a periodic review for the TLL is not included in this report. The next review of the TLL closure is scheduled for late 2022.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

Intalco is located at 4050 Mountain View Road in Ferndale, Washington, in Whatcom County. A vicinity map is shown in Figure 6.1. The aluminum production facility consists of approximately 320 acres on a 1,200-acre upland tract. The Intalco site location map is shown in Figure 6.2.

The Intalco plant has operated continuously at the Ferndale location since May 8, 1966. The plant operations were curtailed from June to December 2001 and from August 2020 up to the date of this report. The production process involves the electrochemical reduction of aluminum oxide (alumina) to aluminum metal. Intalco started with three pot lines, each consisting of approximately 240 pots, but only 2 ½ lines are currently in place. Supporting operations include a casting house, a carbon plant for anode production, two wastewater-treatment facilities, and several material storage, maintenance and administrative facilities.

During the construction and early operation of the plant, solid waste and construction debris was disposed of on the property in three historic landfills: BI, BII, and CCDL. Figure 6.3 shows the location of these landfills with respect to Intalco Plant. All three landfills were located on the western portion of the property. A steep, 180-foot bluff adjacent to the Strait of Georgia forms the western boundary of the smelter property. BI, BII, and the CCDL, were created by filling or partially filling three natural ravines that cut and drained into the bluff and the Strait. Use of these landfills slowed during the late 1970's and early 1980's, after which waste landfilling at these locations was permanently terminated.

BI opened in 1966 by filling a ravine and was closed in 1972 with a volume of approximately 9,000 cubic yards. BII opened in 1971 by filling the head of a ravine and was closed in 1976 after receiving approximately 56,000 cubic yards of material. The CCDL opened in 1966 for disposal of debris and was closed in 1975.

A closed landfill disposal area, referred to as the Waste Site Impoundment Area (WSIA) operated from 1970 until 1986 when it was closed under Minimal Functional Standards for Solid Waste Handling, Chapter 173-304 WAC. In preparation for WSIA closure, Intalco constructed the DLL and the first cell of the TLL in 1986. The DLL was to be used for limited purpose landfilling of plant-generated solid waste and the first cell of the TLL was to be used primarily for disposal of spent potliner (SPL). In 1992, a second cell of the TLL was constructed. The closed solid waste (DLL) and dangerous waste (TLL) landfills are located away from the bluff on the upland plain just north of the main facility. The DLL was developed to provide disposal for a large variety of solid wastes from the aluminum smelting process that were not classified as dangerous waste. After closure of the DLL in 2007, general solid wastes generated by Intalco were also disposed of in the TLL in accordance with the supplemental operations plan. Intalco resumed disposal of SPL into the TLL in 2007 as well as non-dangerous solid waste that would have otherwise been disposed of in the DLL. In June 2011, capacity was reached at the TLL and closure was completed on November 28, 2012.

2.2 Site Investigations

Upland investigations of the BI, BII, and CCDL began December 27, 2000 and were completed February 6, 2001. CCDL activities included excavation of test pits, collection of waste materials for analysis, and collection of surface water samples in the ravine on the south east sides of the landfill. Samples were also collected from the toe of the BI and BII Landfills for environmental analysis. Sampling of the near shore sediments adjacent to all three landfills was completed February 8, 2001. Near shore sediment sampling consisted of collecting surface sediment samples at locations perpendicular to seeps located at the base of the BI and BII Landfills (Figures 6.4 and 6.5), and perpendicular to the discharge area of the surface water drainage feature that runs along the western side of the CCDL.

Pursuant to Agreed Order No. DE 01 TCPIS 2949 dated July 9, 2001, the three industrial solid waste landfills (BI, BII, and CCDL) were required to undergo separate remedial investigations and feasibility studies.

The field investigations at the BI and BII landfills were performed in May 2000, December 2000, and September/October 2001. A total of 30 test pits were dug and samples of waste were obtained, and subsequently analyzed. Seep and surface water samples were also obtained on three occasions (April, July, and October 2000) and analyzed for total and dissolved solids, dissolved metals, fluoride, total and amenable cyanide, total organic carbon, total petroleum hydrocarbons, semi-volatile organic compounds, and total and dissolved PCBs. Waste samples contained multiple contaminants of concern including fluoride, aluminum, chromium, copper, lead, zinc, PCBs, and PAHs. Surface water contained fluoride and aluminum. PCB arochlor 1248 and PAHs were found in soil samples from the vicinity of BI and BII.

Field investigations at the CCDL were performed from December 27, 2000 to February 8, 2001. Eleven test pits were dug and waste samples were analyzed for fluoride, cyanide, ignitability, corrosivity, reactive cyanide and sulfide, metals, polychlorinated biphenyls, gasoline and diesel range total petroleum hydrocarbons, semi-volatile organic compounds, toxicity characteristic leaching procedure (TCLP) metals, volatile organic compounds, pesticides, and herbicides. Sediment, surface water, seeps, groundwater and soil were also sampled and analyzed for similar chemicals of concern at the CCDL, even though the only required groundwater analyte was fluoride. The primary chemicals of concern detected in the waste materials were PAHs, PCBs, and fluoride. Concentrations of the same chemicals of concern were found to be several orders of magnitude lower in the underlying soil compared to the waste materials. Water samples collected from the ravine next to the CCDL had elevated fluoride concentrations. Sediment sampling adjacent to the BI, BII, and CCDL indicated no exceedances of the Sediment Management Standards (SMS) or Lower Apparent Effects Threshold (LAET) criteria. Therefore, adverse effects are not anticipated in the sediments near the landfills.

2.3 Cleanup Levels and Points of Compliance

The chemicals of concern, cleanup levels and surface water remediation levels at the BI, BII, and CCDL are shown in Table 1 below.

Table 1. Cleanup and Remediation Levels

Unit	Media	Parameter	Cleanup Level	Remediation Level	Protection Basis
BI, BII	Soil	PAHs	2.0 mg/kg	-	MTCA Method A Industrial, WAC 173-340-745
BI, BII	Soil	PCBs	10.0 mg/kg	-	MTCA Method A Industrial, WAC 173-340-745
BI, BII	Soil	Fluoride	5,950.0 mg/kg	-	MTCA Method B, WAC 173-340-747 (see note below)
BI, BII	Surface water	PCBs	0.010 mg/L	-	WAC 173-201A Marine
BI, BII	Surface water	Metal cyanide complex	0.0091 mg/L	-	WAC 173-201A Marine
BI, BII, CCDL	Surface water	Fluoride	1.5 mg/L	-	Ministry of Environmental British Columbia, Canada recommended for marine criteria
BI, BII, CCDL	Surface water	Fluoride	-	100.0 mg/L	WAC 173-340-730(3)(c)(v), WAC 173-340-747
BI, BII, CCDL	Groundwater	Fluoride	100.0 mg/L	-	MTCA 173-340-720(6) non-potable groundwater

Note: Fluoride soil cleanup level at BI and BII were calculated using 100 mg/L F, K_d of 26.5, dilution of 2.23, for the protection of non-potable groundwater and surface water.

The soil point of compliance for the BI and BII Landfills was the native soil/waste boundary. The point of compliance for marine surface water at BI, BII, and the CCDL is the Strait of Georgia below the Mean Lower Low Water (MLLW) level adjacent to each landfill.

2.4 Remedial Actions

Consent Decree #07-2-00181-2 between Ecology and Intalco was effective on February 2, 2007 and required Intalco to implement the Cleanup Action Plan. The Consent Decree (CD) called for the remediation of BI, BII, and CCDL by excavating material from BI and BII and placing it in either the DLL or TLL, re-grading and re-vegetating the remaining BI and BII slopes, stabilizing the CCDL and closing the DLL once it was filled to capacity.

Long term monitoring of seeps from the BI, BII, and CCDL for fluoride, weak acid dissociable (WAD) cyanide, and total PCBs on a semi-annual basis was also required for three years: 2007, 2009, and 2011. No exceedances of cleanup or remediation levels were identified during the seep sampling and the remedial and closure requirements of the CD were met on April 27, 2011. The results of the rainy season and dry season surface water monitoring of seeps are found in Section 6.6 Table. Groundwater within the vicinity of the historic landfills was found to be non-potable and was not considered a current or future source of drinking water. According to the CD, groundwater is to be monitored at only the DLL and TLL in accordance with the facility landfill post-closure plan.

From June 2005 through September 2007 remedial action was performed at the three landfills. The actions at each landfill are discussed below.

Beach I (BI) Landfill

The remedial action for BI included the removal of approximately 29,600 cubic yards (42,017 tons) of waste material. Waste from the landfill was excavated, hauled to, and disposed of in the DLL. Approximately 5,800 tons of the excavated material consisting of concrete, brick, and clean soil that was in compliance with the Model Toxics Control Act (MTCA) industrial cleanup standards was reused as subgrade material in the closure of the DLL. BI confirmation samples were collected following the excavation to confirm that MTCA cleanup levels were met, as shown in Table 2. After erosion and drainage control measures were installed, signage was placed at the base of the BI with the warning "Former landfill. Do not drink water."

Table 2. Beach I Landfill Confirmation Soil Sample Results

Sample ID	Date	PAHs (mg/kg)	PCBs (mg/kg)	Fluoride (mg/kg)	Comments
ILCPBIC170	9/22/05	0.015	0.13	334	
ILCPBIC180A	10/8/05	< 0.0049	< 0.17	396	
ILCPBIC180B	11/7/05	ND	ND	221	Resample of ILCPBIC180A
ILCPBIC190	9/22/05	ND	< 0.13	219	
ILCPBIC200	9/22/05	0.0001	0.092	151	
ILCPBIC210	9/22/05	0.004	< 0.11	661	
ILCPBIC210A	10/8/05	< 0.0050	< 0.15	3,660	Resample of ILCPBIC210
ILCPBIC210B	11/7/05	NT	ND	1,420	Resample of ILCPBIC210A
ILCPBIC220	10/8/05	< 0.0048	< 0.17	524	
ILCPBIC220A	11/7/05	NT	ND	5,130	Resample of ILCPBIC220
ILCPBIC240	10/8/05	< 0.0049	< 0.16	1080	
ILCPBIC240A	11/7/05	NT	ND	5,810	Resample of ILCPBIC240
ILCPBIC250	10/8/05	< 0.0050	< 0.15	2,910	
ILCPBIC250A	11/7/05	NT	ND	835	Resample of ILCPBIC250
ILCPBIC260	10/13/05	ND	ND	134	Remote area, old building foundation
Cleanup Level	-	2.0	10.0	5,950.0	MTCA cleanup levels, sample not to exceed

Notes: NT means testing not required. ND means non-detect, with the detection levels below CULs. PCB non-detect values are based on the highest method reporting limit of the aroclors. PAHs result is the sum of carcinogenic PAHs using MTCA toxicity equivalency factors. PAHs non-detect is calculated using method reporting values and toxicity equivalency factors. Total fluoride is measure by Bellack method.

Beach II (BII) Landfill

The remedial action for the BII Landfill included removal of approximately 110,500 cubic yards (154,718 tons) of waste material. Approximately 17,000 tons of materials including concrete, brick, and clean soil that met MTCA industrial cleanup levels was used as grading fill in the closure of the CCDL and DLL. Solid waste removed from BII was first placed in the DLL and then the TLL when additional capacity was required. After confirmation samples were analyzed and found to be in compliance with the MTCA cleanup levels (Table 3), the former BII was vegetated, erosion control and drainage control measures were installed, and slope surface treatments were applied in an effort to return the natural ravine to an approximation of its pre-landfill conditions. Signage similar to BI was placed along the base of BII.

