

# AGENDA

## ADAK RESTORATION ADVISORY BOARD

**Thursday, 23 September 2021**  
**1:00 pm Adak: via Teleconference**

**Toll free dial-in number: 1-844-712-3247**  
**Access Code: 130 950 5637**

<b>Adak Time</b>	<b>Agenda Topic</b>	<b>Speaker/Lead</b>
1:00 pm	Welcome and Introductions	Layton Lockett, Community Co-Chair Justin Peach, Navy Co-Chair
	Review Minutes from 8 April 2021 RAB Meeting	RAB Members
	USACE Status Update	Richard Ragle, USACE
	Munitions Program Update	Justin Peach, Navy Co-Chair
	OU B-2 Record of Decision	Justin Peach, Navy Co-Chair
	PFAS Sampling of Soil, Groundwater, Surface Water	Cathy Weber, Navy
	OU A / SAERA Closure Evaluation	Cathy Weber, Navy
	Fifth Five-Year Review	Cathy Weber, Navy
	Petroleum Update A. East Canal B. SWMU 60: Remedial Design C. Free Product Recovery Program	Cathy Weber, Navy Justin Peach, Navy

**Agenda****Adak Restoration Advisory Board****23 September 2021**

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<b>Adak Time</b>	<b>Agenda Topic</b>	<b>Speaker/Lead</b>
	Long-Term Monitoring Update (LTM) and Institutional Controls (ICs) A. Groundwater / Surface Water / Soil Sampling B. Dig Permits C. IC Materials D. IC Inspections E. IC Repairs	Steve Skeehan, Navy Justin Peach, Navy Co-Chair
	Community Report/New RAB Member Discussion/Comments	Layton Lockett, Community Co-Chair
	Review New Action Items	Layton Lockett, Community Co-Chair Justin Peach, Navy Co-Chair
	Set Date for Next RAB	Layton Lockett, Community Co-Chair Justin Peach, Navy Co-Chair



# **ADAK**

## **Restoration Advisory Board (RAB)**

### **Meeting Materials**

### **23 September 2021**

**Thursday, 23 September 2021**  
**1:00 PM Adak, via Teleconference**

#### **1. WELCOME AND INTRODUCTIONS**

Introductions

Attendance

Establish Quorum (See Attachment A)

Review Agenda

#### **2. APPROVAL OF PRIOR MEETING MINUTES / REVIEW OF PRIOR ACTION ITEMS**

##### **Review and Approval of Prior Meeting Minutes**

Draft minutes from the 8 April 2021 RAB Meeting were circulated to RAB members and interested parties on 20 April 2021 and again on 27 August 2021.

Any additional comments?

Request motion to approve.

