

**APPENDIX HW**  
**Hazardous Waste**

## APPENDIX HW

### Hazardous Waste

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**USACE Haines-Fairbanks Pipeline No Department of Defense Action  
Indicated (NDAI) Final Determination (2014)**



DEPARTMENT OF THE ARMY  
ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS  
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April 28, 2014

CEPOA-PM-ESP

ATTN: Mr. Robert Murphy  
Chief, Right of Way Southeast  
State of Alaska Department of Transportation and Public Facilities  
Southeast Region  
P.O. Box 112506  
Juneau, AK 99811-2506

Mr. Murphy:

The No Department of Defense Action Indicated Report (NDAI) for the Haines Fairbanks Pipeline project F10AK1016-01 was transmitted to you electronically by e-mail on April 28, 2014. This report recommends closure of 16 sites that have no identified environmental hazards, 3 sites that have been recommended by the United States Army Corps of Engineers (USACE) and accepted by the Alaska Department of Environmental Conservation (ADEC) for site closure, and 8 sites that have not been located during prior field efforts and have been recommended for no further investigation by the ADEC unless located in the future.

The 16 sites with no identified hazards include:

1. Pipeline Milepost (PMP) 3.0 (Allen Road)
2. PMP 3.2 (Piedad Road)
3. PMP 6.5 (Highway Mile 4.5)
4. PMP 25.75 (Wells Bridge West)
5. PMP 33.5 (Little Boulder Creek)
6. PMP 35.5 (Big Boulder Creek)
7. PMP 41.0 (Border Valve)
8. PMP 376 (Gate Valve #47)
9. PMP 382.5 (Pipeline Cut To Clear Ice)
10. PMP 491.4 (Gate Valve #60)
11. PMP 491.6 (Gate Valve #61)
12. PMP 511 (Bullet Hole)
13. PMP 521 (Gate Valve #64 and Scraper Trap)
14. PMP 567 (Gate Valve #68)
15. PMP 585 (Auger Hole)
16. PMP 586.5 (Gate Valve #70)

The 3 sites recommended by the USACE and accepted by the ADEC for closure include:

1. PMP 414 (Gate Valve #50)
2. PMP 503 (Gate Valve #62)

3. PMP 541.7 (Gate Valve #67)

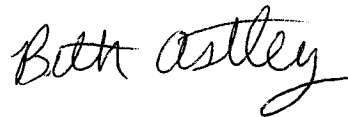
The 8 sites that have not been located during prior field efforts and have been recommended for no additional investigation by the ADEC unless located in the future include:

1. PMP 357 (Gate Valve #46)
2. PMP 361 (Check Valve #46c)
3. PMP 414.5 (Gate Valve #51)
4. PMP 420.3 (Gate Valve #53)
5. PMP 458 (Gate Valve #57)
6. PMP 503.5 (Gate Valve #63)
7. PMP 541.5 (Gate Valve #66)
8. PMP 569.5 (Check Valve #68c)

Based on the results of the ENSR, CH2M HILL, and/or USACE-AK remedial investigation efforts, USACE-AK has recommended that no further action is required at the 27 sites of the F10AK1016-01 HTRW project. This NDAI determination may be reevaluated in the event that additional information becomes available or that a previously unlocated site is discovered.

If you have any questions regarding these project closures please contact me at 907-753-5782.

Sincerely,



Beth Astley  
FUDS Project Manager

**USACE Haines-Fairbanks No Department of Defense Action Indicated  
Report (NDAI) (2013)**

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# No Department of Defense Action Indicated Report

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Hazardous, Toxic, or Radioactive Waste  
Project # F10AK1016-01  
Haines-Fairbanks Pipeline  
Various Locations, Alaska

August 2013



Prepared By:  
U.S. Army Corps of Engineers - Alaska District  
Environmental Engineering Branch  
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## **1.0 INTRODUCTION**

The Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) authorizes the cleanup of contamination resulting from past military activities at sites no longer owned by the Department of Defense (DOD). A hazardous, toxic, and radioactive waste (HTRW) project (F10AK1016-01) was authorized for the Haines-Fairbanks Pipeline (HFP) in 2002 after completing a Findings and Determination of Eligibility (FDE). The results of the FDE indicated that the Haines-Fairbanks Pipeline was formerly used by the DOD and eligible for cleanup under the DERP-FUDS. In 2012, a revised Inventory Project Report (INPR) was completed to modify the existing -01 HTRW project and add 13 containerized hazardous, toxic, and radioactive waste (CON/HTRW) projects (F10AK1016-02 through -14).

The modified -01 HTRW project contains a group of 27 sites along the HFP, encompassing 16 sites that have no identified environmental hazards, 3 sites that have been recommended by the United States Army Corps of Engineers (USACE) and accepted by the Alaska Department of Environmental Conservation (ADEC) for site closure, and 8 sites that have not been located during prior field efforts and have been recommended for no further investigation by the ADEC unless located in the future.

Based on this grouping of no further action sites, the F10AK1016-01 HTRW project of the Haines-Fairbanks Pipeline is being recommended for closure and No DOD Action Indicated (NDAI) status. The 13 CON/HTRW projects along the HFP will remain open to address additional investigation and/or cleanup actions required at those locations.

The USACE is an agent for the Department of Defense and has been assigned the responsibility of coordinating activities at Formerly Used Defense Sites. This NDAI report is issued by the United States Army Corps of Engineers, Alaska District (USACE-AK); the lead agency for the Haines-Fairbanks Pipeline FUDS.

## **2.0 SUMMARY OF SITE CONDITIONS**

### **2.1 Haines-Fairbanks Pipeline History**

The United States Army Corps of Engineers was responsible for pipeline design and construction. The HFP, its five pumping stations, and two associated bulk storage terminals were constructed by private contractors with oversight from USACE over a period of 22 months from 1953 to 1955. The HFP was built to transport fuels from the port at Haines, Alaska, to the military bases in interior Alaska. The pipeline was run by federal civilians supervised by the Petroleum Division on Fort Richardson. Four types of fuel were transported through the pipeline including diesel, automotive gas, jet fuel, and aviation gas; however the majority of the fuel transported was jet fuel (JP4). Much of the 8-inch diameter pipeline was laid on the ground surface, although approximately 96 miles of the HFP near Delta Junction, Alaska, and most of

the 42 miles of HFP between the Haines Fuel Terminal and the Canadian border were buried. Other portions of the HFP were also buried, although these intervals were short and intermittent. Originally, the HFP was constructed with five pump stations located at Haines and Tok, Alaska, and Border, Haines-Junction, and Donjek in Yukon Territory, Canada. Bulk fuel storage facilities were also constructed at Haines and Tok, Alaska. Six new pump stations were added to the HFP in 1962 in response to increased military fuel demands. The new pump stations were located at Blanchard River, Destruction Bay, and Beaver Creek in Yukon Territory, Canada, and at Lakeview, Sears Creek, and Timber, Alaska.

The Haines-to-Tok section of the pipeline was shut down in July 1971. In 1973, the Tok-to-Eielson section of the HFP was deactivated. The bulk fuel storage facilities in Haines and Tok, Alaska, continued to operate until 1979, when the U.S. Army closed the Tok fuel storage facility. The Tok-to-Fairbanks section of the HFP was briefly reactivated to pump the remaining fuel from the station. All of the fuel was removed from the Tok terminal in July 1979 and the pipeline was shut down. Only the Eielson-to-Fairbanks portion of the pipeline remains operational today. Most of the unused pipeline has been removed or salvaged by nonmilitary entities.

The HFP was plagued with leaks from corrosion, ice damage, and vandalism (e.g., bullet holes) throughout its operational history. Underground portions of the pipeline experienced damage from broken welds and at least one accidental breach from borehole drilling. Ice plugs formed in the pipeline during system startup and resulted in spills at a number of sites; however, most of these ice plugs were located in Canadian sections of the pipeline.

## **2.2 Site Locations and Features**

The Haines-Fairbanks Pipeline extends a total of 626 miles from Haines, Alaska, through the Canadian provinces of British Columbia and the Yukon Territory, through Tok, Alaska, and up to Fairbanks, Alaska. The pipeline route generally parallels the Haines Highway from Haines, Alaska, to Haines Junction, Yukon Territory. It then follows the Alaska and Richardson Highways to Delta Junction, Alaska, continuing along the Richardson Highway to Fort Wainwright, Alaska. Approximately 52 percent of the pipeline route lies within United States territory.

The 27 subject sites identified in this NDAI Report are in various locations along the HFP and are listed below, along with a brief site description. Each site description is paraphrased from information presented in the *1972 Preliminary Investigations of Petroleum Spillage, Haines-Fairbanks Military Pipeline Alaska Report* (Cold Regions Research and Engineering Laboratory [CRREL] 1972), the *2005 Rapid Optical Screening Tool (ROST) Site Investigation Summary Report FINAL* (USACE 2006), the *FINAL Report for Haines-Fairbanks Pipeline Site Investigation Report* (ENSR 2007), the *2007 Haines-Fairbanks Pipeline Site Investigation Report* (CH2M HILL 2008), the *2008 ROST Site Investigation Report* (USACE 2010), and the September 3, 2008 and September 29, 2010 Site Characterization and Investigation Report Approval Letters, provided to USACE-AK by the ADEC.

The 16 sites with no identified hazards include:

#### Pipeline Milepost (PMP) 3.0 (Allen Road)

A release at pipeline mile 3.0 was reported in November 1964. A rather large corrosion hole released JP-4 into a garden. The leak was first detected through the presence of fuel in a small drainage stream that runs through the area. This area was investigated by USACE-AK in 2005 using the Rapid Optical Screening Tool (ROST). Two ROST probes and two soil samples were collected and analyzed for gasoline-range organics (GRO), diesel-range organics (DRO), and residual-range organics (RRO). Sample results were either non-detect or below respective cleanup levels. An additional test pit was advanced in 2006 by ENSR Corporation (ENSR) and three soil samples collected at various depths and analyzed for GRO, DRO, and RRO. All soil sample results were either non-detect or below applicable cleanup levels.

#### PMP 3.2 (Piedad Road)

A release was reported in 1956 by a resident who reported an oily taste in water from a well located 1/4 mile down the slope from the valve. This area was investigated in 2005 by USACE-AK using the ROST. Six probes were advanced and two soil samples were collected and analyzed for GRO, DRO, and RRO. All sample results were either non-detect or below applicable cleanup levels.

#### PMP 6.5 (Highway Mile 4.5)

A release at mile 6.5 was reported in July 1968. This was a very small corrosion leak that occurred in a small drainage basin. The leak was first reported by a passerby who detected the odor. The pipe was buried at this location, and the fuel apparently traveled down the valley, into a small stream and eventually into the Chilkat River. Repair crews excavated the pipe, repaired the leak, and reburied the pipe when finished. The general location of the spill was identified during the ENSR investigation. One sediment sample and one surface water sample were collected upstream of the culvert crossing the Haines Highway and analyzed for GRO, DRO, RRO, benzene, toluene, ethylbenzene, xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), and lead (sediment only). One test pit was advanced downgradient of the pipeline and three soil samples were collected at various depths and analyzed for GRO, DRO, RRO, and lead (surface sample only). All sample results across all media were either non-detect or below applicable cleanup levels.

#### PMP 25.75 (Wells Bridge West)

This area consisted of a check valve that was located on the west (upgradient) side of Wells Bridge along the Haines Highway. High voltage electrical lines and telephone lines are buried in this area and may be present in the actual pipeline as in some locations in this area the pipeline was used as a conduit for utility lines. There were no reported releases in this area. No additional investigation is required as the electrical lines present a safety issue.

#### PMP 33.5 (Little Boulder Creek)

A release at mile 33.5 was reported in 1956. The pipeline crossed Little Boulder Creek on a cable suspension bridge. This release was caused by a bullet hole in the pipe at the aerial crossing. Immediate loss of pressure led to quick detection of the break. The fuel flowed into

the rapidly moving stream and apparently was dissipated. No reports of damage to aquatic or terrestrial habitats were made. The general location of the spill was identified during the ENSR investigation. One sediment sample and one surface water sample were collected downgradient of the pipeline upstream of the highway and analyzed for GRO, DRO, RRO, BTEX, semi-volatile organic compounds (SVOCs), and lead (sediment only). A test pit was advanced near the pipeline where three samples were collected at various depths and analyzed for GRO, DRO, RRO, and lead (surface sample only). All sample results across all media were either non-detect or below applicable cleanup levels.

#### PMP 35.5 (Big Boulder Creek)

No known releases are associated with this valve. Two test pits were advanced during the ENSR investigation, one of which was the likely location of the bleeder valve in an open top drum at the floor of the vault. The other test pit was completed just outside of the valve drum at the floor of the vault. Five soil samples were collected and analyzed for GRO, DRO, RRO, and lead (one sample only). All sample results were either non-detect or below applicable cleanup levels.

#### PMP 41.0 (Border Valve)

No known releases are associated with this valve. This check valve could not be located in the field during the ENSR investigation, although the suspected concrete vault box was present in the trees in the road right-of-way next to the pipeline corridor. It is likely that the vault box was removed during realignment of the Haines Highway. A test pit was advanced in an area near the likely location of the former vault box. Two soil samples were collected and analyzed for GRO, DRO, RRO, and lead (surface sample only). All sample results were either non-detect or below applicable cleanup levels.

#### PMP 376 (Gate Valve #47)

The valve was not located during the CH2M HILL investigation and was likely removed during the removal of the pipeline as part of salvage operations in the area. A piece of the 8-inch pipe was found in the area. The perceived pipeline corridor establishes the western boundary of a rock quarry. No known releases are associated with this valve. One test pit and one trench were advanced to depths of 2-3 feet below ground surface (bgs) where bedrock was found. Groundwater was not present in either excavation. Three soil samples were collected and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals, with all samples below their respective cleanup levels.

#### PMP 382.5 (Pipeline Cut To Clear Ice)

A motor vehicle gasoline release at Alaska Highway Milepost (AHMP) 1269.5 was reported on March 16, 1956. Because of ice blockage in the line, the pipe was cut to remove the ice, which resulted in killed vegetation in the area of the spill. Five test pits were advanced in the suspected area of the spill location to depths of 3 feet bgs during the CH2M HILL investigation. Three samples were collected and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. Sample results were either non-detect or below applicable cleanup levels, with the exception of arsenic which is likely to be naturally occurring.

#### PMP 491.4 (Gate Valve #60)

The gate valve and concrete vault were removed and a test pit advanced below the valve location during the CH2M HILL investigation. Five soil samples were collected from the floor of the test pit at 4 feet below the vault and from all sidewalls. Samples were analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals, with all samples either non-detect or below applicable cleanup levels with the exception of arsenic, which is likely to be naturally occurring.

#### PMP 491.6 (Gate Valve #61)

No known releases are associated with this valve. The gate valve and concrete vault were removed and a test pit advanced below the valve location during the CH2M HILL investigation. Six samples were collected at the floor of the test pit at 5 feet below the vault, from all sidewalls, and near the bleeder valve and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. Samples results were either non-detect or below their respective cleanup level with the exception of arsenic in all samples and chromium in one sample, both of which are likely to be naturally occurring.

#### PMP 511 (Bullet Hole)

This location was investigated by CH2M HILL and USACE in 2007 and 2008, respectively. Four soil samples were collected from two soil borings during the CH2M HILL investigation and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. Arsenic exceeded the applicable cleanup level, which is believed to be naturally occurring. No significant contamination was discovered during the USACE investigation and the site was recommended for site closure in the *2008 ROST Site Investigation Report*. ADEC accepted this recommendation in the September 29, 2010 Site Investigation Report Approval Letter.

#### PMP 521 (Gate Valve #64 and Scraper Trap)

This location was investigated by CH2M HILL and USACE in 2007 and 2008, respectively. A soil gas survey and a test pit were completed during the CH2M HILL investigation. Two soil samples were collected from the test pit and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. Only arsenic exceeded the applicable cleanup level and is likely to be naturally occurring. No significant contamination was discovered during the USACE investigation and the site was recommended for site closure in the *2008 ROST Site Investigation Report*. ADEC accepted this recommendation in the September 29, 2010 Site Investigation Report Approval Letter.

#### PMP 567 (Gate Valve #68)

The gate valve itself has not been found, although a large hole in the ground is present in the pipeline right-of-way (ROW) and is interpreted to be the former location of the valve and vault. A soil pile was located next to the hole. Six samples were collected from the soil pile and adjacent to the water-filled hole and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals during the CH2M HILL investigation. Only arsenic and chromium exceeded the applicable cleanup levels in any of the samples, both likely to be naturally occurring.

#### PMP 585 (Auger Hole)

In the summer of 1967, a release was caused by a strike from an auger while installing a power pole. As the location of this release was not certain, a soil gas survey of 40 passive gas modules was initiated along a 750 foot expanse of the pipeline corridor during the CH2M HILL investigation. No soil gas samples showed sorbed masses of petroleum three orders of magnitude greater than the detection limit indicating that soil in the area is not affected by petroleum hydrocarbons. No analytical samples were collected.

#### PMP 586.5 (Gate Valve #70)

The gate valve has been removed, and its original location is not obvious, although sections of reinforced concrete resembling the vault and sections of 8-inch pipe remain on the ground surface near the area depicted by the pipeline as-built drawings as the valve location. As the exact location of the gate valve was not certain, a soil gas survey of 20 passive soil gas modules was initiated along a 120-foot expanse of the pipeline corridor during the CH2M HILL investigation. Only one soil gas sample showed potential petroleum contamination, although the soil gas sample only showed minimal indications. A test pit was advanced in the location of the soil gas module and three samples were collected and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. Only arsenic and chromium exceeded applicable cleanup levels in any of the samples, likely to be naturally occurring.

The 3 sites recommended by the USACE and accepted by the ADEC for closure include:

#### PMP 414 (Gate Valve #50)

The gate valve and concrete vault were removed and petroleum contaminated soil was found below the vault during the CH2M HILL investigation. A total of 20 cubic yards of contaminated soil was excavated and disposed of at Organic Incineration Technology (OIT) in North Pole, Alaska. Five confirmation samples were collected from the floor of the excavation at 7 feet below the vault and from all sidewalls and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. Sample results were either non-detect or below their respective cleanup level with the exception of arsenic, which is likely naturally occurring.

#### PMP 503 (Gate Valve #62)

No known releases are associated with this valve. The gate valve and concrete vault were removed and a test pit advanced below the valve location during the CH2M HILL investigation. Petroleum hydrocarbon contaminated soil was discovered and a total of 20 cubic yards of contaminated soil was excavated and disposed of at OIT in North Pole, Alaska. Seven samples were collected at the floor of the test pit at 6.5 feet below the vault, from all sidewalls, and near the bleeder valve. The samples were analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. One sample near the bleeder valve slightly exceeded the cleanup level for DRO, all other samples were either non-detect or below applicable cleanup levels, with the exception of arsenic and chromium which are likely naturally occurring. The low DRO detection does not present a significant risk to human health or the environment.

#### PMP 541.7 (Gate Valve #67)

The gate valve and concrete vault were removed and a test pit advanced below the valve location during the CH2M HILL investigation. Petroleum hydrocarbon contaminated soil was discovered and a total of 15 cubic yards of contaminated soil was excavated and disposed of at OIT in North Pole, Alaska. Six samples were collected at the floor of the test pit at 5 feet below the vault and from all sidewalls and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. One sample for DRO from the excavation floor at 10 feet bgs slightly exceeded the respective cleanup level. All other sample results were either non-detect or below their respective cleanup level, with the exception of arsenic in all samples, likely to be naturally occurring. The low DRO detection does not present a significant risk to human health or the environment.

The 8 sites that have not been located during prior field efforts and have been recommended for no additional investigation by the ADEC unless located in the future include:

#### PMP 357 (Gate Valve #46)

Gate Valve #46 was located at PMP 357, AHMP 1246. No known releases are associated with this valve. No previous investigations have been undertaken at this site. Neither the gate valve nor pipeline corridor has been successfully identified during previous visits to the site, including a September 2006 site visit conducted by ENSR and the USACE. The site was visited on April 26, 2007, but the field team was again unable to identify either the gate valve or pipeline corridor. Review of the 1955 pipeline as-builts shows the gate valve within 200 feet of the Alaska Highway in a topographically low area. The area was visually inspected, with no obvious signs of contamination, such as stressed vegetation, identified.

#### PMP 361 (Check Valve #46c)

A check valve was formerly located at PMP 361.5, AHMP 1246.6 (GPS coordinates 62.85104 N, 141.45996 W). The check valve was not found, although the pipe was observed to have been cut in this location and the valve apparently had been salvaged. No known releases are associated with this check valve. The site was visited on April 26, 2007. The former check valve location is approximately ¼ mile from the highway and within 40 feet of Gardiner Creek. The location is accessible over boggy terrain. No signs of stressed vegetation or petroleum-affected soil or water were observed.

#### PMP 414.5 (Gate Valve #51)

Gate Valve #51 was located at PMP 414.5, AHMP 1303.5, on the west side of the Tanana River crossing. No known releases are associated with this valve. No previous investigations have been undertaken at this site. The gate valve has not been successfully identified during previous visits, including a September 2006 site visit conducted by ENSR and the USACE. The USACE received information from Fronty Parker, Area Manager Biologist for Alaska Department of Fish and Game (ADF&G), in 2007, indicating that ADF&G removed the pipeline in this area during renovations to the boat ramp approximately 15 years prior. The site was visited on April 26, 2007, but the field team was unable to identify any obvious signs of the vault or valve location.

#### PMP 420.3 (Gate Valve #53)

Gate Valve #53 was located at PMP 420.3, AHMP 1309.5, on the west side of the Tok River crossing. No known releases are associated with this valve. No previous investigations have been undertaken at this site. The gate valve has not been identified during previous visits, including a September 2006 site visit conducted by ENSR and the USACE. The site was also visited on April 26, 2007, and the field team was again unable to identify the gate valve location.

PMP 458 (Gate Valve #57)

Gate Valve #57 was located at PMP 399.5, AHMP 1288, on the east side of the Robertson River crossing. No known releases are associated with this valve. The site was visited on April 27, 2007, and the field team attempted to locate the gate valve on the upstream (south) side of the Robertson River. The field team was unable to locate the gate valve, but was able to identify the pipeline right-of-way and the pipeline itself, nominally buried approximately 6 inches bgs. It is assumed that the valve and its vault were previously removed.

PMP 503.5 (Gate Valve #63)

Gate Valve #63 was located at PMP 503.5, AHMP 1393.2. No known releases are associated with this valve. No previous investigations have been conducted at this site. The gate valve has not been successfully identified during previous visits to the site, including a September 2006 site visit conducted by ENSR and the USACE. The site was again visited on April 24, 2007 by CH2M HILL. The field team identified the pipeline corridor and located a section of pipe along the side of the corridor, as well as cable likely associated with the pipeline salvage operations. However, the field team was unable to identify the location of the gate valve or any remaining buried pipe, and it is assumed that the valve and vault have been removed.

PMP 541.5 (Gate Valve #66)

Gate Valve #66 was located at PMP 541.5, Richardson Highway Milepost (RHMP) 1432. No known releases are associated with this site. No previous investigations have been conducted at this site. The gate valve has not been successfully identified during previous visits to the site, including a September 2006 site visit conducted by ENSR and the USACE. The site was visited on April 24, 2007, but the field team was again unable to identify the location of the gate valve. No signs of past releases were apparent, and no evidence of the valve or the vault was observed.

PMP 569.5 (Check Valve #68c)

A check valve was formerly located at PMP 569.5, RHMP 303. The check valve has not yet been found. No known releases are associated with this check valve. No previous investigations have been conducted in association with this valve. Because a check valve is not currently perceived to be a likely source of fuel release, no further action is recommended for this site, unless additional information becomes available to suggest releases may be associated with this site or other check valves.

### **3.0 REMEDIAL ACTIVITIES**

Several limited environmental investigations and cleanup activities have occurred at various locations along the HFP since its closure in 1973. The most recent investigations concerning the sites listed in this NDAI Report occurred in 2006, 2007, and 2008 by ENSR, CH2M HILL, and



USACE-AK, respectively. Remedial activities at each of the 27 sites listed in this NDAI Report included site investigation, sampling of various media, and/or limited removal of contaminated media (soil).

#### **4.0 SUMMARY OF REMEDY**

Based on the results of the aforementioned remedial investigation efforts, USACE-AK has recommended that no further action is required at the 27 sites of the F10AK1016-01 HTRW project. This NDAI determination may be reevaluated in the event that additional information becomes available or that a previously unlocated site is discovered.

