THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

Division of Spill Prevention and Response
Contaminated Sites Program

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File: 860.38.023

January 16, 2014

AL Weilbacher
AFCEC/CIBE
2261 Hughes Ave., Suite 155
JBSA Lackland, TX 78236-9853

Re: Decision Document: Galena AFS-Airport - ST003 - POL Fuel Line Leak
Cleanup Complete Determination

Dear Mr. Weilbacher:

The Alaska Department of Environmental Conservation (DEC) has reviewed the environmental records for the referenced 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
ST003 POL Fuel Line Leak
Galena, Alaska 99741

Name and Mailing Address of Contact Party:
AL Weilbacher
AFCEC/CIBE
2261 Hughes Ave., Suite 155,
JBSA Lackland, TX 78236-9853

DEC Site Identifiers:
File No: 860.38.023
Hazard ID: 1947

Regulatory Authority for Determination:
18 AAC 75

Site Description and Background
The POL Fuel Line Leak site (IRP Site ST003), formerly known as Site 3 (Spill/Leak No. 2), is located northwest of the Control Tower Drum Storage Area (CTDSA) site SS013 (see attachment 1). Historical figures and records indicate the site was near Building 1403 (B1403).

In the mid-1950s, an underground transfer line from the Galena barge unloading area leaked diesel fuel to the ground at this site. It is unclear whether the leak was below or above ground. Cleanup of the spill was determined to be incomplete during the initial site records search. An estimated 20,000 to 30,000 gallons of fuel was reported to have been lost.

Characterization and Cleanup Activities
Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began in August 2004 when the Site was added to the contaminated Sites Database. However, several soil and groundwater investigations have been completed at the POL Fuel Line Leak site since 1986.

Soil Results

A 1986 geophysical survey did not indicate distinctive areas of potential contaminant pathways, accumulation of water-borne contaminants, or buried metal pipes. Nine test borings and one monitoring well were installed on the site during the 1986-1987 site investigation (Phase II Stage 1, Final Confirmation and Quantification Report). Soil samples were collected from each boring in 1986 and were analyzed for Total Petroleum Hydrocarbons (TPH), and those collected in 1987 were analyzed for volatile organic compounds (VOCs) and lead. The sample results indicated low-level detections that do not exceed DEC cleanup levels. However, it should be noted that laboratory reporting limits for several compounds including Benzene did exceed the DEC Table B Migration to groundwater (MTG) cleanup level in six of the nine 1987 soil sample results (see table 1). Three of the nine samples were analyzed with detection limits below the DEC Table B, migration to groundwater cleanup levels and resulted in no detections above the cleanup levels.

In 2002, four surface soil samples were collected from the north east portion of the site from 1.5 – 2 and from 3.5 - 5 feet below ground surface. Samples were analyzed for diesel range organics (DRO), gasoline range organics (GRO), residual range organics (RRO), benzene, ethylbenzene, toluene and xylenes (BTEX) and Metals. None of the petroleum related analytes were detected above the laboratory method detection limit. In 2010, a Site Investigation for the adjacent/overlapping Site B1403 was conducted. Two borings and seven test pits were installed for the investigation. Samples were analyzed for DRO, GRO, RRO, VOCs and polynuclear aromatic hydrocarbons (PAHs). None of the samples resulted in detections above the cleanup level. One soil sample from test pit TP-07 (located in north east corner of Site ST003) resulted in a detection of DRO at 63 mg/kg, which is well below the DEC MTG cleanup level.

Soil Gas Results

In 1988 a soil gas survey was conducted and indicated low-level contamination (a maximum of 6 ppm VOCs) throughout the runway apron area and clearly defined contamination boundaries to the north, east, and south of the site. Low-level contamination (less than 15 ppm total volatile hydrocarbons (TVH) detected to the west of the site was attributed to influences from other airport facilities to the west (POL Tank Yard).