##### **Review of Actions Items**

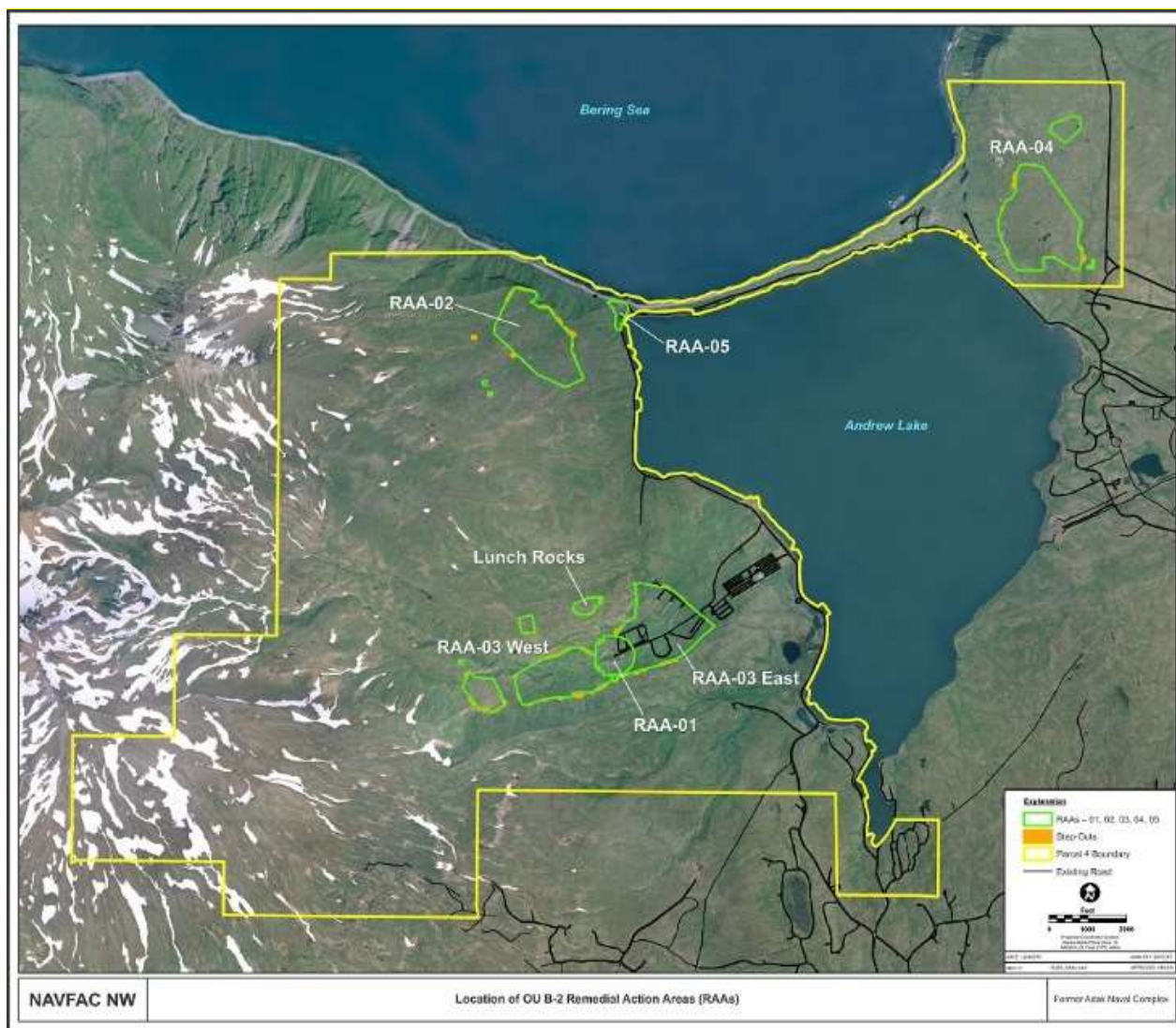
There were no action items from the 8 April 2021 meeting.

#### **3. USACE**

Mr. Richard Ragle of the United States Army Corps of Engineers (USACE) Alaska District will present a summary of the work conducted on Great Sitkin Island and Ogliuga Island during the 2021 field season and an update on the 2022 activities planned for Tanaga Island. See Attachment B.

#### 4. MUNITIONS UPDATE

The Non-Time Critical Removal Action (NTCRA) in Operable Unit B-2 (OU B-2), Parcel 4, began in 2013. Five Remedial Action Areas (RAAs) were established and have been completed as shown in the following figure. Additional disposal areas were identified east and west of RAA-05 and remain as active remediation areas.





Recoveries through the 2021 field season are presented in the table below.

