



THE STATE
of **ALASKA**
GOVERNOR BILL WALKER

**Department of
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 1509.38.001

February 8, 2018

Dave Hanneman
FAA Alaska
222 West 7th Avenue
Anchorage, AK 99513-7587

Re: Decision Document: FAA Sunset Cove Former VHF Facility
Cleanup Complete Determination

Dear Mr. Hanneman:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the FAA Sunset Cove Former VHF Facility located south of Sunset Cove in Stephens Passage, about 4 miles north-northeast of Hobart Bay. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the FAA Sunset Cove Former VHF Facility, which is located in the DEC office in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

FAA Sunset Cove Former VHF Facility
South of Sunset Cove in Stephens Passage,
~4 Miles N/NE of Hobart Bay
Juneau, AK 99801

Name and Mailing Address of Contact Party:

Dave Hanneman
FAA Alaska
222 West 7th Avenue
Anchorage, AK 99513-7587

DEC Site Identifiers:

File No.: 1509.38.001
Hazard ID.: 25377
Source Area IDs: 79707; 80090; 80061; 80062; 80067; 80068; 80069; 80070

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

Sunset Cove is located north of Hobart Bay in Southeast Alaska near Juneau. The Sunset Cove Very High Frequency (VHF) facility was used from 1950 through 1958 as a Federal Aviation Administration (FAA) communications station. Infrastructure remains were identified at three locations: the Beach Area, the

Camp Area, and the Hill Area. The Beach Area encompassed the barge landing in the tidal zone, a concrete pad, and a former walkway leading uphill, in addition to miscellaneous debris and hazardous material. The Camp Area contained one large building, a burn barrel, a burned Quonset hut, and various debris. The Hill Area contained an overhead metal cable, building debris, an empty above ground storage tank, and a large battery. Areas of concern were identified within each of the broader locations with remaining infrastructure.

Table 1 – Areas of Concern (AOC) within each identified location

Beach Area	Camp Area	Hill Area
Electronic Debris Area & Transformer Area	Quonset Hut Area & Burn Barrel	Pipelines
PID #5		AST
Battery 1		
Battery 2		
Large AST and Pipeline		

Electronic Debris Area & Transformer Area (Beach Area):

During the 2010 remedial action activities, electronics and metal debris were identified and removed from the engine generator building (EGB) and hauled offsite for disposal. An electronics panel and transformer box were found downslope (south) of the EGB and a metal box/transformer was located east and downslope of the EGB pad.

PID #5 (Beach Area):

During the 2010 Remedial Action activities, petroleum-contaminated soil was encountered beneath one of the 55-gallon drums scattered in the woods. The location of the drum was identified as PID #5. An analytical soil sample was collected beneath the drum and analyzed for: Diesel Range Organics (DRO); Residual Range Organics (RRO); benzene, toluene, ethylbenzenes, xylenes (BTEX); polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and Resource Conservation and Recovery Act (RCRA) metals. DRO and RRO were detected at concentrations of 17,900 milligrams per kilogram (mg/kg) and 140,000 mg/kg, respectively.

Battery 1 & 2 (Beach Area):

During the 2010 Remedial Action activities, two batteries found near the Beach Area were removed and disposed of offsite. The first battery (Battery 1 site) was located on the slope to the beach adjacent to a cleared pathway, and the second battery (Battery 2 site) was located in the drum cache area near the beach fringe. Analytical soil samples were initially collected beneath each of the batteries and analyzed for total lead. Total lead was detected at concentrations up to 5,450 mg/kg at the first battery location and 88,100 mg/kg at the second battery location.

Large AST and Pipeline (Beach Area):

The large AST, measuring 17.5 feet by 11 feet, was removed from the site in 2010. No remaining fuel or sludge was present in the tank. The tank tested positive for lead so was kept intact for disposal. A two inch diameter pipeline was found running from the rocky point adjacent the ocean towards the AST. The end at the ocean could have been the loading point for fuel to fill the AST. This pipeline ran both under and above ground. Residual fuel in the pipeline was drained. Approximately 15 gallons of fuel was recovered. There was no indication of spills or leakage from the pipeline. PID sampling was conducted at the AST and two analytical samples were collected within the footprint of the AST. DRO and RRO were reported at 5,450–1,470 mg/kg and 2,420–9,700 mg/kg, respectively. PID samples and three analytical samples were also collected along the pipeline. DRO was the only exceedance of cleanup levels in one sample at 374 mg/kg.