#### **5.0 REFERENCES**

ADEC, 2010. Site Investigation Report Approval Letter, Haines-Fairbanks Pipeline FUDS Project, September 29. (F10AK101601\_01.09\_0503\_a)

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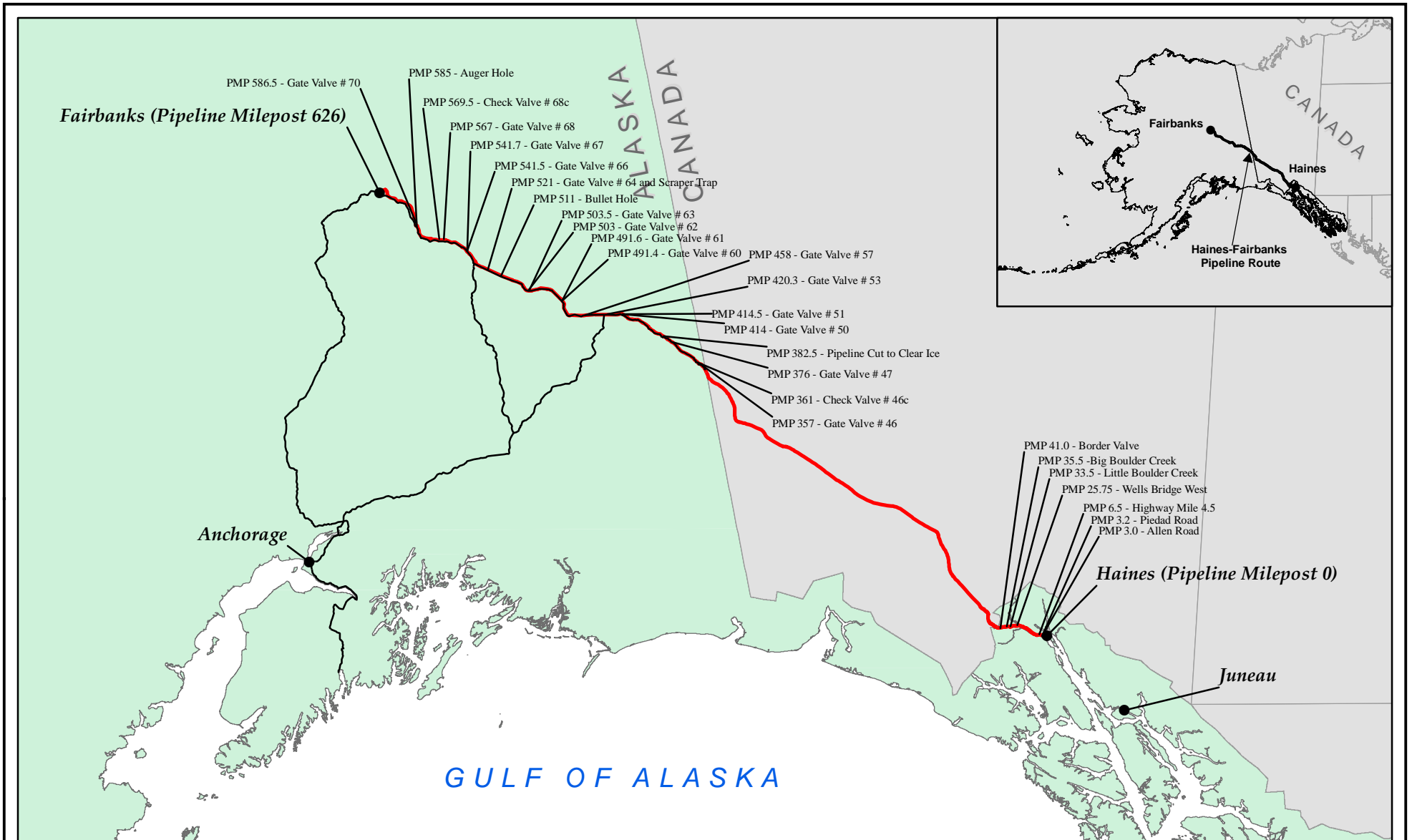
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## Figure 1



**Legend**

— Haines-Fairbanks Pipeline Route

— Highway



Notes: Site locations are not to scale and should be considered approximate, placed strictly for general frame of reference.

<b>Haines Fairbanks Pipeline</b> F10AK1016-01 Project Close-Out Locations Haines to Fairbanks, Alaska		
 U.S. Army Corps of Engineers Alaska District	0 25 50 100 Miles  1 inch = 95 miles	<b>FIGURE 1</b>

## Attachment 1

**DECLARATION OF PROJECT CLOSURE DECISION  
And  
NO DEPARTMENT OF DEFENSE ACTION INDICATED  
For  
FORMERLY USED DEFENSE SITE HTRW PROJECT  
HAINES-FAIRBANKS PIPELINE (F10AK1016-01)  
VARIOUS LOCATIONS, ALASKA**

**STATEMENT OF BASIS**

Authority for the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS) for Hazardous Toxic Radiological Waste (HTRW) projects is derived from the Defense Environmental Restoration Program, 10 United States Code (USC) 2701-2707. The decision to close out the HTRW project (F10AK1016-01) is based on the 2013 No Department of Defense Action Indicated (NDAI) determination recorded in the Formerly Used Defense Site Management Information System (FUDSMIS) and the results of site investigations and remedial activities completed by the ENSR Corporation (ENSR) in 2006, CH2M HILL in 2007, and the United States Army Corps of Engineers – Alaska District (USACE-AK) in 2008.

**SITE DESCRIPTION AND HISTORY**

The Haines-Fairbanks Pipeline (HFP) extends a total of 626 miles from Haines, Alaska, through the Canadian provinces of British Columbia and the Yukon Territory, through Tok, Alaska, and up to Fairbanks, Alaska. The pipeline route generally parallels the Haines Highway from Haines, Alaska, to Haines Junction, Yukon Territory. It then follows the Alaska and Richardson Highways to Delta Junction, Alaska, continuing along the Richardson Highway to Fort Wainwright, Alaska. Approximately 52 percent of the pipeline route lies within United States territory.

The HTRW project (F10AK1016-01) was authorized for the HFP in 2002 after completing a Findings and Determination of Eligibility (FDE). The results of the FDE indicated that the Haines-Fairbanks Pipeline was formerly used by the Department of Defense (DOD) and eligible for cleanup under the DERP-FUDS. In 2012, a revised Inventory Project Report (INPR) was completed to modify the existing -01 HTRW project and add 13 containerized hazardous, toxic, and radioactive waste (CON/HTRW) projects (F10AK1016-02 through -14).

The modified -01 HTRW project contains a group of 27 sites along the HFP, encompassing 16 sites that have no identified environmental hazards, 3 sites that have been recommended by the United States Army Corps of Engineers (USACE) and accepted by the Alaska Department of Environmental Conservation (ADEC) for site closure, and 8 sites that have not been located during prior field efforts and have been recommended for no further investigation by the ADEC unless located in the future.

The 16 sites with no identified hazards include:

1. Pipeline Milepost (PMP) 3.0 (Allen Road)
2. PMP 3.2 (Piedad Road)
3. PMP 6.5 (Highway Mile 4.5)
4. PMP 25.75 (Wells Bridge West)
5. PMP 33.5 (Little Boulder Creek)
6. PMP 35.5 (Big Boulder Creek)
7. PMP 41.0 (Border Valve)
8. PMP 376 (Gate Valve #47)
9. PMP 382.5 (Pipeline Cut To Clear Ice)
10. PMP 491.4 (Gate Valve #60)
11. PMP 491.6 (Gate Valve #61)
12. PMP 511 (Bullet Hole)
13. PMP 521 (Gate Valve #64 and Scraper Trap)
14. PMP 567 (Gate Valve #68)
15. PMP 585 (Auger Hole)
16. PMP 586.5 (Gate Valve #70)

The 3 sites recommended by the USACE and accepted by the ADEC for closure include:

1. PMP 414 (Gate Valve #50)
2. PMP 503 (Gate Valve #62)
3. PMP 541.7 (Gate Valve #67)

The 8 sites that have not been located during prior field efforts and have been recommended for no additional investigation by the ADEC unless located in the future include:

1. PMP 357 (Gate Valve #46)

2. PMP 361 (Check Valve #46c)
3. PMP 414.5 (Gate Valve #51)
4. PMP 420.3 (Gate Valve #53)
5. PMP 458 (Gate Valve #57)
6. PMP 503.5 (Gate Valve #63)
7. PMP 541.5 (Gate Valve #66)
8. PMP 569.5 (Check Valve #68c)

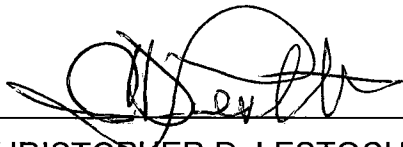
**DESCRIPTION OF THE SELECTED REMEDY AND IMPLEMENTATION**

Based on the results of the ENSR, CH2M HILL, and/or USACE-AK remedial investigation efforts, USACE-AK has recommended that no further action is required at the 27 sites of the F10AK1016-01 HTRW project. This NDAI determination may be reevaluated in the event that additional information becomes available or that a previously unlocated site is discovered.

**DECLARATION**

In accordance with the Defense Environmental Restoration Program for Formerly Used Defense Sites, the U.S. Army Engineer District, Alaska, has completed all HTRW activities at the Haines-Fairbanks Pipeline FUDS (F10AK1016-01), various locations, Alaska. This Declaration of Project Closure Decision supports the conclusion that all known sources of HTRW have been remediated. No further HTRW actions are required by the DOD at this project location. This decision may be reviewed and modified in the future if any new information becomes available which indicates the presence of eligible HTRW that may cause a risk to human health or the environment.

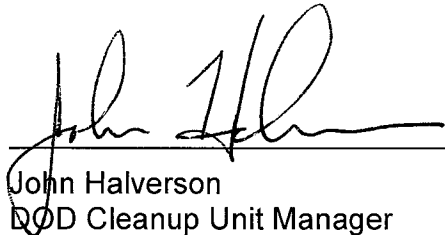
This Declaration of Project Closure Decision has been prepared and approved by the undersigned in accordance with the FUDS Program Policy, Engineer Regulation (ER) 200-3-1, May 10, 2004.



Date SEP 13 2013

CHRISTOPHER D. LESTOCHI  
COL, EN  
Commanding

The State of Alaska, through the Department of Environmental Conservation agrees this Haines-Fairbanks Pipeline HTRW F10AK1016-01 project closure is consistent with state cleanup requirements. The decision may be reviewed and modified in the future if information becomes available that indicates the presence of contaminants or waste that may cause unacceptable risk to human health or the environment.



Date 9/19/2013

John Halverson  
DOD Cleanup Unit Manager  
Alaska Department of Environmental Conservation



## Attachment 2

# STATE OF ALASKA

# COPY

SARAH PALIN, GOVERNOR

## DEPT. OF ENVIRONMENTAL CONSERVATION DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

Post Office Box 1542  
Haines, Alaska 99827  
PHONE: (907) 766-3184  
FAX: (907) 766-3185  
<http://www.state.ak.us/dec/home.htm>

September 3, 2008

File no.: 1508.38.007

Ms. Mary Jemin  
Department of the Army  
United States Army Engineer District, Alaska  
Post Office Box 6898  
Anchorage, Alaska 99506-6868

Re: Site Characterization Report Approval  
Haines-Fairbanks Pipeline – various pipeline mileposts

Dear Ms. Jemin:

The Alaska Department of Environmental Conservation (department) has reviewed the *2007 Haines-Fairbanks Pipeline Site Investigation Report*, prepared by CH2M Hill and dated July 2008. All of the department's comments on the draft document have been satisfactorily resolved. This document is approved in accordance with 18 Alaska Administrative Code (AAC) 75.335(d).

Over the past several years, the U.S. Army Corps of Engineers (USACE) has conducted several site investigations along various portions of the Haines-Fairbanks Pipeline focusing these efforts in areas where check valves or gate valves were located, releases were documented in the past, or contamination was identified by the public. Results of these site investigations are documented in the above referenced report as well as the *Haines-Fairbanks Pipeline (Haines to Canada Section) Site Investigation Report* prepared by ENSR Corporation and dated May 2007. Based upon the information in these two (2) reports, petroleum hydrocarbon contamination has been discovered and merits additional characterization and/or cleanup at the following 14 locations.

PMP 1.9 (Young Road);  
PMP 17.5 (Release, Haines Hwy Mile 15);  
PMP 25.5 (Gate Valve (GV) 4, Wells Bridge, East);  
PMP 343.9 (Scottie Creek Scraper Trap);  
PMP 383 (GV 48);  
PMP 399.5 (GV 49);  
PMP 420.25 (GV52);  
PMP 449.1 (GV56);  
PMP 458.75 (GV58);  
PMP 475.2 (GV59);  
PMP 544 (Timber Pump Station);

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PMP 558 (Release, Tenderfoot Creek);  
PMP 569 (Birch Lake Storage Area); and  
PMP 585.5 (GV 69).

At the following four (4) locations, petroleum hydrocarbon contamination was not documented in the reports, however the department requests that additional characterization is conducted in order to ensure that the location of the valve or release is accurate and that no contamination is truly present.

PMP 19.5 (Release, Haines Hwy Mile 18)  
PMP 347 (GV 45 and Bleeder Valve);  
PMP 511 (Bullet Hole); and  
PMP 521 (GV 64 and Scraper Trap).

At the following locations, either no petroleum hydrocarbon contamination was found during the site investigations or a small volume of contamination was found and excavated during the removal of the gate valve. No additional investigation or cleanup is required at these locations.

PMP 3 (Release, Allen Road) – This area was investigated in 2005 using the USACE’s Rapid Optical Screening Tool (ROST) unit where two (2) probes were advanced and two (2) soil samples were collected and analyzed for gasoline-range organics (GRO), diesel-range organics (DRO), and residual-range organics (RRO). All sample results were either non-detect or below their respective cleanup levels. An additional test pit was advanced in 2006 and three (3) samples collected at various depths and analyzed for GRO, DRO, and RRO. All sample results were either non-detect or below their respective cleanup levels.

PMP 3.2 (Release, Piedad Road and GV) – This area was investigated in 2005 using the USACE’s ROST unit where six (6) probes were advanced and two (2) soil samples were collected and analyzed for GRO, DRO, and RRO. All sample results were either non-detect or below their respective cleanup levels.

PMP 6.5 (Release, Haines Hwy Mile 4.5) – The general location of the spill was identified. One (1) sediment sample and (1) surface water sample were collected upstream of the culvert crossing the highway and analyzed for GRO, DRO, RRO, benzene, toluene, ethylbenzene, xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), and lead, and GRO, DRO, RRO, BTEX, and PAHs, respectively. One (1) test pit was advanced downgradient of the pipeline where three (3) samples were collected at various depths and analyzed for GRO, DRO, and RRO, and the surface sample also included lead. All sample results across all media were either non-detect or below their respective screening or cleanup levels.

PMP 25.75 (Check Valve (CV) 4c, Wells Bridge, West) – This check valve was located on the west (upgradient) side of Wells Bridge along the Haines Highway. High voltage electrical lines and telephone lines are buried in this area and may be present in the actual pipeline as in some locations in this area the pipeline was used as a conduit for utility lines. There were no reported releases in this area. No additional investigation is required as the electrical lines present a safety issue.

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PMP 33.5 (Release, Little Boulder Creek) – The general location of the spill was identified. One (1) sediment sample and (1) surface water sample were collected downgradient of the pipeline upstream of the highway and analyzed for GRO, DRO, RRO, BTEX, semi-volatile organic compounds (SVOCs), and lead and GRO, DRO, RRO, BTEX, and SVOCs, respectively. One (1) test pit was advanced near the pipeline where three (3) samples were collected at various depths and analyzed for GRO, DRO, and RRO, and the surface sample also included lead. All sample results across all media were either non-detect or below their respective screening or cleanup levels.

PMP 35.5 (GV 5) – Two test pits were advanced, one (1) of which was in the likely location of the bleeder valve in an open top drum at the floor of the vault and the other was from outside the drum at the floor of the vault. A total of five (5) samples were collected and analyzed for GRO, DRO, and RRO and one (1) was also analyzed for lead. All sample results were either non-detect or below their respective screening or cleanup levels.

PMP 41 (CV 5c) – This check valve could not be located in the field, however the suspected concrete vault box was present in the trees in the road right of way next to the pipeline corridor. It is likely that the vault box was removed during the realignment of the Haines Highway. A test pit was advanced in an area near the likely location of the former vault box. Two (2) soil samples were collected and analyzed for GRO, DRO, and RRO, and the surface sample was also analyzed for lead. All sample results were either non-detect or below their respective screening or cleanup levels.

PMP 376 (GV 47) – One (1) 3-foot by 6-foot test pit and one (1) 3-foot by 70-foot trench were advanced to depths of 2-3 feet below ground surface (bgs) where bedrock was found. Groundwater was not present in either the test pit or trench. Three (3) soil samples were collected and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals with all sample results below their respective cleanup level.

PMP 382.5 (Pipeline Cut and MoGas Spill) – Five (5) test pits were advanced in the suspected area of the spill location to depths of 3 feet bgs. Three samples were collected and analyzed for GRO, DRO, RRO, BTEX, PAHs, and metals. Sample results were either non-detect or below their respective cleanup level with the exception of arsenic which is likely to be naturally occurring.

PMP 414 (GV50) – The gate valve and concrete vault were removed and petroleum contaminated soil was found below the vault. A total of 20 cubic yards of contaminated soil was excavated and disposed of at OIT in North Pole, Alaska. Five (5) confirmation samples were collected from the floor of the excavation at 7 feet below the vault and from all sidewalls and analyzed for GRO, DRO, RRO, BTEX, PAHs and metals. Sample results were either non-detect or below their respective cleanup level with the exception of arsenic which is likely to be naturally occurring.

PMP 491.4 (GV 60) – The gate valve and concrete vault were removed and a test pit advanced below the valve location. Five (5) samples were collected from the floor of the test pit at 4 feet below the vault and from all sidewalls and analyzed for GRO, DRO, RRO, BTEX, PAHs and metals. Sample results were either non-detect or below their respective cleanup level with the exception of arsenic which is likely to be naturally occurring.

PMP 491.6 (GV 61) – The gate valve and concrete vault were removed and a test pit advanced below the valve location. Six (6) samples were collected at the floor of the test pit at 5 feet below the vault, from all sidewalls, and near the bleeder valve and analyzed for GRO, DRO, RRO, BTEX, PAHs and

metals. Sample results were either non-detect or below their respective cleanup level with the exception of arsenic in all samples and chromium in one (1) sample which are likely to be naturally occurring.

PMP 503 (GV62) – The gate valve and concrete vault were removed and a test pit advanced below the valve location. Petroleum hydrocarbon contaminated soil was discovered and a total of 20 cubic yards of contaminated soil was excavated and disposed of at OIT in North Pole, Alaska. Seven (7) samples were collected at the floor of the test pit at 6.5 feet below the vault, from all sidewalls, and near the bleeder valve and analyzed for GRO, DRO, RRO, BTEX, PAHs and metals. One (1) sample for DRO at the bleeder valve slightly exceeded the respective cleanup level with a result of 250 mg/kg. All other sample results were either non-detect or below their respective cleanup level with the exception of arsenic in all samples and chromium in one sample which are likely to be naturally occurring. Given the low concentration of this exceedence and its location at depth, the risk to human health or the environment is minimal.

PMP 541.7 (GV67) – The gate valve and concrete vault were removed and a test pit advanced below the valve location. Petroleum hydrocarbon contaminated soil was discovered and a total of 15 cubic yards of contaminated soil was excavated and disposed of at OIT in North Pole, Alaska. Six (6) samples were collected at the floor of the test pit at 5 feet below the vault and from all sidewalls and analyzed for GRO, DRO, RRO, BTEX, PAHs and metals. One sample for DRO from the excavation floor at 10 feet bgs slightly exceeded the respective cleanup level with a result of 640 mg/kg. All other sample results were either non-detect or below their respective cleanup level with the exception of arsenic in all samples which is likely to be naturally occurring. With sample results for DRO from the sidewalls below the cleanup level and the floor DRO concentration so low, there is likely only a small volume of contamination present and the risk to human health and the environment is minimal.

PMP 567 (GV68) – A large water-filled hole was found in the area of the former valve and vault where it was suspected that the valve had once been located and later removed and a soil pile was located next to the hole. Six (6) samples were collected from the soil pile and adjacent to the water-filled hole and analyzed for GRO, DRO, RRO, BTEX, PAHs and metals. Sample results were either non-detect or below their respective cleanup level with the exception of arsenic in all samples and chromium in five (5) samples which are likely to be naturally occurring.

PMP 585 (Release, Power Pole Auger Strike) – As the location of this release was not certain, a soil gas survey of 40 passive soil gas modules was initiated along a 750 foot expanse of the pipeline corridor. No soil gas samples showed sorbed masses of petroleum three (3) orders of magnitude greater than the detection limit indicating that soil in the area is not affected by petroleum hydrocarbons. No analytical samples were collected.

PMP 586.5 (GV70) – As the location of this gate valve was not certain, a soil gas survey of 20 passive soil gas modules was initiated along a 120 foot expanse of the pipeline corridor. Only one (1) soil gas sample showed a sorbed mass of petroleum three (3) orders of magnitude greater than the detection limit indicating that soil in the area had been affected by petroleum hydrocarbons. A test pit measuring 3-foot by 8-foot to a depth of 7 feet bgs was advanced in the location of the soil gas module and three (3) samples were collected and analyzed for GRO, DRO, RRO, BTEX, PAHs and metals. Sample results were either non-detect or below their respective cleanup level with the exception of arsenic in all samples and chromium in one (1) sample which are likely to be naturally occurring.

There were also eight (8) valves that could not be located in the field. No additional investigation and/or cleanup is required at these locations unless they are located in the future.

PMP 357 (GV 46);  
PMP 361 (CV 46c);  
PMP 414.5 (GV 51);  
PMP 420.25 (GV 53);  
PMP 458 (GV 57);  
PMP 503.5 (GV 63);  
PMP 541.5 (GV 66); and  
PMP 569.5 (CV 68c).

Please note that if in the future additional contamination is found to be present at any of the locations that may pose an unacceptable risk to human health, safety, welfare or the environment, it must be reported to the department and additional cleanup may be required.

If you have any questions about this determination, please do not hesitate to contact me at 766-3184.

Sincerely,



Anne Marie Palmieri  
Environmental Program Specialist

## Attachment 3

# STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION  
DIVISION OF SPILL PREVENTION AND RESPONSE  
CONTAMINATED SITES PROGRAM

Post Office Box 1542  
Haines, Alaska 99827  
PHONE: (907) 766-3184  
FAX: (907) 766-3185  
<http://www.state.ak.us/dec/home.htm>

September 29, 2010

Ms. Mary Jemin  
US Army Corps of Engineers  
PO Box 6898  
Elmendorf AFB, Alaska 99506-0898

Re: Site Investigation Report Approval  
Haines-Fairbanks Pipeline FUDS Project

Dear Ms. Jemin:

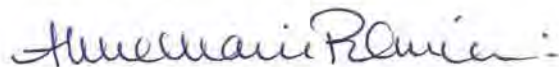
The Alaska Department of Environmental Conservation (DEC) has received and reviewed the *Final 2008 ROST Site Investigation Report* for the Haines-Fairbanks Pipeline FUDS project, prepared by the US Army Corps of Engineers (USACE) and dated March 2010.

This *Site Investigation Report* documents field activities conducted by the USACE in 2008 at fourteen separate areas of potential contamination along the Haines-Fairbanks Pipeline. Results from the 2008 field work as well as previous investigations leads to the conclusions that additional investigation or evaluation is needed at twelve of the areas, including Pipeline Mile Post (PMP) 585.50; PMP 569; PMP 558; PMP 544; PMP 475.25; PMP 458.75; PMP 449; PMP 420.25; PMP 399.5; PMP 383; PMP 343.9 and PMP 347. At two (2) areas, PMP 521 and PMP 511, no petroleum contamination was found to be present during either the 2007 or 2008 field activities. These two areas are considered to be non-qualifying as contaminated sites and DEC will require no further investigation or action unless new information becomes available in the future which indicates that contamination may be present.

The *Site Investigation Report* dated March 2010 satisfactorily addresses DEC comments made on the draft version. DEC hereby approves this report in accordance with Site Cleanup Rules of 18 Alaska Administrative Code (AAC) 75.325 - .990.

We look forward to continuing to work with you on this project. If you have any questions, please do not hesitate to contact me at 766-3184.

Sincerely,



Anne Marie Palmieri  
Environmental Specialist



**USACE Haines Fairbanks Pipeline Formerly Used Defense Sites (FUDS) -  
Site Visit (2012)**

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**FAIRBANKS ENVIRONMENTAL SERVICES**


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**TECHNICAL MEMORANDUM**


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DATE: August 28, 2012

TO: Beth Astley, U.S. Army Corps of Engineers  
Will Mangano, U.S. Army Corps of Engineers

FROM: Craig Martin, Fairbanks Environmental Services Inc.

RE: Site Visit – Haines Sites  
Haines-Fairbanks Pipeline Formerly Used Defense Site (FUDS)  
Contract W911KB-08-D-0003, Task Order 21  
FUDS Property # F10AK1016-01

This technical memorandum (TM) has been prepared to document a site visit that was made to several project sites near Haines, Alaska that are associated with the Haines-Fairbanks Pipeline (HFP) Formerly Used Defense Site (FUDS). The site visit was conducted on July 25 and July 26, 2012 to gather site information, evaluate site conditions, and determine potential investigation strategies. Four sites were included in the site visit and are referred to by the Pipeline Milepost (PMP). The four sites are PMP 1.9 (also known as the Young Road Site), PMP 17.7, PMP 19.5, and PMP 25.5 (also known as Gate Valve #4 {GV4}). The site visits were conducted jointly by Fairbanks Environmental Services (FES), U.S. Army Corps of Engineers (USACE), and Alaska Department of Transportation (ADOT) personnel (July 26 only).

Figures are attached to this technical memorandum showing each of the project areas. Figure 1 is a site map showing the relative locations of the four HFP project sites. Figures 2, 3, 4, and 5 show the PMP 1.9, PMP 17.7, PMP 19.5, and PMP 25.5 sites, respectively. Site photographs are presented in Attachment 1.

## **SITE VISIT SUMMARY**

### **July 25, 2012 Site Tour**

Beth Astley USACE Project Manager, Will Mangano USACE Project Engineer, and Craig Martin, FES Project Manager arrived in Haines on July 25, 2012. A quick site visit was made to identify each of the four project site locations. A global positioning system (GPS) was used to navigate to the site and previous sample locations.

- Mr. Mangano identified the approximate location (confirmed by the GPS) of the soil sample collected from the PMP 1.9 (Young Road site) that had elevated contaminant concentrations. A large tree located to the east of the proposed excavation area could be potentially undermined by the excavation and may need to be removed prior to excavation.

- The majority of the PMP 17.7 project area was covered by several feet of water. Based upon the field observations (and previous report descriptions) it does not appear possible to conduct an investigation using a drill rig except in areas immediately adjacent the highway and possibly along the trench mound. The polyvinyl chloride (PVC) pipe that was installed by DOWL in 2006 in a soil boring that reportedly contained fuel, could not be identified.
- The GPS was used to navigate to the approximate locations of previous soil sample points at the PMP 19.5 site. No indications of the sample locations (pin flags or bentonite) were identified. The presumed area of the fuel release is believed to be located on private property outside of the DOT right of way. Mr. Mangano indicated that there may be access problems for drilling on the private property. In lieu of drilling near the release area, an investigative strategy that would focus on the area downgradient of the fuel release area but within the DOT right of way was discussed.
- The Haines Borough office was visited to inquire about properties located in the vicinity of the project sites. In particular, plat maps were requested for the PMP 1.9 and PMP 19.5 properties. Dean Olsen, Assistant Assessor, was conferred with. Mr. Olsen provided a plat map (Stewart Subdivision Plat) of the PMP 19.5 area and indicated that Steve Rizinger, Planning & Zoning Technician, could be of further assistance. Mr. Rizinger was later met with on July 26 and indicated that the borough's GIS system was not highly accurate and may not be overly useful in determining property boundaries. Mr. Rizinger was asked whether the borough had a plat map of the water tank property (PMP 1.9). He indicated he would try to locate a map, however a map has not been received to date.