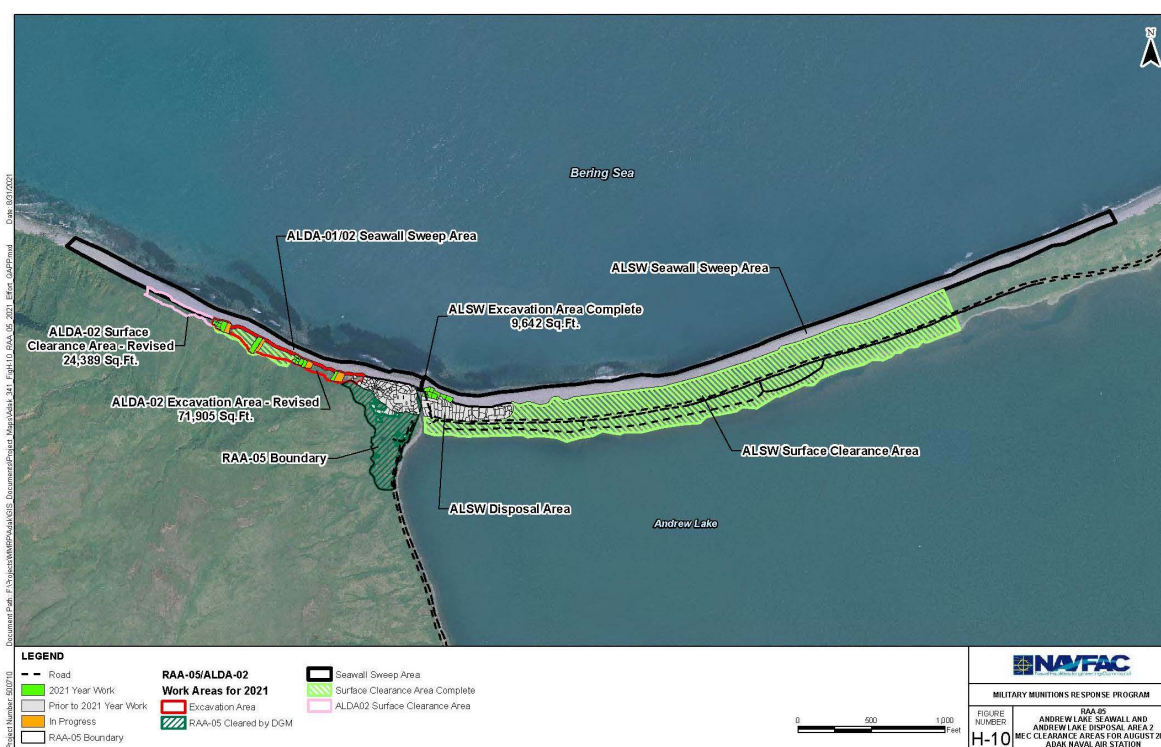
	2013	2014	2015	2016	2017	2018	2019	2021 <sup>1,2</sup>	Total
<b>MPPEH/ MEC<sup>3</sup> (items)</b>	2,656	514	2,214	984	2,435	8,040	1,849	716	19,408
<b>Munitions Debris (lbs)</b>	22,084	22,250	10,495	7,733	23,387	18,356	30,422	17,434	152,161
<b>Metal Debris (lbs)</b>	80,316	22,850	24,633	62,998	45,401	25,040	59,765	25,083	346,086

Note 1: 2020 field season postponed due to COVID risk.

Note 2: 2021 data are through August 28.

Note 3: MPPEH is material potentially presenting an explosive hazard, MEC is munitions and explosives of concern and could include discarded military munitions (DMM) and unexploded ordnance (UXO)

APTIM has nearly completed its work for the 2021 field season; work areas are shown on the figure below.



The excavation at Andrew Lake Seawall (ALSW) is now 100% complete. The excavation planned for 2021 and 2022 at Andrew Lake Disposal Area (ALDA)-02 is approximately 30% complete. The surface clearance at the far west of ALDA-02 will begin on approximately 4 October 2021.

Mr. Doug Schicho from APTIM will provide details on how and where the munitions work for 2021 and 2022 will be accomplished (see Attachment C).

### Seawall Sweeps

MPPEH / MEC Recovered from Monthly Seawall Sweeps - 2013 through 2021		
Year	Month	Annual
2013		33
2014		10
2015		29
2016		13
2017		4
2018		7
2019		17
2021 <sup>1</sup>		6
April		
60mm Mortar	4	
2.36 in Rocket Warhead	1	
May		
60mm Mortar	1	
June	0	
July	0	
August	0	
<b>Total</b>		<b>121</b>

Note 1: 2020 field season postponed due to COVID risk.

