



THE STATE  
of **ALASKA**  
GOVERNOR BILL WALKER

**Department of  
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE  
Contaminated Sites Program

555 Cordova Street  
Anchorage, AK 99501  
Main: 907-269-7503  
Fax: 907-269-7649  
www.dec.alaska.gov

File No: 1526.38.004

February 3, 2016

Mr. Mark Schafer, Mayor  
Municipality of Skagway  
P.O. Box 415  
Skagway, AK 99840

Certified Mail Returned Receipt #7014 0510 0001 5870 8159

Mr. John Finlayson, President  
White Pass and Yukon Route Railway  
P.O. Box 435  
Skagway, Alaska 99840-0435

Certified Mail Returned Receipt #7014 0510 0001 5870 8166

Mr. James Hemsath, Director  
Alaska Industrial Development and Energy Authority  
813 West Northern Lights Blvd.  
Anchorage, AK 99503

Certified Mail Returned Receipt #7014 0510 0001 5870 8173

Mr. Peter Hemstead, CMA  
Capstone Mining Corporation  
999 West Hastings Street  
Vancouver, B.C. V6C 2W2

Certified Mail Returned Receipt #7014 0510 0001 5870 7824

Mr. David Hunz  
Mineral Services, Inc.  
c/o Hunz & Hunz Enterprises  
P.O. Box 185  
Skagway, AK 99840

Certified Mail Returned Receipt #7014 0510 0001 5870 8180

RE: Institutional Controls  
Site Name: Skagway (Nahku) Ore Terminal upland property  
Hazard ID#: 401

Dear Sirs:

As stated in the department's letter dated October 20, 2015 and addressed to the Municipality of Skagway, the Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) is hereby providing formal notice of filing of institutional controls, previously established through a 1989 Compliance Order by Consent, to all current entities with ownership, lease, or operational interest in the Skagway (Nahku) Ore Terminal Site.

This letter summarizes the Skagway Ore Terminal (Site) history, cleanup activity, and specific conditions required to effectively manage any remaining contamination on upland property. The purpose of land use restrictions is to ensure that remaining contamination does not present a risk of exposure that could affect human health and safety or the environment. Based on information currently available, no additional remedial action is required on the upland portion of the ore terminal facility property as long as compliance with the conditions stated herein are maintained.

### **Site Description and Background**

The historic release of lead and zinc ore concentrate by airborne emissions to upland properties and to harbor sediments of the marine environment from historical ore transfer operations has been confirmed by site investigation sampling and analysis. Chemicals of concern for environmental media (soil, sediment, and groundwater) that have been identified at the Site include: lead, zinc, arsenic, mercury, and cadmium total metals, diesel range (DRO) hydrocarbons, and polyaromatic hydrocarbons (PAHs). Complete exposure and transport pathways included inhalation, ingestion, dermal contact, and migration to groundwater, surface water and sediment.

### **Site Investigation and Cleanup**

Release investigation and corrective action activities conducted under the regulatory authority of the DEC Southeast Regional Office began at the Site in October 1988 with air quality monitoring by the Bowhead Equipment Company (Bowhead) Long Term Material Release and Tracking Prevention Program. Under separate agreements with the facility owner/operator responsible parties (RPs) White Pass & Yukon Railroad Route (White Pass) and Bowhead, DEC issued Compliance Orders by Consent (COBCs) for the RPs to continue air quality monitoring and to excavate contaminated surface soil from the ore terminal property, the rail bed corridor, the truck haul route, and residential properties in Skagway, for remediation and/or transport back to the Faro Mine.

A 1992 DEC site inspection report indicated that investigative sampling before the 1989 cleanup of the ore terminal operations area documented concentrations of lead in surface soil ranging from 600 to 57,800 milligrams per kilogram (mg/kg). Soil with concentrations of lead greater than 1,000 mg/kg were removed from the Bowhead and White Pass ore terminal operation areas in excavations ranging in depths from 0.5 to 4.0 feet below ground surface (BGS). After remediation of the site, the concentration of lead in remaining soils in both areas reportedly ranged from 50 to 1,842 mg/kg with an average concentration of 450 mg/kg.