Table 3. Beach II Landfill Confirmation Soil Sampling Results

Sample ID	Date	PAHs (mg/kg)	PCBs (mg/kg)	Fluoride (mg/kg)	Comments
ILCPBIIC010	8/24/05	< 0.005	< 0.12	324	
ILCPBIIC010D	8/24/05	0.008	< 0.12	272	Duplicate sample
ILCPBIIC020	8/24/05	0.09	0.12	185	
ILCPBIIC040	9/3/05	0.027	0.04	159	
ILCPBIIC060	9/3/05	0.001	< 0.20	370	
ILCPBIIC070	9/3/05	0.007	< 0.20	275	
ILCPBIIC080	9/3/05	< 0.005	< 0.20	154	
ILCPBIIC90	9/3/05	< 0.005	< 0.20	248	
ILCPBIIC100	9/3/05	0.015	< 0.20	159	
ILCPBIIC110	9/3/05	< 0.005	< 0.20	187	
ILCPBIIC120	9/16/05	< 0.005	< 0.05	226	
ILCPBIIC130	9/16/05	< 0.004	< 0.11	100	
ILCPBIIC140	9/16/05	< 0.004	< 0.08	171	
ILCPBIIC30A	10/3/05	< 0.005	< 0.16	110	
ILCPBIIC50A	10/3/05	< 0.004	< 0.16	146	
Cleanup Level	-	2.0	10.0	5,950.0	MTCA cleanup levels, sample not to exceed

Notes: ND means non-detect, with detection levels below CULs. PCB non-detect values are based on the highest method reporting limit of the aroclors. PAHs result is the sum of carcinogenic PAHs using MTCA toxicity equivalency factors. PAHs non-detect is calculated using method reporting values and toxicity equivalency factors. Total fluoride is measure by Bellack method.

Closed Construction Debris Landfill (CCDL)

The cleanup of the CCDL included stabilizing the existing slopes through grading and installation of a buttress wall on the exposed face of the landfill. Rock and select fill were placed above a subsurface shear key and along the former CCDL slope to form the stabilizing buttress. Excavated material was either placed in low areas at the top of the landfill or disposed of in the DLL or TLL. Bake oven brick from the former stockpile areas was reused in the capped portion of the buttress fill and in low areas under the closure cap. An engineered, multi-component, low permeability cap was installed over the landfill. Erosion and drainage measures were installed and a sign similar to BI was placed at the base of the CCDL.

Double-Lined Landfill (DLL)

Beginning March 16, 2007, closure activities at the DLL included filling the landfill to final grades and installing an engineered, multi-component, low-permeability cap over the landfill footprint to minimize infiltration of surface water through the in-place waste materials. Erosion and drainage control measures were installed to further enhance the stability of the closure cap. Closure activities were performed in accordance with the Solid Waste Regulation, Chapter 173-350 WAC.

The TLL was not filled to capacity during the remediation of the BI, BII, and CCDL as described above. As such, the TLL was not closed at the same time. The TLL was subsequently filled to capacity and closed November 28, 2012, and an environmental covenant was recorded March 26, 2012. A periodic review of the TLL is not planned until late 2022.

2.5 Environmental Covenant

Based on the Site use, surface cover and cleanup levels, an environmental covenant (Covenant) was recorded for each of the landfills. These are as follow.

Covenant for Beach I (BI) and Beach II (BII) Landfills

A Covenant was recorded for the Site in January 18, 2008 that imposed the following limitations:

1. The sites shall be used only for traditional industrial uses, as described in RCW 70.105D.020(23) and defined in and allowed under Whatcom County Code 20.68.054(7).
2. Withdrawal of groundwater at the site is prohibited.
3. Any activity on the restricted sites 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 restricted sites 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.
5. The owner of the restricted sites must give fifteen (15) day advance written notice to Ecology of the owner's interest to convey any interest in the restricted sites.

No conveyance of title, easement, lease, or other interest in the restricted sites shall be consummated by the owner without adequate and complete provision for continued monitoring, operation, and maintenance of the remedial action.

6. The owner must restrict leases to uses and activities consistent with the environmental covenant and notify all leases of the restrictions on the use of the restricted sites.
7. The owner must notify and obtain approval from Ecology prior to any use for the restricted sites that is inconsistent with the terms of the environmental covenant. Ecology may approve any inconsistent use only after public notice and comment. If Ecology approved an inconsistent use, the environmental covenant must be amended to reflect the change.
8. The owner shall allow authorized representatives of Ecology the right to enter the restricted sites at reasonable times for the purpose of evaluating the remedial action, to take samples, to inspect remedial actions conducted at the restricted sites, and to inspect records that are related to the remedial action.
9. If the conditions at the restricted sites which require an environmental covenant no longer exist, the owner may submit a request to Ecology that this environmental covenant be removed. This environmental covenant shall be removed only if Ecology, after public notice and comment, concurs.

Covenant for Closed Construction Debris Landfill (CCDL) and Double Lined Landfill (DDL)

A Covenant was recorded for the Site in January 18, 2008 that imposed the following limitations:

1. The restricted sites contain PAHs of PCB contaminated soils. The restricted sites are capped as part of the remedial action to prevent human, plant, or wildlife exposure to the contaminated soils. The owner shall not alter, modify, or remove the existing stricter 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. Any activity on the restricted sites that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the remedial action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the restricted sites include: drilling, digging, placement of any objects, or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork.
2. Withdrawal of groundwater at the restricted sites is prohibited.
3. Any activity on the restricted sites 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 restricted sites that may result in the release or exposure to the environment of a hazardous substance that remains on the restricted sites as part of the remedial action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.
5. The owner of the restricted sites must give fifteen (15) day advance written notice to Ecology of the owner's interest to convey any interest in the restricted sites. No conveyance of title, easement, lease, or other interest in the restricted sites shall be consummated by the owner without adequate and complete provision for continued monitoring, operation, and maintenance of the remedial action.
6. The owner must restrict leases to uses and activities consistent with the environmental covenant and notify all leases of the restrictions on the use of the restricted sites.
7. The owner must notify and obtain approval from Ecology prior to any use of the restricted sites that is inconsistent with the terms of this Environmental covenant. Ecology may approve any inconsistent use only after public notice and comment. If Ecology approves an inconsistent use, the environmental covenant must be amended to reflect the change.
8. The owner shall allow authorized representatives of Ecology the right to enter the restricted sites at reasonable times for the purpose of evaluating the remedial action, to take samples, to inspect remedial actions conducted at the restricted sites, and to inspect records that are related to the remedial action.
9. If the conditions at the restricted sites which require an environmental covenant no longer exist, the owner may submit a request to Ecology that this environmental covenant be removed. This environmental covenant shall be removed only if Ecology, after public notice and comment, concurs.

The Covenant is available as Appendix 6.7.

3.0 PERIODIC REVIEW

3.1 Effectiveness of Completed Cleanup Actions

The Covenants for the Site were recorded and remains in place. The Covenants prohibits activities that will result in the release of contaminants at the landfills without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenants. These Covenant serves to ensure the long term integrity of the remedy.

Based upon Ecology's site visit, the Site continue to eliminate exposure to contaminated soils by ingestion and contact. The Site is still owned and managed by Intalco. Ecology conducted the site visit on March 1, 2021 to view the BI and BII landfills, DLL, and CCDL. The CD requires signage at the BI and BII landfills, reading "Former Landfill. Do not drink." The sign at BI is in place (photo 1). The sign for BII is missing (photo 2). It was likely destroyed by storms and will need to be replaced. The DLL, along with the TLL and other solid waste management units, are secured by a fence and clear signage (photo 3).

The caps at the DLL and CCDL appeared to remain intact with no settling or visible damage. Intalco is currently maintaining the landfill, which includes controlling the vegetation growth over the cap (photos 4-7). Stormwater drainage systems for the landfills remain in place. The CCDL drainage system is necessary to redirect the stormwater flow and prevent erosion of the slope (photo 10).

The berm and stabilizing wall at the CCDL have no signs of damage (photo 8). Ecology observed no sign of seeps at the monitoring location for the CCDL (photo 9). The CD also requires signage at the intermittent stream at the base of the CCDL, reading "Former Landfill. Do not drink." There was no sign in this area during the site visit.

A photo log is available as Appendix 6.8.

Cleanup activities for BI and BII landfills were completed and the CCDL was successfully capped. The DLL was properly closed and groundwater was monitored per the closure plan. Ecology reviewed the 2020 Post-Closure Groundwater Monitoring Second Report. The report showed that the groundwater monitoring well downgradient of the DDL met the MCLs for chloride, fluoride, total cyanide, sulfate, pH, and conductivity. The Covenant for the property will ensure that the contamination remaining is contained and controlled.

3.2 New Scientific Information for Individual Hazardous Substances for Mixtures Present at the Site

There is no new scientific information for the contaminants related to the Site.

3.3 New Applicable State and Federal Laws for Hazardous Substances Present at the Site

The cleanup at the Site was governed by Chapter 173-340 WAC (1996 ed.)). WAC 173-340-702(12) (c) [2001 ed.] provides that,

“A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment.”

Tables 4 and 5 compared MTCA cleanup levels set in the 2007 CD to the standards in 2020. Standards for PCBs in groundwater and surface water have changed as of 2020. Sampling results in Section 6.6 meet the 2020 marine surface water standard of 10 µg/L. However, the results were above the 2020 potable groundwater water standard for PCBs. Results were also above the 2020 potable groundwater standards for fluoride. The Environmental Covenants prohibit the withdrawal of groundwater. As such, the cleanup action is still considered protective of human health and the environment.

Table 4. Soil Cleanup Levels (CULs) Comparison Table

Analyte	2020 MTCA Soil CUL (mg/kg)	2007 MTCA Soil CUL (mg/kg), Consent Decree
PAHs	2.0 (Method A).	2.0 (Method A)
PCBs	10.0 (Method A, if contamination is capped in accordance with 40 CFR 764.61) 1.0 (Method A, if not capped)	10.0 (Method A)
Fluoride	No revised or new standards.	5,950.0 (Method B calculated based on the protection of groundwater and surface water)

Table 5. Groundwater and Surface Water Cleanup Levels (CUL) Comparison Table

Analyte	2020 Surface Water Standards (µg/L)	2007 Surface Water CULs (µg/L), Consent Decree	2020 Groundwater Standards (mg/L)	2007 Groundwater CULs (mg/L), Consent Decree
Metal Complex Cyanide	9.1 (Marine standard)	9.1 (Marine standard)	-	-

Analyte	2020 Surface Water Standards (µg/L)	2007 Surface Water CULs (µg/L), Consent Decree	2020 Groundwater Standards (mg/L)	2007 Groundwater CULs (mg/L), Consent Decree
Fluoride	No revised or new standards.	1.5 (Marine standard, British Ministry of the Environmental). Note: Based on site-specific geochemical assessment, meeting the 100 remediation level at landfill will satisfy the 1.5 standard.	No revised or new standards for non-potable groundwater	100 (Non-potable. Site-specific risk assessment result in the level of 117. The CUL is lowered to 100 for protection of marine surface water)

3.4 Current and Projected Site Use

The Site is currently used for industrial purposes. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and Practicability of Higher Preference Technologies

The remedy implemented included the removal and containment of hazardous substances, and it 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 selected Site 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.
- Site cleanup levels have been met at the standard point of compliance for BI and BII, and the CCDL and DLL were capped.
- Groundwater was monitored on a quarterly basis once every 5 years under an approved groundwater monitoring program for the TLL in compliance with the facility post closure monitoring plans. Results from this monitoring may also provide additional information about the groundwater from the CCDL and DLL data. The 2020 results showed downgradient wells of the DLL met the MCLs prescribed under the monitoring plan.
- Seep sampling was performed as required by CD #07-2-00181-2 and the Cleanup Action Plan. All detected concentrations of fluoride, WAD cyanide, and total PCBs at BI, BII and the CCDL were below cleanup levels.
- Soils cleanup levels have not been met at the standard point of compliance for the Site; however, the cleanup action has been determined to comply with cleanup standards since the long-term integrity of the containment system is ensured, and the requirements for containment technologies are being met.
- Institutional controls in the form of a covenant are in place at the Site and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.