The Navy has been tracking the annual recoveries and had anticipated a decreasing trend in seawall recoveries as the shoreline dump areas have been removed. Although the number increased in 2019, two of the recoveries were in conglomerated clusters, and if those are viewed as single items (single blocks when found), then the model of decreasing finds is still valid, particularly with just six recoveries in 2021.

### Explosive Ordnance Disposal (EOD) Mobile Unit 11

EOD MU 11 from Naval Air Station (NAS) Whidbey Island conducted site visits from 8 to 28 May 2021 and from 28 August to 3 September 2021. Their scope included checking the Finger Bay shoreline for cartridge activated devices (CADs) and performance of a seawall sweep as a quality assurance (QA) step. No munitions were found during either site visit at Finger Bay or along the seawall.

**5. OPERABLE UNIT (OU) B-2 RECORD OF DECISION (ROD)**

The Alaska Department of Environmental Conservation (ADEC), Environmental Protection Agency (EPA), and the Navy are working to finalize the ROD for OU B-2. The ROD will establish the remediation goals and long-term management requirements for the areas within Parcel 4.

The ROD is the next step in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process, following the Proposed Plan and Action Memorandum from early 2013 and the field work conducted under the NTCRA. Following completion of the NTCRA, the Navy will prepare a Remedial Action Completion Report (RACR). Note: The RACRs for OU A and OU B-1 were completed in 2012 and 2014, respectively.