### **July 26, 2012 Site Visit with ADOT**

A site meeting was held with James Scholl, ADOT Environmental Impact Analyst, and Matt Van Alstine, ADOT Environmental Manager to discuss potential HFP impacts to the Haines Highway Improvements project. The PMP 1.9 site is not located along the highway and thus was not discussed with ADOT. The following summarizes the July 26 site visit.

- Mr. Scholl provided a briefing of the Haines Highway Improvements project. Mr. Scholl had a copy of the draft Environmental Assessment (dated March 2012) and provided the following insights regarding the highway project details in the HFP project areas:
  - PMP 25.5 – The highway is to be moved north and will overlie the location of GV4. This section of the highway improvements is planned to be constructed first, tentatively in 2014 (the remaining project elements are tentatively planned to occur between 2016 and 2018).
  - PMP 19.5 – The highway will be moved south (away from the PMP 19.5 project area). A mitigation plan for the current highway stream crossing (located east of the PMP 19.5 project area) is planned that will remove the road crossing culvert and restore the

- natural habitat of the stream.
  - PMP 17.7 – The highway will be widened in the project area. Mr. Scholl noted that this area was identified as a high value wetland by the highway project environmental assessment. Mr. Scholl indicated that there were several soil borings that had been drilled in the area during 2006 (borings complete by DOWL which identified fuel contamination). Mr. Scholl indicated that he could provide information regarding the borings (i.e. boring logs and survey coordinates).
  - Mr. Scholl indicated that ADOT could share information from the draft Environmental Assessment (currently in an internal review process) with USACE. Mr. Scholl also indicated that the property boundary information that ADOT collected from the project is likely more accurate/up-to-date than the Haines Borough.
- Mr. Scholl arranged for a meeting with utility representatives from Alaska Power & Telephone (APT) and the Inside Passage Electric Cooperative (IPEC) at the PMP 25.5 site. Dan Hanson & Steve Alcock from APT and Pete Bibb from IPEC were present. The utility representatives identified the various utilities that were located under the Wells Bridge and provided information regarding their location relative to the PMP 25.5 project area.
    - The power line (7,200 Kilovolt), which is the responsibility of IPEC, runs underground along the north side of the Haines Highway. Mr. Bibb had located the power line and marked its location in the vicinity of GV4. The power line runs along the north side and is within 10 feet of GV4.
    - A fiber optic line (responsibility of APT) runs overhead and along the north side of GV4 until it reaches pole approximately 100 feet east of GV4 where it goes underground and crosses the Haines Highway and continues underground on the south side of the Haines Highway.
    - A copper telephone bundle (responsibility of APT) exits the southeast end of the Wells Bridge and runs along the south side of the Haines Highway.
    - Mr. Bibb indicated that the power line was located within (inside) the HFP pipeline in the PMP 19.5 area (approximately 30 feet from the highway shoulder).
  - The PMP 19.5 site was visited with ADOT personnel. The HFP pipeline was presumably identified in an area near the stream culvert entrance, east of the PMP 19.5 site) using a metal detector that Mr. Scholl had brought. Mr. Scholl indicated that George Campbell, property owner across the highway from the PMP 19.5, may be a good resource for information regarding groundwater in the area.
  - The PMP 17.7 site was also briefly visited with ADOT personnel. The cause of the tree kill (particularly southwest of the Haines Highway) was discussed. Mr. Martin suggested that the tree kill may be the result of natural changes in the wetland causing flooding and subsequent tree kill instead of fuel contamination that was presumed by previous investigation reports. Mr. Scholl indicated that he did not believe that the wetland completely froze during the winter.

### **July 26, 2012 Meeting with PMP 1.9 Adjacent Property Owner**

Mr. Mangano and Mr. Martin met with Eli Fierer, who is the property owner along the north side of the PMP 1.9 site. Mr. Fierer was informed on the planned excavation project of the remaining contaminated soils at the PMP 1.9 site. Mr. Fierer indicated that he had no objections to the potential removal of a tree (not located on his property) located adjacent the proposed excavation area.

### **July 26, 2012 Site Mapping**

Following the July 26, 2012 site visit, Mr. Martin returned to the project sites to obtain GPS measurements of site features and take additional site photos and notes. The GPS measurements were used together with previous site mapping information to create Figures 2 through 5. Mr. Martin also unsuccessfully attempted to identify features (burn box and DOWL PVC pipe) at the PMP 17.7 site using the GPS based on digitized maps from previous reports (survey coordinates were not available). The pipeline trench and associated soil mound were identified along the east side of the site.

## **SCOPE OF WORK IMPACTS AND INVESTIGATION STRATEGY**

The site visit identified a number of concerns that will need to be considered during the remedial investigations. Some of these issues may require changes to the investigative strategy identified in the scope of work. In addition, the Haines Highway Environmental Assessment (dated March 2012) would be very helpful for the remedial investigations for the three sites located along the highway. ADOT indicated that they would share this information with USACE and the information was subsequently requested.

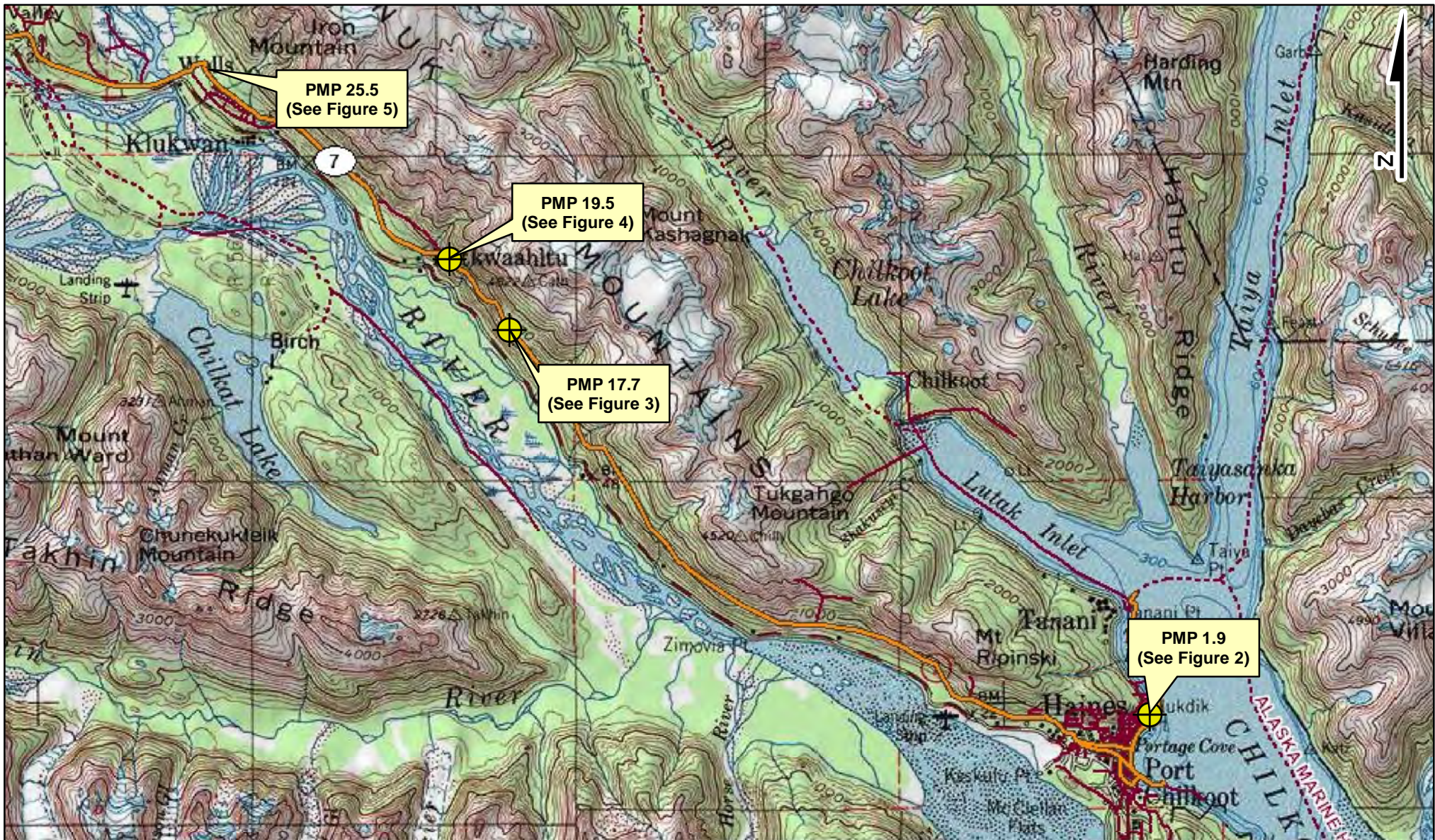
PMP 1.9 (Young Road) – The site visit identified one issue that may potentially impact the project scope of work. A large tree (see photo in Attachment 1) is located near (within 20 feet) of the excavation area. Depending upon the size of the excavation (how much contaminated soil is identified) it may be necessary to remove the tree. The Haines Borough would likely need to approve the tree removal.

PMP 17.7 – The presence of the wetland covering the project area creates significant challenges for the investigation and will require a different approach than identified in the project scope of work. Much of the site is covered by water that will prevent drill rig access. Potentially borings could be drilled along the highway; however a traffic control plan will likely be required. Borings could also potentially be drilled along the pipeline trench soil mound. The limited drilling program could be augmented by a sampling approach involving hand driven soil coring and surface water sampling. A request has been made to ADOT to acquire soil boring information in the area.

PMP 19.5 – Accurate determination of property boundaries and highway right of way will be important and this information has been requested from ADOT. Warning signs indicating power and telephone lines were observed along the presumed pipeline corridor. These utilities are assumed to be located within the pipeline at PMP 19.5 (as indicated by Mr. Bibb of IPEC), however this will need to be verified

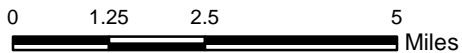
prior to site work.

PMP 25.5 (GV 4) – The proximity of an underground power line and the Haines Highway represent limitations to drilling at this site. However, a sampling approach can be developed that will enable a safe and adequate investigation of the GV4 area. Since highway construction activities in this area are planned for 2014, this site should receive priority.



**LEGEND:**

 SITES TO BE INVESTIGATED DURING 2012 / 2013



Fairbanks Environmental Services  
3538 International Street  
Fairbanks, AK 99701



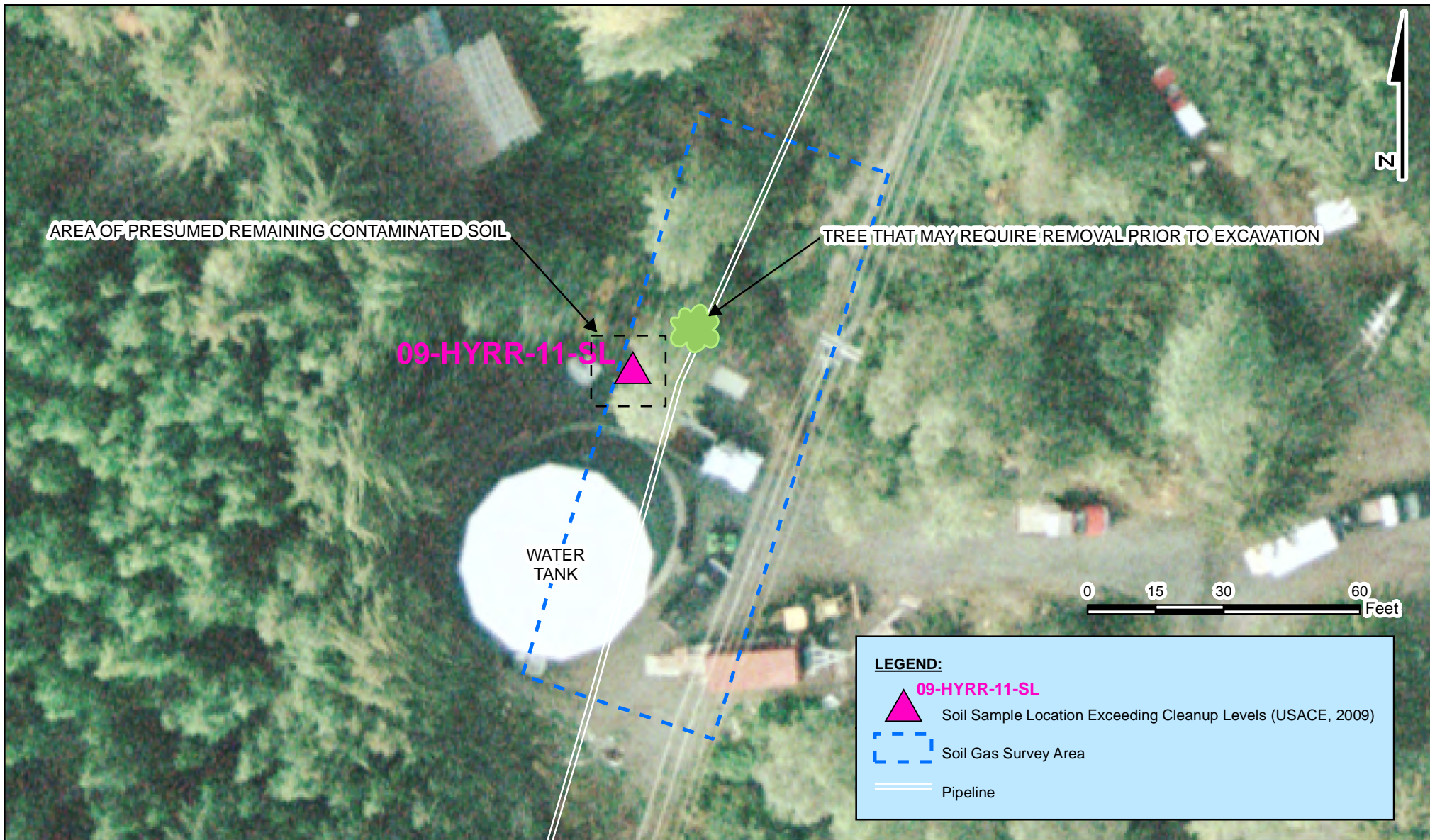
Alaska District  
U.S. Army Corps of Engineers  
Anchorage, AK

**Haines Area Site Map**  
2012 Work Plan  
Remedial Investigation  
Haines-Fairbanks Pipeline FUDs, Alaska  
Property #: F10AK1016-01

Contract: W911KB-08-D-0003, TO21

Figure: 1

Date: 8/12



**NOTES:**

1. Site features may have changed in the area surrounding water tank since the image was taken (no structures were present immediately surrounding water tank during July 2012 site visit)

2. Coordinate System - Projection: Alaska State Plane Zone 1 US Survey, feet; Datum: NAD83

**SOURCE:**

Imagery provided by Aero-Metric, 2011.

Fairbanks Environmental Services  
3538 International Street  
Fairbanks, AK 99701



Alaska District  
U.S. Army Corps of Engineers  
Anchorage, AK

**PMP 1.9 - Site Visit Observations**

2012 Work Plan  
Remedial Investigation  
Haines-Fairbanks Pipeline FUDs, Alaska  
Property #: F10AK1016-01

Contract: W911KB-08-D-0003, TO21

Figure: 2

Date: 8/12





**LEGEND:**

**SE08/SO07**

- Soil and Sediment Sample Locations (ENSR 2006)
- ▲ CH2M HILL Soil Gas Survey Transect Endpoints, 2007
- DOWL Soil Borings / Product Locations, 2006 (PVC Pipes Left in Place)
- Pipeline (Approximate)
- CH2M HILL Soil Gas Transect
- Approximate Location of Burn Box

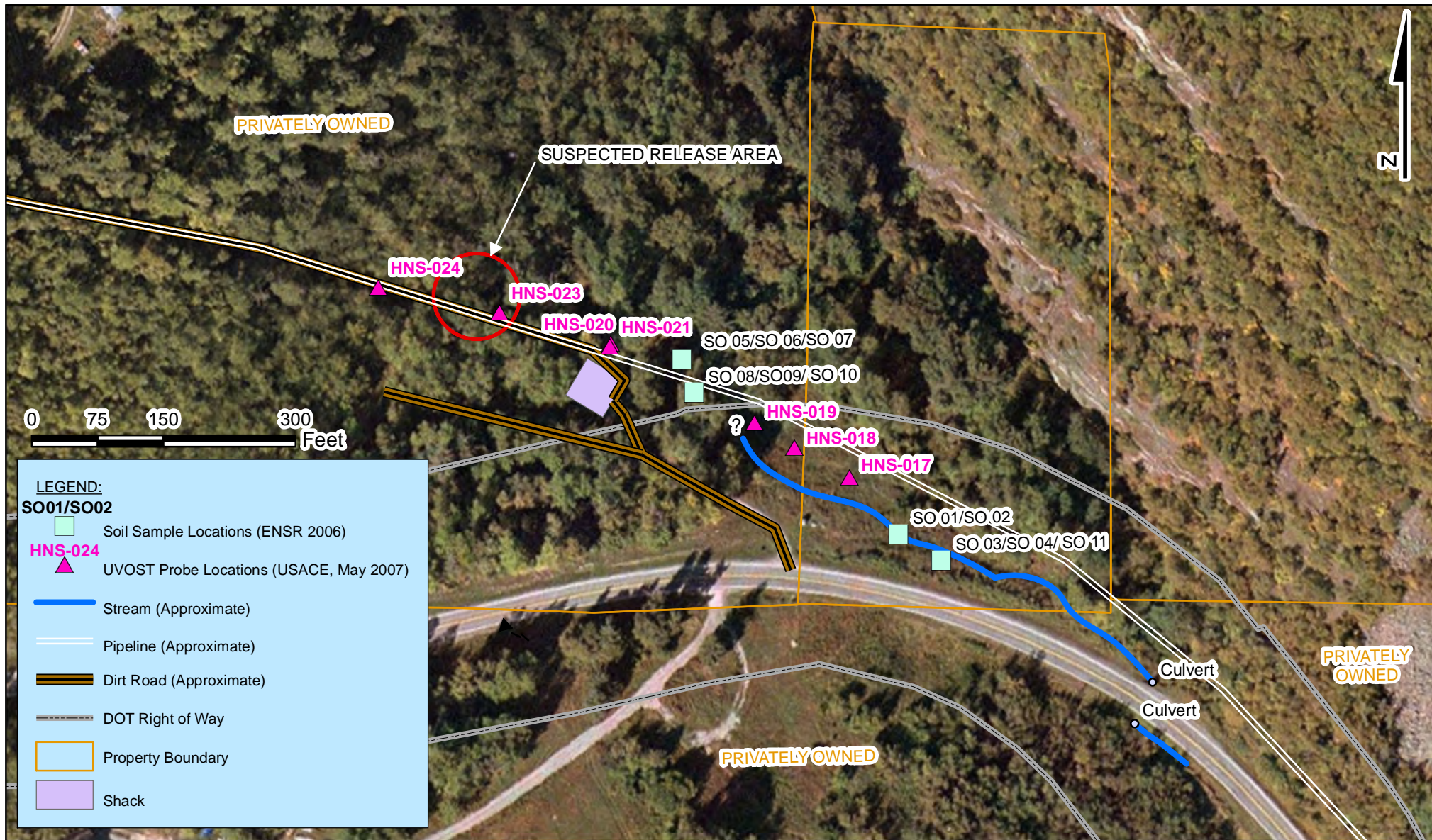
**NOTES:**

- The ENSR 2006 samples, DOWL 2006 soil borings, and pipeline are all digitized based on the aerial imagery and previous mapping (ENSR 2006, DOWL 2006)
- Burn Box and PVC Pipes were not identified during July 2012 site visit
- Coordinate System - Projection: UTM Zone 8N, feet; Datum: WGS84

**SOURCE:**

Imagery provided by Aero-Metric, 2004.

Fairbanks Environmental Services 3538 International Street Fairbanks, AK 99701		Alaska District U.S. Army Corps of Engineers Anchorage, AK
<b>PMP 17.7 - Site Visit Observations</b> 2012 Work Plan Remedial Investigation Haines-Fairbanks Pipeline FUDs, Alaska Property #: F10AK1016-01		
Contract: W911KB-08-D-0003, TO21	Figure: 3	Date: 8/12



Fairbanks Environmental Services  
3538 International Street  
Fairbanks, AK 99701



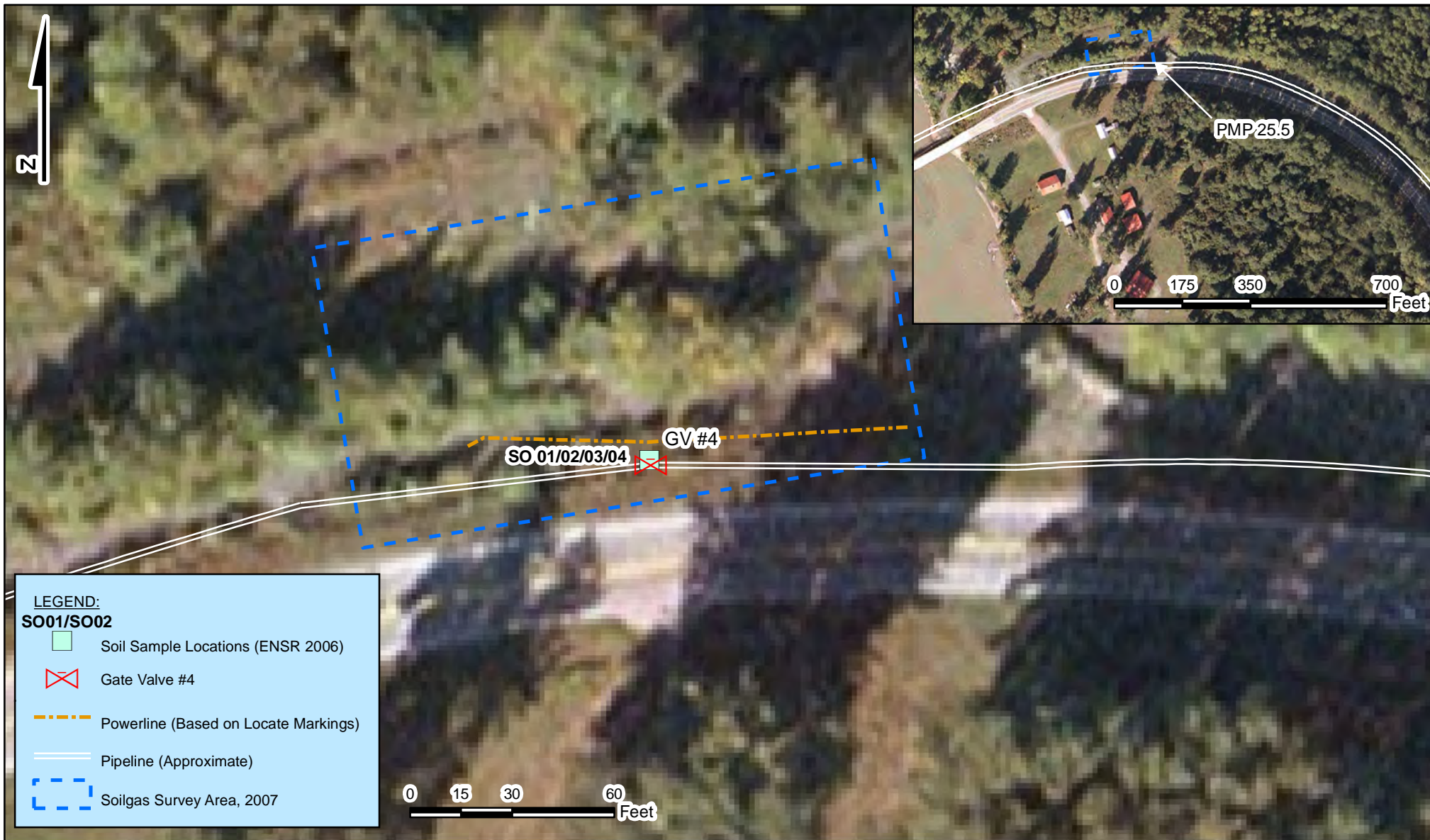
Alaska District  
U.S. Army Corps of Engineers  
Anchorage, AK

**PMP 19.5 - Site Visit Observations**  
2012 Work Plan  
Remedial Investigation  
Haines-Fairbanks Pipeline FUDs, Alaska  
Property #: F10AK1016-01

Contract: W911KB-08-D-0003, TO21






Figure: 4

Date: 8/12



**LEGEND:**

**SO01/SO02**

-  Soil Sample Locations (ENSR 2006)
-  Gate Valve #4
-  Powerline (Based on Locate Markings)
-  Pipeline (Approximate)
-  Soilgas Survey Area, 2007

**NOTES:**

1. Previous sample location are based on previous mapping (ENSR 2006)
2. Coordinate System - Projection: UTM Zone 8N, feet; Datum: WGS84

**SOURCE:**

Imagery provided by Aero-Metric, 2004.