Based on this periodic review, Ecology has determined that the requirements of the Covenant are being followed. Ecology will require Intalco to replace two of the “Former Landfill. Do not drink water” signage as required by the CD.

It is the property owner’s responsibility to continue to inspect the Site to assure that the integrity of the remedy is maintained.

4.1 Corrective Actions

The periodic review went out for public review and comment from May 20 through June 21, 2021. Following the public comment period, Intalco followed up on Ecology’s review and replaced the two missing “Former Landfill. Do not drink water” signs at Beach II and at the CCDL intermittent stream. The replacement signs are documented via photos 11 and 12 of this report. Ecology requires no additional correction actions under this review.

4.2 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

Intalco Landfill Closure Program: Year 5 Annual Monitoring Report, Anchor QEA, December 14, 2011.

Intalco Aluminum Corp. Restrictive Covenant: Historic “Beach I” and “Beach II” Intalco Landfills. January 18, 2008.

Intalco Aluminum Corp. Restrictive Covenant: Capped and/or Lined Intalco Landfills. January 18, 2008.

CH2M Hill Engineers, Inc. prepared for Alcoa Intalco Works. Post-Closure Groundwater Monitoring Second Report, Year 2020. March 29, 2021.

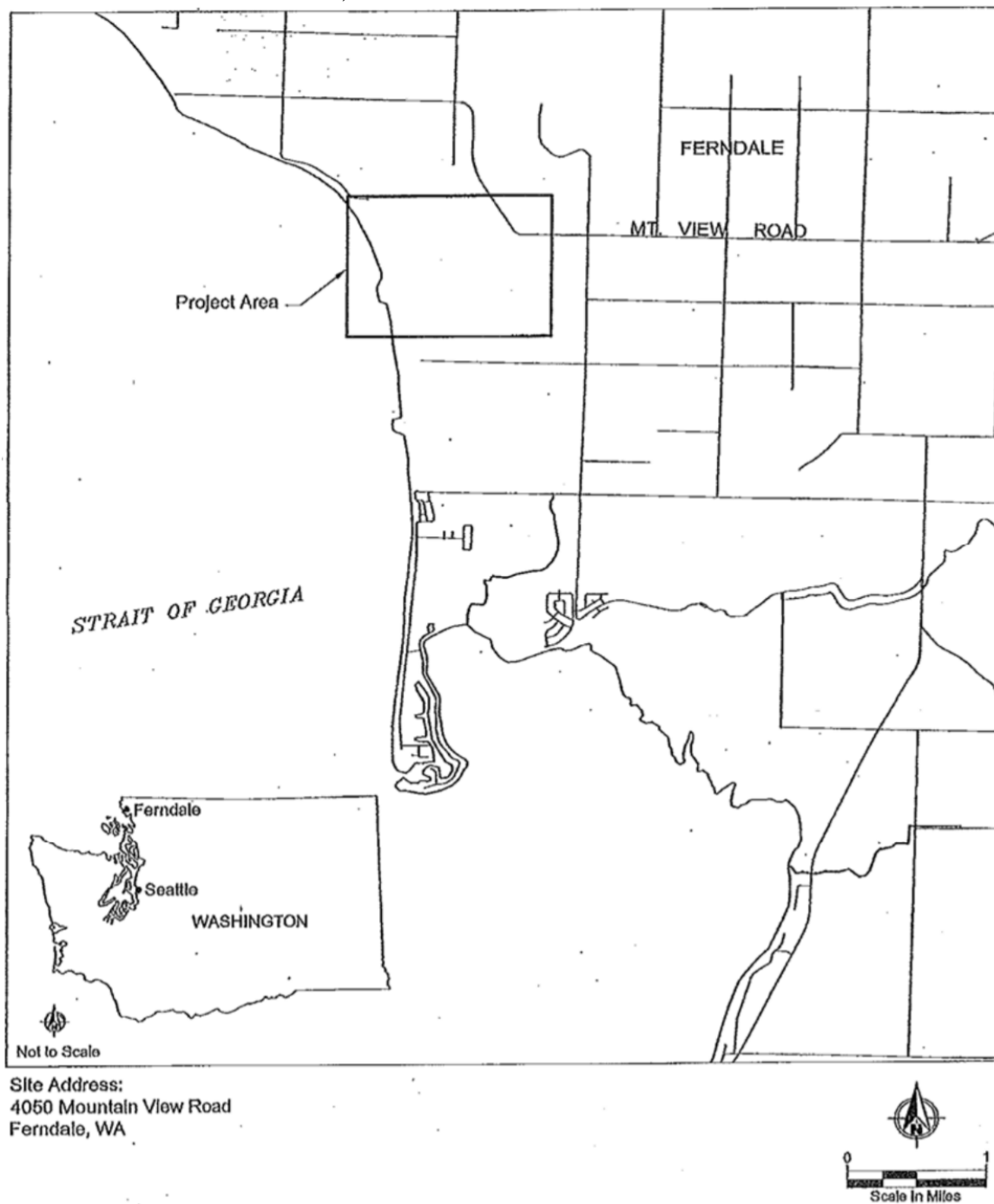
Consent Decree No. 07-2-00181-2, February 2, 2007

Ecology. Site Visit. March 1, 2021.