**6. PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)****A. PFAS Preliminary Assessment (PA)**

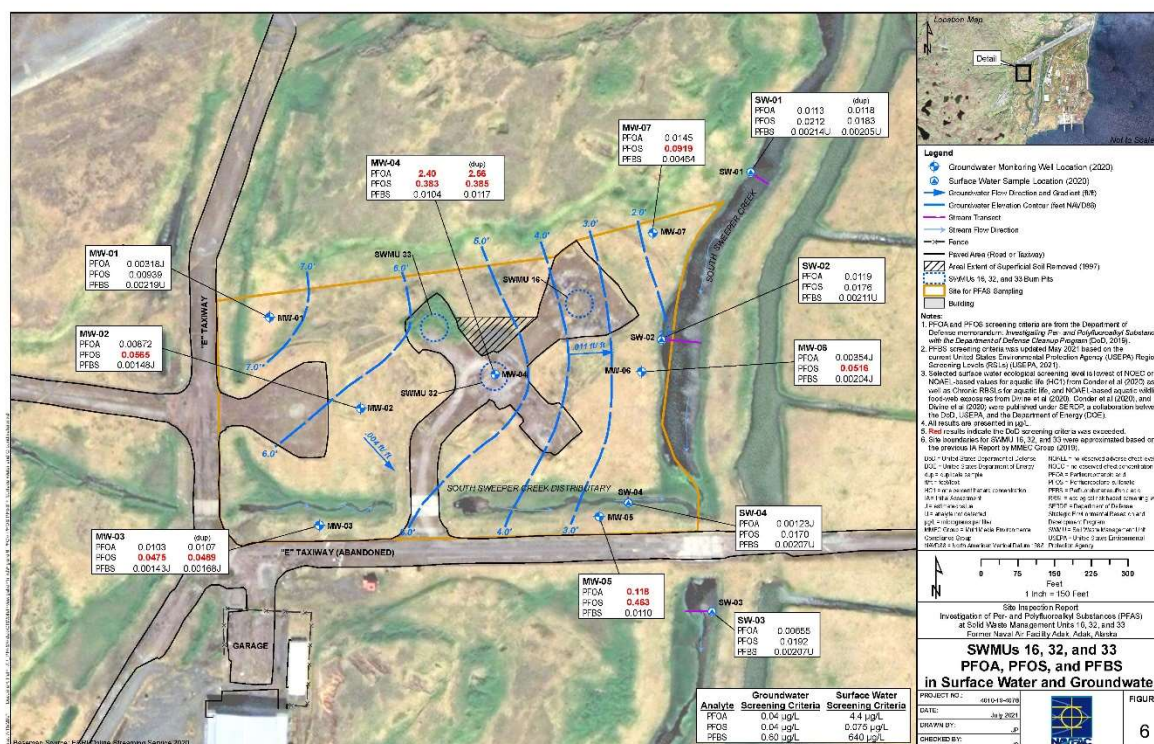
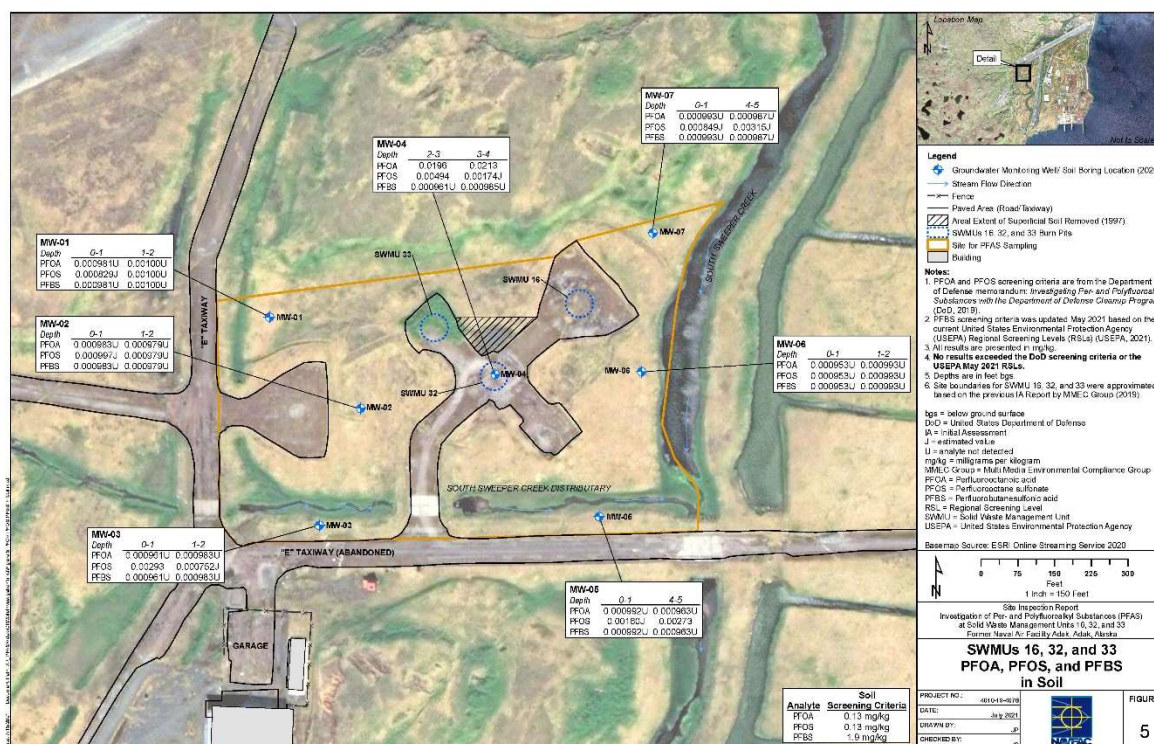
The island-wide PA for PFAS was finalized on 7 June 2021. The PA documents a comprehensive desktop evaluation and records review of Adak with respect to past uses of potential PFAS-containing materials, primarily aqueous film-forming foam (AFFF, i.e., fire-fighting foam), on the island. A total of 215 sites were evaluated, and 12 sites were identified needing further investigation to determine the presence of PFAS. Based on land use controls (LUCs) established in the OU A ROD for soil excavation and groundwater use, the potential for human exposure to contaminated soil and/or groundwater has been eliminated. Therefore, further investigation to determine the presence or absence of PFAS at these sites is not currently being recommended by the Navy.

**B. PFAS Site Inspection (SI)**

Sampling for PFAS compounds in the soil, groundwater, and surface water at Solid Waste Management Units (SWMUs) 16, 32, and 33 (the former Fire Fighting Training Areas) was conducted in September 2020. PFAS compounds were detected in soil, groundwater, and surface water.