Fairbanks Environmental Services  
3538 International Street  
Fairbanks, AK 99701



Alaska District  
U.S. Army Corps of Engineers  
Anchorage, AK

**PMP 25.5 - Site Visit Observations**  
2012 Work Plan  
Remedial Investigation  
Haines-Fairbanks Pipeline FUDs, Alaska  
Property #: F10AK1016-01

Contract: W911KB-08-D-0003, TO21

Figure: 5

Date: 8/12

**Attachment 1  
Haines Site Visit Photo Log**



**PMP 1.9 (Young Road Site) –Water Tank and Adjacent Soil Berm with Remaining Soil Contamination**



**PMP 1.9 (Young Road Site) –Tree that May Need to be Removed Prior to Excavation**



**PMP 17.7 – Wetland on East Side of Highway  
(Photo taken from Haines Highway Looking North)**



**PMP 17.7 – Wetland on East Side of Highway  
(Photo taken from Pipeline Trench Mound - Looking Northwest)**

*Attachment 1-2*



**PMP 17.7 – Tree Kill in Wetland on East Side of Highway  
(Photo taken from Haines Highway - Looking Southeast)**



**PMP 17.7 – Wetland on East Side of Highway in Vicinity of Burn Box  
(Photo taken from Haines Highway - Looking Northeast)**

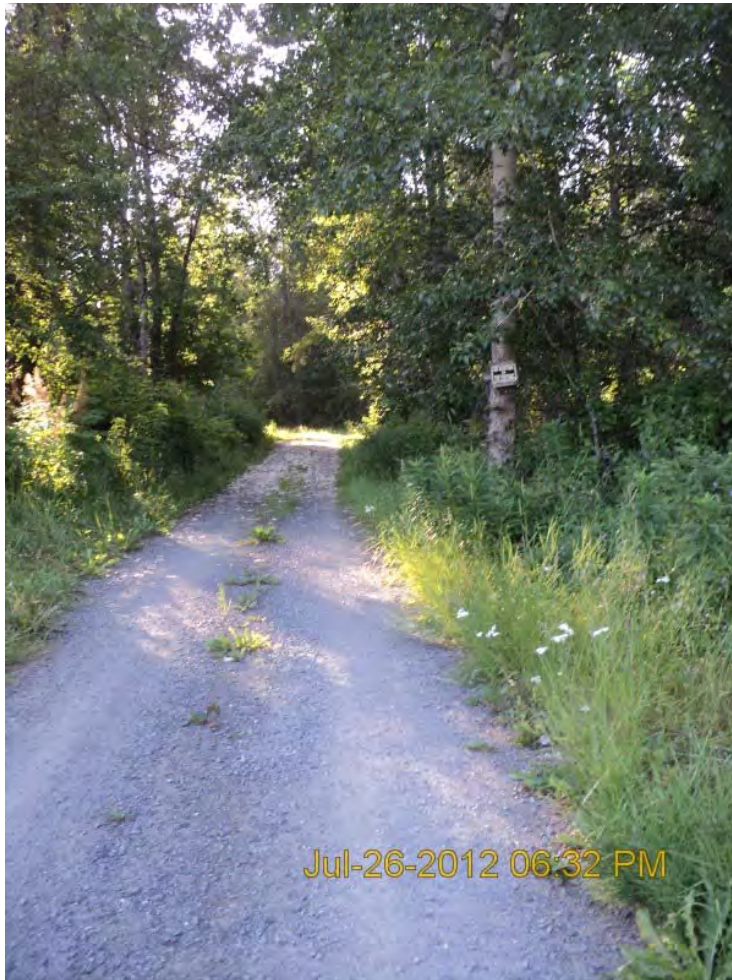


**PMP 17.7 – Pipeline Trench on East Side of Haines Highway  
(Photo Taken from Pipeline Mound – Looking North)**



**PMP 17.7 – Wetland on West Side of Haines Highway  
(Photo Taken from Haines Highway – Looking Southwest)**





**PMP 19.5 – Private Road that HFP Intersects and where Release is Believed to have Occurred (Photo Looking Northwest)**



**PMP 19.5 – Frontage along North Side of Haines Highway – Unnamed Stream Runs in Front of Tree Line (Photo Looking Northwest)**



**PMP 19.5– Utility Boxes Near Where Fuel Odors were Reportedly Identified  
(Photo Taken from along Haines Highway – Looking Northeast)**



**PMP 19.5 – Marker Identifying Power/Phone Line (believed to inside the HFP)  
(Photo Taken from near the Haines Highway – Looking West)**



**PMP 25.5 – View Inside Gate Valve 4**



**PMP 25.5 - East of GV4 on North Side of Haines Highway (Looking East)**

**USGS Geophysical Investigation of Haines Highway 7-Mile Dump (2012)**



United States Department of the Interior  
U. S. GEOLOGICAL SURVEY  
Crustal Geophysics and Geochemistry Science Center  
Box 25046, MS964  
Denver, Colorado 80225

From: Lyndsay Ball, Geophysicist  
U.S. Geological Survey, Denver, Colorado

To: Larry Beck, Environmental Protection Specialist  
Bureau of Land Management, Anchorage, Alaska

Cc: Jason Frels, Geologist  
Bureau of Land Management, Denver, Colorado

Subject: Summary of results from geophysical investigation of the Haines Highway 7-Mile Dump,  
August 2012, Haines, AK

The U.S. Geological Survey (USGS), in cooperation with the Bureau of Land Management (BLM), performed a surface geophysical investigation at the Haines 7-Mile Dump along the Haines Highway in southeast Alaska on August 7<sup>th</sup> and 8<sup>th</sup>, 2012. The investigation targeted an area previously identified by BLM as potentially contaminated with buried metallic debris, such as steel drums leaking asphalt (fig. 1). Multiple non-invasive surface geophysical methods were used to evaluate the lateral and possible vertical extent of buried metallic debris in the upper 15 m, including magnetic, electromagnetic (EM), and direct-current (DC) resistivity methods.

Magnetic and EM surveys were conducted to assess the lateral extent of metallic debris. Magnetic methods are well-suited to locating ferromagnetic metals (such as those containing iron). EM methods are able to detect the presence of both ferromagnetic and non-magnetic conductive metals. A Geophex GEM2 multi-frequency EM induction sensor was used to collect EM data; a Geometrics G858 gradiometer was used to collect magnetic data. Data for each method were collected in a sub-meter accuracy GPS-referenced grid format in areas free of heavy vegetation, with predominately east-to-west oriented lines spaced approximately 2-m apart. Three to four north-to-south oriented tie lines were also collected at variable spacing. Shrubs and trees covered much of the dump area and prevented regular access, particularly with the more cumbersome magnetic sensor. Efforts were made to access these areas where reasonable. EM and magnetic data were processed, gridded, and analyzed for strong gradients, resulting in maps that show the strong instrument responses likely caused by metallic debris (areas denoted by the white dashed line in fig. 1). The presence of surface debris during surveying (metallic cans, shell casings, a misplaced cathode-ray television, etc...) also influence the data. However, surface debris was observed to be relatively constant throughout the site, while the anomaly regions highlighted in fig. 1 are focused in particular regions. The stronger magnetic and EM response of these regions in comparison to site-wide background values may indicate larger or more concentrated metallic debris buried in the subsurface.

The DC resistivity method was used to evaluate the subsurface structure. The resistivity of geologic materials is controlled primarily by groundwater quality, water content (as controlled by porosity and degree of saturation), and the clay/mineral content of rocks and soils. If these properties

of the land-fill material significantly vary from those of the undisturbed geology, we may be able to estimate the depth of the fill material. Data were collected in one 2-D profile running south-to-north through the center of the dump area (fig. 1) using an Advanced Geosciences SuperSting R8 resistivity meter with 56 electrodes deployed at 1.5 m spacing. Data were processed and inverted with topographic correction, resulting in a cross section representing the resistivity structure of the subsurface (fig. 2).

The EM and magnetic data show fairly consistent anomaly regions (fig. 1). The southernmost anomaly area identified in the magnetic data (fig. 1a) is likely the result of buried utilities running along the highway, as indicated by the strong response in the 60-Hz powerline monitoring frequency of the EM data (pink and red areas in the inset of fig. 1b). These utilities also have a strong influence on the nearby EM data; consequently, the EM data south of the DC line may not reliably detect conductive metals here. The most prominent anomaly region is present along the southern portion of the DC line and extends both east and west across the accessible areas. The anomalies extend into the heavy shrubs, where old concrete pilings and other surface debris were also noted at the surface. Few major anomalies were identified with EM or magnetic methods in the central part of the dump area (fig. 1), likely indicating a general absence of large buried metallic debris; this area was also noted to be particularly sparse of vegetative ground cover (fig. 3). A couple of small, individual anomalies were seen in the EM data (fig. 1b) that are mostly beyond the region surveyed with magnetics. These are isolated, relatively low amplitude signals, but are still distinctive from the background signals and have therefore been highlighted in fig. 1. DC resistivity data show a shallow, strongly resistive layer that partly coincides with this low-anomaly region and is also well correlated with the sparse ground cover (red area in fig. 2c). The northern anomaly region contains more dispersed anomalies, particularly focused in the eastern side of the survey area. GPS-reception was not as strong in this northern part of the site, likely the result of the limited open sky created by the close tree canopy and the steep topography. The northern anomalies are therefore not as precisely positioned as those mapped in the southern half of the survey area. However, both EM and mag results clearly indicate the presence of significant anomalies in this northern area. These anomalies coincide with the northern portion of the high-resistivity area in the DC resistivity results (red area in fig. 2c).

The inverted DC resistivity section (fig. 2c) shows moderate- to high-resistivity surface layer (1200 to 4500 ohm-m, green to red areas) overlying a relatively flat-lying, less-resistive layer (700 to 1000 ohm-m, blue to cyan areas) (fig. 2c). Based on the river stage of the Chilkat River located immediately south of the road, I would expect the water table to lie near this layer contact (between 1 and 3 m depth). In my experience, the large contrast between the high and low resistivity layers is unlikely to be caused solely by the saturation change associated with water table, particularly when considering the consistently wet soil conditions that this area typically experiences. The interpretation of geophysical data is non-unique: different combinations of ground conditions can create the same geophysical signatures. As such, I've developed 2 different possible scenarios that highlight the likely causes of changing resistivity and consider the distribution of metallic anomalies identified in the EM and mag data:

- (1) A shallow dump area: The distinct high-resistivity (red) layer indicates a disturbed fill layer (typical thickness 2 to 2.5 m) overlying undisturbed geologic layers (blue and cyan). This possible fill layer likely extends with similar depth to the south where resistivity values become more moderate, correlating to the southern anomaly region identified in the EM and mag data. The change in resistivity likely indicates a change in soil texture/compaction or a change in water quality associated with the southern anomaly region. The less resistive (blue and cyan) layer below the possible fill layer may indicate undisturbed geology. The variability in resistivity of this layer may be caused by changes in lithology (such as the presence of

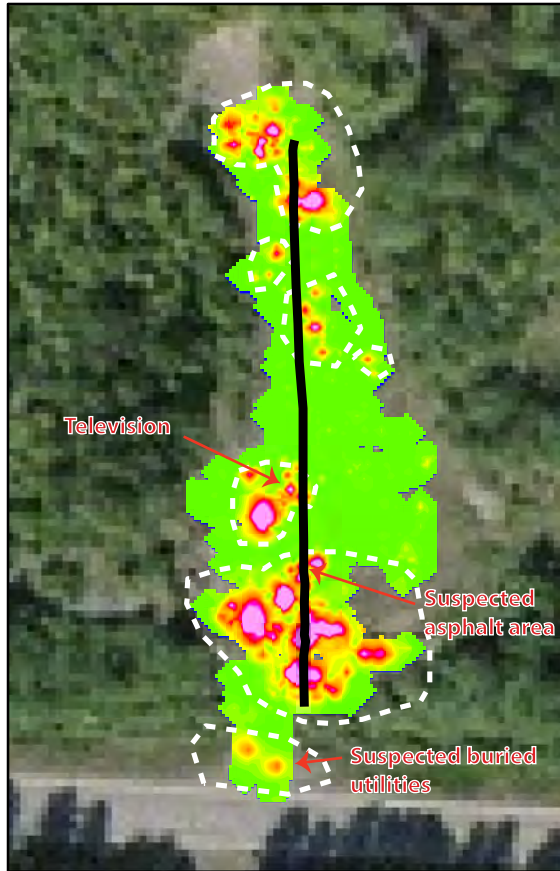
unconsolidated deposits overlying bedrock), the presence of fracture zones within bedrock, or mineralogical variability in the bedrock.

(2) A deeper dump area: The distinctively high-resistivity layer (red) indicates a compacted landfill cap that overlies a higher-porosity fill material (blue) extending to a depth of 7 m. This deeper fill area below the cap would likely be relatively free of metallic debris, as no major anomalies were identified with the mag or EM sensors. The lower resistivity of the southern anomaly region indicates that the cap is incomplete across the site and/or the water quality is substantially different near the anomaly region identified in the mag and EM data. This water quality change may extend below the cap to the north, accounting for the similarity in resistivity values to those below the southern anomaly region. The bedrock in this scenario would be the cyan material (1000 ohm-m) underlying the lower resistivity (700-800 ohm-m) saturated fill. The probable water table position (1 to 3 m depth) would suggest that, under scenario 2, the dump would have been dug as a pond and would have naturally filled with water or been pumped.

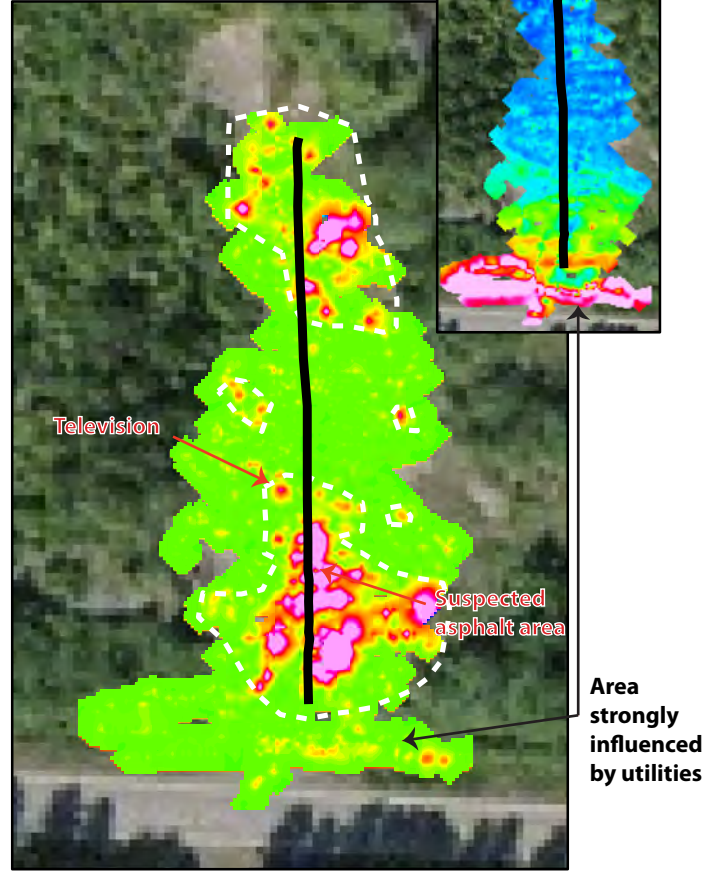
These scenarios are not intended to exhaust the possibilities, but to highlight the range of possibilities that honor the available data.

I hope this information is helpful in future management of the Haines 7-Mile Dump area. Please feel free to contact me by phone (303-236-0133) or e-mail ([lball@usgs.gov](mailto:lball@usgs.gov)) if you have questions or would like discuss these results. Thank you for your cooperation with this survey.

(a) Magnetic vertical gradient



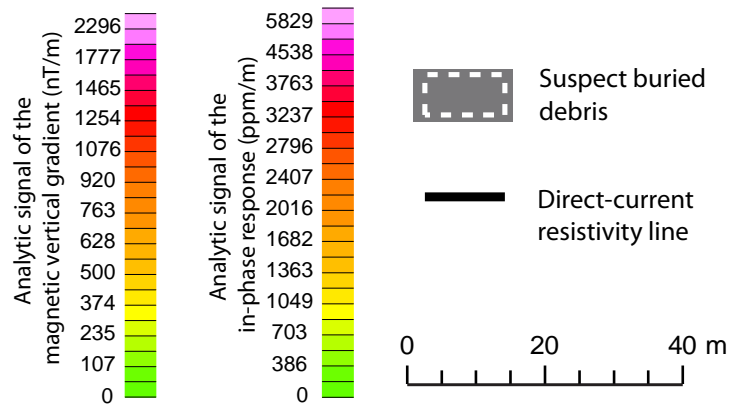
(b) Electromagnetic in-phase response at 23 kHz



(c) Summary of suspected debris areas



Explanation

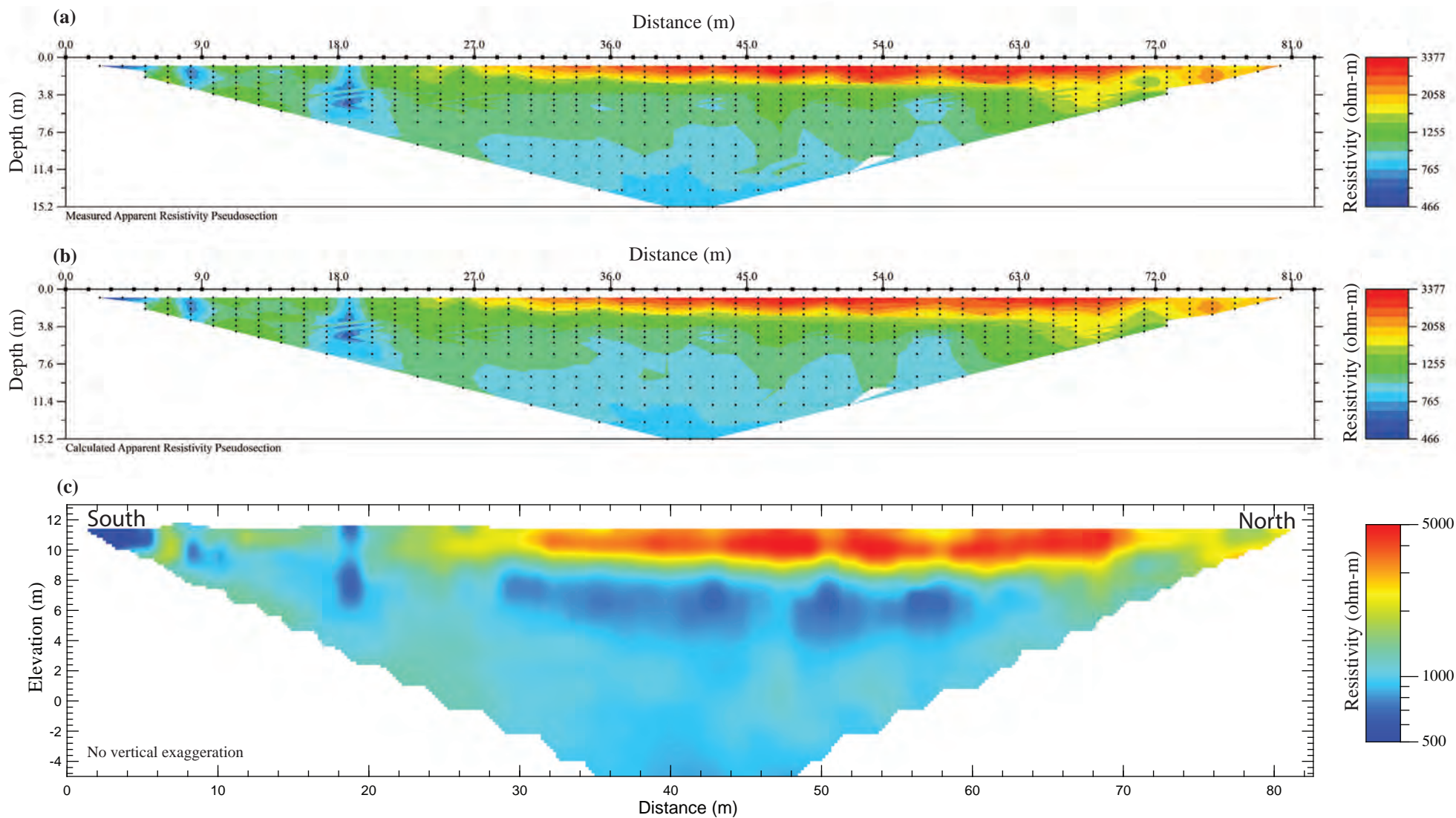


**Figure 1.** Results from surface geophysical surveys at the Haines 7-Mile Dump near Haines, Alaska. Maps show anomalies identified in the (a) magnetic vertical gradient and (b) electromagnetic in-phase response at 23 kHz with associated powerline monitoring data. Areas suspected to contain buried debris (white dashed lines) are summarized in (c).



PRELIMINARY DATA; SUBJECT TO REVISION





**Figure 2.** Results from direct-current resistivity surveys at the Haines 7-Mile Dump near Haines, Alaska. Sections show the (a) measured apparent resistivity, (b) calculated apparent resistivity resulting from the inverted model, and (c) the inverted model (root mean square error = 3.90%). The typical thickness of the high-resistivity layer at the surface is 2.0 to 2.5 m.

(a)



(b)



(c)



**Figure 3.** Photos showing the Haines 7-Mile Dump near Haines, Alaska. Photos taken looking (a) north along the direct-current resistivity line (indicated by pin flags) from the southern end of the dump area, (b) northeast from the middle of the dump area, and (c) south along the direct-current resistivity line from the middle of the dump area.

**Formerly Used Defense Sites (FUDS) Findings and Determination of Eligibility (2002)**

## ENCLOSURE 3

### DEFENSE ENVIRONMENTAL RESTORATION PROGRAM FORMERLY USED DEFENSE SITES FINDINGS AND DETERMINATION OF ELIGIBILITY

#### ALASKAN PETROLEUM PIPELINE SYSTEM HAINES-FAIRBANKS DIVISION, ALASKA

Property No. F10AK1016

#### FINDINGS OF FACT

1. The Alaskan Petroleum Pipeline System, Haines-Fairbanks Division, containing 2,404.34 acres, more or less, was acquired for the Department of the Army as described below. The tracts are listed in the order shown on the project real estate drawing, beginning at Haines, Alaska and running northwesterly 626 miles to Fairbanks, Alaska. See Attachment 1, Property Tract Descriptions (including acquisition and disposal history) for the Haines to Canadian Border and the Canadian-Alaska Border to Fairbanks.

2. The Haines-Fairbanks Pipeline facility was used by the U.S. Army from 1954 to 1973 to transport petroleum products from the deep-water port of Haines, in southeast Alaska, to Fort Wainwright, Eielson Air Force Base (AFB) and Fort Greely, north of the Alaska Range in interior Alaska. The 8-inch diameter pipeline extended 626 miles (300 miles in Canada and 326 miles in Alaska) from the Haines Terminal to the Fairbanks Terminal at Fort Wainwright. It was operated in two sections, Haines to Tok, and Tok to Fairbanks, with headquarters at Haines. Liquid fuels were delivered from ocean tankers into bulk storage tanks at Haines. The pipeline route followed the Haines Highway into Canada to Haines Junction, Yukon Territory (YT), then along the Alaska Highway via Tok, Big Delta, and Eielson AFB to its terminus at Fort Wainwright. The 300-mile Canadian portion was acquired and disposed of by the Government of Canada and is not a subject of this action. Field construction began in early 1954 and was essentially completed in October 1955. Improvements included administration and laboratory buildings, warehouses, machinery and equipment buildings, family housing, fuel storage tanks, pipe, roads, utilities, and miscellaneous structures. Pumping stations and supporting terminal bulk storage tanks and related facilities were located at Haines, Lakeview, Tok, Sears Creek, Big Delta (Fort Greely Take-off Station), Timber, Birch Lake, Eielson AFB and Fort Wainwright. The pipeline R/W was generally 25 feet wide on each side of centerline. Most of the pipeline was surface laid although the sections from the Haines Terminal to a point 42 miles northward, and from Big Delta to the Fairbanks Terminal (96 miles), were buried. Beginning at Haines Junction, YT, Canada, the Haines-Fairbanks Pipeline ran parallel to and replaced the Canol Project No. 4 Pipeline, which was constructed by the U.S. Army during World War II alongside the Alaska Highway from Whitehorse, YT, to Ladd Field (now Fort Wainwright).

3. By 1970, military requirements for petroleum products supplied through the Haines-Fairbanks Pipeline had declined. Liquid fuels were being moved north by rail and highway carriers from the Whittier-Anchorage POL complex. Due to corrosion and high operation

and maintenance costs, 432 miles of pipeline between Haines and Tok were deactivated in July 1971. The 167-mile portion between Tok and Eielson AFB was deactivated in September 1973, leaving only 27 miles between Eielson AFB and Fort Wainwright in service. The major portion of the pipeline system, beginning at the Haines Terminal and extending 599 miles to Eielson AFB, was declared excess by the Army on 24 August 1972. A preliminary Report of Excess was submitted to the General Services Administration (GSA) on 11 June 1973. The final Report of Excess was submitted on 21 November 1974. GSA accepted the pipeline system for disposal on 11 February 1975. A Notice of Intention to Relinquish (NOI) was submitted to BLM on 20 August 1973. Although the NOI specifically excluded the 44LD513 notation lands covering the major portion of the main 8-inch pipeline, BLM nevertheless terminated all rights held thereby and removed the notations from the public land records due to nonuse of the pipeline effective 10 May 1983. This left approximately 249 miles of pipeline without any land rights. By letter, dated 31 May 1983, Alaska District requested reconsideration of BLM's decision to terminate the 44LD513 notation reservation. BLM's response, dated 24 August 1983, stated "any rights under a 44LD513 notation were extinguished by the well documented act of discontinuing use of and need for the pipeline. Rights did not cease by an arbitrary administrative act. As confirmed by our Regional Solicitor's Office, 44LD513 rights can not now be re-established." The Haines and Tok terminals were withdrawn from excess status for possible fuel storage sites during the 1979-1981 energy crisis. GSA returned the Haines Terminal to Army control on 13 January 1981. The Tok Terminal and 15 easements covering the pipeline segment between the Tok Terminal and Eielson AFB (Tracts B-151E thru B-171E) were returned by GSA on 24 June 1983. By letter of 29 April 1982, GSA advised that they considered the 300-mile Alaska segment of the 8-inch pipeline to be undisposible and returned custody of the pipe to the Corps of Engineers (COE). GSA's letter further stated, "We assume that the COE has abandoned the pipeline in place." In 1984, the Tok Terminal was again reported excess to GSA. However, due to extensive hazardous waste (asbestos) and possible ground contamination from fuel and underground storage tanks, GSA returned the facility as undisposible by letter dated July 13, 1989. The Sears Creek Pumping Station was returned to the Army as undisposible by GSA letter, dated 24 January 1991. The Haines, Tok, and Fairbanks terminals remain under custody and accountability of U.S. Army Alaska.

### **DETERMINATION**

Based on the foregoing Findings of Fact, the major portion of the site identified above and described in Attachment 1 as disposed (1,806.41 acres), has been determined to be formerly used by the Department of Defense. It is therefore eligible for the Defense Environmental Restoration Program - Formerly Used Defense Sites (DERP-FUDS) established under 10 USC 2701 et seq. The balance (598.04 acres) remaining under Department of the Army accountability and/or responsibility, is eligible for the DERP - Installation Restoration Program (IRP).