Quonset Hut and Burn Barrel (Camp Area):

The location of the former Quonset hut contained a large quantity of associated metal debris such as corrugated metal siding and roofing. Much of the corrugated metal was either buried or overgrown with up to a 1-inch thick vegetative mat. The area also contained several rusted and corroded drums, conduit, water pipe, cable, and other metal debris. A mangled, burned drum was located and assumed to be the former burn barrel. Metallic and glass debris was found under the burn barrel. An analytical soil sample was collected from under the burn barrel for submittal to the off-site laboratory to be analyzed for volatile organic compounds (VOCs), PCBs, RCRA metals, DRO, RRO, and dioxins/furans. One sample exceeded DEC cleanup levels for PCBs with a concentration of 1.283 mg/kg.

Pipelines (Hill Area):

In 2010, remnants of a pipeline were reported. The pipeline ran along the west side of a small foot path leading from the site access trail to the Hill Area. An analytical sample was collected at this location. Field observations indicated the surface soil was saturated with water and densely rooted. A primary analytical soil sample was collected from beneath the pipeline on the west side of the path (location where the fuel pipeline appeared to be above the water line). Dense root masses were present and the soil was saturated with water. The area was densely vegetated and there was no sign of stressed vegetation. The analytical sample reported DRO at 3,010 mg/kg. The percent solids result for this sample was 16.3% suggesting highly organic, peaty soil.

A primary analytical sample was also collected from beneath the pipeline that lay on the ground surface in the middle of the path. The sampler dug down 1.5-inches below ground surface and hit saturated soil and encountered water in the hole. There was no odor, and the area was densely vegetated with no signs of stressed vegetation. The analytical sample reported DRO at 466 mg/kg.

AST (Hill Area):

The small AST at the Hill Area had previously been reported as empty. During the field effort in 2010, this AST was found to contain approximately 20-40 gallons of a diesel-water mixture. Contents were drained into nine 5-gallon closed top plastic drums. An analytical soil sample was collected downslope of the AST and was reported to have a DRO concentration of 474 mg/kg.

The large battery originally identified at the Hill Area was unable to be relocated.

Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil and analyzed for DRO, RRO, BTEX, PAHs, PCBs, RCRA metals. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- Diesel Range Organics (DRO)
- Residual Range Organics (RRO)
- Polychlorinated Biphenyls (PCBs)
- Lead

Cleanup Levels

The most stringent of either the Over 40 Inch Zone Human Health or Migration to Groundwater Cleanup Levels established in 18 AAC 75.341, Table B1 are the applicable soil cleanup levels at this site. The most stringent of the Over 40 Inch Zone Cleanup Levels established in 18 AAC 75.341 (d), Table B2 are the

applicable soil cleanup levels for DRO and RRO contamination. Table C Groundwater Cleanup Levels established in 18 AAC 75.345(a) are applicable at this site.

Table 2 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (mg/L)
DRO	230	1,500
RRO	9,700	1,100
PCBs	1	0.5
Lead	400	15

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

Characterization and Cleanup Activities

All remaining infrastructure at the former VHF facility, with the exception of the concrete foundation, was removed during the 2010 Remedial Action. Characterization and cleanup activities conducted under the regulatory authority of the Contaminated Sites Program began concurrently with the infrastructure demolition in 2010. These activities are described below.

Electronic Debris Area & Transformer Area (Beach Area):

South of the Engine Generator Building (EGB)

In 2010, approximately 3 cubic yards of soil were excavated from the location of the former electronics panel. The excavation footprint measured approximately 9 feet by 6 feet by 2 feet deep. Analytical soil samples were collected from the base and sidewall of the excavation and analyzed for DRO, RRO, PAHs, VOCs, and PCBs. DRO was detected at concentrations of 18,200 mg/kg at the base of the excavation and 826 mg/kg on the sidewall of the excavation. A second removal was conducted in 2013, where a total of 39 cubic yards of petroleum- and PCB-impacted soil were removed for a final excavation limit measuring approximately 22 feet long by 15 feet wide and 1–5 feet below ground surface (the north sidewall sloped to grade). In 2017, soil removal activities progressed to the west and followed the bedrock contours which defined the lower limits of the excavation. The bedrock floor of the excavation was cleaned of residual soils by hand shoveling. A total of 9 cubic yards of PCB-contaminated soil was removed from the excavation. The triangular excavation measured 7 feet by 12 feet by 12 feet and extended to a depth of approximately 6 feet below ground surface. A total of six analytical results reported PCB concentrations below the applicable cleanup level at the limits of the excavation.