Investigation locations and the results of the sampling are shown in the following figures:





**Investigation Results Summary****Soil**

Detections of perfluorooctanoic acid (PFOA), perfluorooctanesulfonic acid (PFOS), and perfluorobutanesulfonic acid (PFBS) in soil were below the current Department of Defense (DoD) and EPA screening levels. Current LUCs are in place through the Navy and City of Adak requiring approval before performing any excavation.

**Groundwater**

Select detections of PFOA and PFOS in groundwater were above the DoD and EPA screening levels. Detections of PFBS in groundwater were below the current DoD and EPA screening levels. Current LUCs are in place at SWMUs 16, 32, and 33 restricting domestic use of groundwater. Groundwater may still be used for industrial purposes, but industrial use is unlikely due to high salinity, low yield, high turbidity, and known contamination in groundwater.

**Surface Water**

Detections of PFOA and PFOS in surface water were compared to ecological reference documents and do not indicate that surface water is a significant pathway for ecological receptors. PFBS was not detected in surface water.

A Draft Site Inspection Report summarizing investigation and results is currently in preparation.

**7. OU A AND STATE ADAK ENVIRONMENTAL RESTORATION AGREEMENT (SAERA) CLOSURE EVALUATION****A. OU A and SAERA Sites**

The Navy is evaluating all of the OU A and SAERA sites on Adak to assess accelerating closure. This work was conducted in preparation for the Fifth Five-Year Review (FYR), which is currently underway.

The Navy established site-specific cleanup levels for subsets of sites included in the CERCLA ROD for OU A and sites included in SAERA. The subsets were determined by the availability of total organic carbon (TOC) data. These cleanup levels were documented in a memo to ADEC and EPA. Closure goals for every site were evaluated for closure potential and provide recommendations to achieve closure, if feasible. Seventeen OU A sites were recommended for potential future closure, with additional work required. One SAERA site, the Runway 5-23 Aviation Gasoline (AVGAS) Valve Pit, was recommended for closure, and with ADEC approval, the site's status has been adjusted from Cleanup Complete with Institutional Controls to Cleanup Complete.

Additional soil sampling was conducted from 26 July to 10 August 2021 to determine whether additional sites can be closed.

- Sampled 68 locations at 13 sites, some at multiple depths
- Intent is to supplement the existing site closure evaluations to assess where concentrations may have decreased or to fill in where data gaps were identified
- Intent is to also develop TOC data in areas where it is not available.

**Next Steps:**

- Evaluate new TOC data and calculate Method 3 soil Alternative Cleanup Levels (ACLs) for sites in areas where new TOC data were generated
- Compare existing and new soil data to ADEC-approved ACLs
- Recommend closure for those sites with soil data below approved ACLs.
- Subsequent Navy actions will evaluate conditions of remaining sites and develop additional sampling or cleanup actions to meet the ACLs for soil.

**B. Well Decommissioning**

For the closure evaluation, monitoring wells that are no longer required for the groundwater monitoring program were inspected and wells were recommended for closure. A survey of wells to be decommissioned was conducted from 1 to 11 May 2021 and from 5 to 7 June 2021. This survey also identified wells that required repair or replacement.

The decommissioning and repair work was conducted from 2 to 24 July 2021 and included:

- 108 wells were decommissioned at 17 sites
- 11 other features were decommissioned including valve boxes, utility vaults, remediation equipment stands and pads
- 75 wells were repaired at 15 sites: 16 minor, 32 moderate, 27 major, 4 reinstalls

Information on types of repairs is presented below:

- Minor repairs include replacing water-tight "J" plugs; replacing "O" rings, seals, and bolts that are damaged or missing from flush-mount well covers; and replacing missing steel covers from aboveground well monuments.
- Moderate repairs consist of repair or replacement of a concrete monument rim collar, redevelopment of a well to remove sediment, repair of a concrete well pad, or re-grading of the ground surface around the well to allow surface water to drain away from the casing.