22 July 2002  
DATE

Ronald L. Johnson  
RONALD L. JOHNSON  
Brigadier General, U.S. Army  
Commanding

# ATTACHMENT 1 PROPERTY TRACT DESCRIPTIONS

## 1. ACQUISITION HISTORY

### HAINES TO CANADIAN BORDER

- a.** Tract A, containing 25.0 acres, was withdrawn from the public domain by the Department of the Interior, Bureau of Land Management (BLM), by Public Land Order (PLO) 1032, dated 17 November 1954. Tract A was acquired for the Haines Terminal.
- b.** Tract A-101, containing 58.52 acres, was acquired from Perle B. Allen and Ella C. Allen by Declaration of Taking (D/T) filed in the U.S. District Court for the District of Alaska (court) on 16 March 1954. Tracts A-101 thru A-107 were acquired in fee simple title for the Haines Terminal.
- c.** Tract A-102, containing 56.54 acres, was acquired from Owen I. Lewis and Verlie B. Lewis by D/T filed in court 16 March 1954.
- d.** Tract A-103, containing 15.0 acres, was acquired from Carl Roberts and Frances Roberts by Warranty Deed dated 15 March 1954.
- e.** Tract A-104, containing 20.0 acres, was acquired from C. W. Nobling, Jr., by D/T filed in court 16 March 1954.
- f.** Tract A-105, containing 1.0 acre, was acquired from Joseph Verbeck by Warranty Deed dated 7 April 1954.
- g.** Tract A-106, containing 0.80 acre, was acquired from Anselm I. Johnson and Alice E. Johnson by D/T filed in court 16 March 1954.
- h.** Tract A-107, containing 26.45 acres, was acquired from Raymond R. Smith and Emma Smith by D/T filed in court 16 March 1954.
- i.** Tract A-111E, containing 2.04 acres, was acquired from Raymond R. Smith and Emma Smith by Easement Deed dated 11 June 1954 for Petroleum, Oil and Lubricants (POL) pipeline right-of-way (R/W).
- j.** Tract A-112E, containing 0.28 acre, was acquired from Edward C. Koenig, Jr., and Bonnie W. Koenig by Easement Deed dated 5 March 1954 for POL pipeline R/W.
- k.** Tract A-113E, containing 3.31 acres, was acquired from Clara B. Thulin and Hilda Thulin by Easement Deed dated 26 May 1954 for POL pipeline R/W.
- l.** Tract C-213E, containing 4.71 acres, was acquired from Clara B. Thulin by D/T filed in court 30 July 1955 for access road R/W.
- m.** Tract C-214E, containing 0.34 acre, was acquired from Edward C. Koenig, Jr., and Bonnie W. Koenig by Easement Deed dated 1 August 1955 for access road R/W.
- n.** Tract C-215E, containing 2.16 acres, was acquired from Raymond R. Smith and Emma Smith by Easement Deed dated 21 November 1955 for access road R/W.

- o.** Tract N, containing 5.37 acres, was reassigned from the Port of Haines Dry Cargo Dock Site on 30 August 1972. Portions were originally acquired by PLO 837 dated 19 June 1952 (1.30 acres), and by notation on the public land records under the principles of Decisions Relating to the Public Lands (“Land Decisions”), Volume 44, Page 513 (44LD513) notations A-028725 dated 8 December 1952 (1.52 acres), and AA-6274 dated 17 December 1971 (2.55 acres); for a waterline.
- p.** Tract B, containing 18.55 acres, was obtained from BLM by 44LD513 notation A-030236 dated 22 June 1955 for access road R/W.
- q.** Tract C, containing 44.85 acres, was obtained from BLM by 44LD513 notation A-023141 dated 3 February 1953, as amended 14 May 1954, for POL pipeline R/W.
- r.** Tract A-114E, containing 2.55 acres, was acquired from Frank R. Young and Mildred Young by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- s.** Tract A-137E, containing 0.23 acre, was acquired from Frank R. Young and Mildred Young by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- t.** Tract C-208E, containing 1.56 acres, was acquired from Cornelius F. Doody by Easement Deed dated 1 August 1955 for access road R/W.
- u.** Tract C-209E, containing 0.54 acre, was acquired from C. D. Norris and Lydia P. Norris by Easement Deed dated 2 August 1955 for access road R/W.
- v.** Tract C-210E, containing 1.01 acres, was acquired from Cornelius F. Doody by Easement Deed dated 1 August 1955 for access road R/W.
- w.** Tract C-211E, containing 0.68 acre, was acquired from Nellie Jackson Willard by D/T filed in court 30 July 1955 for a perpetual easement for access road R/W.
- x.** Tract C-212E, containing 3.54 acres, was acquired from Frank R. Young and Mildred Young by D/T filed in court 30 July 1955 for a perpetual easement for access road R/W.
- y.** Tract 139P, containing 2.95 acres, was acquired from the State of Alaska, Division of Lands, by Free Use Permit dated 30 December 1966 for gravel removal, as superseded by Free Use Permit dated 20 March 1968.
- z.** Tract A-115E, containing 0.59 acre, was acquired from Martin A. Cordes and Allie M. Cordes by Easement Deed dated 7 October 1954 for POL pipeline R/W.
- aa.** Tract A-116E, containing 0.52 acre, was acquired from Allan MacKenzie and Vera MacKenzie by Easement Deed dated 26 June 1954 for POL pipeline R/W.
- bb.** Tract A-117E, containing 1.95 acres, was acquired from Dorothy M. Fitzgerald by Easement Deed dated 22 June 1954 for POL pipeline R/W.
- cc.** Tract A-118E, containing 0.25 acre, was acquired from Ellen Allen M'Coy, et al, by Easement Deed dated 7 December 1955 for POL pipeline R/W.
- dd.** Tract A-119E, containing 1.03 acres, was acquired from P. B. Allen and Ella C. Allen by Easement dated 7 December 1955 for POL pipeline R/W.

- ee.** Tract A-120E, containing 0.53 acre, was acquired from Karl O. Comstock and Grace Comstock by Easement Deed dated 22 June 1954 for POL pipeline R/W.
- ff.** Tract A-121E, containing 0.35 acre, was acquired from Forest J. Nowell and Evelyn Nowell by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- gg.** Tract A-122E, containing 1.36 acres, was acquired from the Territory of Alaska and The Heirs of Charles H. Anway by D/T filed in court 11 February 1955 for a perpetual easement for POL pipeline R/W.
- hh.** Tract A-123E, containing 1.10 acres, was acquired from George Meacock and Mary Meacock by Easement Deed dated 17 September 1955 for POL pipeline R/W.
- ii.** Tract A-124E, containing 0.26 acre, was acquired from Fred McRae and Clara McRae by Easement Deed dated 27 September 1954 for POL pipeline R/W.
- jj.** Tract A-125E, containing 0.61 acre, was acquired from Vance W. Phillips and Gertrude Phillips by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- kk.** Tract C-201E, containing 0.07 acre, was acquired from Clarence Smith, Roy Smith, and Gideon Smith by D/T filed in court 30 July 1955 for a perpetual easement for access road R/W.
- ll.** Tract C-202E, containing 0.93 acre, was acquired from the Territory of Alaska by implied easement for access road R/W effective 26 July 1956.
- mm.** Tract C-203E, containing 0.19 acre, was acquired from P. B. Allen and Ella C. Allen by Easement Deed dated 26 September 1955 for access road R/W.
- nn.** Tract C-204E, containing 0.93 acre, was acquired from John W. Lane, Jr., and Lorene M. Lane by Easement Deed dated 26 July 1955 for access road R/W.
- oo.** Tract C-205L, containing 4.24 acres, was acquired from the Town of Haines by letter permit dated 12 July 1955 for access road R/W.
- pp.** Tract C-206E, containing 0.01 acre, was acquired from Catherine Polley by D/T filed in court 30 July 1955 for a perpetual easement for access road R/W.
- qq.** Tract C-207E, containing 0.11 acre, was acquired from I. B. Howser and Merle M. Howser by Easement Deed dated 18 July 1955 for access road R/W.
- rr.** Tract A-126E, containing 1.66 acres, was acquired from Clarence W. Mitchell and Lena Mitchell by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- ss.** Tract A-127E, containing 2.28 acres, was acquired from S. E. Ragan and Jeanette Ragan by Easement Deed dated 16 June 1954 for POL pipeline R/W.
- tt.** Tract A-128E, containing 1.07 acres, was acquired from Mary E. Brouillette, et al, by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- uu.** Tract A-138E, containing 1.72 acres, was acquired from Fred Brouillette and Helen Brouillette by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- vv.** Tract 140P, containing 171.45 acres, was acquired from the Bureau of Public Roads by letter of nonobjection dated 3 April 1957 for POL pipeline within Haines Highway R/W.



- ww.** Tract A-131E, containing 3.14 acres, was acquired from Daniel Katzeek and Margaret Katzeek by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- xx.** Tract A-132E, containing 2.30 acres, was acquired from Frank R. Young and Mildred Young by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- yy.** Tract A-133E, containing 1.10 acres, was acquired from Perle B. Allen and Ella C. Allen by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- zz.** Tract A-134E, containing 2.25 acres, was acquired from Forest H. Young and Retha Young by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- aaa.** Tract A-135E, containing 2.0 acres, was acquired from Mary Lee Williams Smith and Crawford D. Smith by D/T filed in court 6 November 1954 for a perpetual easement for POL pipeline R/W.
- bbb.** Tract A-136E, containing 1.35 acres, was acquired from P. B. Allen and Ella C. Allen by Easement Deed dated 7 December 1955 for POL pipeline R/W.

#### CANADIAN - ALASKA BORDER TO FAIRBANKS

- ccc.** Tract D, containing 1,481.04 acres, was obtained from BLM by 44LD513 notation F-010143 dated 22 January 1953, for POL pipeline R/W, as amended 1 June 1954, 20 August 1956, and 24 July 1974. A letter of nonobjection dated 9 May 1952 was received from the Alaska Road Commission for installation of pipeline in the outer 150 feet of those portions within the Alaska Highway R/W. Tract D included 38.03 acres within Eielson AFB, 21.32 acres within Fort Wainwright, and 15.50 acres within the Chena Flood Control Project.
- ddd.** Tract F (Lakeview, Sears Creek and Timber Pumping Stations), containing 40.21 acres, was withdrawn from the public domain by PLO 3689 dated 10 June 1965, superseding 44LD513 notation F-028316 dated 2 July 1962. Tract F consisted of Lakeview Pumping Station, 21.48 acres; Sears Creek Pumping Station, 11.24 acres; and Timber Pumping Station, 7.49 acres.
- eee.** Tract 142L, containing 0.06 acre within the Richardson Highway R/W, was acquired from the State of Alaska, Department of Public Works (DPW), by License dated 10 October 1962 for sewer line R/W from the Timber Pumping Station.
- fff.** Tract L, containing 30.99 acres located at the Tanacross Airport, was acquired from the Civil Aeronautics Administration by Permit dated 10 March 1954, as amended 1 July 1954, for a staging area.
- ggg.** Tract G (Tok Terminal/Pumping Station No. 3), containing 202.35 acres including 1.19 acres overlapping POL pipeline R/W within Tract D, was withdrawn from the public domain by PLO 1887 dated 26 June 1959, superseding PLO 1045 dated 28 December 1954, as amended by PLO 1068 dated 8 March 1955.
- hhh.** Tract H, containing 1.44 acres, was obtained from BLM by 44LD513 notation F-014492 dated 25 April 1957, as amended 3 July 1968, for access road R/W from the Alaska Highway to the Tok Terminal.

- iii.** Tract 141P, containing 0.21 acre within Alaska Highway R/W, was acquired from the Alaska Road Commission by Use Permit dated 17 September 1953 for ingress and egress to the Tract H access road.
- jjj.** Tract I, containing 0.45 acre, was obtained from BLM by 44LD513 notation F-028316 dated 2 July 1962, as amended 23 August 1962, for connecting the POL pipeline R/W to the Sears Creek Pumping Station.
- kkk.** Tract B-151E, containing 2.20 acres, was acquired from Kenneth E. Taylor by D/T filed in court 22 October 1954 for a perpetual easement for POL pipeline R/W.
- lll.** Tract B-152E, containing 1.84 acres, was acquired from John W. Snipes, Jr., by D/T filed in court 6 March 1956 for a perpetual easement for POL pipeline R/W.
- mmm.** Tract B-153E, containing 3.13 acres, was acquired from Henry Seibel and Elizabeth J. Seibel by Easement Deed dated 14 June 1954 for POL pipeline R/W.
- nnn.** Tract B-154E, containing 1.50 acres, was acquired from Ben F. Glover by Easement Deed dated 29 November 1954 for POL pipeline R/W.
- ooo.** Tract B-156E, containing 1.59 acres, was acquired from Russell A. Smetters by D/T filed in court 6 March 1956 for a perpetual easement for POL pipeline R/W. This tract was not used. It appears to have been erroneously described/located.
- ppp.** Tract B-156E-2, containing 2.81 acres owned by Russell A. Smetters, was used by implied easement for POL pipeline R/W effective 6 March 1956.
- qqq.** Tract B-157E, containing 3.03 acres, was acquired from Lewis E. Jahns and Margaret L. Jahns by Easement Deed dated 8 September 1953 for POL pipeline R/W.
- rrr.** Tract B-158E, containing 3.04 acres, was acquired from Henry A. Miller and Julia A. Miller by Easement Deed dated 7 January 1955 for POL pipeline R/W.
- sss.** Tract B-159E, containing 1.72 acres, was acquired from the Estate of J. W. McCluskey by D/T filed in court 22 October 1954 for a perpetual easement for POL pipeline R/W. This tract was not used. It appears to have been described/located erroneously.
- ttt.** Tract B-159E-2, containing 1.55 acres owned by the Estate of J. W. McCluskey, was used by implied easement for POL pipeline R/W effective 22 October 1954.
- uuu.** Tract B-160E, containing 1.87 acres, was acquired from the Estate of J. W. McCluskey by D/T filed in court 22 October 1954 for a perpetual easement for POL pipeline R/W. This tract was not used. It appears to have been described/located erroneously.
- vvv.** Tract B-160E-2, containing 2.18 acres owned by the Estate of J. W. McCluskey, was used by implied easement for POL pipeline R/W effective 22 October 1954.
- www.** Tract 143P, containing 3.48 acres, was acquired from the State of Alaska, DPW, by letter permit dated 4 December 1959, as amended 23 December 1959, for the proposed Birch Lake POL Storage Site. This tract was not used as it was determined unsuitable and an alternate site was selected.

**xxx.** Tract J, containing 5.73 acres, was obtained from BLM by 44LD513 notation F-024447 dated 27 June 1960, for connecting the pipeline to the proposed Birch Lake POL Storage Site. This tract was not used.

**yyy.** Tract K, containing 28.16 acres, was obtained from BLM by 44LD513 notation F-027397 dated 4 April 1962, effective 10 March 1961, for relocation of the Birch Lake POL Storage Site. Parcel 1 (10.0 acres) was used for the POL storage site and Parcel 2 (18.16 acres) for a 3-inch diameter pipeline extending from the main 8-inch pipeline to the storage site.

**zzz.** Tract B-162E, containing 1.52 acres, was acquired from Robert J. Wagers by D/T filed in court 15 December 1954 for a perpetual easement for POL pipeline R/W.

**aaaa.** Tract B-164E, containing 1.67 acres, was acquired from Delmer Elliott by Easement Deed dated 12 June 1954 for POL pipeline R/W.

**bbbb.** Tract B-167E, containing 0.63 acre, was acquired from Ollie J. Smithey and Eunice F. Smithey by Easement Deed dated 5 August 1955 for POL pipeline R/W, superseding Right-of-Entry dated 25 September 1953.

**cccc.** Tract B-168E, containing 2.28 acres, was acquired from the Estate of E. M. Jones by D/T filed in court 15 December 1954 for a perpetual easement for POL pipeline R/W.

**dddd.** Tract B-170E, containing 3.04 acres, was acquired from L. Moore Dean Canady by Easement Deed dated 12 June 1954 for POL pipeline R/W.

**eeee.** Tract B-171E, containing 3.04 acres, was acquired from Beverly J. Johnson (Mrs. Philip R. Johnson) by D/T filed in court 15 December 1954 for a perpetual easement for POL pipeline R/W.

**ffff.** Tract B-172E, containing 1.15 acres, was acquired from John I. Gilmore and Virginia A. Gilmore by Easement Deed dated 23 June 1954 for POL pipeline R/W.

**gggg.** Tract B-173E, containing 3.03 acres, was acquired from Milburn G. Bradway and Genevieve Bradway by D/T filed in court 19 December 1953 for a perpetual easement for POL pipeline R/W.

**hhhh.** Tract B-174E, containing 3.04 acres, was acquired from George F. Pomeroy and Luceta M. Pomeroy by Easement Deed dated 11 June 1954 for POL pipeline R/W.

**iiii.** Tract B-175E, containing 3.03 acres, was acquired from Kaiulani Marks, et al, by D/T filed in court 19 December 1953 for a perpetual easement for POL pipeline R/W.

**jjjj.** Tract B-176E, containing 0.69 acre, was acquired from Maurice L. Laurance by D/T filed in court 15 December 1954 for a perpetual easement for POL pipeline R/W.

**kkkk.** Tract B-177E, containing 1.52 acres, was acquired from Robert G. Miller by Easement Deed dated 12 June 1954 for POL pipeline R/W.

**llll.** Tract B-178E, containing 4.55 acres, was acquired from Jayson G. Buzby and Isabel C. Buzby by Easement Deed dated 12 June 1954 for POL pipeline R/W.

**mmmm.** Tract M, containing 51.24 acres within Alaska Railroad R/W, was acquired from The Alaska Railroad by Permit No. 14-04-003-603 dated 28 January 1954 for POL pipeline R/W, as superseded by Easement reserved by virtue of the Alaska Railroad Transfer Act of 1982, Public Law 97-468, effective 5 January 1985.

## 2. COMPLETED DISPOSALS AND STATUS OF REMAINING LANDS

### HAINES TO CANADIAN BORDER

Portions of the pipeline system were disposed of as follows:

Pipeline easements for 26 tracts were returned to the underlying landowners by GSA Release of Easement dated 4 April 1984, recorded in the Skagway Recording District on 17 April 1984 in Book 4, Pages 705 thru 712, and in the Haines Recording District on 24 April 1984 in Book 11, Pages 468 thru 475, as follows:

<u>Tract No.</u>	<u>Acres</u>
A-111E	2.04
A-112E	0.28
A-113E	3.31
A-114E	2.55
A-115E	0.59
A-116E	0.52
A-117E	1.95
A-118E	0.25
A-119E	1.03
A-120E	0.53
A-121E	0.35
A-122E	1.36
A-123E	1.10
A-124E	0.26
A-125E	0.61
A-126E	1.66
A-127E	2.28
A-128E	1.07
A-131E	3.14
A-132E	2.30
A-133E	1.10
A-134E	2.25
A-135E	2.00
A-136E	1.35
A-137E	0.23
A-138E	<u>1.72</u>
Total	35.83

Parcels comprising the Haines Terminal access road were conveyed to the State of Alaska, Department of Highways, now Department of Transportation and Public Facilities (DOT&PF), by Deed dated 7 October 1964 from the U.S. Department of Commerce, Bureau of Public Roads (BPR), now Federal Highway Administration, for public highway purposes. Said deed was recorded on 15 November 1964 in Deed Book 8, Page 1, Haines Recording District, covering lands as follows:

<u>Tract No.</u>	<u>Acres</u>	<u>Tract No.</u>	<u>Acres</u>
C-201E	0.07	C-212E	3.54
C-203E	0.19	C-213E	4.71
C-204E	0.93	C-214E	0.34
C-205L	4.24	C-215E	2.16
C-206E	0.01	B	18.55
*C-207E	0.11	A-101 (portion)	3.50
C-208E	1.56	A-102 (portion)	2.50
C-209E	0.54	A-107 (portion)	<u>1.30</u>
C-210E	1.01		
C-211E	0.68	Total	45.94

\*Reacquired as Tract C-217E by Notice of reversionary interest issued by the State of Alaska, Department of Highways, recorded 4 May 1970 in Deed Book 10, Page 289, Haines Recording District. Said notice reverted the property to the control of the Department of the Army as it was no longer needed for highway purposes.

Additional disposals from Haines to the Canadian border were as follows:

<u>Tract No.</u>	<u>Acres</u>	<u>Interest</u>
C	44.85	44LD513 notation terminated effective 10 May 83.
C-202E	0.93	Implied easement terminated 7 Oct 64.
139P	2.95	Free use permit expired 20 Mar 70.
140P	<u>171.45</u>	Nonobjection terminated effective 10 May 83.
Total	220.18	

### **Summary Disposal - Haines to Canadian Border Portion**

<u>Acres</u>	
35.83	Returned to underlying landowners
45.94	Conveyed to State of Alaska, Department of Highways
<u>220.18</u>	Other disposals
<b>301.95</b>	<b>Total disposed - Haines to Canadian border</b>

Portions remaining under Department of the Army accountability at Haines are as follows:

<u>Tract No.</u>	<u>Acres</u>	<u>Interest</u>
A	25.00	PLO 1032
A-101	55.02	Fee - Condemnation
A-102	54.04	Fee - Condemnation
A-103	15.00	Fee - Warranty Deed
A-104	20.00	Fee - Condemnation
A-105	1.00	Fee - Warranty Deed
A-106	0.80	Fee - Condemnation
A-107	25.15	Fee - Condemnation
*C-217E	0.11	R/W Easement Deed
**N	<u>5.37</u>	PLO 837 (Lot 11) and 44LD513 notation
Total	201.49	

\*Disposed Tract C-207E reacquired as Tract C-217E by Notice of reversionary interest recorded 4 May 1970.

\*\*Title to Lot 11 (1.30 acres) clouded by a "wild deed" inadvertently issued by the Haines Borough. Warranty Deed executed 3 June 1975 by the Haines Borough to Erwin N. Hertz and Albert E. Schafer, recorded 10 May 1984 in Book 11, Page 506, Haines Recording District. The Haines Borough was the former owner of adjacent Lots 9 and 10, which were conveyed by the Borough to Messrs. Hertz and Schafer in 1973. By letter dated 1 July 1992, the Borough requested transfer of Lot 11 to the Borough explaining as follows: "The Haines Borough sold two lots between the Haines Tank Farm and the State ferry terminal in 1973. In 1975 the buyers came back to the Borough and asked for an additional two acres because of a discrepancy in the acreage on the deed and a recent survey." A subsequent title search revealed that the Army still held title to this property, resulting in the Borough's request for transfer.

### CANADIAN - ALASKA BORDER TO FAIRBANKS

Portions were disposed of as follows:

<u>Tract No.</u>	<u>Acres</u>	<u>Description/Interest</u>
D (portion)	1,406.19	44LD513 notation removed from public land records by BLM effective 10 May 83. Portions were conveyed to the State of Alaska and certain Native corporations.
F (portion)	21.48	Lakeview Pumping Station: 3.20 acres conveyed to the State of Alaska, DOT&PF, for highway purposes by Federal Highway Administration Deed dated 27 Aug 84. Balance transferred/reverted to the Tetlin National Wildlife Refuge under U.S. Fish and Wildlife Service jurisdiction. PLO 3689 partially revoked by PLO 7182.

F (portion)	0.43	Sears Creek Pumping Station, acquired as 11.24 acres per PLO 3689, was conformed to survey as 10.81 acres per U.S. Survey 4359, 14 Sep 66, thus effectively disposing of 0.43 acre within Alaska Highway R/W.
F (portion)	7.49	Timber Pumping Station: 7.17 acres (per U.S. Survey 5000) conveyed to State of Alaska, DNR, by Patent No. 50-87-0265 dated 11 Aug 87. PLO 3689 partially revoked by PLO 6590, 7 Mar 85.
142L	0.06	Timber Pumping Station: License for sewer line from State of Alaska terminated effective 11 Aug 87.
L	30.99	Permit for staging area at Tanacross Airport relinquished to the CAA (now FAA) 4 Nov 57.
I	0.45	44LD513 notation for connection to Sears Creek Pumping Station terminated 31 Jul 87.
143P	3.48	Letter permit for proposed Birch Lake POL Storage Site terminated 31 Mar 61. Not used.
J	5.73	44LD513 notation for connection to proposed Birch Lake POL Storage Site cancelled 14 Mar 61. Not used.
K	28.16	Birch Lake POL Storage Site: 44LD513 notation terminated 23 Jan 79.

Total                    1,504.46

Acres

**1,504.46 Total disposed - Alaska-Canadian border to Fairbanks**

Portions remaining under Department of the Army accountability and/or responsibility at Tok and Sears Creek, and from Big Delta to Fairbanks, are as follows:

Tract No.	Acres	Description/Interest
G	202.35	Tok Terminal: PLO 1887.
H	1.44	44LD513 notation for access road R/W to Tok Terminal.
141P	0.21	Driveway permit for ingress and egress from Alaska Highway to Tract H access road.
F (portion)	10.81	Sears Creek Pumping Station: PLO 3689. Returned by GSA as undisposable 24 Jan 91. Acquired as 11.24 acres per PLO, now 10.81 acres per U.S. Survey 4359.
B-151E	2.20	Perpetual R/W Easement - Condemnation.
B-152E	1.84	Perpetual R/W Easement - Condemnation.
B-153E	3.13	R/W Easement Deed.
B-154E	1.50	R/W Easement Deed.
B-156E	1.59	Perpetual R/W Easement - Condemnation. Not used.
B-156E-2	2.81	Used by implied R/W easement in place of B-156E.
B-157E	3.03	R/W Easement Deed.
B-158E	3.04	R/W Easement Deed.
B-159E	1.72	Perpetual R/W Easement - Condemnation. Not used.
B-159E-2	1.55	Used by implied R/W easement in place of B-159E.
B-160E	1.87	Perpetual R/W Easement - Condemnation. Not used.
B-160E-2	2.18	Used by implied R/W easement in place of B-160E.
B-162E	1.52	Perpetual R/W Easement - Condemnation.
B-164E	1.67	R/W Easement Deed.
B-167E	0.63	R/W Easement Deed.
B-168E	2.28	Perpetual R/W Easement - Condemnation.
B-170E	3.04	R/W Easement Deed.
B-171E	3.04	Perpetual R/W Easement - Condemnation.
D (portion)	38.03	Pipeline R/W within Eielson AFB military reservation.
D (portion)	15.50	Pipeline R/W within Chena Flood Control Project.
D (portion)	21.32	Pipeline R/W within Fort Wainwright military reservation.
M	51.24	Easement for pipeline R/W within Alaska Railroad R/W as reserved by virtue of the Alaska Railroad Transfer Act.
B-172E	1.15	R/W Easement Deed.
B-173E	3.03	Perpetual R/W Easement - Condemnation.
B-174E	3.04	R/W Easement Deed.
B-175E	3.03	Perpetual R/W Easement - Condemnation.