Groundwater Results

One groundwater monitoring well (MW-037) was installed at the POL Fuel Line Leak site in 1987. This well was sampled twice, once in 1987 and once in 1994 for the 1996 remedial investigation. Samples collected from this well have been analyzed for Total Petroleum Hydrocarbons (TPH), purgeable halocarbons, purgeable aromatic hydrocarbons, VOCs, and lead. None of the samples identified any detections above the current DEC groundwater cleanup level. Groundwater samples collected in 1987 detected Benzene (2.4 ug/L) and Toluene (3.6 ug/L) above method detection limits (MDL) but well below the DEC groundwater cleanup levels. Samples collected in the 1994 groundwater sampling event did not detect Benzene above the laboratory MDL and Toluene was detected just above the MDL (0.03 ug/L) but far below the groundwater cleanup level.

The Air Force remediation contractors reported that the soil gas and groundwater results support the conclusion that significant soil contamination does not exist at the site. The rationale is that soil contamination was not detected during site investigations, but if present would likely contribute to elevated groundwater or soil gas contamination.

It is also important to note that monitoring wells MW-038 and MW-039 are located nearby in the general down-gradient direction of the POL Fuel Line Leak site (see attachment 1) and have not shown high concentrations of TPH or DRO.

Table 1 – Historical Sample Results – above detection limits

Contaminant	Sample Date	Maximum Soil (mg/kg)	Maximum Groundwater (mg/L)	Applicable DEC Cleanup Level
TPH	1986	6.4		N/A
Benzene	**1987**	**<2.0**		**0.025 mg/kg**
Benzene	1987		0.0024	0.005 mg/L
Toluene	1987		0.0054	1.0 mg/L
1,1,1 Trichloroethane	**1987**	**<2.0**		**0.82 mg/kg**
1,1,1 Trichloroethane	1987		ND	0.2 mg/l
Trans-1,2-dichloroethylene	**1987**	**<2.0**		**0.37 mg/kg**
Trans-1,2-dichloroethylene	1994		ND	0.10 mg/L
Trichloroethylene	**1987**	**<2.0**		**0.020 mg/kg**
Trichloroethylene	1994		0.00033	0.005 mg/L
Lead		5.8		400 mg/kg

Table 2 – Recent Sample Results – above detection limits

Contaminant	Sample Date	Soil (mg/kg)	Groundwater (mg/L)	DEC Cleanup Level
DRO	2010	63		250 mg/kg

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
N/A = Not Applicable

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.

Based on a review of the environmental record, DEC 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.

It is significant that Site ST003 is located along the Northern apron of the Galena Airport and is mostly paved. The site is not occupied by buildings and its location on the Airport apron limits future use of the site to non-residential.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De-Minimis Exposure	Contamination above direct contact levels is not present in surface soil (0 to 2 feet below ground surface). No contamination above migration to groundwater cleanup levels.
Sub-Surface Soil Contact	De-Minimis Exposure	Contamination remains in the sub-surface, but is below ingestion cleanup levels as well as migration to groundwater cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contamination remains in the sub-surface, but is below inhalation cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	De-Minimis Exposure	Site ST003 is located along the Northern apron of the Galena Airport and is mostly paved. The site is not occupied by buildings and its location on the Airport apron likely limits future use of the site to non-residential.
Groundwater Ingestion	De-Minimis Exposure	Groundwater contamination is not present at levels above drinking water standards.
Surface Water Ingestion	Pathway Incomplete	There is no surface water within on the site. Nearest surface water is the Yukon River approximately 2,200 feet to the south.
Wild and Farmed Foods Ingestion	Pathway Incomplete	The site does not have suitable wild plants or wildlife and hunting in this location is not permitted. The site is mostly paved and not suitable for farming.
Exposure to Ecological Receptors	Pathway Incomplete	Ecological receptors are not present on site. No contamination above cleanup levels has ever been detected in site soils.

Notes to Table 2: "De-Minimis Exposure" means that in DEC's judgment receptors are unlikely to be affected by the minimal volume or concentration of remaining contamination. "Pathway Incomplete" means that in DEC'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.