APPENDICES

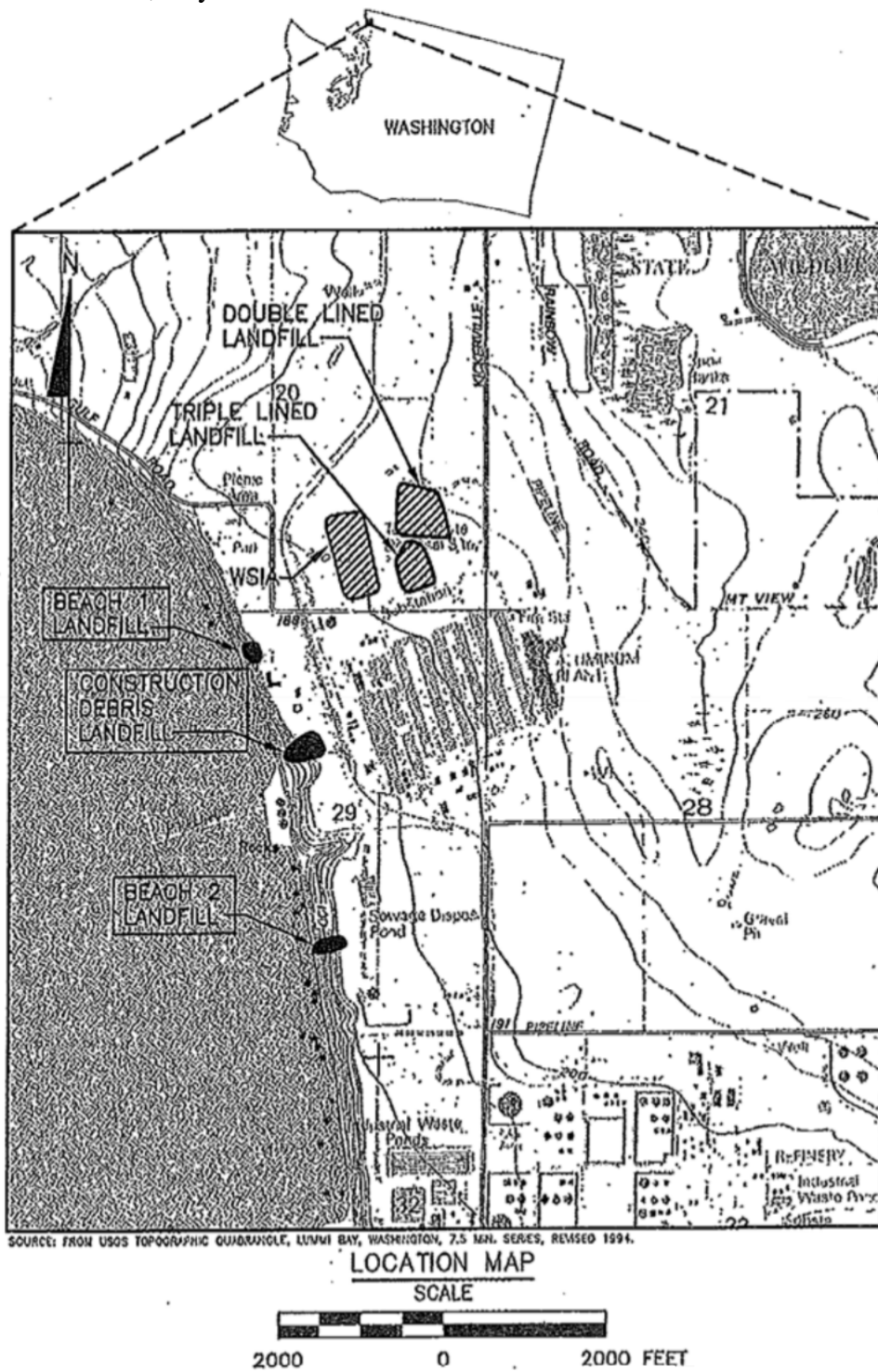
5.1 Vicinity Map

Source: Anchor Environmental, 2009



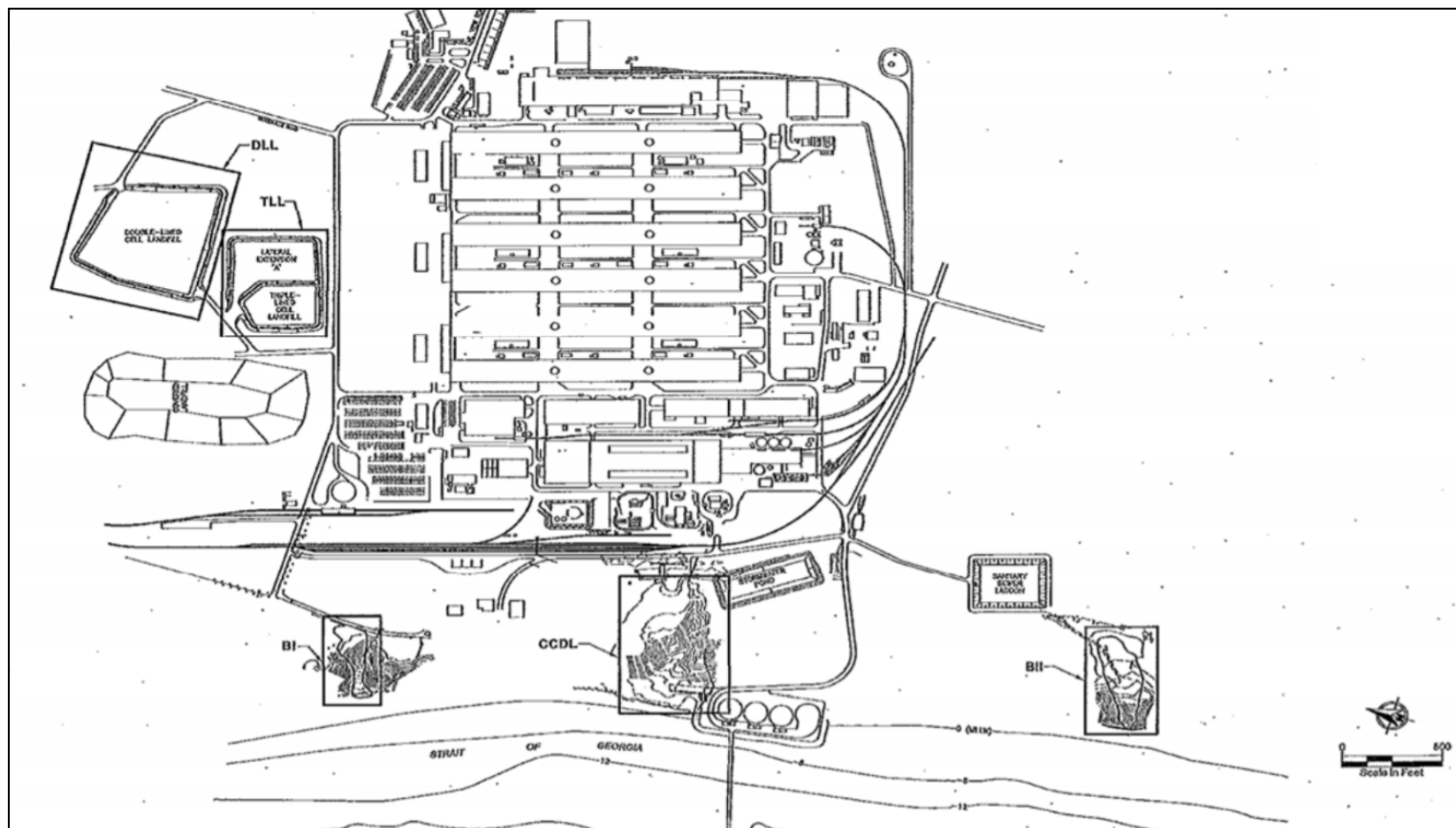
5.2 Site Plan

Source: MFG, July 2001



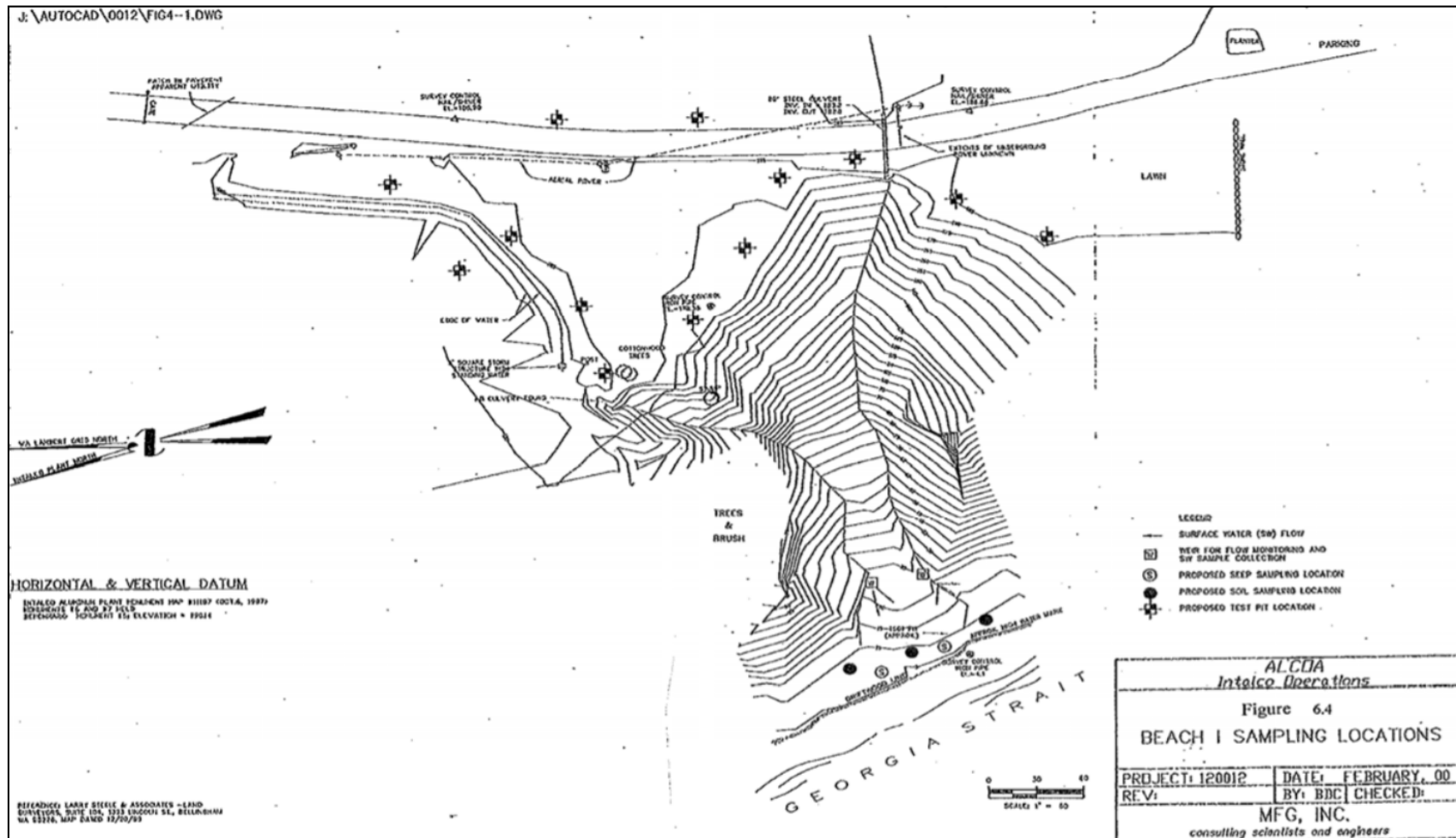
5.3 Facility Map

Source: Anchor Environmental, October 2009



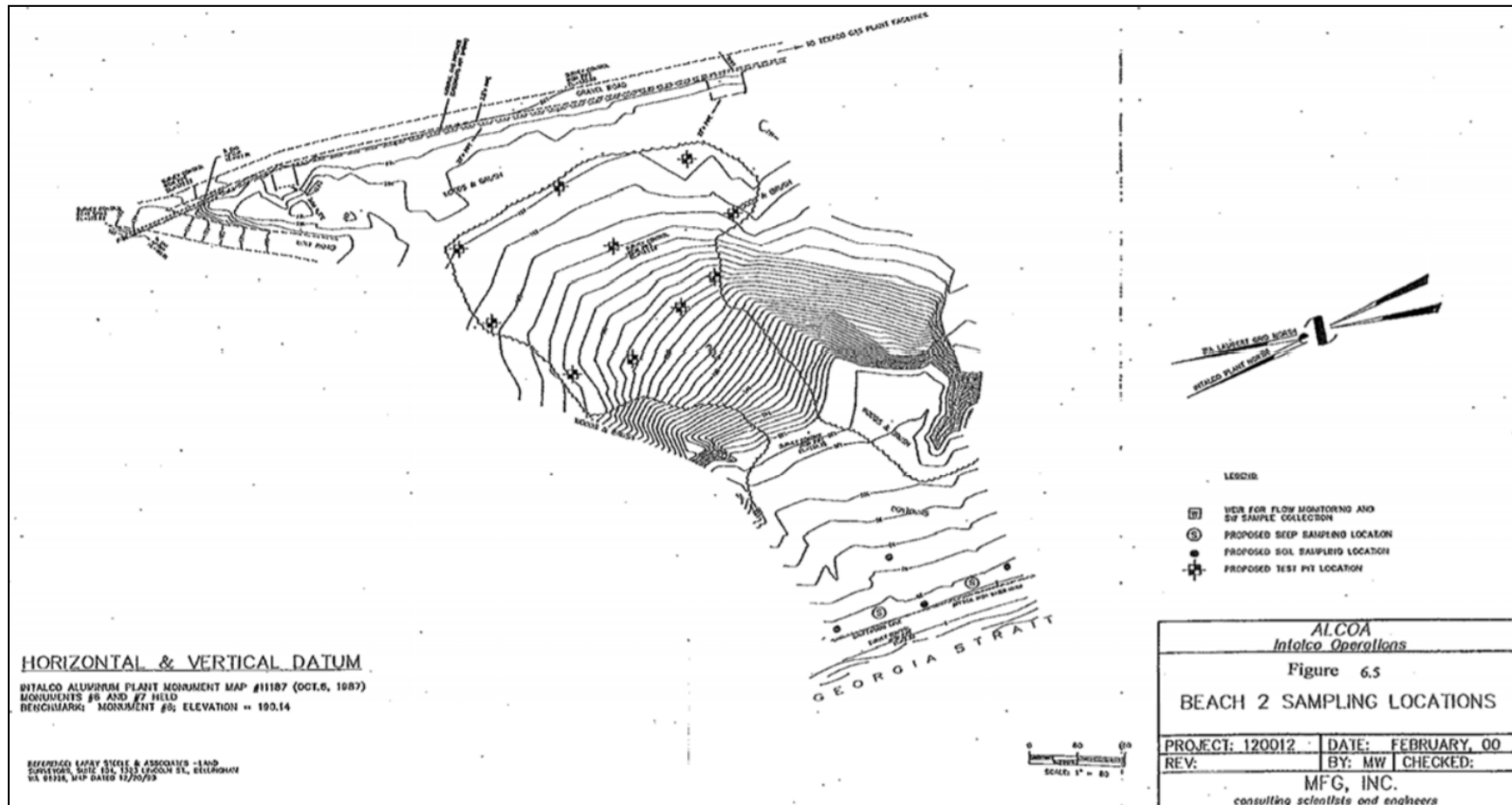
5.4 Sampling Locations at Beach I Landfill

Source: MFG, February 2000



5.5 Sampling Locations at Beach II Landfills

Source: MFG, February 2000



5.6 Seep Sampling Results

Seep location	Sampling Event	Sampling Date	Fluoride (mg/L)	WAD Cyanide (mg/L)	Total Cyanide (µg/L)	Total PCBs (µg/L)	Aroclor 1016 (µg/L)	Aroclor 1221 (µg/L)	Aroclor 1232 (µg/L)	Aroclor 1242 (µg/L)	Aroclor 1248 (µg/L)	Aroclor 1254 (µg/L)	Aroclor 1260 (µg/L)
B1-SW-070223	Year 1, wet season	2/23/07	15.9 J	0.01	NR	0.097	0.023 UJ	0.045 U	0.023 U	0.097	0.023 U	0.023 U	0.023 UJ
B51-SW-070223	Year 1, wet season	2/23/07	14.1	0.01 UJ	NR	0.091	0.02 UJ	0.039 U	0.02 U	0.091	0.02 U	0.02 U	0.02 UJ
B2-SW-070223	Year 1, wet season	2/23/07	11.1	0.01 U	NR	5.4 D	0.2 UJ	0.39 U	0.2 U	5.4 D	0.2 U	0.2 U	0.2 UJ
CCDL-SW-070223	Year 1, wet season	2/23/07	20.2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
B1-SW-070829	Year 1, dry season	8/29/07	9.7	0.005 U	0.01	0.029	0.0049 U	0.0097 U	0.0049 U	0.0049 U	0.029	0.0049 U	0.0049 U
B51-SW-070829	Year 1, dry season	8/29/07	11.5	0.005 U	0.03	0.031	0.0049 U	0.0097 U	0.0049 U	0.0049 U	0.031	0.0049 U	0.0049 U
CDDL-SW-070829	Year 1, dry season	8/29/07	11.2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
BI-SW-110125	Year 5, wet season	1/26/11	11.6	0.0037 J	0.028 J	0.16	0.0049 U	0.0097 U	0.0049 U	0.0049 U	0.16	0.0049 U	0.0049 U
B51-SW-110126	Year 5, wet season	1/26/11	11.7 J	0.0047 UJ	0.03 J	0.16	0.005 U	0.01 U	0.005 U	0.005 U	0.16	0.005 U	0.005 U
BII-SW-110126	Year 5, wet season	1/26/11	9.44 J	0.0047 UJ	0.01 UJ	0.28	0.005 U	0.0099 U	0.005 U	0.005 U	0.28	0.005 U	0.005 U
CCDL-SW-110126	Year 5, wet season	1/26/11	20.8 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
BI-SW-110728	Year 5, dry season	7/28/11	7.64	0.005	0.017	0.071	0.0053 U	0.011 U	0.0053 U	0.0053 U	0.071	0.0053 U	0.0053 U
BID-SW-110728	Year 5, dry season	7/28/11	8.53	0.0047 U	0.016	0.08	0.005 U	0.0099 U	0.005 U	0.008 U	0.08	0.005 U	0.005 U
CCDL-SW-110728	Year 5, dry season	7/28/11	13.7	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Notes: NR means sampling not required. No water was observed at Beach 2 Landfill during dry season sampling events, therefore no sample was collected. J means estimated value. U means non-detected above the laboratory reporting limits indicated. UJ means the compound was analyzed and not detected above the estimated detection limit. Detected values are shown in bold (not flagged with U). Fluoride is only required analyte for CCDL long-term monitoring. Total cyanides sampling is not required by the Cleanup Action Plan, but was added for quality control purposes. Total PCBs were calculated by summing all detected Aroclors. MTCA cleanup levels are 100 mg/L for fluoride, 0.0091 mg/L for WAD cyanide, and 10 µg/L for PCBs.

