



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

**Department of Environmental
Conservation**

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

410 Willoughby Ave Suite 303
PO Box 111800
Juneau, Alaska 99811-1800
Main: 907-465-5210
Fax: 907-465-5218

File No: 860.26.002

December 8, 2014

Alaska Department of Transportation and Public Facilities
2301 Peger Road, MS-2550
Fairbanks, Alaska 99709

Attn: Sam Myers

Re: Decision Document: Galena AFS/Airport - SS017 UST 1556-2
Cleanup Complete Determination

Dear Mr. Myers:

The Alaska Department of Environmental Conservation (ADEC) has reviewed the environmental records for the Galena AFS/Airport - SS017 UST 1556-2 site. This decision letter memorializes the site history, cleanup actions, and standard conditions for long-term site management. No further remedial action is required.

Site Name and Location:

Galena AFS/Airport - SS017 UST 1556-2
U.S. Survey #2627, Lot 1B, Block 10
Galena, Alaska 99741

Name and Mailing Address of Contact Party:

Sam Myers
Alaska Department of Transportation and Public
Facilities, 2301 Peger Road, MS-2550
Fairbanks, Alaska 99709

DEC Site Identifiers:

File No: 860.26.002
Hazard ID: 23154

Regulatory Authority for Determination:

18 AAC 75 and 18 AAC 78

Site Description and Background

This site SS017 UST 1556-2 (Known as Galena AFS/Airport - SS017 UST 1556-2) is part of the former Galena Air Force Station (AFS). Contaminated site investigations, site characterization and remediation are being conducted by the U.S. Air Force Civil Engineer Center (AFCEC) at Galena, Alaska.

In 1997 a 300 gallon used oil UST (UST 1556-2) was excavated from the south west edge of the Fire Station, Building 1556 which occupies the north east portion of U.S. Survey #2627, Lot 1B, Block 10. Contaminated soil was identified in the excavation when the UST was decommissioned in 1997. DRO results were reported to range from 11,000 – 17,600 mg/kg in the UST 1556-2 Tank Decommissioning report. Follow up investigations of this site have not identified contaminants of concern above the DEC Method two cleanup levels.

Contamination to the north and west of Lot 1B, Block 10 is being addressed/remediated as part of the Site SS017 Former Truck Fill-Stands (File No: 860.38.066) remediation effort. UST 1556-2 is not considered a source of contamination at the SS017 site.

Contaminants of Concern and Cleanup Levels

The default soil cleanup levels for this site are the most conservative of applicable cleanup levels established in 18 AAC 75.341, Method Two, Tables B1.

Contaminant	Site Cleanup Level (mg/kg)
DRO	250
benzo(a)pyrene	0.49
dibenzo(a,h)anthracene	0.49

The default groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C Groundwater Cleanup Levels.

Contaminant	Site Cleanup Level (mg/L)
DRO	1.5

Characterization and Cleanup Activities

In 2007, the SS017 site and the former location of UST 1556-2 was investigated by the Air Force and sampling was conducted by Earth Tech to determine whether contamination is remaining at levels above Method two cleanup levels at the site. Samples were collected from 3 to 21 feet bgs at Site SS017, and 14 to 15 feet bgs at UST 1556-2. Samples collected were analyzed at an offsite laboratory for the following analyte groups: GRO (AK101), DRO (AK102), residual-range organics (RRO) (AK103), VOCs (SW8260B), and PAHs (SW8270C). No contamination was detected above screening levels in soil or groundwater within the UST excavation area.

In 2007, soil gas sampling was performed to investigate contamination within the vadose zone soil at Sites SS014 and SS017. Samples were collected at the former UST 1556 from 10 to 11 feet bgs. The samples were analyzed in the field for Total Volatile Hydrocarbons (TVH), oxygen, and carbon dioxide using a catalytic organic vapor analyzer and for total organic vapors using a Photo Ionization Detector. TVH was detected at concentrations of 300,000 to 360,000 ppbv in soil gas samples collected to the west within the Site SS017. One TVH detection was reported near the former UST 1556-2 location at a concentration of 40,000 ppbv. A soil sample (1556-MC128) was collected at 14 feet bgs at the location of the elevated soil gas and did not detect contamination above the extent screening levels. A groundwater sample (1556-GW128) was collected and none of the results exceeded groundwater extent Screening Levels.

In 2011, the Air Force conducted site characterization efforts under 18 AAC 75.335 for the SS017 site. Twenty-six soil borings (SS017_GP001 through SS017_GP026) were advanced to delineate the extent of contamination in surface and subsurface soil at Site SS017. This work was conducted in preparation for an Interim Removal Action to excavate contaminated soil from the vadose zone at Sites SS014 and SS017. These borings were advanced within and adjacent to Site SS017, which includes the former truck fill-stands and former UST 1556-2.