- Major repairs include removing an obstruction from within a well, re-centering a well casing within the protective well monument, removing or replacing the broken portion of well casings, installing or replacing damaged bollards, replacing a damaged aboveground well monument or flush mount well cover, or decommissioning the existing well and installing a replacement well.

## **8. FIFTH FIVE-YEAR REVIEW**

Under the EPA CERCLA regulations, the Navy conducts a review of all CERCLA and SAERA sites that do not meet the unlimited use/unrestricted exposure (UU/UE) on Adak once every five years. The fifth five-year review is underway this year and the Navy will document the findings in a report to be completed by December 2021. Milestones associated with the five-year review include:

- Questionnaires for stakeholder participation were sent last winter. The purpose of the questionnaires is to find out if there are any local concerns that should be particularly investigated or evaluated.
- The five-year review includes visual inspections of all CERCLA and SAERA sites on the island to evaluate whether the remedy in place is still protective of human health and the environment. Site inspections with the ADEC were conducted in April. Each site's status is updated in a Site Catalog to be included in the five-year review report.
- The five-year review is currently under review at the EPA and ADEC.

Recommendations in this five-year review primarily focus on addressing the petroleum issues along East Canal.

## **9. PETROLEUM UPDATE**

### **A. East Canal**

Field work to identify additional potential petroleum sources was conducted during the summer of 2021 in several phases. The work included:

Phase 1 included a geophysical survey of East Canal and South of Runway areas. This work was conducted from 31 March to 21 April 2021.

- The purpose of this work was to identify previously unidentified potential petroleum source areas.
- The survey sought to identify pipelines through the area and compare to abandoned pipeline maps. This helped identify any pipelines that were previously unknown that could contain fuel.



- The survey also looked for other anomalies such as buried tanks or other features that may be present as a potential petroleum source.

Phase 2 was primarily focused on the natural source zone depletion (NSZD) investigation but did include other tasks. The work was conducted from 2 June to 2 July 2021. NSZD is where petroleum in the subsurface degrades by natural processes (volatilization, dissolution, and biodegradation). NSZD is a remedy optimization approach being evaluated to aid in establishing and/or updating endpoints for remediation and monitoring.

- Investigated subsurface geophysical survey features using screening tools to determine the presence or absence of petroleum (Ultraviolet Optical Screening Tool [UVOST]). Results were used to direct sample and other data collection.
- Installed temporary wells in locations based on UVOST results to look for petroleum.
- Analyzed soil gas using a multi-gas meter to measure O<sub>2</sub>, CO<sub>2</sub> and methane in wells along East Canal. The purpose of this effort was to determine whether field measurable natural degradation of petroleum is occurring.
- Collected groundwater samples for petroleum analysis and other chemical analyses to evaluate NSZD.
- Collected free-product samples for “finger printing” from South of Runway, T-1451, and SWMU 62. The purpose of this effort was to establish fuel/petroleum types so that efforts can focus on specific potential sources.
- Conducted testing to evaluate how recoverable free product is in the area (bail-down testing).
- Abandoned temporary wells.

Phase 3 closed out the NSZD work from Phase 2 and also included additional tasks. This work was conducted from 21 August to 4 September 2021.

- Conducted another round of analyzing soil gas to assess NSZD.
- Collected additional free-product samples for fingerprinting.
- Sampled groundwater from existing permanent wells.
- Additional testing for free-product recoverability.

The following figure shows the areas investigated.



A report summarizing these findings will be prepared over the winter and is expected to be finalized prior to the next RAB meeting.

The follow-on work has recently been awarded. This includes the next phases of the investigation and remediation efforts and is planned for the summer of 2022. The work to be conducted includes:

- Full-scale oleophilic bio-barrier (OBB) pilot test at SWMU 60 (Tank Farm A) to prevent free product from seeping into South Sweeper Creek (presented below)
- Pipeline decommissioning
- Drum removal

- Additional characterization in the pipeline decommissioning and drum removal areas

Based on the work conducted in the summers of 2021 and 2022, a comprehensive Remediation Work Plan will be developed to address the remaining petroleum impact in the East Canal and South of Runway areas.