B-176E	0.69	Perpetual R/W Easement - Condemnation.
B-177E	1.52	R/W Easement Deed.
B-178E	4.55	R/W Easement Deed.
Total	<u>396.55</u>	

**Recap:**

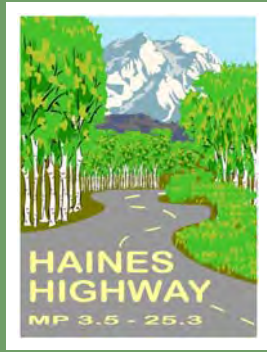
**Disposed**

<u>Acres</u>	
301.95	Haines to Canadian border
<u>1,504.46</u>	Canada-Alaska border to Fairbanks
1,806.41	Total

**Remaining Under Army Accountability**

201.49	Haines Terminal and ancillary
<u>396.55</u>	Tok to Fairbanks
598.04	Total
1,806.41	Total Disposed
<u>598.04</u>	Total Remaining
2,404.45	Grand Total
<u>2,404.34</u>	Total Acquired
0.11	Difference: Disposed Tract C-207E reacquired as Tract C-217E

**DOWL Engineers Phase I Environmental Site Assessment  
(March 2006)**



# HAINES HIGHWAY

MILEPOST 3.5-25.3

## PHASE I

ENVIRONMENTAL SITE ASSESSMENT

MARCH 2006

DOT&PF PROJECT NO. 68606  
HAINES, ALASKA



**PHASE I**  
**ENVIRONMENTAL SITE ASSESSMENT**  
**HAINES HIGHWAY – MP 3.5 TO MP 25.3**  
**HAINES, ALASKA**  
**DOT&PF Project No. 68606**

**Prepared on behalf of:**

State of Alaska  
Department of Transportation and Public Facilities, Southeast Region  
6860 Glacier Highway  
P.O. Box 112506  
Juneau, Alaska 99811-2506

**Prepared by:**

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March 2006

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## ACRONYMS

ADEC.....	Alaska Department of Environmental Conservation
AST.....	Aboveground Storage Tank
ASTM.....	American Society for Testing and Materials
CERCLIS.....	Comprehensive Environmental Response, Compensation and Liability Information System
Client.....	DOT&PF, Southeast Region
DOT&PF.....	State of Alaska, Department of Transportation and Public Facilities
DOWL.....	DOWL Engineers
DRO.....	Diesel Range Organics
EPA.....	Environmental Protection Agency
ERNS.....	Emergency Response Notification System Spill Reports
ESA.....	Environmental Site Assessment
FRS.....	Facility Registry System
FUDS.....	formerly used defense site
HMIRS.....	Hazardous Materials Information Resource System
LUST.....	Leaking Underground Storage Tank
MP.....	Mile Post
NPDES.....	National Pollutant Discharge Elimination System
RCRA.....	Resource Conservation and Recovery Act
RCRIS.....	Resource Conservation and Recovery Information System
Report.....	This ESA Report
SPILLS.....	Alaska Department of Environmental Conservation Spills Database
SWF.....	Solid Waste Facilities
USACE.....	U.S. Army Corps of Engineers
UST.....	Underground Storage Tank

## **1.0 INTRODUCTION**

This report presents the results of a Phase I Environmental Site Assessment (ESA) of the Haines Highway, Mile Post (MP) 3.5 to MP 25.3 (the Property, Figure 1). The Property is a nearly 22-mile corridor, approximately 300 feet wide and approximately 800 acres. The Property's southern end is located outside the town of Haines and adjacent to the Haines Airport as shown on the Location and Vicinity Map (Figure 1). The complete legal description of the Property is included in Appendix A. In September 2005, DOWL Engineers (DOWL) performed the ESA for the State of Alaska Department of Transportation and Public Facilities (DOT&PF) Southeast Region (the Client). The ESA services included the limited research and data reviews specified herein and a site reconnaissance. The purpose of conducting the ESA was to estimate the potential, as of the date of the assessment, for hazardous substances to be present on the Property at levels likely to warrant mitigation under the current State of Alaska environmental laws and regulations.

This ESA report (the Report), which includes all of the supporting information gathered for purposes of the ESA, was prepared for the benefit of Client. Client may also distribute the Report to third parties, who may then use it at their discretion. However, any reliance upon the Report by a party other than Client shall be solely at the risk of such third party and without legal recourse against DOWL. Any third party that does not agree to the conditions in this paragraph shall not use the Report.

## **2.0 SCOPE OF ENVIRONMENTAL SITE ASSESSMENT (ESA) SERVICES**

An ESA comprises a number of individual elements whose basic nature and extent are determined in accordance with the standard of care for ESAs. The standard of care is commonly defined as the care applied by the ordinary practitioner in the area where the ESA was performed. We believe that we have complied with the applicable standard of care in performing this ESA.

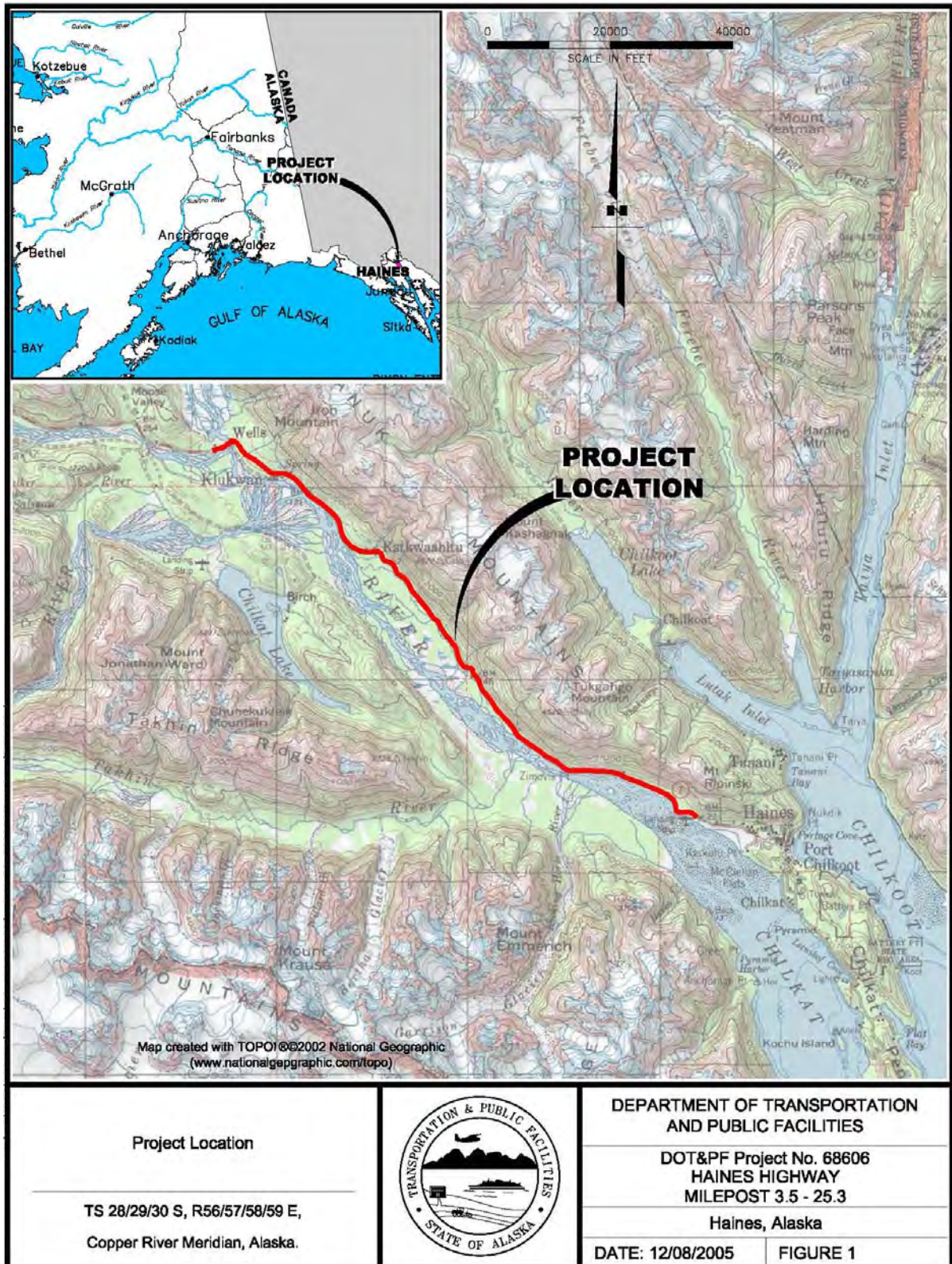


Figure 1: Vicinity and Location Map



Under the scope of work, the activities performed to obtain information about the Property included the following:

- A review of historical aerial photographs spanning the years 1950, 1961, 1978, and 2004.
- A Site Reconnaissance of the Property by DOWL's personnel on September 15, 2005.
- An interview with two individual(s) having personal knowledge of past activities on the Property extending back through 1995.
- A review of data obtained from a search of Federal databases, which includes information from the Environmental Protection Agency (EPA); EPA Facility Registry System (FRS); Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List; Emergency Response Notification System (ERNS) Spill Reports List; and the Resource Conservation and Recovery Information System (RCRIS) List for information about nearby sites operating under federal regulations or approved state regulations.
- A review of data obtained from a search of State and Local databases, which includes information from the Alaska Department of Environmental Conservation (ADEC) Contaminated Sites Database, Solid Waste Facilities (SWF), Leaking Underground Storage Tank (LUST) Database, the Underground Storage Tank (UST) Database, the Regulated Aboveground Storage Tank (AST) List and the ADEC Spills Database (SPILLS).

The report meets the government records search requirements for American Society for Testing and Materials (ASTM) Standard Practice for Environmental Sites Assessments, E1527-00.

Although the scope of this work included searching the above governmental databases for indications of nearby properties documented under these systems, it did not include reviews

of the individual files for these entries. No other environmental sampling or research work was included in the ESA activities unless it was specifically referenced in this report.

The findings and considerations presented in Section 8 of this report are based solely upon the information obtained during the ESA. Further, the conclusions include our assessment of the potential for the Property to have been environmentally impacted from past activities on or near the Property. Although the findings and considerations represent our best judgment, they do not represent a *certification* of the environmental status of the Property.

Current conditions and information observed by DOWL during these activities are subject to change. Indicators of the presence of hazardous materials that were latent at the time of this ESA may subsequently become observable. In a similar manner, records or other information sources that DOWL did not review, because the research effort commonly associated with an ESA did not indicate their existence, may contain important information that could not have been considered in the formulation of DOWL's conclusions. Information and representations obtained from individuals interviewed for this report were relied on unless incidents of conflicting data were noted. DOWL accepts no responsibility for inaccuracies or deficiencies in this report resulting from omissions or misrepresentations by the persons interviewed.

### **3.0 INVESTIGATION OF HISTORICAL BACKGROUND**

#### **3.1 Recorded Documents**

Ordinarily a summary of the Deed History would be presented in this section; however, it was determined that a Deed History for the Property was not necessary because the Property's use has been documented since the Property's original date of construction and is known by the Client.

#### **3.2 Aerial Photography**

Prints of 42 aerial photographs of the site and its vicinity were reviewed on October 21, 2005; aerial photographs of the site and its vicinity were obtained from AeroMap U.S., Inc., Anchorage, Alaska. The 48 prints purchased to complete the photographic review will be

retained in DOWL's archived files. Additionally, an aerial provided by the Client from 2004 was reviewed for current conditions. The photographs were taken in 1950, 1961, and 1978. The photographs were examined for indications of the types of land use and surface activities that were present on the Property and on adjacent parcels during those periods. Summary review comments follow. Additional comments are included in Appendix B.2

The photograph reviews indicated that the Property was already developed in 1950. Private homes and other adjacent properties were undeveloped and appeared to be in their natural state, with the exception of several material sites.

Beginning between the 1950 and 1961 photographs, the town of Haines developed substantially. Between 1950 and 1961, a material site on the mountainside of the highway existed with buildings or trailers on the riverside of the highway, but by 1978, these buildings were completely gone.

The 1961 photograph shows the Chilkat River has moved toward the airport runway and by 1978, the river is adjacent the runway. Since 1978, an earthen berm was constructed to protect the runway.

#### **4.0 AGENCY FILE REVIEWS**

The following sources and records were reviewed for information about releases near the Property.

##### **4.1 Federal Records**

EPA FRS Query dated October 21, 2005 - The EPA FRS is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. The FRS provides access to a single integrated source of comprehensive (air, water, and waste) environmental information about facilities, sites or places. The FRS disclosed that there were 26 sites listed within the Haines zip code. Of these, one is located adjacent to the Property:

1. Southeast Roadbuilders, Inc., Database: Aerometric Information Retrieval System Registry, which is used to track emissions and compliance data from industrial plants. ID: 110007236641. AFS Plant #00015.

Resource Conservation and Recovery Act (RCRA) Information Query dated October 21, 2005 - A listing under the RCRIS category alone indicates that the addressee has reported that they generate, handle, or transport regulated substances but does not necessarily mean that these substances have been released. These sites are listed under the EPA Region 10 Report of RCRA Handlers. One site is listed and is described above for an EPA air permit.

CERCLIS dated October 21, 2005 - A listing under this category indicates it is a site where releases were reported and subsequent investigations may have been performed. There is one site shown under the CERCLIS category potentially adjacent to the Property.

1. The Haines-to-Fairbanks Pipeline - within the Property; CERCLIS ID# AKN001002523.

The pipeline is listed on the CERCLIS database, but is not a Superfund site. No Record of Decision was available through the database. The pipeline was constructed in 1953 and 1954 and put into service in 1955 to transport fuel from Haines to Fairbanks and operated until 1971 (EPA). The eight-inch pipeline extended 626 miles (300 miles in Canada and 326 miles in Alaska) from the Haines Terminal to the Fairbanks Terminal at Fort Wainwright. The pipeline route followed the Haines Highway to Haines Junction, Yukon Territory (Canada), then along the Alaska Highway to Delta Junction and along the Richardson Highway to Fort Wainwright near Fairbanks. In the Haines area, the 8-inch pipe has been out of service for many years. In some places, power and telephone wiring has been placed in the old pipeline. The pipeline right-of-way was generally 25 feet wide on each side of centerline. The pipeline was surface laid in some areas and buried in others. Dioxin was at one time suspected of being used to de-foliate areas near the pipeline, but no herbicide-related dioxin contamination was found along the pipeline (Alaska Department of Environmental Conservation, 2004).

EPA ERNS Spill Reports List dated October 25, 2005 - The ERNS List records and stores information on reported releases of oil and hazardous substances. The records indicate that the Property and adjacent properties have no ERNS files.

#### **4.2 Alaska Department of Environmental Conservation (ADEC) Records**

ADEC Contaminated Sites Database dated October 21, 2005 – The contaminated sites database is the states’ equivalent to CERCLIS. These sites may or may not have been listed on the federal CERCLIS list. There is one site listed within the one-mile search radius of the Property.

- LAB Flying Service Hangar- this site is located approximately ½ mile south from the Property.

This site has ‘low’ priority type with the facility status listed as ‘active’. The problem statement is reported as “DRO contamination present due to leaks from bulk tanks and piping.” Contamination is under hanger and steel fuel lines.

LUST File dated October 21, 2005 - LUST records contain an inventory of reported LUST incidents. The following entry is reported to be either on or adjacent to the Property:

- Northern Timber Corporation - Haines - this site is located within the Property.

This site has ‘medium’ priority type and a status of ‘closed’. The problem statement is reported as “gravel pit operated by Northern Timber Corporation is location of stockpiled contaminated soil from three Haines service stations.” Confirmation sample results met Level A cleanup levels. A site closure letter was sent June 19, 2002.

ADEC Registered UST List dated October 21, 2005 - Registered USTs are regulated under Subtitle 1 of the RCRA and must be registered with the ADEC, which is responsible for administering the UST program. The following entry is reported to be either on or adjacent to the Property:

- Northern Timber Corporation - Haines - this site is located within the Property.

The report states zero tanks for this facility and a status of closed. The report links the UST report with the LUST report.

SWF dated October 21, 2005 - This listing typically contains an inventory of solid waste disposal facilities or landfills in the state. These may be active or inactive facilities or open dumps that failed to meet the RCRA Subtitle D Section 4004 criteria for SWF or disposal sites. The records show that none of these facilities are within one-half mile of the Property.

SPILLS dated October 21, 2005 - The records show that there has been three reported incidents of spills on the Property.

**Table 1: Spills in Study Area**

Facility Name	Spill Location	Gallons Released	Date	Type	Cause	Action
Haines City	Saw Mill Ck, road leading to Klukwan	3	9/9/95	Hydraulic oil	NA	No Further Action Decision
Chilkat	17 mile Haines Highway <sup>1</sup>	100	8/12/95	Diesel	Collision	No Further Action Decision
Near Airport Access Road	Haines	15	3/21/00	Hydraulic oil	Line failure	No Further Action Decision

<sup>1</sup> In the late 1990s, a worker reported to ADF&G that contaminated soil was encountered during excavation work for utility relocation. No subsequent testing was performed and no verification of the contamination occurred.

### 4.3 Environmental Permits

National Pollutant Discharge Elimination System (NPDES): At the time of the report there was not a NPDES permit assigned to the Property.

## 5.0 PHYSICAL SETTING AND CHARACTERISTICS

The Property is a nearly 22-mile corridor, approximately 300 feet wide and approximately 800 acres. The Property's southern end is located outside the town of Haines and adjacent to the Haines Airport, approximately 75 air miles from Juneau. Haines is located at the isthmus of a peninsula bounded by Chilkoot Inlet to the east and the Chilkat River to the west. The Boundary Mountains lie to the north and northwest, so-called because of the Alaska-Canada border. Haines lies at approximately 59.2° North Latitude and 135.4° West Longitude. (Sec. 34, T030S, R059E, Copper River Meridian.) Haines is located in the Haines Recording District.

## **5.1 Surface Conditions**

The area encompasses 13.5 square miles of land and 8.0 square miles of water. Haines has a maritime climate characterized by cool summers and mild winters. Summer temperatures range from 46°F to 66°F; winters range from 10°F to 36°F. Temperature extremes have been recorded from -16°F to 90°F. Total precipitation averages 52 inches a year, with 133 inches of snowfall (<http://www.commerce.state.ak.us/dca/commdb/CIS.cfm>).

To the north of Haines are the Takshanuk Mountains, which slope down on the west to the Chilkat River. The Property occupies a relatively thin strip of land between the river and the sometimes-vertical cliffs of these mountains. The river is composed of numerous braids, sloughs and the land on the west side of the highway is generally flat and low-lying.

## **5.2 Subsurface Conditions**

The property lies within the physiography of the coast mountain province (coastal foothills section) of southeast Alaska. Mountain slopes are relatively smooth as a result of glacial advances (Wahrhaftig, 1965). The bedrock geology of the area is dominated by three major northwest-trending units: (1) the Alexander terrain, consisting largely of limestone; (2) the Gravina -Nutzotin belt, consisting of marine-laid volcanic and sedimentary rocks; and (3) the Coast Range batholith, which is granitic. Surficial deposits in the area are either glacial, glacio-fluvial, fluvial, or moraine (McMahan, Holmes, 1989).

## **6.0 SITE RECONNAISSANCE**

Ms. Emily Creely and Ms. Rachel Cruz of DOWL conducted a reconnaissance of the Property on September 15, 2005. The Property's location is described in Section 1 and is shown on the Location and Vicinity Map (Figure 1). There were no weather conditions that limited observation of the site's surfaces or vegetation during the reconnaissance. Site observations were recorded and photographs were taken at key points during the reconnaissance. A transcription of the site comments and a selection of the photographs are included in Appendices B.2 and B.4. Summary observations include:

## **6.1 Current Use of the Property**

The Property is being used by the Client as a highway.

Major areas of the Property and summary observations of their usage are as follows. See Figures 2-4 for reference to site areas.

## **6.2 Observed Use of Adjoining Properties**

Riverside of the Property: Unimproved/Undeveloped, with the exception of developed pullouts, interpretive signs and porta-potties. Additionally, two boat launches are located adjacent the road and the river.

Mountainside of the Property: Unimproved/Undeveloped, with the exception of approximately 20-25 private property parcels with homes in various stages of development. Additionally, one commercial property is located between the highway and the mountains – refer to Site 2 and 3 (see Figure 2).

## **6.3 General Observations**

Topography and Drainage: The natural topography of the Property is a small grade from the northwestern end of the property to the southeastern part of the property as the Chilkat Valley flows from the northwest to the southeast where it enters Lynn Canal. Additionally, runoff drains from the mountains to the river, in a generally east to west direction.

Off-site drainage appeared to be directed onto the Property from the mountainside of the highway, but for the most part, a ditch prevented the runoff from continuing onto the roadbed.

Sewer, Water, Storm Drainage and Electric Facilities: Any domestic water within the Property is obtained from private wells. Sanitary sewer service is provided by septic systems. Utility boxes and areas of buried electric wires carry electric service to various areas of the Property. The quality and performance of the utility systems serving the Property were not evaluated under this assessment.