East of the EGB

In 2010, approximately 0.75 cubic yards of soil were excavated at the location of the former transformer box east of the EGB pad. Bedrock was encountered at 1.5 feet below ground surface. An analytical soil sample was collected from the limits of the excavation and analyzed for DRO, RRO, VOCs, PAHs, and PCBs. DRO was detected at a concentration of 276 mg/kg, and all other analytical results were below cleanup levels. In 2013, two SuperSacks of petroleum-contaminated soil were removed from the transformer box location southeast of the concrete pad. Large rocks and shallow bedrock complicated soil removal activities at this excavation. Excavation dimensions measured roughly 9 feet by 9 feet to a depth of approximately 0.5 feet beyond the original excavation. All confirmation results were either less than the applicable soil cleanup level or not detected, with a maximum concentration of DRO at 55.9 mg/kg.

PID #5 (Beach Area):

One cubic yard of petroleum-contaminated soil was initially removed from the PID #5 location during the 2010 site activities. An analytical soil sample was collected from the limits of the excavation and analyzed for DRO, RRO, PCBs, and RCRA metals. DRO and RRO were detected at concentrations of 5,390 mg/kg and 34,200 mg/kg, respectively. Lead was also detected at a concentration of 514 mg/kg. Based on the analytical results, an additional 3 cubic yards of petroleum-contaminated soil was removed from the PID #5 location in 2010. The excavation footprint measured approximately 7 feet by 7.5 feet by 4 feet deep. Analytical soil samples were collected from the base and sidewall of the excavation. DRO was detected at 1,440 mg/kg on the base of the excavation and 1,290 mg/kg on the sidewall of the excavation. All other analytical results, including lead, were below soil cleanup levels.

In 2013, an additional five cubic yards of petroleum-contaminated soil were removed. The excavation dimensions measured approximately 10 feet by 10 feet to a depth of approximately 2 feet below ground surface. Excavation depth was limited by hard schist. The down-gradient, south sidewall consisted of dark peat with a pungent odor of indeterminate origin. Several cut logs were uncovered during excavation activities. Three analytical soil samples were collected from the excavation limits, two sidewalls and one from the base. Analytical results indicated petroleum contamination remained along the southern sidewall with DRO concentrations of 677 mg/kg and 797 mg/kg collected from the southeast and southwest sidewalls, respectively. An additional six cubic yards of soil were removed along the south sidewall. The final dimensions of the excavation measured approximately 14 feet long by 10.5 feet wide with a maximum depth of approximately 2.5 feet. All three analytical results collected from the final excavation limits were non-detect or below the soil cleanup level. The highest concentrations of DRO and RRO remaining at the site were documented at 177 mg/kg and 698 mg/kg, respectively.

Battery 1 (Beach Area):

Battery 1 Area is located southwest of the generator pad and along the east side of the site access road. Battery pieces were visible during the initial 2013 excavation activities. Eleven 1 cy super sacks of lead-impacted soil were removed. An x-ray fluorescence (XRF) spectrometer was used to field screen lead concentrations in soil. Dimensions of the initial 2013 excavation at the Battery 1 Area measured 6 feet by 24 feet. Soil was removed down to bedrock along the base and bottom of the east sidewall of the excavation. Excavation activities continued until no visible battery pieces remained. XRF field screening readings ranged between 1 and 5,000 ppm. Additional soil was removed until XRF readings were less than 100 ppm. A total of 19 cubic yards of lead-impacted soil were removed from the Battery 1 Area. Final excavation dimensions measured approximately 28 feet by 7 feet to a maximum depth of 5 feet below ground surface. Four analytical soil samples were collected from the sidewalls of the excavation and two from the base. Analytical results from the samples reported lead concentrations less than the soil cleanup level at a maximum concentration of 132 mg/kg.

Battery 2 (Beach Area):

Lead-impacted soil was removed by hand shoveling from the Battery 2 Area in 2013. Approximately 1 cubic yard of soil was removed initially from the Battery 2 Area. Two small excavations were created targeting the previous sample marker, visible battery, and other debris including an open, dried paint can (lead-based paint), and XRF readings greater than 100 ppm. Initially, the larger of the two excavations measured approximately 8 feet by 4 feet to a depth of approximately 2 feet below ground surface. The smaller excavation was approximately 2 feet by 4 feet to a depth of 1.5 feet below ground surface. Four analytical soil samples were collected from the two excavations. A soil sample was collected from the base of the larger excavation near the location of the previous sample. Two samples exceeded the cleanup level with reported lead concentrations of 692 mg/kg and 2,980 mg/kg. An additional three buckets (less than 0.25 cubic yards) of soil was removed from the base of the larger excavation at the locations of the

exceedances. Two analytical soil samples were collected near the previous sample locations after approximately a half-foot of soil was removed. Analytical results from the two samples reported lead concentrations less than the DEC soil cleanup level, with the highest concentration remaining at 395 mg/kg.