By October 1990, Bowhead had brought airborne emissions of ore concentrate under control and had completely paved all their usage areas at the ore terminal, thereby controlling exposures to remaining levels of lead in these areas. In accordance with the COBCs, the upland areas at the facility had reached an acceptable level of exposure risk to human health. As long as the remaining contamination was properly managed and no new information became available indicating contaminants may pose an unacceptable risk, then no further cleanup was required in the upland areas. The COBCs and cleanup plans called for institutional controls including a non-residential, commercial/industrial land use restriction, a requirement to obtain written DEC approval prior to excavating in any area not shown to contain less than 500 mg/kg lead, and soil migration controls or a clean material cap of paving or vegetation.

In 1995, AIDEA conducted a Final Environmental Baseline Assessment (Dames and Moore 1995) which included soil and groundwater samples in the ore terminal operations area upland and sediment and bioassays from the marine environment. Dames and Moore collected soil samples at various depths in nine soil borings and five monitoring well sites and also 16 locations at the surface. The highest lead

concentration found at the surface was 1,100 mg/kg in boring SB-2 and at five feet BGS was 1,900 mg/kg in the same boring. The highest zinc concentration found at the surface was 940 mg/kg in sample TH-2 and at five feet BGS was 2,900 mg/kg in boring SB-2. Zinc is present at concentrations below cleanup criteria for human health (30,400 mg/kg) and migration to groundwater (4,100 mg/kg). The highest lead and zinc concentrations were found in the same boring (SB-2). The highest diesel range organics (DRO) (461 mg/kg) and total petroleum hydrocarbons (TPH) (1,110 mg/kg) concentrations were found at the surface next to the maintenance shop in boring SB-10. These exceed the migration to groundwater cleanup level of 250 mg/kg, but are overlain by an asphalt cap in accordance with the institutional controls described in this letter, and therefore are not anticipated to migrate to subsurface water.

DRO was detected in all five groundwater samples ranging from 0.384 to 1.54 milligrams per liter (mg/L) with the highest concentration in MW-5, located on the southern portion of the property near the maintenance shop. These concentrations are at or below the groundwater cleanup level of 1.5 mg/L. The monitoring well on the norther portion of the property, MW-1, also contained tetrachloroethylene (PCE) in samples collected in 1995 (0.0022 mg/L) and 1996 (0.0024 mg/L), which also are below the Table C groundwater cleanup level of 0.005 mg/L. Groundwater samples were not analyzed for lead and zinc. See Attachment B of this letter for a Site Map showing sampling locations.

#### Cleanup Levels

In 1989, DEC approved a site-specific lead soil cleanup level of 500 milligrams per kilogram (mg/kg) for residential land use properties and a site-specific lead soil cleanup level of 1,000 mg/kg for industrial land use for the ore terminal facility property.

In 1990, ADEC determined cleanup of the upland property at the Skagway (Nahku) Ore Terminal was performed to the extent necessary for industrial land use as long as proper surface management continued to be conducted by the owner/operators of the ore terminal. The terms of cleanup and long term property management of the upland ore terminal property are memorialized in Compliance Order by Consent (COBC) No. 88-11-09-299-02 DEC vs. White Pass Transportation Inc. (White Pass), and wholly-owned subsidiaries Pacific and Arctic Railway and Navigation Company (PARN), and Skagway Terminal Company (STC), dated September 12, 1989, and addendum to 88-11-09-299-02 signed by Marvin Taylor on October 5, 1990; and COBC No. 88-11-09-299-01 DEC vs. Bowhead Equipment Company, and Yukon Alaska Transport, and Curragh Resources, Inc. dated January 3, 1990.