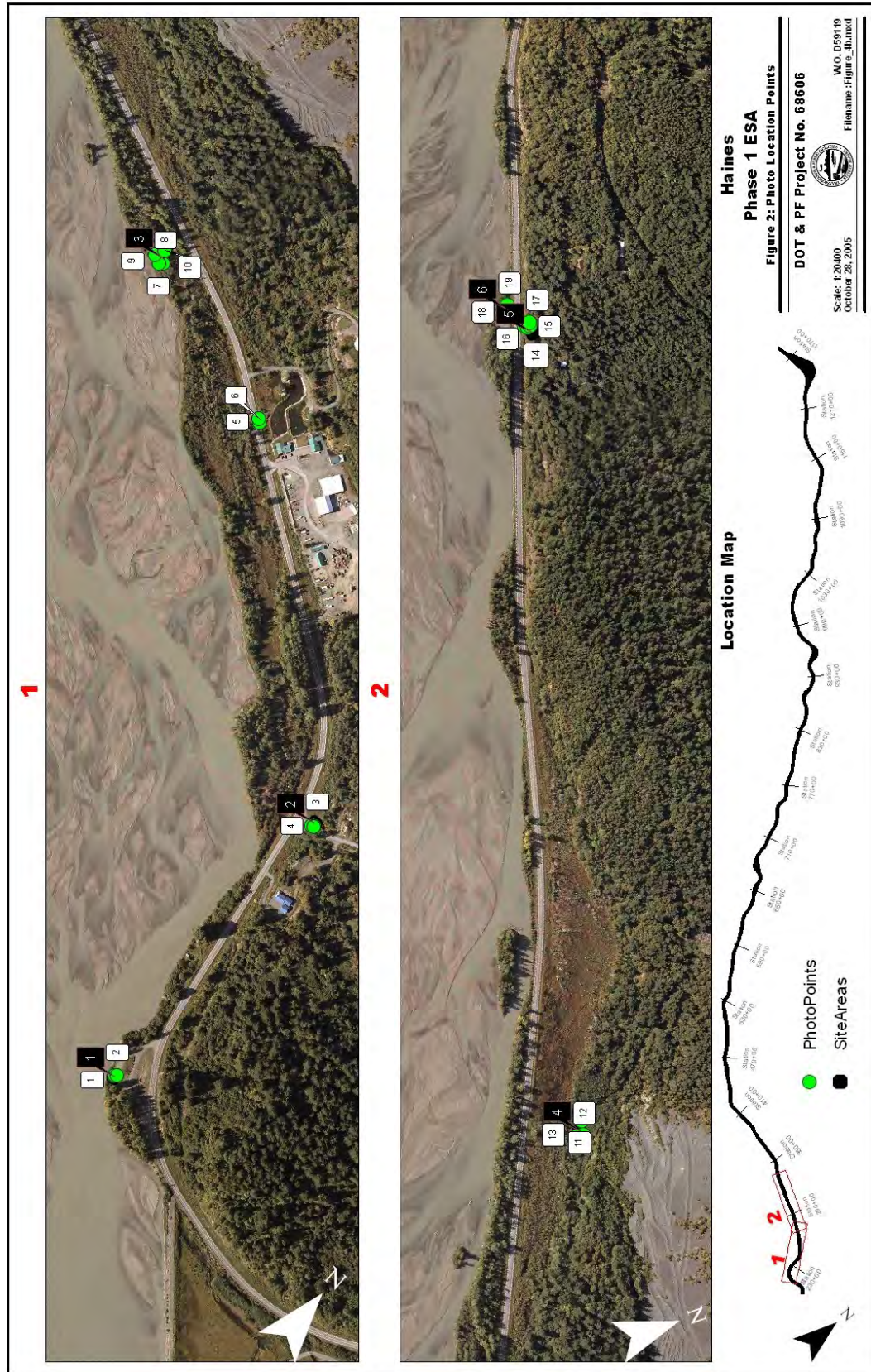


Figure 2: Photograph Point Location Map

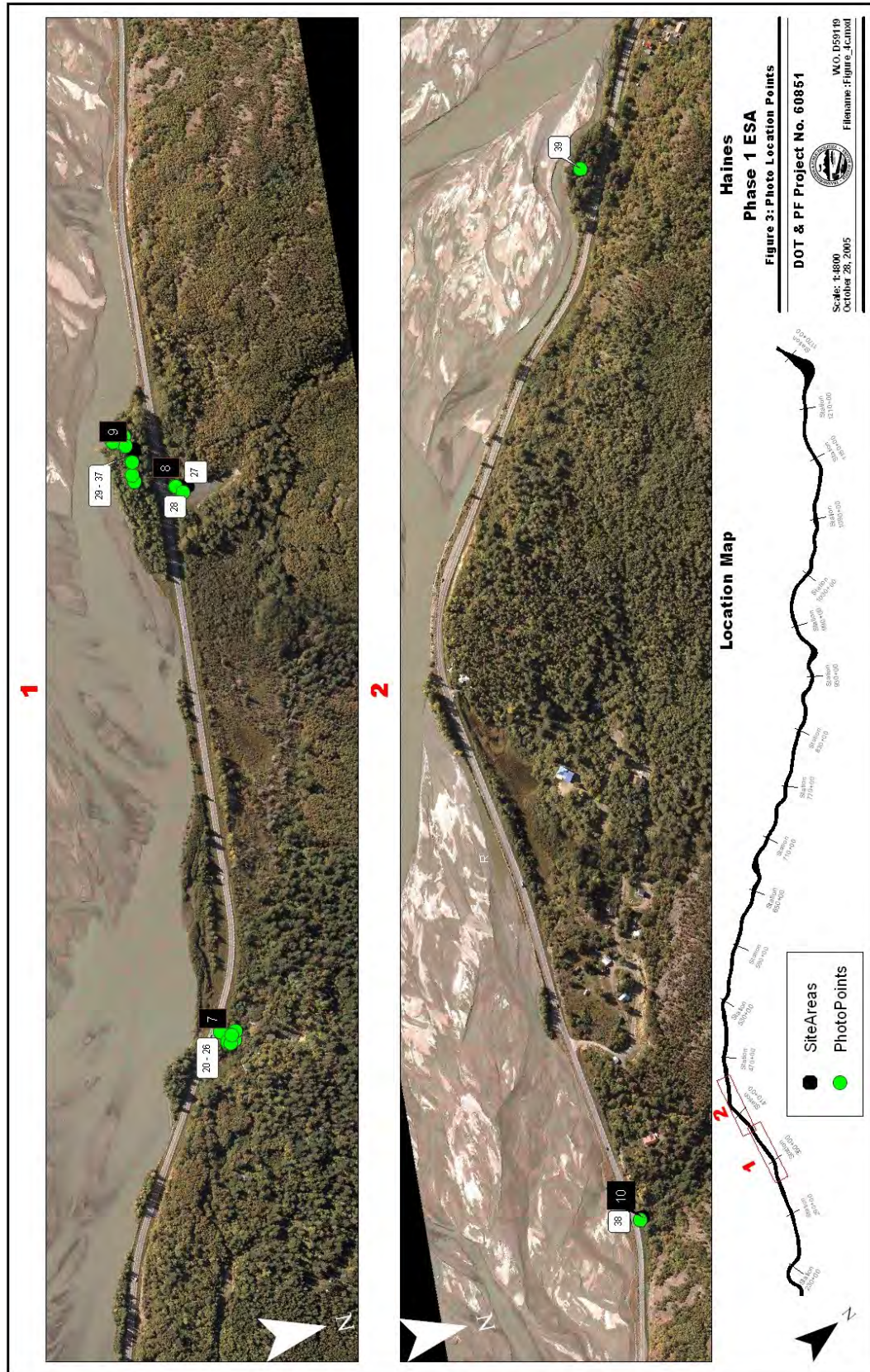


Figure 3: Photograph Point Location Map

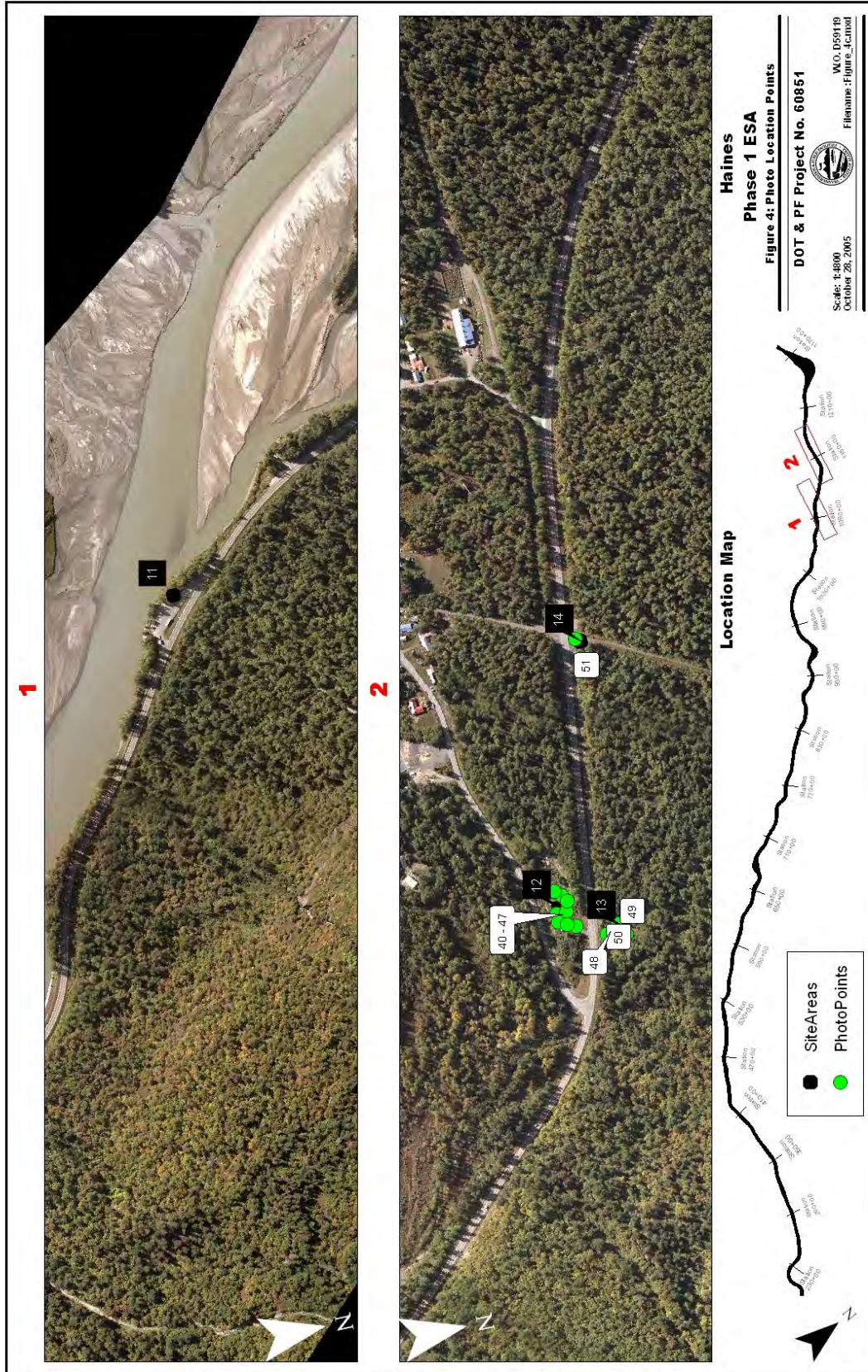


Figure 4: Photograph Point Location Map

Special Indicator Features: Except for 14 areas (described in Section 8.1), the overall appearance of the exterior surfaces of the Property during the reconnaissance was clean and orderly. No discolored or otherwise distressed vegetation was observed. No standing water, unnatural appearing surfaces, unusual odors or indications of pits, ponds or lagoons were observed.

Interior Spaces: No interior spaces were observed for this report.

## **7.0 PERSONAL INTERVIEWS**

The following individuals were interviewed for their personal knowledge of the recent history of the Property. Notes from these interviews are included in Appendix B.

1. Mr. Roger Ingledue was interviewed by telephone on September 15, 2005.

Mr. Ingledue is the Foreman of Maintenance and Operations for the Client and has been involved with the daily maintenance and operation activities conducted on this site for 10 years.

2. Ms. Anne Marie Palmieri was interviewed by email on October 24, 2005, with an additional follow up email on October 26, 2005, and follow-up telephone interview on March 1, 2006.

Ms. Palmieri is the ADEC staff responsible for Haines area contaminated sites and LUST sites and provided information regarding sites described in Section 4.

3. Mr. Randy Erickson was interviewed by telephone on March 1, 2006.

Mr. Erickson is a biologist with Alaska Department of Fish and Game and provided anecdotal information regarding a spill in the Property's vicinity.

4. Ms. Melissa Markell was interviewed by telephone on March 1 and March 3, 2006. She also provided information through e-mail on March 6, 2006.

- Ms. Markell is the lead technician for the Haines-to-Fairbanks pipeline investigation and provided information regarding the environmental sampling of the pipeline corridor.
5. Ms. Keri Nutter was interviewed regarding contamination at MP 15.5. The United States Army Corps of Engineers (USACE) explained there was a pipeline leak here. If roadway construction occurs prior to the Formerly Used Defense Site (FUDS) Program cleanup, the USACE would assume primary responsibility in dealing with the contaminated soils.

## **8.0 FINDINGS AND CONSIDERATIONS**

### **8.1 On-site Issues**

We have performed a Phase I ESA in conformance with the scope of work outlined in Section 2 for the Property. This assessment has revealed no evidence of potential environmental conditions in connection with the Property except as described below.

The Property is a highway and with the exception of the portion that bisects the Alaska Chilkat Bald Eagle Preserve, numerous shoulders and areas adjacent to the highway contained evidence of potentially illegal squatting, several garbage dumps, shooting, and mass loitering. The following sites are located on Figures 2-4 and pictures of these locations are in Appendix B.

- Site 1: A cabin has been constructed just off the shoulder in a parking area.
- Site 2: Six 55-gallon drums were found between the road and the developed area of the Southeast Roadbuilders property. Five barrels appeared to be old, empty, and were rusted thoroughly without any apparent labeling. One barrel had a fading label and was empty.
- Site 3: A cabin (a potential squatters cabin) has been constructed in a heavily wooded area between the road and the river. Associated debris includes appliances, car parts, and a footpath made of wood.

- Site 4: An illegal dumping area that contained batteries, firepit, filled soap buckets, and other debris.
- Site 5: Between the road and the mountainside, a small shed has been built that is a hydroelectric generator. Associated material includes metal piping, a drum, and other mechanical equipment.
- Site 6: On the shoulder, between the highway and the river is a recently used firepit and old trailer.
- Site 7: A large area, which contains a dilapidated old home site, was found between the road and the mountains. Associated debris included one drum, a partially collapsed house, car, and shed with one old drum. A smaller building was also observed up the hill.
- Site 8: An illegal shooting range was observed on the mountainside of the highway.
- Site 9: Between the highway and the river is a large parking area with signs of illegal loitering, which included a burn pile approximately 15x10x5 feet large, a used trailer and associated machinery, and a pit that appears to be an old outhouse site.
- Site 10: An abandoned car was observed in the heavily wooded area between the highway and the mountains.
- Site 11: Two porta-potties were observed on the parking area between the river and the highway.
- Site 12: At the Klukwan turnoff, an area was observed that contained multiple vehicles, oil buckets, and associated debris.
- Site 13: A large area that contains a dilapidated house, shed, truck, and trailer.
- Site 14: An old abandoned structure was observed between the highway and the mountains.

In addition, this assessment has revealed no evidence of recognized (known contamination) environmental conditions in connection with the property, except as described below.

Several locations along the highway where the Haines-to-Fairbanks pipeline ran are currently being investigated for the presence of hydrocarbons. The investigation is being operated under the FUDS Program and ADEC will provide oversight. The USACE administers the investigation and performed hydrocarbon sampling in November 2005, which will resume in May or June of 2006 (see Table 2). The November sampling included two locations within the vicinity of the study area, referred to as Release 19.5 and Valve 25.5. During the investigation, hydrocarbon contamination was found at Valve 25.5, near the Wells Bridge (see Figure 5). The second site is located around MP 17.5 and hydrocarbon product was detected, but not at ADEC action levels.

**Table 2: Locations Scheduled for Spring Sampling**

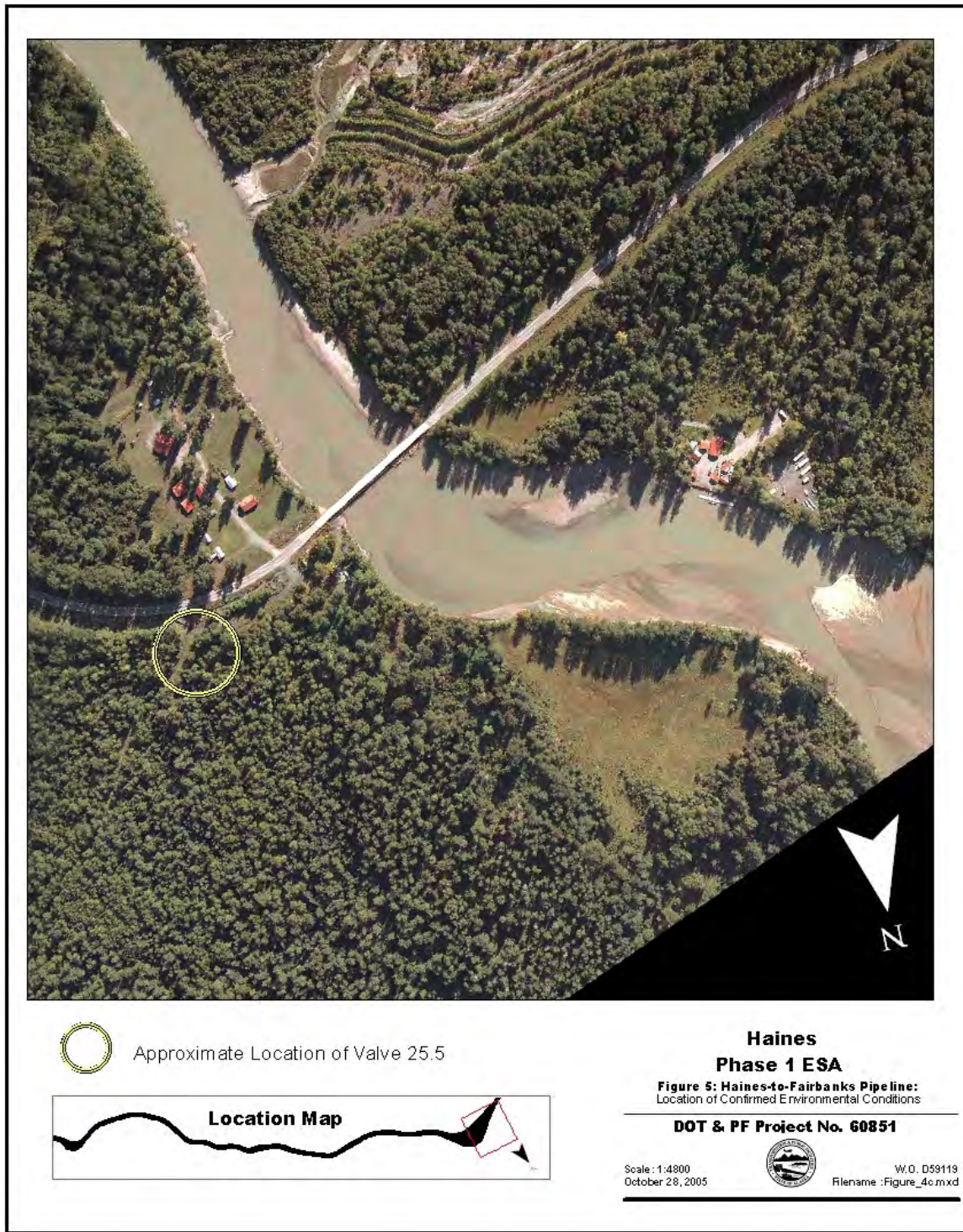
<b>Name</b>	<b>Location</b>	<b>Associated Historic Spill</b>	<b>Sampled in November 2005</b>
Release 6.5	MP 4.5	Yes	No
Release 17.7	MP 15.5	Yes	No
Release 19.5	MP 17.5	Yes	Yes
Valve 25.5	Wells Bridge	No	Yes

In spring 2006, the USACE will sample two additional locations, Release 6.5 and Release 17.7, that have associated historic spills (see Figure 6). The USACE will also revisit Release 19.5 to determine if additional product is present, as this site also has a historic spill associated with it.

Of the new sites, Release 6.5 is just south of Southeast Roadbuilders, adjacent to the creek on the side of the shoulder. Release 17.7 is an area several hundred feet long where a spill occurred in the pipeline several decades ago. Part of the USACE's work at this site will be to determine if the site should be referred to the State's contaminated sites list.

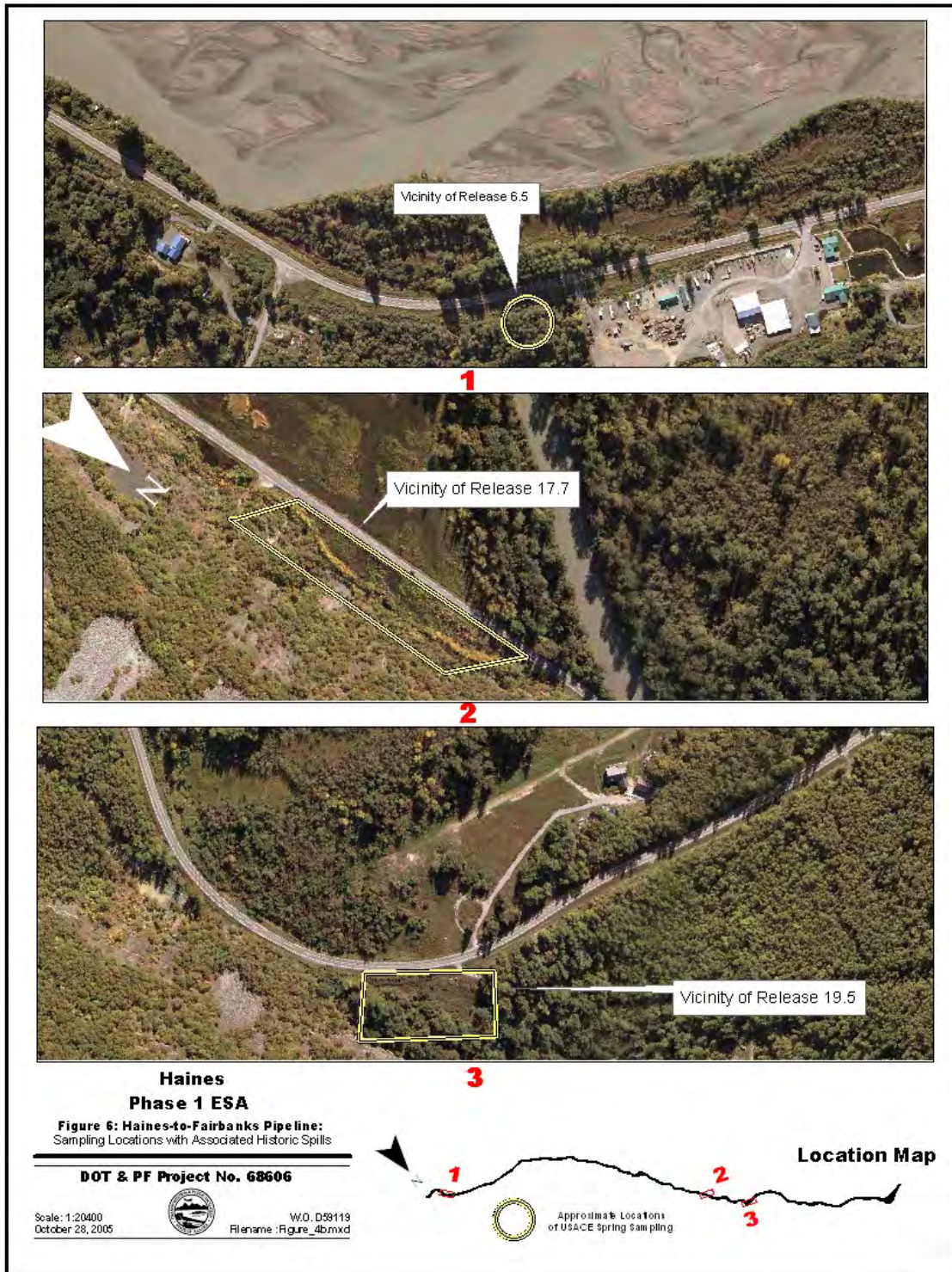
## **8.2 Off-site Issues**

As reported in Section 4, suspected or confirmed soil and groundwater contamination has been documented for underground fuel storage tank facilities located on off-site properties within a one-half mile radius the Property. Additionally, locations of other incidents involving the release of hazardous substance have been documented within a one (1) mile radius from the Property as noted in that Section.



**Figure 5: Haines-to-Fairbanks Pipeline: Location of Confirmed Environmental Conditions**





**Figure 6: Haines-to-Fairbanks Pipeline: Sampling Locations with Associated Historic Spills**

It is always possible that contamination from one or more of these off-site locations could possibly have migrated to the Property. These possibilities are probably minimal in this case, however, since most of these locations have either undergone investigations resulting in a no further action status or are located at sufficient distances or in such directions from the Property that migration to the Property is unlikely. If desired, a more extensive assessment could be performed to provide more definitive information about the presence or absence of contaminant migration to the Property. This additional work could include detailed reviews of individual files for pertinent off-site releases and performance of a subsurface investigation on the Property with collection and chemical analysis of soil and groundwater samples.

## **9.0 CONCLUSIONS AND RECOMMENDATIONS**

Although the Property contains 14 areas of debris, junked cars, illegal camping areas and other various structures, none of these areas warrant further investigation. However, based on the information obtained during this Phase I ESA, it is DOWL's judgment that past activities on and adjacent to the Property have posed no significant potential for environmental impairment of the Property, with the exception of contaminated soil detected Vault Valve 25.5 described in Section 8.0 and shown in Figure 5. It is recommended that the client continue to monitor the status of the Haines-to-Fairbanks pipeline investigation and coordinate with ADEC, regarding the results of upcoming sampling.

## 10.0 REFERENCES

Alaska Department of Commerce, Community, and Economic Development. 2005. Alaska Community Database, Community Information Summaries – Haines. Found at <http://www.commerce.state.ak.us/dca/commdb/CIS.cfm>

Alaska Department of Environmental Conservation. 2004. Dioxins and the Haines-Fairbanks Pipeline Division of Spill Prevention and Response. Found at [http://www.dec.state.ak.us/spar/csp/docs/hfp/hfpdioxin\\_factsh\\_1\\_04.pdf](http://www.dec.state.ak.us/spar/csp/docs/hfp/hfpdioxin_factsh_1_04.pdf)

Environmental Protection Agency. 2005. Site Description of Superfund Site 100146. Found at ([http://oaspub.epa.gov/enviro/cerclis\\_web.description\\_report?pgm\\_sys\\_id=AK6210022426](http://oaspub.epa.gov/enviro/cerclis_web.description_report?pgm_sys_id=AK6210022426))

McMahan, David J., Holmes, Charles E. (1989) A Cultural Resources Investigation at Haines Airport, Haines Alaska (Project No. 69523). Office of History and Archaeology Report Number 16.

Wahrhaftig, Clyde (1965) Physiographic Divisions of Alaska. Geological Survey Professional Paper No. 482.

**APPENDIX A**  
**PROPERTY DESCRIPTION**

### **Property Description**

The Property spans nearly 22 miles and is therefore not able to be referenced to a single set of coordinates. The Property is located within the U.S. Geological Survey Skagway Quads A-2, B-2, B-3 (Township 30S, Range 59E, Section 19; Township 30S, Range 58E, Sections 6, 7, 8, 14, 15, 16, 17, 23, 24; Township 29S, Range 58E, Section 31; Township 29S, Range 57E, Section 5, 6, 8, 9, 14, 15, 16, 23, 26, 25, 36; Township 28S, Range 56E, Section 29, 32, 33, 34 - Copper River Meridian) and is within the Haines Recording District.

**APPENDIX B**  
**SUPPORTING DATA AND INFORMATION**

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Appendix B.1 .....Aerial Photograph Summary  
Appendix B.2 ..... Site Reconnaissance Notes  
Appendix B.3 ..... Personal Interviews  
Appendix B.4 ..... Site Photographs

**APPENDIX B.1**  
**AERIAL PHOTOGRAPH SUMMARY**

**AERIAL PHOTOGRAPH SUMMARY**

**Project:** Phase I, Environmental Site Assessment  
Haines Highway, Haines, Alaska  
W.O. D59119B

**Photo Source:** AeroMap U.S., Inc., Anchorage, Alaska  
Reviewed on October 21, 2005

**Period:** 1950-1978

Date	Scale (Approx.)	Photo Nos.	Remarks
Sep 30, 1950	1:20,000	#139	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#141	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#143	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#145	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#147	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#149	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#151	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#153	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#157	(Photo purchased/DOWL Archives.)
Sep 30, 1950	1:20,000	#159	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 21-14	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 21-16	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 22-12	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 23-25	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 24-25	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-32	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-34	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-36	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-38	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-40	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-44	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-46	(Photo purchased/DOWL Archives.)
Jun 26, 1961	unknown	HNS 25-48	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 13, 025	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 13, 027	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 13, 029	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 13, 033	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 13, 031	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 13, 037	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 14, 021	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 14, 023	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 14, 025	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 14, 027	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 14, 029	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 14, 031	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 14, 033	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 16, 002	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 16, 004	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 16, 006	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 17, 011	(Photo purchased/DOWL Archives.)
Jul 31, 1978	1:15,840	CN-HNS RL 1, 17, 013	(Photo purchased/DOWL Archives.)
Sep 2004	unknown	unknown	Photo from client



**APPENDIX B.2**  
**SITE RECONNAISSANCE NOTES**

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### **SITE RECONNAISSANCE NOTES**

**Project:** Phase I, Environmental Site Assessment  
Haines Highway, Haines, Alaska  
W.O. D59119B

**By:** Ms. Emily Creely and Ms. Rachel Cruz

**Date:** September 15, 2005

**Weather:** Clear, approximately 50°F

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9 a.m. Started site reconnaissance at MP 3.5.

#### **General Observations and Comments**

Except for specific areas described below, the overall appearance of the exterior and interior surfaces of the Property during the reconnaissance was clean and orderly. No discolored or distressed vegetation was observed.

#### **Exterior Surfaces of The Property**

Materials Stored On Site; Types and Apparent Management: The quality and performance of these operations serving the Property were not evaluated under this assessment.

Waste and Disposal Practices: The quality and performance of these operations serving the Property were not evaluated under this assessment.