Large AST and Pipeline (Beach Area):

Excavation was conducted in 2010 by hand removing < 1 cy of soil down to bedrock. There was a discernible diesel odor while removing soil, however vegetation in the area was healthy and showed no signs of stress. Two analytical samples were scraped from the sidewall and the bottom of the excavation. DRO was documented at 1,710–7,150 mg/kg. Further soil removal was not practicable due to the bedrock encountered.

The former Large AST and Pipeline area was further investigated in 2017 to further demonstrate that contamination had been removed to the extent practicable. The location of the previous DRO exceedance was located and shallow test pits were hand dug to bedrock and soils were field screened with a photoionization detector (PID). Bedrock was encountered in all nine sampling locations at an average depth of 6.5 inches. No petroleum staining or odor was observed in any of the soil samples. All field screening readings for samples collected at the former Large AST and Pipeline area were less than 4 parts per million. Based on field headspace screening results at a maximum of 3.8 ppm and field observations of organic-rich soils exhibiting no staining and/or odor, remaining petroleum contamination was determined de minimis.

Quonset Hut and Burn Barrel (Camp Area):

In August 2010, soil was excavated and removed from underneath the burn barrel. The excavation footprint was 5 feet in length, 3 feet in width and 4 feet in depth, and resulted in the removal of soils to fill a one cubic yard super sack. Two primary analytical soil samples were collected from the bottom and sidewall of the excavation and submitted for analysis for VOCs, DRO, RRO, PAHs, PCBs, and lead. Analytes were either non-detect or below applicable DEC cleanup levels.

Samples were collected July 2010 and August 2010 (prior and post-excavation) to evaluate dioxin contamination. The worst case scenario sum of the dioxin/furan results indicated the collected samples were below the 2,3,7,8-tetrachlorodibenzodioxin cleanup level.

Pipelines (Hill Area):

In 2013, approximately 3 feet of remnant pipeline and some soil were removed from the end of the pipe and the former highest sample location. No other piping was observed. A soil sample was collected from this location using a hand shovel. Similar to the 2010 observations, water saturated the hole once soil was removed and dense roots restricted sample collection depth. No fuel or petroleum hydrocarbon odor was observed. The soil sample was analyzed for DRO and RRO. The laboratory qualified the data as possibly being influenced by naturally occurring organics and the reported percent solids result for this sample was 14.7%, indicative of highly organic, peaty soil. DRO was documented above the soil cleanup level at 958 mg/kg however, the laboratory noted in the analytical report that the chromatogram associated with this sample did not have a pattern typical of fuel and suggested biogenic interference as a contributing factor to the high organic peaks reported with this sample. The solids content of this sample was reported at 14.7% further indicating that the soils are highly organic and peaty.

AST (Hill Area):

During the 2010 removal actions, soil was removed from the downslope area by hand. Approximately 3 shovelfuls of soils was removed before bedrock was encountered. In the area from which the AST had been removed, soil was present that was visibly contaminated (diesel odor and black color). This soil was on

top of bedrock and as much soil as possible was scraped and placed in a SuperSack for disposal. The analytical soil sample collected by scraping soil off the bedrock had a DRO level of 744 mg/kg. The residual soil contamination was removed to the extent practicable and is de minimis in volume.

Table 3 – Soil Cleanup Levels and Highest Remaining Concentrations at Areas of Concern

Contaminant	DRO mg/kg	RRO mg/kg	PCBs mg/kg	Lead mg/kg
Cleanup Level	230	9,700	1	400
Electronic Debris Area & Transformer Area	133	59	0.091	-
PID #5	177	698	-	-
Battery 1	-	-	-	132
Battery 2	-	-	-	395
Large AST & Pipeline	7,150	8,330	-	-
Quonset Hut Area & Burn Barrel	ND	7	ND	2.81
Pipelines	958*	1,420	-	-
AST (Hill)	744	4,420	-	-

mg/kg = milligrams/kilogram

- = analyte not applicable at AOC

ND = non-detect

*DRO concentrations at this AOC were partially attributed to biogenic interference

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.