Subsequently, DEC has adopted Site Cleanup Rules establishing site characterization and cleanup requirements and cleanup levels for releases of oil and hazardous substances. Review of the site file and existing data indicates the prior cleanup remains protective for industrial land use and additional cleanup is not necessary as long as institutional controls limit site use to commercial or industrial activities only; any excavation in areas with lead in soil at concentrations > 500 mg/kg is coordinated with and approved in advance by DEC; the site remains capped or vegetated; and no new information becomes available that indicates contaminants at the site may pose an unacceptable risk.

A Notice of Environmental Contamination (deed notice) shall be recorded in the State Recorder's Office as an institutional control (IC) that identifies the nature and extent of contamination at the property and the conditions that the owners and operators are subject to in accordance with 18 AAC 75.375 Institutional Controls. These conditions are as follows:

## Conditions

1. DEC approved a site-specific lead cleanup level of 1,000 milligrams per kilogram (mg/kg) based on agreement that the ore terminal property will be used for industrial/commercial activities only. Any future change in land use could result in increased exposure and risk that may warrant further investigation, cleanup or controls. Therefore the current property owner, facility owner, and operator and any future property owner, facility owner, and operator shall report to DEC every five years to document land use, or report as soon as the current property owner, facility owner, and operator and any future property owner, facility owner, and operator becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov)
2. Maintain a cap over surfaces of remedial areas on the property to limit airborne emissions of ore concentrate mixed with surface soil. The cap shall remain paved in areas currently paved, and vegetated in areas currently vegetated.
3. If excavation or trenching is planned in any of the areas of the property having residual contamination, the soil must be evaluated and contamination addressed in accordance with a work plan approved by DEC before any such work begins.
4. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70.

The DEC Contaminated Sites (CS) Database will be updated to reflect the formal establishment of the institutional controls at the site. The site will remain in active status due to planned remediation of sediment contamination in the submerged tidelands of the property. Institutional controls may be removed in the future if documentation can be provided that shows cleanup levels for unrestricted use have been met. Management conditions 4-6 remain in effect after ICs are removed consistent with all sites listed in the CS database.

The establishment of ICs is in accordance with 18 AAC 75.375 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Sent concurrently to all of the addressees, in each letter the IC agreement page is prepared for signature. Please sign and return Attachment A to DEC within 60 days of receipt of this letter. If you have questions about this request, please contact the DEC project manager, Kara Kusche at (907) 269-7530.

Sincerely,



Kara Kusche  
Environmental Program Manager

Contaminated Sites Program

Attachment A: ICs Agreement and Signature Page\*

Attachment B: Site Map (Figure 10 Onshore Sampling Locations Dames & Moore 1995)

Attachment C: Site Map showing Vegetative and Paved Cap

cc: Scott Hahn, Borough Manager, via email  
Lori Stender, Project Manager, AIDEA, via email  
Tyler Rose, Director of Operations, White Pass & Yukon Route, via email  
Sally Schlichting, DEC Manager, Contaminated Sites Program, via email  
John Halverson, DEC Manager, Contaminated Sites Program, via email  
Evonne Reese, DEC IC Unit, via email  
DEC SPAR Cost Recovery, via email

**Attachment A: ICs Agreement and Signature Page\***

The Municipality of Skagway agrees to the terms and conditions of this Notice of Environmental Contamination and Institutional Controls, as stated in the letter dated February 3, 2016. Failure to comply with the terms and conditions of the ICs established for the site may result in DEC IC compliance action or requiring further remedial action in accordance with 18 AAC 75.325-390.