5.7 Environmental Covenants



2080203055

Page: 1 of 13
2/25/2008 9:51 AM
D/RC \$104.00
Whatcom County, WA

Request of: miller nash

RETURN DOCUMENT TO:

Ian T. Sutton, Attorney

Miller Nash LLP

Post Office Box 694

Vancouver, Washington 98666

Use dark black ink and print legibly. Documents not legible will be rejected per RCW

DOCUMENT TITLE(S):

RESTRICTIVE COVENANT

AUDITOR FILE NUMBER (and VOL. & PG. NUMBERS) OF DOCUMENT(S) BEING ASSIGNED OR RELEASED:

Additional reference numbers can be found on page _____ of document.

GRANTOR(S): INTALCO ALUMINUM CORP.

Additional grantor(s) can be found on page _____ of document.

GRANTEE(S): WASHINGTON DEPARTMENT OF ECOLOGY

Additional grantees(s) can be found on page _____ of document.

ABBREVIATED LEGAL DESCRIPTION: (Lot, block, plat name OR; qtr/qtr, section, township & range OR; unit, building and condo name).

GOV'T LOTS 1, 3, 4, SEC. 29 T39N, R1E

Additional legal(s) can be found on page _____ of document.

ASSESSOR'S PARCEL NUMBER:

390129 408325 0000

The Auditor/Recorder will rely on the information provided on this form. The responsibility for the accuracy of the indexing information is that of the document preparer.

NOTICE: RCW 65.04.047. Section 14: eff. 8/1/99

"I AM REQUESTING AN EMERGENCY NONSTANDARD RECORDING FOR AN ADDITIONAL FEE AS PROVIDED IN RCW 36.18.010. I UNDERSTAND THAT THE RECORDING PROCESSING REQUIREMENTS MAY COVER UP OR OTHERWISE OBSCURE SOME PART OF THE TEXT OF THE ORIGINAL DOCUMENT."

SIGNED BY:

RESTRICTIVE COVENANT
Historic "Beach I" and "Beach II" Intalco Landfills

This Declaration of Restrictive Covenant is made under the Uniform Environmental Covenants Act (2007 Wash. Laws ch. 104), RCW 70.105D.030(l)(f), RCW 70.105D.030(l)(g), and WAC 173-340-440 by Intalco Aluminum Corporation (hereafter "Intalco"), its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

RECITALS

A. A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the Consent Decree entered in the *State of Washington Department of Ecology v. Intalco*, Whatcom County Superior Court No. 07-2-00181-2, and in attachments to the Decree and in documents referenced in the Decree.

B. This Restrictive Covenant is required because, after the Remedial Action is complete, the property will contain contaminated soils within a physical barrier that will prevent plants or wildlife from being exposed to the soil. *See* WAC 173-340-7991(l)(b). Furthermore, this Restrictive Covenant prohibits groundwater withdrawal on the site due to the presence of contaminants of concern in the groundwater.

C. The undersigned, Intalco, is the fee owner of real property (hereafter "Property") located in the County of Whatcom, State of Washington, and more particularly described in Exhibit A attached to this Restrictive Covenant.

D. Within the Property are located the two parcels that are the subject of this Restrictive Covenant (the "Restricted Sites").

E. The Restricted Sites, known as the Beach I and Beach II Landfills, are more particularly described in Exhibits B and C attached to this Restrictive Covenant.

F. The restrictions and covenants agreed to under this Restrictive Covenant apply solely to the Restricted Sites and do not apply in any way to the remainder of the Property.

DECLARATION OF RESTRICTIONS AND COVENANTS

Intalco makes the following declaration as to limitations, restrictions, and uses to which the Restricted Sites 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 Restricted Sites (hereafter "Owner").

Section 1. The Restricted Sites shall be used only for traditional industrial uses, as described in RCW 70.105D.020(23) and defined in and allowed under Whatcom County Code 20.68.054(7) as of the date of this Restrictive Covenant.

Section 2. Withdrawal of groundwater at the Restricted Sites is prohibited.

Section 3. Any activity on the Restricted Sites that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 4. Any activity on the Restricted Sites 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 5. The Owner of the Restricted Sites must give fifteen (15) day advance written notice to Ecology of the Owner's intent to convey any interest in the Restricted Sites. No conveyance of title, easement, lease, or other interest in the Restricted Sites shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 6. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Restricted Sites.

Section 7. The Owner must notify and obtain approval from Ecology prior to any use of the Restricted Sites that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment. If Ecology approves an inconsistent use, this Restrictive Covenant must be amended to reflect the change.

Section 8. The Owner shall allow authorized representatives of Ecology the right to enter the Restricted Sites at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the Restricted Sites, and to inspect records that are related to the Remedial Action.

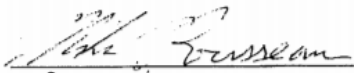
Section 9. If the conditions at the Restricted Sites which require a restrictive covenant no longer exist, the Owner may submit a request to Ecology that this Restrictive Covenant be removed. This Restrictive Covenant shall be removed only if Ecology, after public notice and comment, concurs.

Signatures on page 3

Executed on the 18 day of January, 2008.

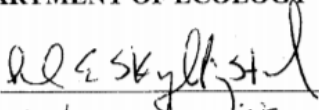
GRANTOR:

**INTALCO ALUMINUM CORP.,
PROPERTY OWNER**

By: 
Its: President

HOLDER:

**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

By: 
Title: Hydrogeologist

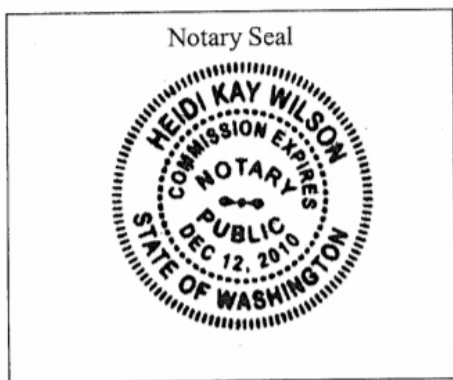
Attachments: Exhibit A – Legal Description of the Property
Exhibit B – Legal Description of the Beach I Landfill
Exhibit C – Legal Description of the Beach II Landfill

Notary acknowledgements on page 4

State of Washington)
) ss.
County of Clark)

I certify that I know or have satisfactory evidence that
Mike Kucsek is the person who appeared before me, and
said person acknowledged that he/she signed this instrument, on oath, stated that he/she was
authorized to execute the instrument and acknowledged it as the President of
Intalco to be the free and voluntary act of such party for the uses and purposes mentioned in the
instrument.

Dated: 18 Jan, 2008.



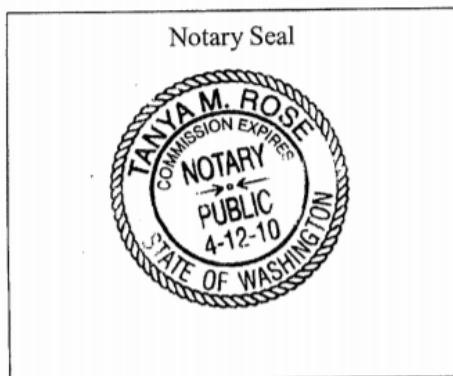
Heidi Kay Wilson
Notary Public for Washington

Name of Notary

My appointment expires: 12 Dec 2010

I certify that I know or have satisfactory evidence that
Paul Skillingstad is the person who appeared before me, and
said person acknowledged that he/she signed this instrument, on oath stated that he/she was
authorized to execute the instrument and acknowledged it as the Project Manager of the
State of Washington Department of Ecology to be the free and voluntary act of such party for the
uses and purposes mentioned in the instrument.

Dated: February 4, 2008.



Tanya M. Rose
Notary Public for Washington

Name of Notary

My appointment expires: 4-12-10

EXHIBIT A
LEGAL DESCRIPTION OF THE PROPERTY
[SEE NEXT PAGE]

Whatcom County Assessor - Bellingham, WA

Page 1 of 1



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Assessor

Assessor Home | Tax Guides | Property Search | Map Search



Parcel Summary	Tax Summary	Tax Detail	Assessment/History	Appeals/Permits/Sales	Building Details	Map List
-------------------	----------------	---------------	--------------------	-----------------------	---------------------	-------------

390129 408325 0000

Site address: 4050 MOUNTAIN VIEW RD
Legal: ALL OF SECTION 29-EXC R/W RR SPUR TRACK
Description: R/W RUNNING N-S THRU SEC DESC AF 1031595
TOG WI VAC RD VAC CP 44-189-LESS RD-SUBJ
TO ESMT TO CASCADE NATURAL GAS CORP DESC

Owner: AF 996718-19-EXC PTN TO USA FOR BPA SITE
ALUMET CORP 61% &
INTALCO ALUMINUM CORP 39%
P O BOX 937
FERNDAL WA 98248-0937

Taxpayer: ALUMET CORP 61% &

Property Characteristics

	Assessed Value	Total Acres
Land:	3,402,450	232.83
Imp:	85,031,700	
Total:	88,434,150	

Land Use:	3334 PRI SMLT/REFINE NONFERROUS MTL	
Tax Dist:	2025 502 F7 C7	F/P?
Zoning:	HEAVY IM IND	F/P Ac:
Tax Status:	TAXABLE	Exempt Prog:

Y
60.00

[<< Back to parcel list](#)



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<http://www.whatcomcounty.us/cgi-bin/db2www/assessor/search/RPSearch.ndt/prcSummar...> 6/14/2007

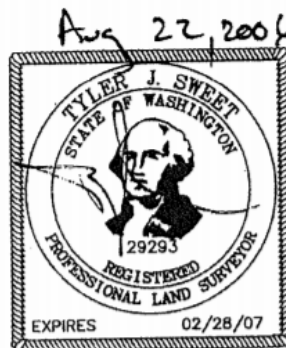
EXHIBIT B
[SEE NEXT PAGE]

BEACH I SITE

A PARCEL OF LAND LOCATED WITHIN GOVERNMENT LOT 1 OF SECTION 29, TOWNSHIP 39 NORTH, RANGE 01 EAST, W.M., WASHINGTON. SAID PARCEL IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST SECTION CORNER OF SAID SECTION 29;
THENCE N88°38'21"W ALONG THE NORTH LINE OF SAID SECTION 29 FOR 2630.50 FEET TO THE NORTH QUARTER CORNER OF SECTION 29;
THENCE S03°28'03"W FOR 288.68 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S03°08'28"W FOR 274.29 FEET;
THENCE S79°28'50"W FOR 338.09 FEET TO A REBAR AND CAP BEING A WITNESS CORNER TO A MEANDER CORNER;
THENCE S79°28'50"W FOR 48.45 FEET TO THE MEANDER CORNER AND THE MEAN HIGH WATER MARK OF THE STRAITS OF GEORGIA;
THENCE N21°29'02"W ALONG THE MEAN HIGH WATER MARK FOR 125.28 FEET TO A MEANDER CORNER;
THENCE N57°29'58"E FOR 46.32 FEET TO A REBAR AND CAP BEING A WITNESS CORNER TO THE MEANDER CORNER;
THENCE N57°29'58"E FOR 254.18 FEET;
THENCE N70°29'51"E FOR 198.92 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL CONTAINS 2.0469 ACRES, MORE OR LESS.