Based on a review of the environmental record, DEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

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 4 – Exposure Pathway Evaluation Electronics Debris Area and Transformer Area (Beach Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination remaining in surface soil (0 to 2 feet below ground surface) is below the most stringent applicable cleanup level.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remaining in sub-surface soil is below the most stringent applicable cleanup level.
Inhalation – Outdoor Air	De Minimis Exposure	Contamination remaining is below the applicable cleanup level.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are not present on site and contamination remaining is below the applicable cleanup level.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is below the applicable cleanup level (migration to groundwater).
Surface Water Ingestion	Pathway Incomplete	Remaining contamination is below the applicable cleanup level and will not likely cause a surface water quality exceedance.
Wild and Farmed Foods Ingestion	De Minimis Exposure	Contamination remaining is limited in quantity, below the most stringent applicable cleanup level, and not expected to significantly impact wild and farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination remaining is limited in quantity, below the most stringent applicable cleanup level, and not expected to significantly impact ecological receptors.

Table 5 – Exposure Pathway Evaluation PID #5 (Beach Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination remaining in surface soil is below the most stringent applicable cleanup level.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remaining in sub-surface soil is below the most stringent applicable cleanup level.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remaining is below the applicable cleanup level.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are not present on site and contamination remaining is below the applicable cleanup level.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is below the applicable cleanup level (migration to groundwater).
Surface Water Ingestion	Pathway Incomplete	Remaining contamination below the applicable cleanup level and will not likely cause a surface water quality exceedance.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants remaining are below the most stringent applicable cleanup level, do not bioaccumulate, and are not expected to significantly impact wild and farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminants remaining are below the most stringent applicable cleanup level, do not bioaccumulate, and are not expected to significantly impact ecological receptors.

Table 6 – Exposure Pathway Evaluation Battery 1 (Beach Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination remaining in surface soil (0 to 2 feet below ground surface) is below the most stringent applicable cleanup level.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remaining in sub-surface soil is below the most stringent applicable cleanup level.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remaining is below the applicable cleanup level.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are not present on site and contamination remaining is below applicable cleanup level.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is below the most stringent applicable cleanup level.
Surface Water Ingestion	Pathway Incomplete	Remaining contamination is below the applicable cleanup level and will not likely cause a surface water quality exceedance.
Wild and Farmed Foods Ingestion	De Minimis Exposure	Contamination remaining is limited in quantity, below the most stringent applicable cleanup level, and not expected to significantly impact wild and farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination remaining is limited in quantity, below the most stringent applicable cleanup level, and not expected to significantly impact ecological receptors.

Table 7 – Exposure Pathway Evaluation Battery 2 (Beach Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination remaining in surface soil (0 to 2 feet below ground surface) is below the most stringent applicable cleanup level.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remaining in sub-surface soil is below the most stringent applicable cleanup level.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remaining is below the applicable cleanup level.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are not present on site and contamination remaining is below applicable cleanup level.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is below the applicable cleanup level.
Surface Water Ingestion	Pathway Incomplete	Remaining contamination is below the applicable cleanup level and will not likely cause a surface water quality exceedance
Wild and Farmed Foods Ingestion	De Minimis Exposure	Contamination remaining is below the most stringent applicable cleanup level and not expected to significantly impact wild and farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination remaining is below the most stringent applicable cleanup level, and not expected to significantly impact ecological receptors.

Table 8 – Large AST and Pipeline (Beach Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	DRO contamination was removed in surface/sub-surface soil to the extent practicable to bedrock in 2010. Follow up investigation with field screening in 2017 resulted in no observations of staining or odor.
Sub-Surface Soil Contact	De Minimis Exposure	DRO contamination was removed in surface/sub-surface soil to the extent practicable to bedrock in 2010. Follow up investigation with field screening in 2017 resulted in no observations of staining or odor.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remaining is below inhalation cleanup levels and is partially attributed to biogenic interference.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Contamination remaining is below inhalation cleanup levels and is partially attributed to biogenic interference.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is not expected to impact groundwater.
Surface Water Ingestion	Pathway Incomplete	Remaining contamination in soil is not expected to impact surface water.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals and are not expected to significantly impact wild and farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals and are not expected to significantly impact ecological receptors.

Table 9 – Quonset Hut and Burn Barrel (Camp Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	Contamination remaining in surface soil is below the most stringent applicable cleanup level.
Sub-Surface Soil Contact	De Minimis Exposure	Contamination remaining in sub-surface soil is below the most stringent applicable cleanup level.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remaining is below the applicable cleanup level.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Buildings are not present on site and contamination remaining is below the applicable cleanup level.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is below the applicable cleanup level.
Surface Water Ingestion	Pathway Incomplete	Remaining contamination is below the applicable cleanup level.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contamination remaining is below the most stringent applicable cleanup level and is not expected to impact wild and farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	Contamination remaining is below the most stringent applicable cleanup level and is not expected to impact ecological receptors.