Data were also collected during the 2011 SC investigation to gain closure approval for the former UST 1556-2. Former UST 1556-2 was not considered a source of the contamination at Site SS017. The Final Site Characterization results report, Birchwood Hangar (Site SS014), Truck Fill-Stands (Site SS017), and Old Fire Station (Site SS021) recommended a cleanup complete determination for the UST 1556-2 site. The only target analytes that exceeded extent SLs in vadose zone samples collected near the former UST were the Polycyclic Aromatic Hydrocarbons (PAH) benzo(a)pyrene and dibenzo(a,h)anthracene, which were detected at 0 to 2 feet bgs. Samples from boring SS017-GP007 and SS017-GP008 indicated PAH contaminants in surface soil (benzo(a)pyrene at a concentration of 0.31-0.37 mg/kg and dibenzo(a,h)anthracene at a concentration of 0.0721 - 0.0728 mg/kg). The identified concentrations are below applicable DEC Table B1, Method two cleanup levels. Since the UST was excavated from below ground and the excavation was filled with clean backfill, and since no other exceedances for petroleum contaminants have been identified above cleanup levels in soil or groundwater at the former UST location, the identified surface PAH detections are most likely not from the UST.

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

The PAH contamination concentrations remaining in the surface soil at this site including benzo(a)pyrene at a concentration of 0.31-0.37 mg/kg and dibenz(a,h)anthracene at a concentration of 0.0721 - 0.0728 mg/kg were entered into the method 3 risk calculator. The remaining contaminant concentrations do not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and do not exceed a cumulative noncarcinogenic risk standard at a hazard index of one.

Based on a review of the environmental record and of cumulative risk calculations using the method three risk calculator, ADEC has determined that residual contaminant concentrations do not pose a cumulative human health risk.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De-Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-Minimis Exposure	Contamination is present in surface soil (0 to 2 feet below ground surface) but is below direct contact and inhalation cleanup levels.
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination in the sub-surface is below applicable direct contact and inhalation cleanup levels.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination in the sub-surface is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Volatile compounds are not a vapor intrusion concern at this site as no residential buildings are on site or anticipated in the future.
Groundwater Ingestion	De-Minimis Exposure	Groundwater contamination is not present above DEC cleanup levels.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site. The commercial buildings in the area are served by city water.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	As specified in the ecoscoping form for site SS017, most of the ground surface within the site is covered by pavement and gravel and provides no viable habitat.

Notes to Table 2: “De-Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete” means that in ADEC’s judgment contamination has no potential to contact receptors. “Exposure Controlled” means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

ADEC Decision

Remaining petroleum contamination in soil is below approved cleanup levels. This site will receive a “Closed” designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater off-site requires DEC approval in accordance with 18 AAC 75.325. A “site” [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.)
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

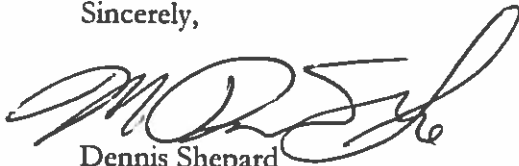
This determination is in accordance with 18 AAC 75.380 and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