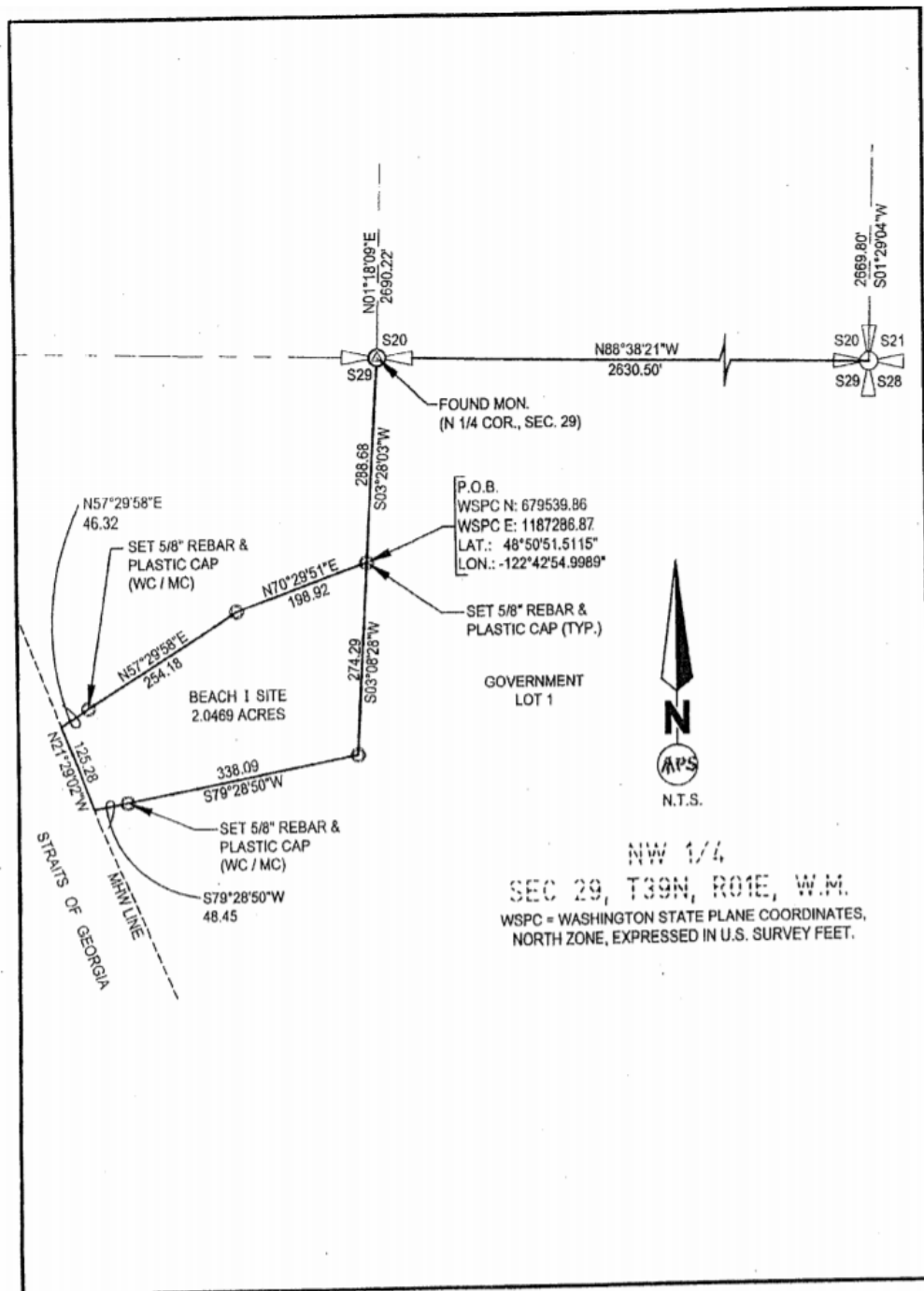


EXHIBIT C

[SEE NEXT PAGE]

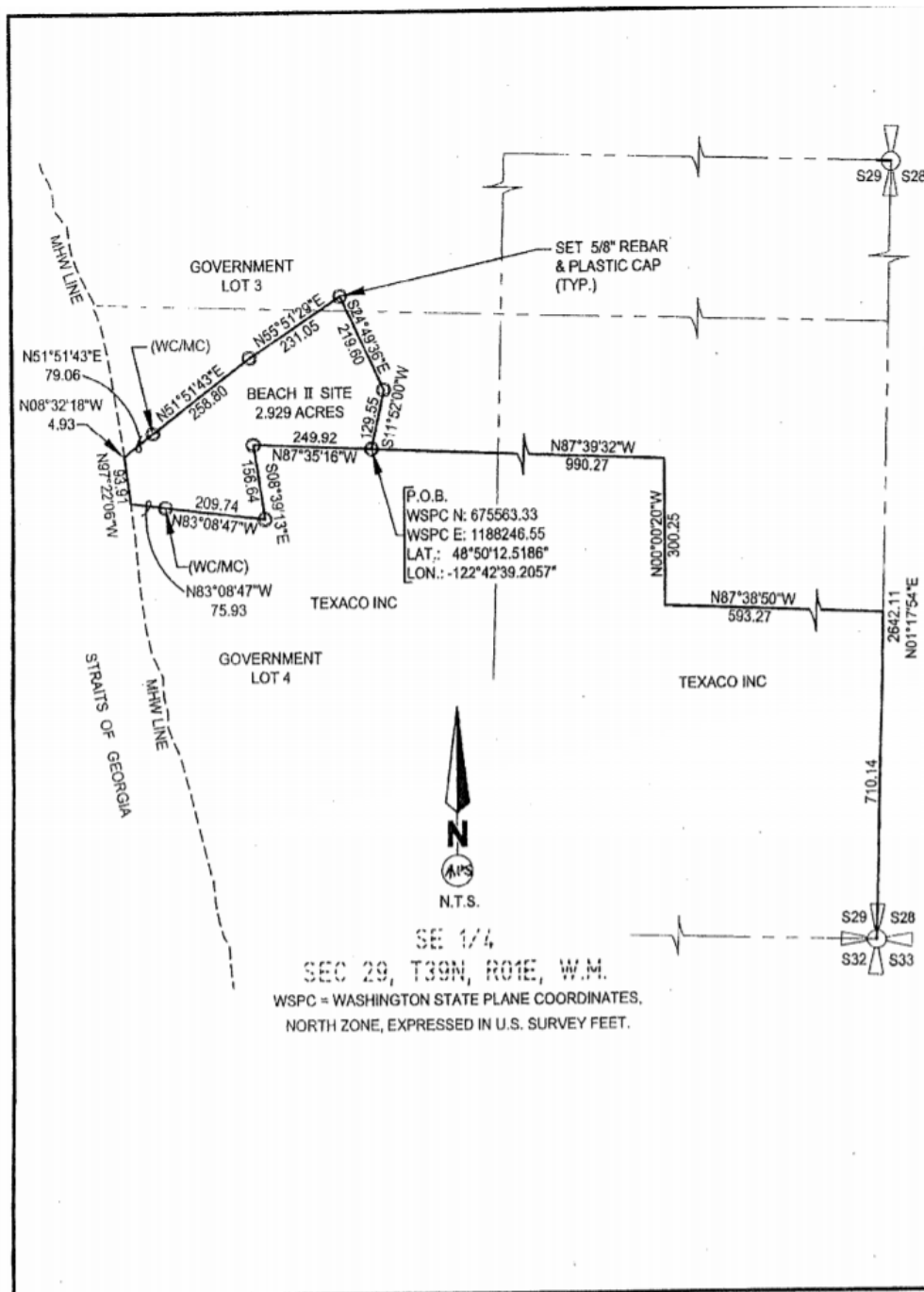
BEACH II SITE

A PARCEL OF LAND LOCATED WITHIN GOVERNMENT LOT 3 AND 4 OF SECTION 29, TOWNSHIP 39 NORTH, RANGE 01 EAST, W.M., WASHINGTON. SAID PARCEL IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MONUMENTED SOUTHEAST SECTION CORNER OF SAID SECTION 29, FROM WHICH THE MONUMENTED EAST QUARTER CORNER BEARS N01°17'54"E AT A DISTANCE OF 2642.11 FEET;
THENCE N01°17'54"E ALONG SAID EAST SECTION LINE FOR 710.14 FEET;
THENCE N87°38'50"W ALONG THE PROPERTY LINE OF THE TEXACO INC. PROPERTY FOR 593.27 FEET;
THENCE N00°00'20"W CONTINUING ALONG SAID PROPERTY FOR 300.25 FEET;
THENCE N87°39'32"W CONTINUING ALONG SAID PROPERTY FOR 990.27 FEET TO THE TRUE POINT OF BEGINNING;
THENCE N87°35'16"W CONTINUING ALONG SAID PROPERTY FOR 249.92 FEET;
THENCE S08°39'13"E CONTINUING ALONG SAID PROPERTY FOR 156.64 FEET;
THENCE N83°08'47"W FOR 209.74 FEET TO A REBAR AND CAP BEING A WITNESS CORNER TO THE MEANDER CORNER;
THENCE N83°08'47"W FOR 75.93 FEET TO A MEANDER CORNER AND THE MEAN HIGH WATER MARK ALONG THE STRAITS OF GEORGIA;
THENCE N07°22'06"W ALONG SAID MEAN HIGH WATER MARK FOR 93.91 FEET;
THENCE N08°32'18"W ALONG SAID MEAN HIGH WATER MARK FOR 4.93 FEET TO A MEANDER CORNER;
THENCE N51°51'43"E FOR 79.06 FEET TO A REBAR AND CAP BEING A WITNESS CORNER TO THE MEANDER CORNER;
THENCE N51°51'43"E FOR 258.80 FEET;
THENCE N55°51'29"E FOR 231.05 FEET;
THENCE S24°49'36"E FOR 219.60 FEET;
THENCE S11°52'00"W FOR 129.55 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL CONTAINS 2.929 ACRES, MORE OR LESS.







2080203056

Page: 1 of 15
2/25/2008 9:51 AM
D/RC \$106.00
Whatcom County, WA

Request of: miller nash

RETURN DOCUMENT TO:

Ian T. Sutton, Attorney

Miller Nash LLP

Post Office Box 694

Vancouver, Washington 98666

Use dark black ink and print legibly. Documents not legible will be rejected per RCW

DOCUMENT TITLE(S):

RESTRICTIVE COVENANT

AUDITOR FILE NUMBER (and VOL. & PG. NUMBERS) OF DOCUMENT(S) BEING ASSIGNED OR RELEASED:

Additional reference numbers can be found on page _____ of document.

GRANTOR(S): INTALCO ALUMINUM CORP.

Additional grantor(s) can be found on page _____ of document.