Table 10 – Pipelines (Hill Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	DRO was detected in surface soil at 958 mg/kg, but is partially attributed to biogenic interference.
Sub-Surface Soil Contact	De Minimis Exposure	Bedrock was encountered in shallow soil. Any contamination remaining above cleanup level is partially attributed to biogenic interference.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remaining is below inhalation cleanup levels and is partially attributed to biogenic interference.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Contamination remaining is below inhalation cleanup levels and is partially attributed to biogenic interference.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is not expected to impact groundwater.
Surface Water Ingestion	Pathway Incomplete	Remaining contamination in soil is not expected to cause a surface water quality exceedance.
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	Contaminants of concern do not have the potential to bioaccumulate and are not expected to impact ecological receptors.

Table 11 – AST (Hill Area)

Pathway	Result	Explanation
Surface Soil Contact	De Minimis Exposure	DRO was detected in a sample scraped from bedrock at 744 mg/kg, but is de minimis in volume.
Sub-Surface Soil Contact	De Minimis Exposure	DRO was detected in surface/sub-surface soil at 744 mg/kg, but is partially attributed to biogenic interference. Bedrock was encountered in shallow soil.
Inhalation – Outdoor Air	Pathway Incomplete	Contamination remaining is below inhalation cleanup levels and is partially attributed to biogenic interference.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Contamination remaining is below inhalation cleanup levels and is partially attributed to biogenic interference.
Groundwater Ingestion	Pathway Incomplete	Contamination remaining in soil is not expected to impact groundwater.
Surface Water Ingestion	Pathway Incomplete	Remaining contamination in soil is not expected to cause a surface water quality exceedance.
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	Contaminants of concern do not have the potential to bioaccumulate and are not expected to impact ecological receptors.

Notes to Tables 4-11: “De Minimis Exposure” means that in DEC’s judgment receptors are unlikely to be adversely 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 institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

DEC Decision

Soil contamination within the FAA Sunset Cove Former VHF Facility contaminated site has been cleaned up to concentrations below the approved cleanup levels. All Areas of Concern referenced will receive a “Cleanup Complete” designation on the Contaminated Sites Database. The site addressed within is 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(i). A “site” as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (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.
3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

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 contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to 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, 555 Cordova Street, Anchorage, Alaska 99501-2617, 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, P.O. Box 111800, 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) 451-2370 or email at gretchen.caudill@alaska.gov.

Sincerely,

Recommend By:

Approved by:

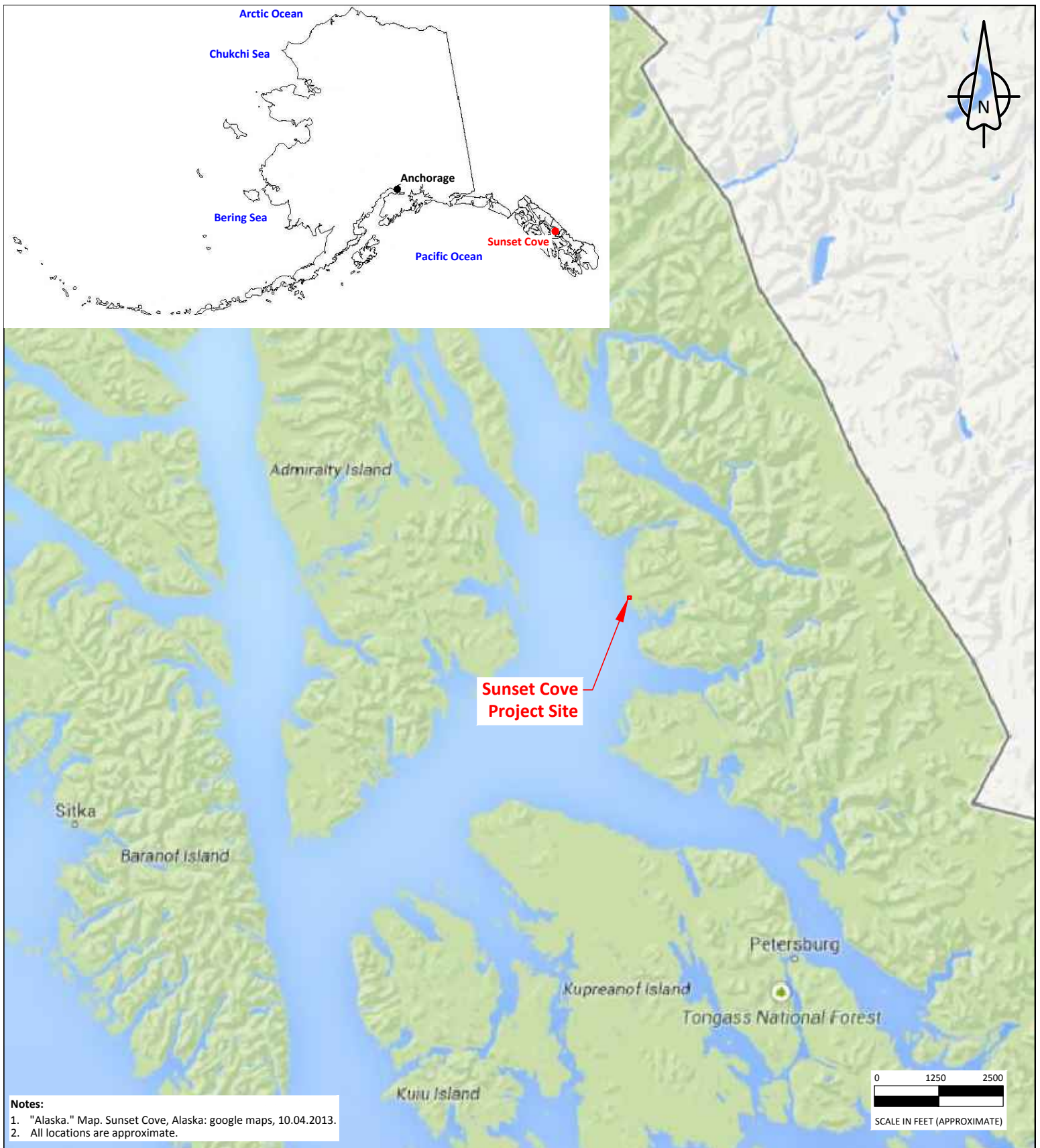
Gretchen Caudill
Environmental Program Specialist

Monte Garrouette
Environmental Program Specialist

Note: This letter is being transmitted to you in electronic format only. If you require a paper copy, let us know and we will be happy to provide one to you. In the interest of reducing file space, the Division of SPAR/Contaminated Sites Program is transitioning to electronic transmission of project correspondence.

cc: Brad Platt, FAA
Eric Breitenberger, DEC
Kara Kusche, DEC
Spill Prevention and Response, Cost Recovery Unit

Enclosed: Figure 1 – State and Site Vicinity Map (Ahtna 2017)
Figure 2 – Areas of Concern (Bethel Services 2011)
Figure 3 – Areas of Concern – Beach Area (Ahtna 2017)