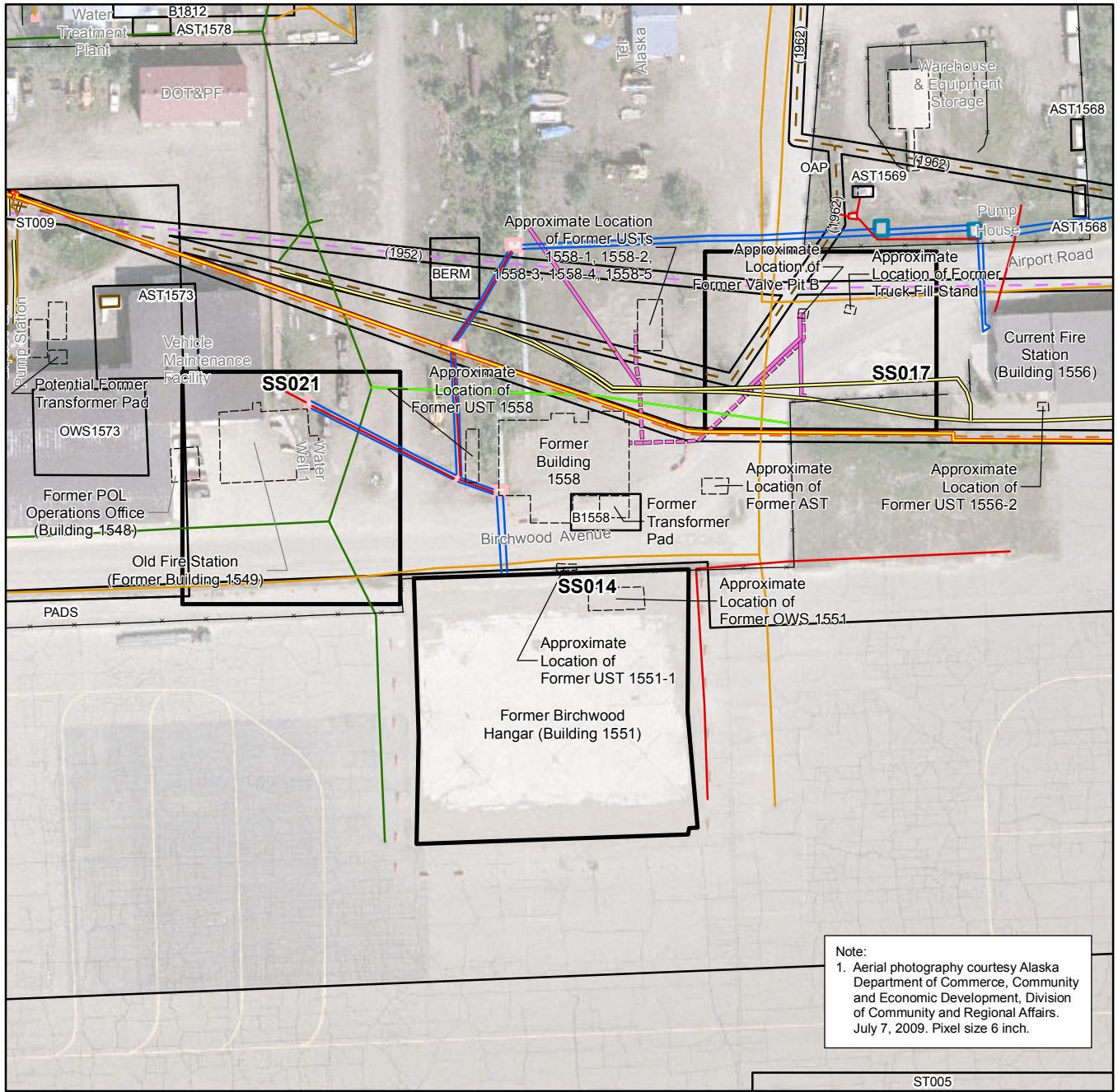
If you have questions about this closure decision, please feel free to contact me at (907) 451-2180.

Sincerely,



Dennis Shepard
Project Manager

cc: Margaret Moody, ADOT & PF, via email
Penny Adler, ADOT & PF, via email
Al Weilbacher, AFCEC, via email
Donna Kozak, BAH, via email



Note:
 1. Aerial photography courtesy Alaska Department of Commerce, Community and Economic Development, Division of Community and Regional Affairs. July 7, 2009. Pixel size 6 inch.

LEGEND

- SS014/17/21
- Adjacent Site
- Approximate Location of Former Feature
- Fence
- Abandoned Fuel Line (1952)
- Abandoned Fuel Line (1962)
- Abandoned Fuel Line
- Main Fuel Line
- Electrical Line
- Heating/Cooling Line
- Pipelines Found During IRA Excavation**
- Left in Place
- Removed

Underground Utility Locates – 2010

- Electrical Line
- Communications Line
- Sanitary Sewer Main
- Storm Drain
- Potable Water Main
- Fuel/Gas Line
- Electrical Transformer
- Utility Vault

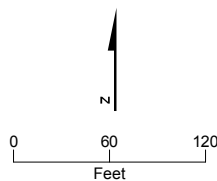
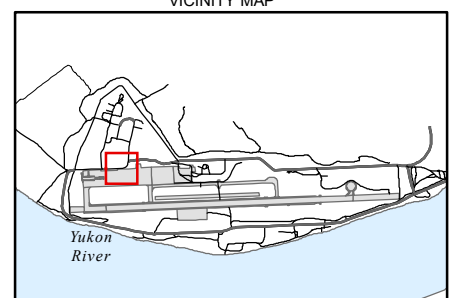


FIGURE 1
Sites SS014/17/21 Layout

Site Characterization Report
 Former Galena Forward Operating Location, Alaska

View of Overlapping Sites on the DEC Contaminated Sites Database
Lot 1, Block 10, Galena, Alaska. Contaminated areas shown from
DEC Galena Land Use Control Webmap.

Site SS017
File No. 860.38.066
Groundwater
Contaminated Area

Site SS017
File No. 860.38.066
Contaminated Soil /
Source Area

Approximate location
UST 1556-2
File No. 860.26.002

ADOT&PF SREB Site
File No. 860.38.33
Cleanup Complete