GRANTEE(S): WASHINGTON DEPARTMENT OF ECOLOGY

Additional grantee(s) can be found on page _____ of document.

ABBREVIATED LEGAL DESCRIPTION: (Lot, block, plat name OR; qtr/qtr, section, township & range OR; unit, building and condo name).

SE 1/4 SEC. 20 T39N, R1E; PTN. OF SEC.29, T39N, R1E

Additional legal(s) can be found on page _____ of document.

ASSESSOR'S PARCEL NUMBER:

390129 408325 0000

The Auditor/Recorder will rely on the information provided on this form. The responsibility for the accuracy of the indexing information is that of the document preparer.

NOTICE: RCW 65.04.047. Section 14: eff. 8/1/99

"I AM REQUESTING AN EMERGENCY NONSTANDARD RECORDING FOR AN ADDITIONAL FEE AS PROVIDED IN RCW 36.18.010. I UNDERSTAND THAT THE RECORDING PROCESSING REQUIREMENTS MAY COVER UP OR OTHERWISE OBSCURE SOME PART OF THE TEXT OF THE ORIGINAL DOCUMENT."

SIGNED BY:

RESTRICTIVE COVENANT
Capped and/or Lined Intalco Landfills

This Declaration of Restrictive Covenant is made under the Uniform Environmental Covenants Act (2007 Wash. Laws ch. 104), RCW 70.105D.030(l)(f), RCW 70.105D.030(1)(g), and WAC 173-340-440 by Intalco Aluminum Corp. ("Intalco"), its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

RECITALS

A. A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Restrictive Covenant. The Remedial Action conducted at the property is described in the Consent Decree entered in the *State of Washington Department of Ecology v. Intalco*, Whatcom County Superior Court No. 07-2-00181-2, and in attachments to the Decree and in documents referenced in the Decree.

B. This Restrictive Covenant is required because, after the Remedial Action is complete, the property will contain contaminated soils within a physical barrier that will prevent plants or wildlife from being exposed to the soil. See WAC 173-340-7991(l)(b). Furthermore, this Restrictive Covenant prohibits groundwater withdrawal on the site due to the presence of contaminants of concern in the groundwater.

C. The undersigned, Intalco, is the fee owner of real property (hereafter "Property") located in the County of Whatcom, State of Washington, and more particularly described in Exhibit A attached to this Restrictive Covenant.

D. Within the Property are located the two parcels that are the subject of this Restrictive Covenant (the "Restricted Sites").

E. The Restricted Sites, known as the Double-Lined Solid Waste Landfill and Closed Construction Debris Landfill, are more particularly described in Exhibits B and C attached to this Restrictive Covenant.

F. The restrictions and covenants agreed to under this Restrictive Covenant apply solely to the Restricted Sites and do not apply in any way to the remainder of the Property.

DECLARATION OF RESTRICTIONS AND COVENANTS

Intalco makes the following declaration as to limitations, restrictions, and uses to which the Restricted Sites 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 Restricted Sites (hereafter "Owner").

Section 1. The Restricted Sites contains PAHs or PCB contaminated soils. The Restricted Sites are being capped as part of the Remedial Action to prevent human, plant, or wildlife

exposure to the contaminated soils. The Owner shall not alter, modify, or remove the existing structure 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. Any activity on the Restricted Sites that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the Restricted Sites include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing or earthwork.

Section 2. Withdrawal of groundwater at the Restricted Sites is prohibited.

Section 3. Any activity on the Restricted Sites that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

Section 4. Any activity on the Restricted Sites that may result in the release or exposure to the environment of a hazardous substance that remains on the Restricted Sites as part of the Remedial Action, or create a new exposure pathway, is prohibited without prior written approval from Ecology.

Section 5. The Owner of the Restricted Sites must give fifteen (15) days advance written notice to Ecology of the Owner's intent to convey any interest in the Restricted Sites. No conveyance of title, easement, lease, or other interest in the Restricted Sites shall be consummated by the Owner without adequate and complete provision for continued monitoring, operation, and maintenance of the Remedial Action.

Section 6. The Owner must restrict leases to uses and activities consistent with the Restrictive Covenant and notify all lessees of the restrictions on the use of the Restricted Sites.

Section 7. The Owner must notify and obtain approval from Ecology prior to any use of the Restricted Sites that is inconsistent with the terms of this Restrictive Covenant. Ecology may approve any inconsistent use only after public notice and comment. If Ecology approves an inconsistent use, this Restrictive Covenant must be amended to reflect the change.

Section 8. The Owner shall allow authorized representatives of Ecology the right to enter the Restricted Sites at reasonable times for the purpose of evaluating the Remedial Action, to take samples, to inspect remedial actions conducted at the Restricted Sites, and to inspect records that are related to the Remedial Action.

Section 9. If the conditions at the Restricted Sites which require a restrictive covenant no longer exist, the Owner may submit a request to Ecology that this Restrictive Covenant be removed. This Restrictive Covenant shall be removed only if Ecology, after public notice and comment, concurs.

Executed on the 8 day of January, 2008.

GRANTOR:

**INTALCO ALUMINUM CORP.,
PROPERTY OWNER**

By: Mr. [Signature]
Its: President

HOLDER:

**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

By: [Signature]
Title: Hydrogeologist

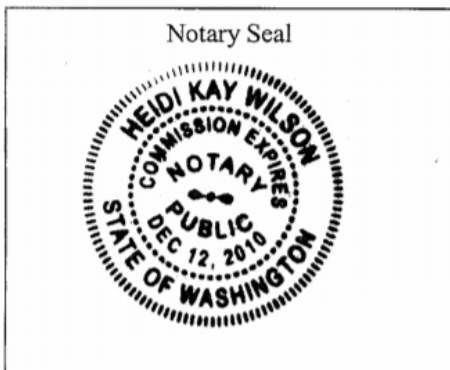
Attachments: Exhibit A – Legal Description of the Property
Exhibit B – Legal Description of the Double-Lined Solid Waste Landfill
Exhibit C – Legal Description of the Closed Construction Debris Landfill

Notary acknowledgements on page 4

State of Washington)
) ss.
County of Clark)

I certify that I know or have satisfactory evidence that
Mike Kousman is the person who appeared before me, and
said person acknowledged that he/she signed this instrument, on oath, stated that he/she was
authorized to execute the instrument and acknowledged it as the President of
Intalco to be the free and voluntary act of such party for the uses and purposes mentioned in the
instrument.

Dated: 18-Jan, 2008.



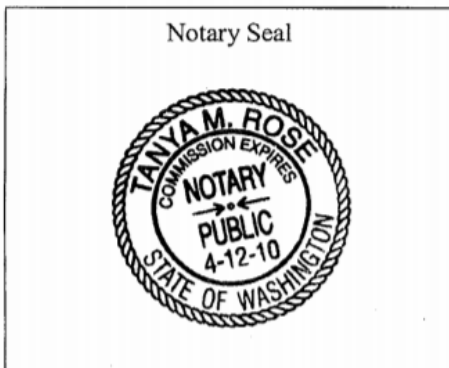
Heidi Kay Wilson
Notary Public for Washington

Name of Notary

My appointment expires: 12 Dec 2010

I certify that I know or have satisfactory evidence that
Paul Skillingstad is the person who appeared before me, and
said person acknowledged that he/she signed this instrument, on oath stated that he/she was
authorized to execute the instrument and acknowledged it as the Project Manager of the
State of Washington Department of Ecology to be the free and voluntary act of such party for the
uses and purposes mentioned in the instrument.

Dated: February 4, 2008.



Tanya M. Rose
Notary Public for Washington

Name of Notary

My appointment expires: 4-12-10
Feb. 4, 2008

EXHIBIT A
LEGAL DESCRIPTION OF THE PROPERTY
[SEE NEXT PAGE]

Whatcom County Assessor - Bellingham, WA

Page 1 of 1



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Assessor

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Parcel Summary	Tax Summary	Tax Detail	Assessment/History	Appeals/Permits/Sales	Building Details	Map List
--------------------------------	-----------------------------	----------------------------	------------------------------------	---------------------------------------	----------------------------------	--------------------------

390129 408325 0000

Site address: 4050 MOUNTAIN VIEW RD

Legal: ALL OF SECTION 29-EXC R/W RR SPUR TRACK

Description: R/W RUNNING N-S THRU SEC DESC AF 1031595
TOG WI VAC RD VAC CP 44-189-LESS RD-SUBJ
TO ESMT TO CASCADE NATURAL GAS CORP DESC

AF 996718-19-EXC PTN TO USA FOR BPA SITE
Owner: ALUMET CORP 61% &
INTALCO ALUMINUM CORP 39%
P O BOX 937
FERNDAL WA 98248-0937

Taxpayer: ALUMET CORP 61% &

Property Characteristics

	Assessed Value	Total Acres	
Land:	3,402,450	232.83	
Imp:	85,031,700		
Total:	88,434,150		
Land Use:	3334 PRI SMLT/REFINE NONFERROUS MTL		
Tax Dist:	2025 502 F7 C7	F/P?	Y
Zoning:	HEAVY IM IND	F/P Ac:	60.00
Tax Status:	TAXABLE	Exempt Prog:	

[≤ Back to parcel list](#)



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Webmaster: webmaster@co.whatcom.wa.us

Search Engine By



<http://www.whatcomcounty.us/cgibin/db2www/assessor/search/RPSearch.ndt/prcSummar...> 6/14/2007

EXHIBIT B
[SEE NEXT PAGE]