---

Signature of Authorized Representative, Title Date  
Municipality of Skagway

---

Printed Name of Authorized Representative, Title  
Municipality of Skagway

**Conditions**

1. DEC approved a site-specific lead cleanup level of 1,000 milligrams per kilogram (mg/kg) based on agreement that the ore terminal property will be used for industrial/commercial activities only. Any future change in land use could result in increased exposure and risk that may warrant further investigation, cleanup or controls. Therefore the current property owner, facility owner, and operator and any future property owner, facility owner, and operator shall report to DEC every five years to document land use, or report as soon as the current property owner, facility owner, and operator and any future property owner, facility owner, and operator becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov)
2. Maintain a cap over surfaces of remedial areas on the property to limit airborne emissions of ore concentrate mixed with surface soil. The cap shall remain paved in areas currently paved, and vegetated in areas currently vegetated.
3. If excavation or trenching is planned in any of the areas of the property having residual contamination, the soil must be evaluated and contamination addressed in accordance with a work plan approved by DEC before any such work begins.
4. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70.

Management conditions 4-6 remain in effect after ICs are removed. The establishment of ICs is in accordance with 18 AAC 75.375 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health, safety or the environment.

\*Note: After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 60 days of receipt of this letter.

**Attachment A: ICs Agreement and Signature Page\***

White Pass and Yukon Route Railroad agrees to the terms and conditions of this Notice of Environmental Contamination and Institutional Controls, as stated in the letter dated February 3, 2016. Failure to comply with the terms and conditions of the ICs established for the site may result in DEC IC compliance action or requiring further remedial action in accordance with 18 AAC 75.325-390.

---

Signature of Authorized Representative, Title Date  
White Pass and Yukon Route Railroad

---

Printed Name of Authorized Representative, Title  
White Pass and Yukon Route Railroad

**Conditions**

1. DEC approved a site-specific lead cleanup level of 1,000 milligrams per kilogram (mg/kg) based on agreement that the ore terminal property will be used for industrial/commercial activities only. Any future change in land use could result in increased exposure and risk that may warrant further investigation, cleanup or controls. Therefore the current property owner, facility owner, and operator and any future property owner, facility owner, and operator shall report to DEC every five years to document land use, or report as soon as the current property owner, facility owner, and operator and any future property owner, facility owner, and operator becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov)
2. Maintain a cap over surfaces of remedial areas on the property to limit airborne emissions of ore concentrate mixed with surface soil. The cap shall remain paved in areas currently paved, and vegetated in areas currently vegetated.
3. If excavation or trenching is planned in any of the areas of the property having residual contamination, the soil must be evaluated and contamination addressed in accordance with a work plan approved by DEC before any such work begins.
4. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70.

Management conditions 4-6 remain in effect after ICs are removed. The establishment of ICs is in accordance with 18 AAC 75.375 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health, safety or the environment.

\*Note: After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 60 days of receipt of this letter.

**Attachment A: ICs Agreement and Signature Page\***

Alaska Industrial Development and Energy Authority agrees to the terms and conditions of this Notice of Environmental Contamination and Institutional Controls, as stated in the letter dated February 3, 2016. Failure to comply with the terms and conditions of the ICs established for the site may result in DEC IC compliance action or requiring further remedial action in accordance with 18 AAC 75.325-390.

---

Signature of Authorized Representative, Title Date  
Alaska Industrial Development and Energy Authority

---

Printed Name of Authorized Representative, Title  
Alaska Industrial Development and Energy Authority

**Conditions**

1. DEC approved a site-specific lead cleanup level of 1,000 milligrams per kilogram (mg/kg) based on agreement that the ore terminal property will be used for industrial/commercial activities only. Any future change in land use could result in increased exposure and risk that may warrant further investigation, cleanup or controls. Therefore the current property owner, facility owner, and operator and any future property owner, facility owner, and operator shall report to DEC every five years to document land use, or report as soon as the current property owner, facility owner, and operator and any future property owner, facility owner, and operator becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov)
2. Maintain a cap over surfaces of remedial areas on the property to limit airborne emissions of ore concentrate mixed with surface soil. The cap shall remain paved in areas currently paved, and vegetated in areas currently vegetated.
3. If excavation or trenching is planned in any of the areas of the property having residual contamination, the soil must be evaluated and contamination addressed in accordance with a work plan approved by DEC before any such work begins.
4. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70.