DEC Decision

Remaining petroleum contamination in soil is below the most stringent Table B cleanup levels. Remaining petroleum contamination in groundwater is below Table C groundwater cleanup levels. This site will receive a "Clean up Complete" 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 78.600(h). 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 99801, 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 99801, 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
Environmental Program Specialist

Enclosure: Figure 1 from Site Review, POL Fuel Line Leak (IRP Site ST003)

Attachment 1:

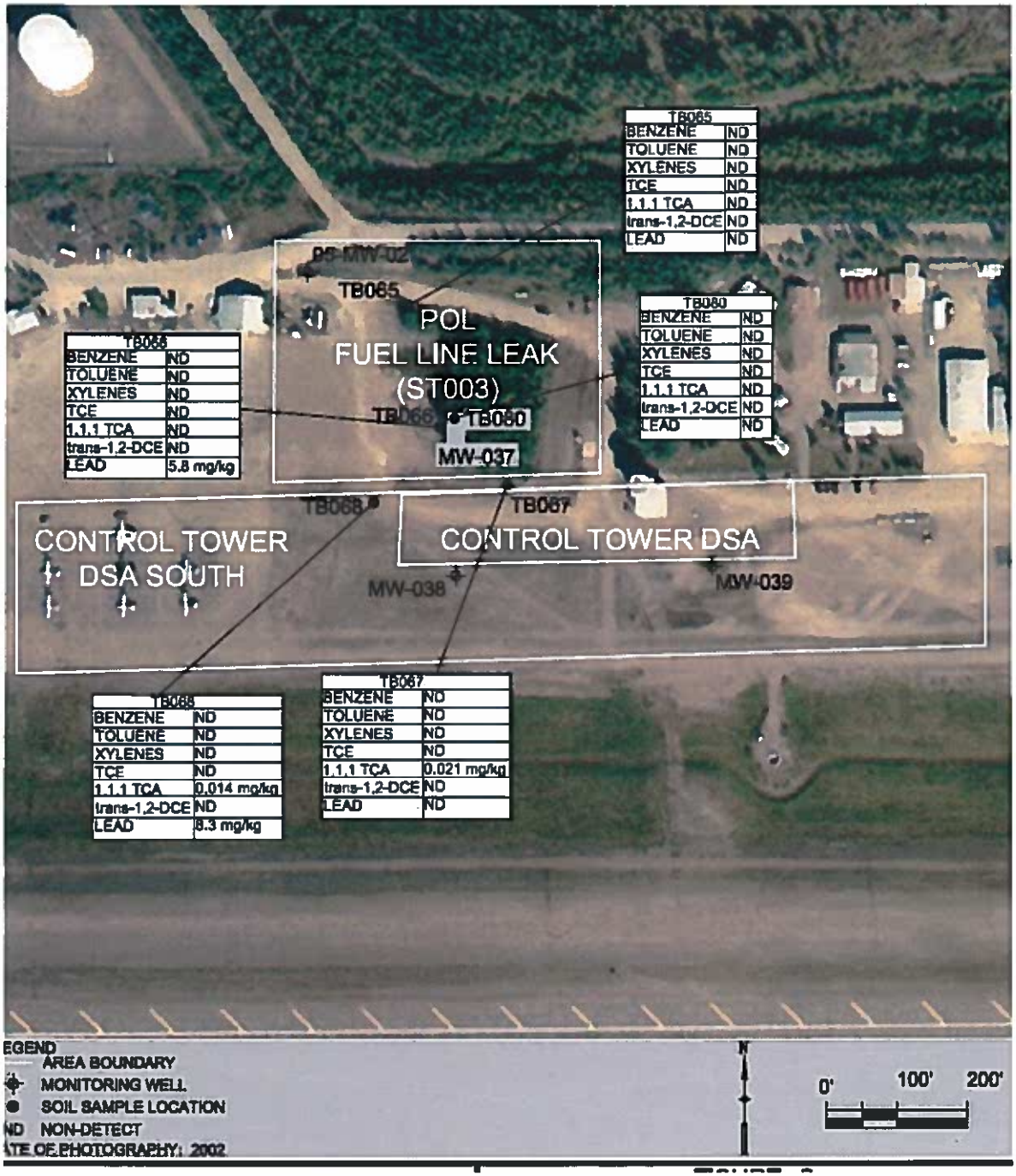

Figure from: Site Review, POL Fuel Line Leak (IRP SITE ST003) Galena Airport, Alaska, December 2003. Earth Tech, Inc.