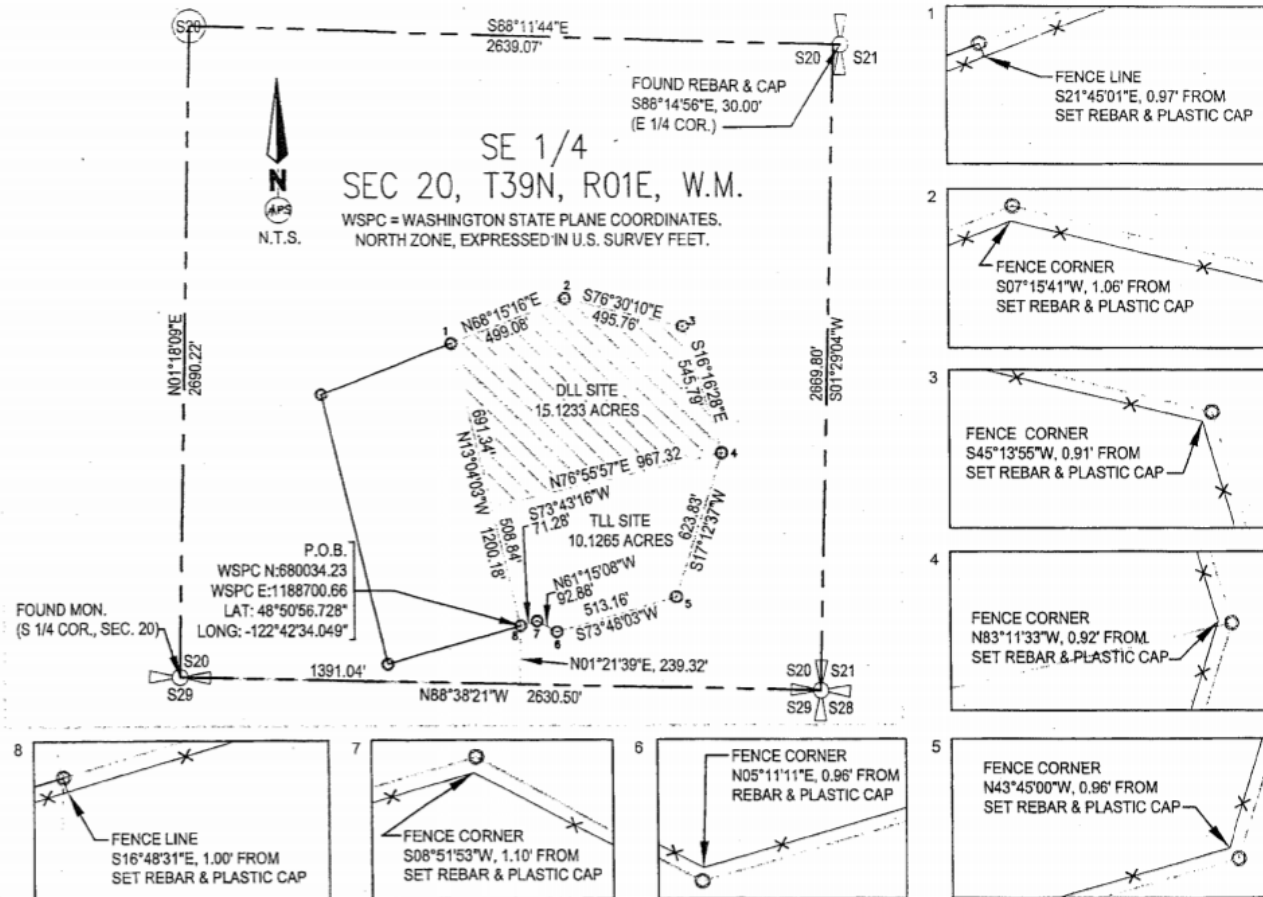
DLL SITE

A PARCEL OF LAND WITHIN THE SOUTHEAST $\frac{1}{4}$ OF SECTION 20, TOWNSHIP 39 NORTH, RANGE 01 EAST, WM., IN WHATCOM COUNTY, WASHINGTON. SAID PARCEL IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE MONUMENTED SOUTH QUARTER CORNER OF SAID SECTION 20;
THENCE S $88^{\circ}38'21''$ E ALONG THE SOUTH LINE OF SAID SECTION 20 FOR 1391.04 FEET;
THENCE N $01^{\circ}21'39''$ E AT RIGHT ANGLES TO SAID SECTION LINE FOR 239.32 FEET;
THENCE N $13^{\circ}04'03''$ W FOR 508.84 FEET TO THE TRUE POINT OF BEGINNING;
THENCE N $13^{\circ}04'03''$ W FOR 691.34 FEET;
THENCE N $68^{\circ}15'16''$ E FOR 499.08 FEET;
THENCE S $76^{\circ}30'10''$ E FOR 495.76 FEET;
THENCE S $16^{\circ}16'28''$ E FOR 545.79 FEET;
THENCE S $76^{\circ}55'57''$ W FOR 967.32 FEET TO THE TRUE POINT OF BEGINNING.
SAID PARCEL CONTAINS 15.1233 ACRES, MORE OR LESS.

PREPARED BY TYLER SWEET, PLS
APS SURVEY & MAPPING, LLC
13221 SE 26TH STREET, SUITE A
BELLEVUE, WA. 98005
NOVEMBER 30, 2007





**INTALCO ALUMINUM CORPORATION
DOUBLE-LINE SOLID WASTE LANDFILL
4050 Mountain View Road, Ferndale, Washington
STATEMENT OF FACT**

Intalco Aluminum Corporation ("Intalco") owns property located at 4050 Mountain View Road in Ferndale, Washington (the "Site"). Intalco constructed and has operated a double-lined solid waste landfill (the "Landfill") on the northern portion of the Site since 1987. Intalco closed the Landfill in 2007. To comply with the limited purpose landfill closure requirements under WAC 173-350-400(6), Intalco has recorded this statement of fact to provide basic information regarding the Landfill's history and use.

As noted, Intalco constructed and has operated the Landfill since 1987 and it is located on the northern portion of the Site. The Landfill was a facility permitted by the Whatcom County Health Department (Permit No. P008035) and served as the solid waste disposal facility for the aluminum reduction plant that Intalco operates on the Site. During this operation, Intalco disposed only non-dangerous wastes generated by Intalco's aluminum reduction plant. These wastes typically include: insulating brick, refractory brick from pots and induction furnaces, salt cake from the cast house, primary water treatment sludge, baghouse bags, waste dust, and scrap paste. Intalco also disposed of soils from the remediation of the on-site Beach I and Beach II historic landfills under a plan approved by the Washington Department of Ecology.

VANDOCs:50085289.1

EXHIBIT C

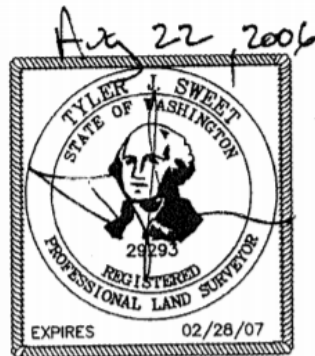
[SEE NEXT PAGE]

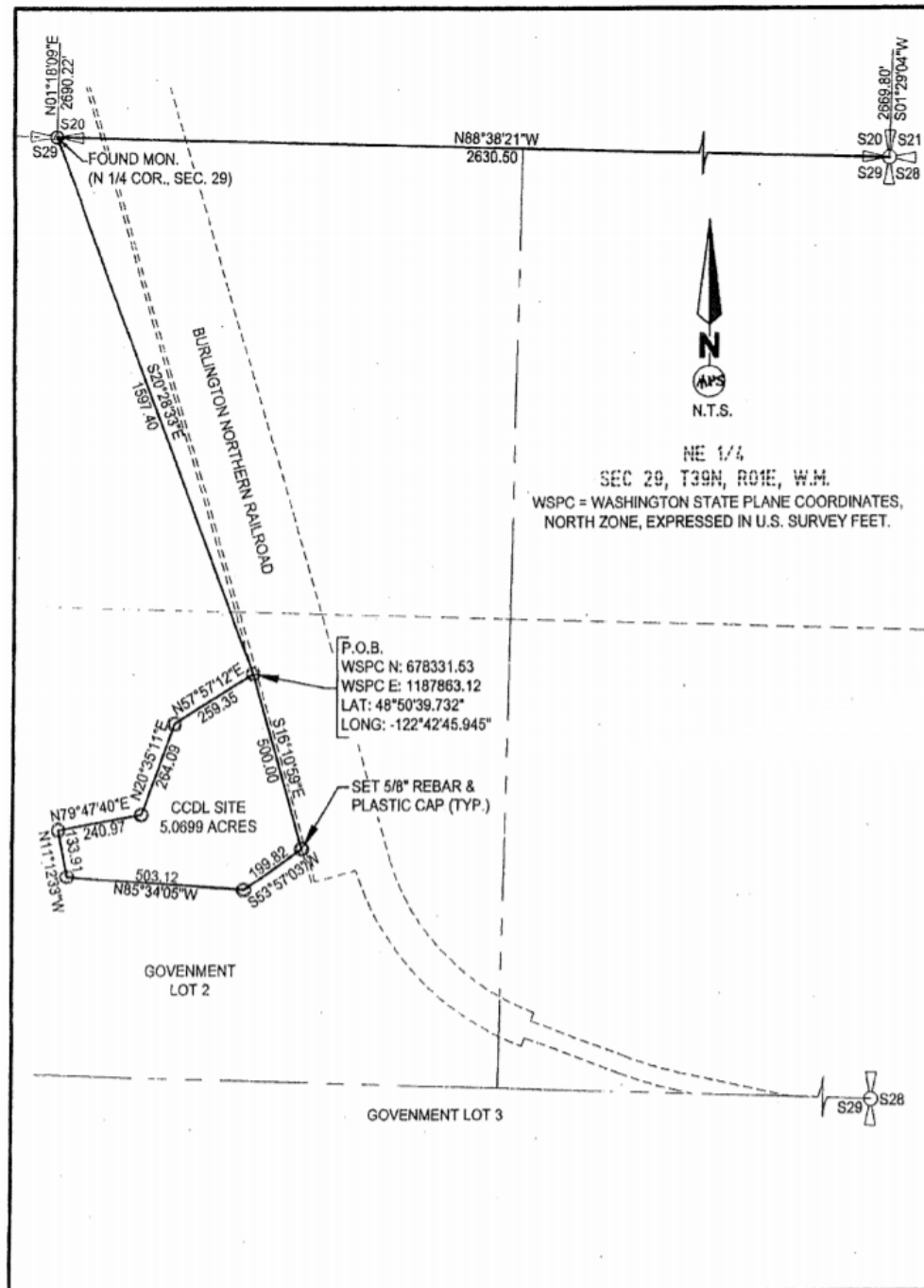
CCDL SITE

A PARCEL OF LAND LOCATED WITHIN GOVERNMENT LOT 2 OF SECTION 29, TOWNSHIP 39 NORTH, RANGE 01 EAST, W.M., WASHINGTON. SAID PARCEL IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST SECTION CORNER OF SAID SECTION 29;
THENCE N88°38'21"W ALONG THE NORTH LINE OF SAID SECTION 29 FOR 2630.50 FEET TO THE NORTH QUARTER CORNER OF SECTION 29;
THENCE S20°28'33"E FOR 1597.40 FEET TO THE TRUE POINT OF BEGINNING;
THENCE S16°10'59"E ALONG A LINE PARALLEL WITH AND 10 FEET DISTANT OF THE MOST WESTERLY RIGHT-OF-WAY OF THE BURLINGTON NORTHERN RAILROAD, FOR 500.00 FEET;
THENCE S53°57'03"W FOR 199.82 FEET;
THENCE N85°34'05"W FOR 503.12 FEET;
THENCE N11°12'33"W FOR 133.91 FEET;
THENCE N79°47'40"E FOR 240.97 FEET;
THENCE N20°35'11"E FOR 264.09 FEET;
THENCE N57°57'12"E FOR 259.35 FEET TO THE TRUE POINT OF BEGINNING.

SAID PARCEL CONTAINS 5.0699 ACRES, MORE OR LESS.





**INTALCO ALUMINUM CORPORATION
CLOSED CONSTRUCTION DEBRIS LANDFILL
4050 Mountain View Road, Ferndale, Washington
STATEMENT OF FACT**

Intalco Aluminum Corporation ("Intalco") owns property located at 4050 Mountain View Road in Ferndale, Washington (the "Site"). Intalco constructed a closed construction debris landfill (the "Landfill") in 1966 on the western portion of the Site, directly west of the western access road to the aluminum reduction plant that Intalco operates on the Site. Intalco constructed the Landfill by filling a natural ravine that cuts and drains into a steep 180-foot bluff that forms the western boundary of the Site and that is adjacent to the Strait of Georgia. The Landfill occupies the northern half of the ravine extending from the bluff to the Strait of Georgia. Intalco closed the landfill in 1980. To comply with the limited purpose landfill closure requirements under WAC 173-350-400(6), Intalco has recorded this statement of fact to provide basic information regarding the Landfill's history and use.

The Landfill was never a facility permitted by the Whatcom County Health Department. Intalco used the Landfill originally to dispose of debris created during construction of the plant. Intalco then used the Landfill to dispose of industrial solid waste. Aerial photographs indicate that the Landfill attained its current shape by 1973. This fact suggests that the Landfill received little to no waste after 1973.

VANDOCs:50085431.2

5.8 Photo log

Photo 1: Beach I Former Landfill



Photo 2: Beach II Former Landfill



Photo 3: Entrance gate to the landfill



Photo 4: DLL Cap



Photo 5: DLL Cap



Photo 6: CCDL Cap



Photo 7: CCDL Cap and Berm



Photo 8: CCDL Stabilizing Wall



Photo 9: CCDL Seep Monitoring Location



Photo 10: CCDL Drainage Area



Photo 11: Beach II Former Landfill Sign Replacement (July 12, 2021)



Photo 12: CCDL Sign Replacement (July 12, 2021)