Management conditions 4-6 remain in effect after ICs are removed. The establishment of ICs is in accordance with 18 AAC 75.375 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health, safety or the environment.

\*Note: After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 60 days of receipt of this letter.



**Attachment A: ICs Agreement and Signature Page\***

Capstone Mining Corporation agrees to the terms and conditions of this Notice of Environmental Contamination and Institutional Controls, as stated in the letter dated February 3, 2016. Failure to comply with the terms and conditions of the ICs established for the site may result in DEC IC compliance action or requiring further remedial action in accordance with 18 AAC 75.325-390.

---

Signature of Authorized Representative, Title Date  
Capstone Mining Corporation

---

Printed Name of Authorized Representative, Title  
Capstone Mining Corporation

**Conditions**

1. DEC approved a site-specific lead cleanup level of 1,000 milligrams per kilogram (mg/kg) based on agreement that the ore terminal property will be used for industrial/commercial activities only. Any future change in land use could result in increased exposure and risk that may warrant further investigation, cleanup or controls. Therefore the current property owner, facility owner, and operator and any future property owner, facility owner, and operator shall report to DEC every five years to document land use, or report as soon as the current property owner, facility owner, and operator and any future property owner, facility owner, and operator becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov)
2. Maintain a cap over surfaces of remedial areas on the property to limit airborne emissions of ore concentrate mixed with surface soil. The cap shall remain paved in areas currently paved, and vegetated in areas currently vegetated.
3. If excavation or trenching is planned in any of the areas of the property having residual contamination, the soil must be evaluated and contamination addressed in accordance with a work plan approved by DEC before any such work begins.
4. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70.

Management conditions 4-6 remain in effect after ICs are removed. The establishment of ICs is in accordance with 18 AAC 75.375 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health, safety or the environment.

\*Note: After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 60 days of receipt of this letter.

**Attachment A: ICs Agreement and Signature Page\***

Hunz & Hunz Enterprises agrees to the terms and conditions of this Notice of Environmental Contamination and Institutional Controls, as stated in the letter dated February 3, 2016. Failure to comply with the terms and conditions of the ICs established for the site may result in DEC IC compliance action or requiring further remedial action in accordance with 18 AAC 75.325-390.