Soil Removal Report
Former VHF Facility, Sunset Cove, Alaska


Ahtna
Engineering Services, LLC

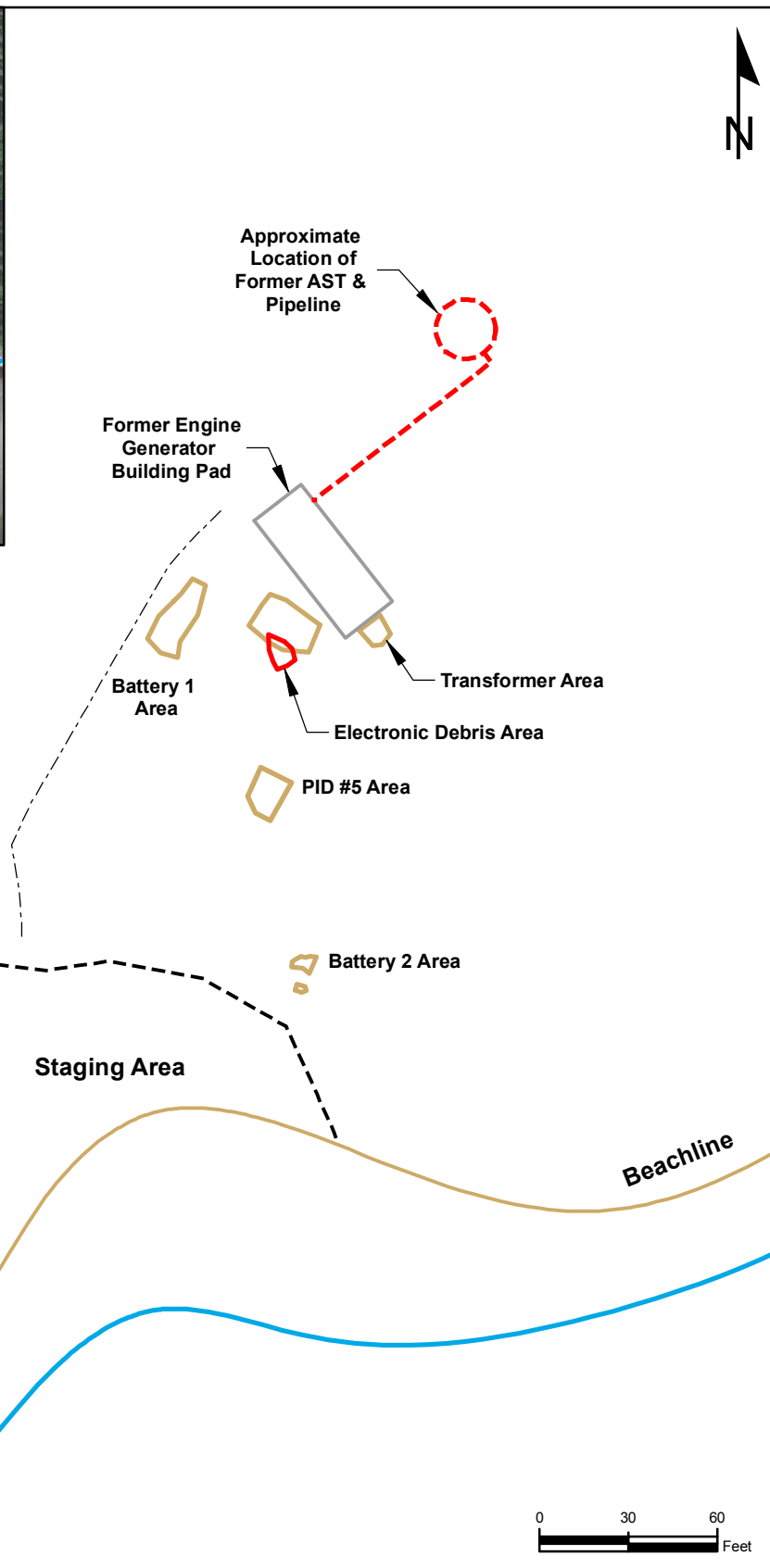
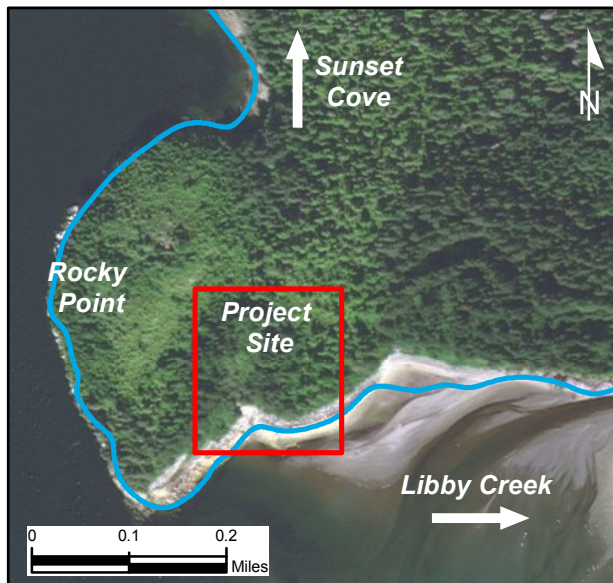
State and Site Vicinity Maps

Project Number: 05161	Figure Number:
Date: 09.01.2017	1
Drawn By: R.F.	



SOURCE: GOOGLE EARTH PRO

	BETHEL SERVICES, INC. <i>A subsidiary of Bethel Native Corporation</i> 2605 Denali Street, Suite 100 Anchorage, AK 99503 (907) 522-6103 Fax (907) 522-6153	SITE DETAIL MAP		
CLIENT: Federal Aviation Administration CONTRACT NO.: DTFAAL-05-D-00002, Task Order #0047		Project: Sunset Cove Decommissioning Demolition and Removal of Various FAA Structures Sunset Cove, Alaska Prepared by: K. Russell Reviewed by: K. Matolcsy	Scale: NTS Date: 03-16-2011	FIGURE 2



Soil Removal Report Former VHF Facility, Sunset Cove, Alaska

Ahtna
Engineering Services, LLC

Site Plan

Project Number: 05161	Figure Number: 3
Date: 9/13/2017	
Drafted By: R.F.	