UST Systems, Fueling, or Maintenance Operations: The quality and performance of these operations serving the Property were not evaluated under this assessment.

Topography, Drainage, and Storm Drainage Facilities: The natural topography of the Property has been altered by the construction of the highway. The roadbed is elevated above the natural topography of the surrounding area and in some instances this has changed the drainage patterns of adjacent waterways and runoff. In some areas, the roadbed acts as an impoundment. In general, drainage is toward the south and west.

Sewer, Water, Storm Drainage and Electric Facilities: The quality and performance of the utility systems serving the Property were not evaluated under this assessment.

#### **Interior Surfaces and Spaces of the Property**

No interiors were investigated.

#### **Heating Systems and Fuels**

The quality and performance of these systems were not evaluated under this assessment.

#### **Storage Rooms and Contents**

None were observed.

### **Transformer Rooms and Equipment**

The quality and performance of this equipment was not evaluated under this assessment.

### **Waste Water and Process Water, If Any**

The quality and performance of these systems were not evaluated under this assessment.

### **Drains or Sumps**

With the exception of culverts, no drains or sumps were observed.

### **Areas Not Accessed or Viewed**

Buildings located on private property were not investigated, including commercial and residential properties.

### **Special Indicator Features**

Except for the comments with respect to the following areas, the overall appearance of the exterior and interior surfaces of the Property during the reconnaissance was clean and orderly. No discolored or distressed vegetation was observed.

- Site 1: A cabin has been constructed just off the shoulder in a parking area.
- Site 2: Six 55-gallon drums were found between the road and the developed area of the Southeast Roadbuilders property.
- Site 3: A cabin (a potential squatters cabin) has been constructed in a heavily wooded area between the road and the river. Associated debris includes appliances, car parts, and a footpath made of wood.
- Site 4: An illegal dumping area that contained batteries, firepit, filled soap buckets, and other debris.
- Site 5: Between the road and the mountainside, a small shed has been built that is a hydroelectric generator. Associated material includes metal piping, a drum, and other mechanical equipment.
- Site 6: On the shoulder between the highway and the river is a recently used firepit and old trailer.
- Site 7: A large area that contains a dilapidated old home site was found between the road and the mountains. Associated debris included one drum, a partially collapsed house, car, and shed with one old drum. A smaller building was also observed up the hill.
- Site 8: An illegal shooting range was observed on the mountainside of the highway.
- Site 9: Between the highway and the river is a large parking area with signs of illegal loitering, which included a burn pile approximately 15x10x5 feet large, a used trailer and associated machinery, and a pit that appears to be an old outhouse site.

Site 10: An abandoned car was observed in the heavily wooded area between the highway and the mountains.

Site 11: Two porta-potties were observed on the parking area between the river and the highway.

Site 12: At the Klukwan turnoff, an area was observed that contained multiple vehicles, oil buckets, and associated debris.

Site 13: A large area that contains a dilapidated house, shed, truck, and trailer.

Site 14: An old abandoned structure was observed between the highway and the mountains.

4 p.m.: The site reconnaissance was completed.

**APPENDIX B.3**  
**PERSONAL INTERVIEWS**

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**PERSONAL INTERVIEW**

**With:** Mr. Roger Ingledue  
Foreman, DOT&PF  
Phone: 907-766-2340

**By:** Ms. Emily Creely  
DOWL Engineers

**Project:** Phase I, Environmental Site Assessment  
Haines Highway, Haines, Alaska  
W.O. D59119B

**Date:** September 15, 2005 – 4p.m.

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Mr. Ingledue is the Foreman of Maintenance and Operations for the Client and has been involved with the daily maintenance and operation activities conducted on this site for 10 years. I asked him if I could interview him with respect to his personal knowledge of the Property's history. He agreed and the following interview was then conducted over the phone.

Q. What can you tell me about the pipeline?

A. It was built between 1940-1950 by the USACE. It went from tank farm to tank farm in Lutek Inlet. Fuel by barge went into tanks then pumped into the eight-inch pipe to Fairbanks. It's been out of service a long time. In some places they have placed power and telephone wiring in the old pipeline, as it's an ideal situation. Some of the pipeline was dug up due to construction.

Q. What is that generator building (on sheet 6)?

A. It's a private person, I think his name is John Floresky. It's hydroelectric when the generator is not running. It runs off water.

Q. Why are the 'party spots' so close to the road – as if there is no fear for being told to leave?

A. We don't have a trooper anymore – just an ADF&G trooper.

Q. Do you know of any previous studies done along this stretch of the highway?

A. At the Chilkat bridge there was a water study done by the ADEC to permit the tour business operating on the river.

Q. What type of vegetation control is done on the highway?

A. In most areas it's cut back for four passes, which is about 12-15 feet, except corners where you go for 20 feet. We like to do it every year, but a lot of times the snow chases us out.

---

**PERSONAL INTERVIEW**

**With:** Ms. Anne Marie Palmieri  
ADEC Contaminated Sites  
Phone: 907-766-3184

**By:** Ms. Emily Creely  
DOWL Engineers

**Subject:** Phase I, Environmental Site Assessment  
Haines Highway, Haines, Alaska  
W.O. D59119B

**Date:** October 24th – via email

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Mr. Palmieri is the ADEC staff responsible for Haines area contaminated sites and LUST sites. Location data was missing from online records regarding three sites potentially within the Property and I confirmed their location with her:

Email to Ms. Palmieri:

“I’m working on a site assessment for highway improvements to the Haines Highway. I am searching for existing environmental conditions and a search of the ADEC’s LUST database came up with these sites: Haines One-Mile Lift Station, Northern Timber Corporation – Haines, and ADOTPF-Haines Maintenance Station.

I need to know where these sites are actually located so I can see how close to the highway it is or whether or not these sites are within 300 feet of the highway between Mile Posts 3.5 to 25.3.”

Ms. Palmieri responded via email:

“In response to your inquiry :

Haines One-Mile Lift Station is at 1.0 Mile along the highway. Northern Timber was a stockpile located at the Southeast Roadbuilders yard at 4 Mile and was rather close to the road. The contaminated soil came from 4 USTs at other businesses in town and ended up being treated there. The site has been closed; the soil met method two cleanup levels.

I’m not sure about the disposition of the soil...you would need to ask Southeast Roadbuilders what happened to it. We weren’t concerned because it met our default cleanup levels.

The ADOTPF site is located at 0.75 Mile in town at the DOT shop. There is a small bit of contaminated soil remaining after an UST was removed.

There is also some groundwater contamination. So...it looks like the only site in your area of concern would be the Northern Timber site, which is closed. Let me know if you have further questions. Anne Marie.”

A follow up email occurred on October 26, 2005:

Q: Is this a state contaminated site or classified as something else? Was this the reason it's on the CERCLIS registry?

A: The pipeline is not a Superfund site, but it is listed on CERCLIS. It is not on our database as there has been no contamination found to date.

Q: Was dioxin the only contaminant of concern?

A: No contamination was found with the dioxin study, but now we are looking for petroleum. Yesterday, I was out with the USACE scouting locations for their direct-push field investigation next week. They will be working at areas where there were documented historic spills and valve locations. Some of the areas of concern will be investigated next week and others will be delayed until next spring due to accessibility. The areas that will be investigated next week include: Young Road, Allen Road, Piedad Road, Highway Mile 18, and Wells Bridge at Mile 25.

The other areas include: Mile 15, Big Boulder Creek, Little Boulder Creek, and Mile 41. I don't have a work plan for this, but should get it in the next week or so. There may be other areas that they want to look at that I have inadvertently missed.

A follow up phone call on October 27, 2005:

Q: How close to the roadway is the pipeline?

A: Within 10 feet.

Q: Are any portions of the pipeline removed within the Property (MP 3.5 to MP 25.3)?

A: No – portions of it have been converted to a utility conduit near the Canada border.

Q: What program is this falling under?

A: FUDS – we are doing our regular oversight and ENSR will be completing the investigation.

A follow up phone call on March 1, 2006:

Q: Has any work occurred since October – any sampling on the pipeline?

A: Yes. The USACE did sampling in November and the report is in draft form. Give Melissa Markell a call to find out the results. They will go out again in the spring.



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**PERSONAL INTERVIEW**

**With:** Ms. Randy Erickson  
Biologist, Alaska Department of Fish and Game  
Phone: 907- 766-3638

**By:** Ms. Emily Creely  
DOWL Engineers

**Project:** Phase I, Environmental Site Assessment  
Haines Highway, Haines, Alaska  
W.O. D59119B

**Date:** March 1, 2006 – 10 a.m.

---

Mr. Erickson is a biologist in the Haines area and was the person that a worker reported soil contamination to at MP 17. I asked him if I could interview him about his knowledge of report of the contaminated soil and he agreed. The following interview was then conducted over the phone.

Q. Do you recall someone reporting to you finding contaminated soil in the area of MP 17-18? You brought this up at the agency scoping meeting?

A. Yes. One of the workers came in and talked and told me that while they were working on putting power in the area, he found some soil that might be contaminated.

Q. When was this?

A. A long time ago, like the late 90s.

Q. Was this reported to anyone else? Was it confirmed or documented?

A. No. I went out to check it out and didn't see or detect anything, but that they had already filled in the ditch.

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### PERSONAL INTERVIEW

**With:** Ms. Melissa Markell  
Environmental Engineer, U.S. Army Corps of Engineers (USACE)  
Phone: 907-753-5615

**By:** Ms. Emily Creely  
DOWL Engineers

**Project:** Phase I, Environmental Site Assessment  
Haines Highway, Haines, Alaska  
W.O. D59119B

**Date:** March 1, 2006 – 4 p.m.

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Ms. Markell is the lead technician for the Haines Pipeline investigation. I asked her if I could interview her about her knowledge of the project and she agreed. The following interview was then conducted over the phone.

Q. What type of work has been done on the pipeline since October 2005 and was any contamination found?

A. We went out and investigated a number of sites in November and the bottom line is that we did not find any contamination above action levels, except for one location. We found hydrocarbons in the valve vault near Wells Bridge. The contamination is inside the vault and we didn't look outside the vault because it's full of powerlines.

Q. How close to the highway is this vault?

A. Between 10 and 20 feet. It's on the north side of the highway and east side of the road about 200 feet from the river.

Q. Is any more sampling planned?

A. Yes. We'll go out in May or June with a hand auger to figure out if the contamination is from a dripping valve, or if it's bigger from something else.

A follow up phone call on March 3, 2006, at 3:30 p.m. took place in which the planned sampling event in the spring was discussed.

Q. Can you tell me the other areas that you sampled in November and where you plan to sample in the spring?

A. We sampled in five spots in November and of these, just two are in your study area. Aside from the valve vault location we discussed, we also went to an area around MP 17.5. We had some low-level hits, but we really didn't find anything. We will return there in the spring to explore the area a little bit just to make sure there isn't anything else. In the spring we are going to two locations in your study area that we did not sample in November and they are known to have previous spills. The first is called 'release 6.5' and the second is called 'release 17.7'. The '6.5 site' is just south of Southeast Roadbuilders

near the creek, just off the shoulder. The '17.7 release' is a big site and one that is being evaluated to determine if it needs to be a contaminated site. The pipeline is buried at the base of the cliff and there was a spill there decades ago -- they trenched it and left the trench open. We will be sampling from utility box to utility box. I'll send you figures to show the general area where I'm talking about. It is at MP 15.5.



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## EMAIL RECORD

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**DATE:** March 6, 2006  
**FROM:** Melissa Markell, ACOE  
**To:** Emily Creely  
**PROJECT:** Haines Highway  
**SUBJECT:** ACOE Sampling  
**EMAIL ADDRESS:** Melissa.L.Markell@poa02.usacc.army.mil

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**Ms. Ihlenfeldt responded to questions regarding the ACOE's sampling for the Haines-to-Fairbanks pipeline with the following email, which has been edited for clarity:**

"The pipeline mile markers do not match up with the highway mileposts. Release 19.5 is at pipeline mile marker 19.5, which is highway milepost 17.5. Release 17.7 is at pipeline mile marker 17.7, which is highway milepost 15.5."

"For Wells Bridge, the valve vault is actually farther from the bridge on the curve of the highway near where that trail leaves the woods and meets up with the highway."

"At Release 17.7, we'll be sampling right along the highway, not way up on the mountain like your figure indicates. In the air photo, you can see toward the lower right hand corner where there is a line of trees with yellow leaves. This line of trees is right next to the highway, then cuts away, then comes back. There is a swamp between the line of trees and the highway. That's our site. The burn box is right in the middle of the swamp. The trees are growing along the berm that was created when the pipeline was dug up (it was never re-buried). Release 19.5 did have a historic spill which is why we're going back to look at it in more detail where we couldn't get the Geoprobe rig into the woods. The spill was up the hill from the abandoned cabin. We'll be looking at where we think the fuel pooled when it ran down the hill toward the creek."



## MEETING RECORD

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**DATE:** May 8, 2006

**WITH:** Melissa Markel (USACE), Rich Jackson (USACE), Kristen Hansen (DOWL), Keri Nutter (DOWL), Rachel Cruz (DOWL)

**NOTED BY:** Rachel Cruz

**PROJECT:** Haines Highway MP 3.5 – 25.3 (DOT&PF Project No. 68606)

**SUBJECT:** Environmental Contamination Encountered by Geotechnical Investigation

**WORK ORDER:** D59119B

**Time:** 9:00 a.m.      **Place:** DOWL Engineers

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DOWL is under contract to the Alaska Department of Transportation & Public Facilities (DOT&PF) for the design and environmental documentation of the Haines Highway MP 3.5 - 25.3 project. The purpose of the meeting was to inform the USACE (U.S. Army Corps of Engineers) regarding evidence of contamination that was encountered during the Haines Highway MP 3.5 – 25.3 geotechnical investigation. The USACE was contacted about the environmental contamination, and not the Alaska Department of Environmental Conservation (ADEC), because research for the Phase I Environmental Site Assessment of the project area discovered that the USACE is investigating the area as part of their Formerly Used Defense Sites (FUDS) program. DOT&PF directed DOWL to coordinate with the USACE.

Keri Nutter explained to the USACE what she encountered at the Haines Highway Mile Post 15.5 (pipeline mile 17.7). The following is her account of events. “We offloaded the Nodwell from the tilt bed on the north side of the Haines Highway near MP 15.5. The Nodwell was walked down the road embankment and placed into position on top of Peat Probe 102. As with the previous peat probes in the project area, we set up to sample with an SPT (Standard Penetration Test) at the surface. We drove the SPT 24" to 2'. The sampler was presented to me (about 5 feet from the drill rig) and I proceeded to open the sampler and log the sample as normal. (this sample contained 6" of frozen peat and 18" of silt with sand and ~15% organics such as plants and rootlets). The driller then proceeded to auger down to 5 feet using a 6" hollow-stem auger. The sampler and rod was placed down the auger and the sample was driven 24" at 5'. When the sampler was presented to me this time, I began to notice an exhaust or diesel smell and was developing a slight headache (as I normally do around diesel exhaust). Looking around, I thought that it was one of the trucks parked behind me on the side of the road running. None of the vehicles were on. I then looked at the drill rig to make sure that no fuel or oils were leaking. No leaks. By this point, the driller had noticed the smell and shut down the rig in case it

was an equipment leak; however, we could not find anything. I smelled the gloves that I was wearing (normal work gloves over purple nitrile) and noted the smell on them. I then wafted the sampler and caught a hint of the odor. This made me worry, so I went to the hollow-stem auger that was still to 5' in the ground and wafted the odor emanating from it. The smell was incredibly strong and I had to immediately step back. The driller, helper, and myself all began to feel headachy and slightly queasy at that point, so we put everything down and stepped back from the rig and took a few minutes to clear our heads. The driller and helper complained of a headache and nausea. I recommended to them to not smoke or touch their face, mouth, or skin. Once feeling better, I opened the sampler for the 5' sample (which was saturated - the rods were wet at 5'), and noticed the odor get stronger (it was obvious the soil was contaminated below the water table) as well as a rainbow/oily sheen on the sample and water. I immediately placed the sample into a plastic bag (just in case) and sealed it up tight with a "do not open" note. The drillers then quickly pulled the auger and slotted 3/4" PVC was placed in the hole for future locating.

Once we had a moment to feel better, we proceeded to the south side of the highway to Peat Probe 101. All of the tooling (the auger, auger bit, rod, rod bit, and sampler) was swapped out to avoid cross-contamination. As before, we drove the sampler for 24" from the surface, however, I did not get any recovery. As with standard procedure with no recovery, we augured to 2.5' and prepared to lift the auger and obtain a grab sample from the flights. As soon as the auger was pulled from the ground, the odor and rainbow sheen on the soil was apparent. The sample was wet (most likely from surface water). No sample was obtained from this hole. The auger was pulled and the hole abandoned at 2.5'. PVC was not placed in this hole.

We loaded the equipment back onto the tilt bed and the tooling was cleaned and the gloves we were wearing disposed. I returned to the hotel and phoned Maria Kampsen and informed her of the find. She then forwarded the information on to Kristen Hansen."

The interface of the organic and mineral layer was observed at 6" in Peat Probe 102 and at 18" in Peat Probe 101.

The USACE explained that there was a leak in the pipeline in this area and the contamination that she encountered is likely associated with this leak. ENSR will be field sampling areas along the pipeline (including the mile 15.5 area and near Wells Bridge) either in late May or early June. The USACE explained that the leaks associated with the pipeline are part of the FUDS program and due to priority and funding it could be some time before the USACE can clean up this site at mile 15.5. However, if it appears that that roadway construction would occur prior to the FUDS cleanup of this contamination, DOT&PF could reasonably expect the USACE to assume the primary responsibility in dealing with the contaminated soils. If DOT&PF would excavate and stockpile the contaminated soils, the USACE would haul the material away and handle the remediation of those soils. The USACE would also most likely provide a monitor during the excavation to direct the contractor in separating the contaminated soils from the clean soils.

Additionally, the USACE said that the report on the Wells Bridge area is finalized and will forward on to DOWL. The USACE will also send DOWL ENSR's workplan for this coming field season and the CRREL (Cold Regions Research Engineering Lab) report that includes historical contamination in the pipeline area.



**DOT & PF Project No. 68606**

Scale: 1:20400  
October 28, 2005



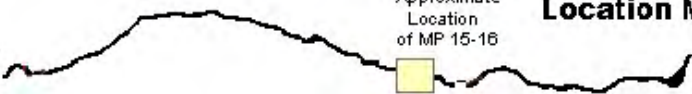
W.O. D59119  
Filename : Figure\_4b.mxd



Approximate Location  
of Burn Box



Approximate Locations  
of Encountered Product by DOWL



Approximate  
Location  
of MP 15-16


**Location Map**









**APPENDIX B.4**




**SITE PHOTOGRAPHS**

(with Site Sketch Showing Photograph Points and Numbers)




<p><b>Photograph No. 1</b></p> <p>Location: Site 1</p> <p>Direction: Facing southwest</p> <p>Comments: Cabin on Shoulder</p>	
<p><b>Photograph No. 2</b></p> <p>Location: Site 1</p> <p>Direction: Facing southwest</p> <p>Comments:</p>	
<p><b>Photograph No. 3</b></p> <p>Location: Site 2</p> <p>Direction: Facing northeast</p> <p>Comments: Drums</p>	




<p><b>Photograph No. 4</b></p> <p>Location: Site 2</p> <p>Direction: Facing northeast</p> <p>Comments:</p>	
<p><b>Photograph No. 5</b></p> <p>Location: N/A</p> <p>Direction: Facing southeast</p> <p>Comments: Photo of pond on property</p>	
<p><b>Photograph No. 6</b></p> <p>Location: N/A</p> <p>Direction: Facing east</p> <p>Comments: Photo of pond on property</p>	

<p><b>Photograph No. 7</b></p> <p>Location: Site 3</p> <p>Direction: Facing west</p> <p>Comments: Squatters cabin</p>	
<p><b>Photograph No. 8</b></p> <p>Location: Site 3</p> <p>Direction: Facing south</p> <p>Comments:</p>	
<p><b>Photograph No. 9</b></p> <p>Location: Site 3</p> <p>Direction: Facing west</p> <p>Comments:</p>	




<p><b>Photograph No. 10</b></p> <p>Location: Site 3</p> <p>Direction: Facing west</p> <p>Comments:</p>	
<p><b>Photograph No. 11</b></p> <p>Location: Site 4</p> <p>Direction: Facing west</p> <p>Comments: Soap buckets</p>	
<p><b>Photograph No. 12</b></p> <p>Location: Site 4</p> <p>Direction: Facing east</p> <p>Comments:</p>	




<p><b>Photograph No. 13</b> Location: Site 4 Direction: Facing west Comments:</p>	
<p><b>Photograph No. 14</b> Location: Site 5 Direction: Facing southeast Comments:</p>	
<p><b>Photograph No. 15</b> Location: Site 5 Direction: Facing west Comments:</p>	




<p><b>Photograph No. 16</b></p> <p>Location: Site 5</p> <p>Direction: Facing north</p> <p>Comments:</p>	 A photograph showing the exterior of a building with a window and a small opening. A yellow sign with the number '5' is visible in the foreground. The building is situated near a rocky area with some vegetation.
<p><b>Photograph No. 17</b></p> <p>Location: Site 5</p> <p>Direction: Facing east</p> <p>Comments:</p>	 A photograph showing the interior of a building. A large window is visible, looking out onto a rocky area. Various pieces of equipment, including a large orange tank and some cables, are visible in the foreground.
<p><b>Photograph No. 18</b></p> <p>Location: Site 6</p> <p>Direction: Facing west</p> <p>Comments:</p>	 A photograph showing a rocky area with a yellow sign with the number '5' in the foreground. A rusty metal structure is visible in the background, and there is some vegetation.

<p><b>Photograph No. 19</b></p> <p>Location: Site 6</p> <p>Direction: Facing northwest</p> <p>Comments:</p>	
<p><b>Photograph No. 20</b></p> <p>Location: Site 7</p> <p>Direction: Facing northwest</p> <p>Comments:</p>	
<p><b>Photograph No. 21</b></p> <p>Location: Site 7</p> <p>Direction: Facing northwest</p> <p>Comments:</p>	



<p><b>Photograph No. 22</b> Location: Site 7 Direction: Facing east Comments:</p>	
<p><b>Photograph No. 23</b> Location: Site 7 Direction: Facing south Comments:</p>	
<p><b>Photograph No. 24</b> Location: Site 7 Direction: Facing east Comments:</p>	

<p><b>Photograph No. 25</b> Location: Site 7 Direction: Facing east Comments:</p>	
<p><b>Photograph No. 26</b> Location: Site 7 Direction: Facing southwest Comments:</p>	
<p><b>Photograph No. 27</b> Location: Site 8 Direction: Facing east Comments:</p>	

<p><b>Photograph No. 28</b></p> <p>Location: Site 8</p> <p>Direction: Facing east</p> <p>Comments:</p>	
<p><b>Photograph No. 29</b></p> <p>Location: Site 9</p> <p>Direction: Facing northwest</p> <p>Comments:</p>	
<p><b>Photograph No. 30</b></p> <p>Location: Site 9</p> <p>Direction: Facing northwest</p> <p>Comments:</p>	

**Photograph No. 31**  
Location: Site 9  
Direction: Facing north  
Comments:







**Photograph No. 32**  
Location: Site 9  
Direction: Facing west  
Comments:







**Photograph No. 33**  
Location: Site 9  
Direction: Facing southeast  
Comments:



<p><b>Photograph No. 34</b></p> <p>Location: Site9</p> <p>Direction: Facing south</p> <p>Comments:</p>	 A photograph showing a blue metal structure, possibly a shed or utility box, situated outdoors. The structure is surrounded by trees and foliage. In the foreground, a person is holding a yellow chalkboard with the number '6' written on it in white chalk. The ground is covered with fallen leaves.
<p><b>Photograph No. 35</b></p> <p>Location: Site9</p> <p>Direction: Facing south</p> <p>Comments:</p>	 A photograph of a white trailer or shed parked outdoors. The area around the trailer is cluttered with various items, including gas tanks, tools, and a red container. In the foreground, a person is holding a yellow chalkboard with the number '6' written on it in white chalk. The background shows trees and a fence.
<p><b>Photograph No. 36</b></p> <p>Location: Site9</p> <p>Direction: Facing south</p> <p>Comments:</p>	 An interior photograph of a room. The room contains a bed with a patterned coverlet, a blue barrel, and a window. There is also a white plastic bag hanging on the wall and a wooden cabinet. The room appears to be a living or sleeping quarters.



<p><b>Photograph No. 37</b> Location: Site 9 Direction: Facing southwest Comments:</p>	
<p><b>Photograph No. 38</b> Location: Site 10 Direction: Facing east Comments:</p>	
<p><b>Photograph No. 39</b> Location: N/A Direction: Facing west Comments: Photo of ADF&amp;G trailer</p>	

<p><b>Photograph No. 40</b></p> <p>Location: Site 12</p> <p>Direction: Facing west</p> <p>Comments:</p>	
<p><b>Photograph No. 41</b></p> <p>Location: Site 12</p> <p>Direction: Facing east</p> <p>Comments:</p>	
<p><b>Photograph No. 42</b></p> <p>Location: Site 12</p> <p>Direction: Facing east</p> <p>Comments:</p>	

<p><b>Photograph No. 43</b> Location: Site 12 Direction: Facing south Comments:</p>	
<p><b>Photograph No. 44</b> Location: Site 12 Direction: Facing east Comments:</p>	
<p><b>Photograph No. 45</b> Location: Site 12 Direction: Facing south Comments:</p>	



<p><b>Photograph No. 46</b></p> <p>Location: Site 12</p> <p>Direction: Facing south</p> <p>Comments:</p>	
<p><b>Photograph No. 47</b></p> <p>Location: Site 12</p> <p>Direction: Facing south</p> <p>Comments:</p>	
<p><b>Photograph No. 48</b></p> <p>Location: Site 13</p> <p>Direction: Facing east</p> <p>Comments:</p>	

<p><b>Photograph No. 49</b></p> <p>Location: Site 13</p> <p>Direction: Facing north</p> <p>Comments:</p>	
<p><b>Photograph No. 50</b></p> <p>Location: Site 13</p> <p>Direction: Facing east</p> <p>Comments:</p>	
<p><b>Photograph No. 51</b></p> <p>Location: Site 14</p> <p>Direction: Facing east</p> <p>Comments:</p>	