---

Signature of Authorized Representative, Title Date  
Hunz & Hunz Enterprises

---

Printed Name of Authorized Representative, Title  
Hunz & Hunz Enterprises

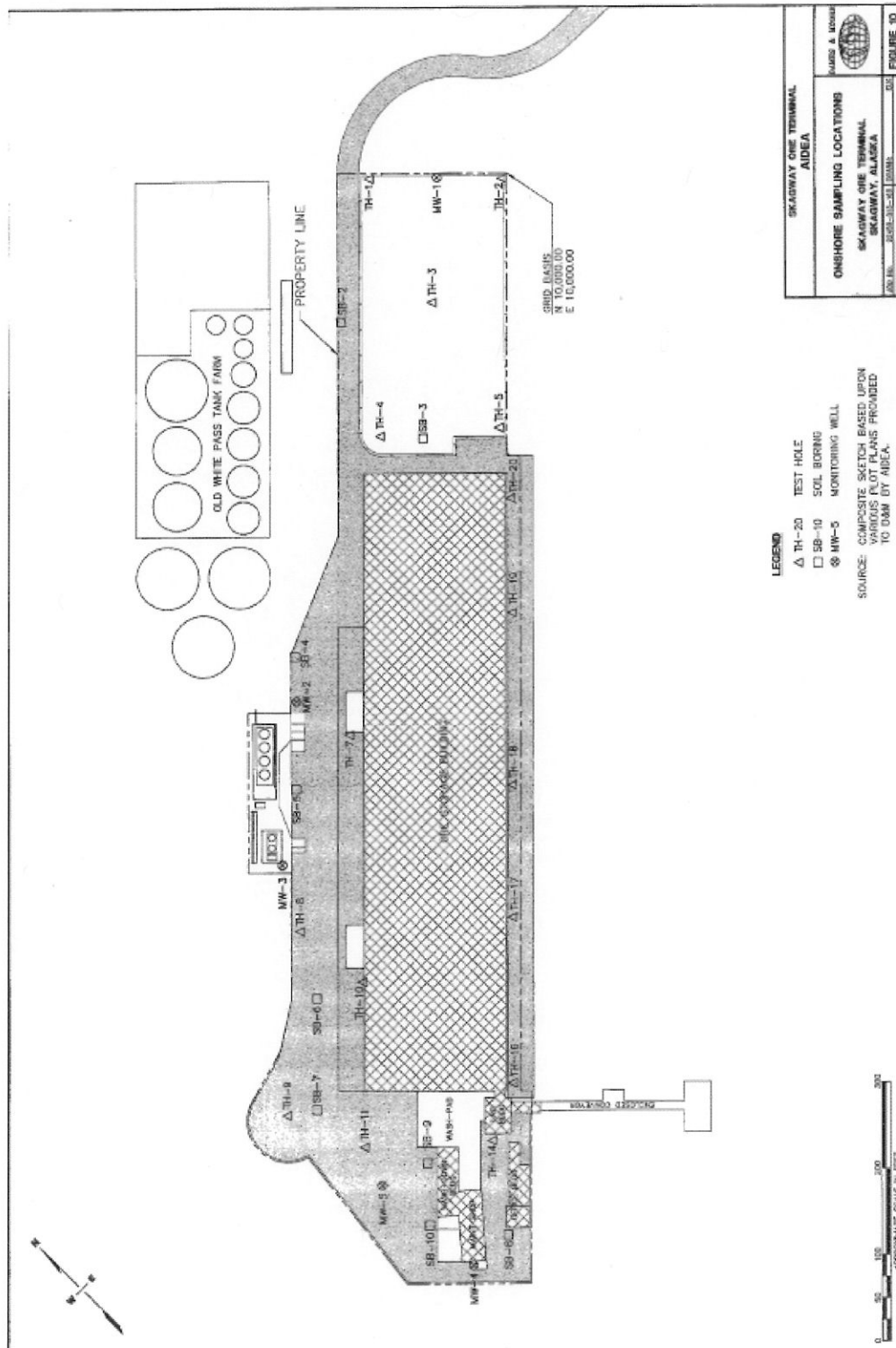
**Conditions**

1. DEC approved a site-specific lead cleanup level of 1,000 milligrams per kilogram (mg/kg) based on agreement that the ore terminal property will be used for industrial/commercial activities only. Any future change in land use could result in increased exposure and risk that may warrant further investigation, cleanup or controls. Therefore the current property owner, facility owner, and operator and any future property owner, facility owner, and operator shall report to DEC every five years to document land use, or report as soon as the current property owner, facility owner, and operator and any future property owner, facility owner, and operator becomes aware of any change in land ownership and/or use, if earlier. The report can be sent to the local DEC office or electronically to [DEC.ICUnit@alaska.gov](mailto:DEC.ICUnit@alaska.gov)
2. Maintain a cap over surfaces of remedial areas on the property to limit airborne emissions of ore concentrate mixed with surface soil. The cap shall remain paved in areas currently paved, and vegetated in areas currently vegetated.
3. If excavation or trenching is planned in any of the areas of the property having residual contamination, the soil must be evaluated and contamination addressed in accordance with a work plan approved by DEC before any such work begins.
4. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.
5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70.

Management conditions 4-6 remain in effect after ICs are removed. The establishment of ICs is in accordance with 18 AAC 75.375 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health, safety or the environment.

\*Note: After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 60 days of receipt of this letter.

**Attachment B: Site Map - Figure 10 Onshore Sampling Locations Dames & Moore 1995**



Attachment C: Site Map showing Vegetative and Paving Caps Currently in Place