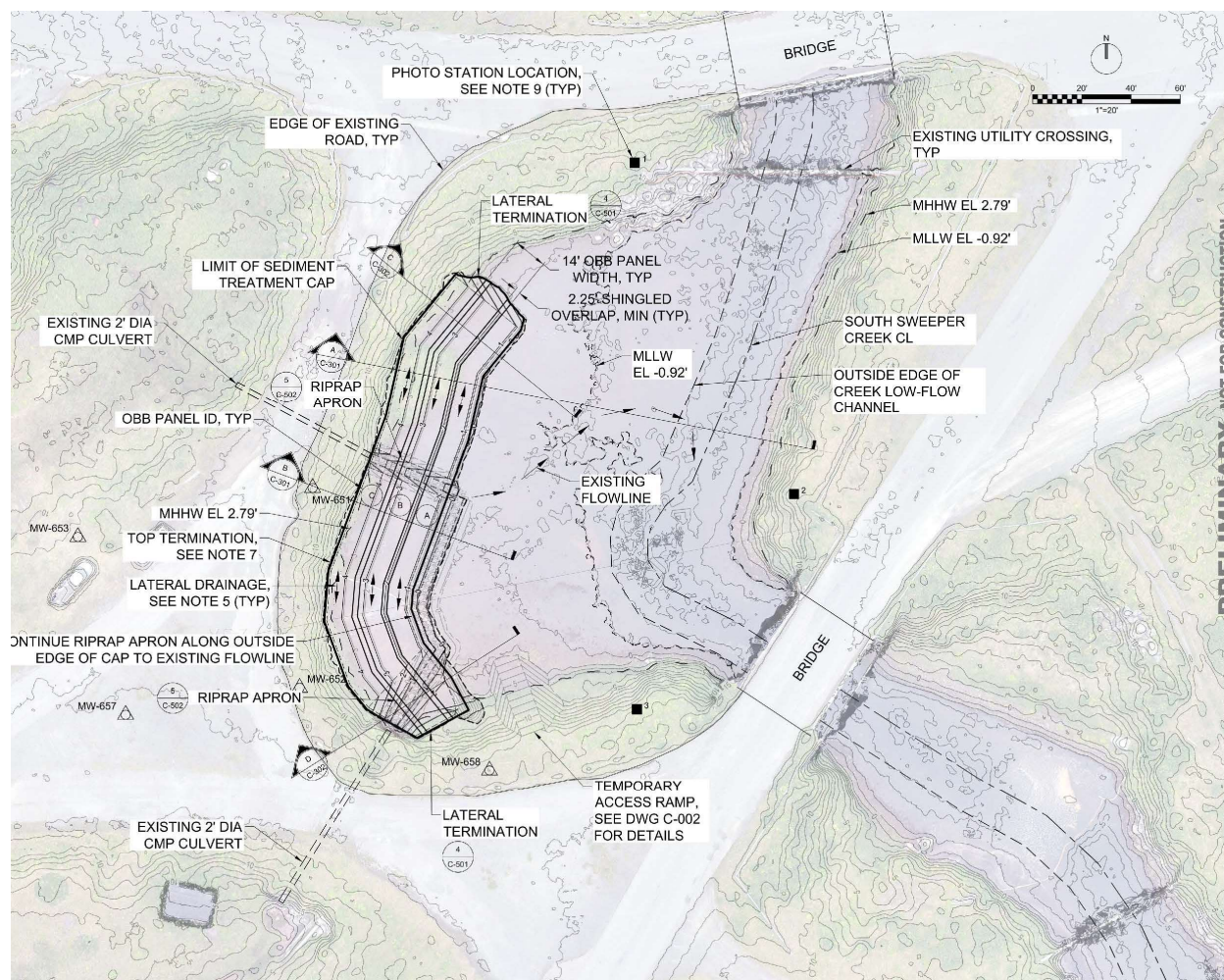
**B. SWMU 60: Remedial Design**

SWMU 60 is located at the bend in South Sweeper Creek as it moves east towards Sweeper Cove. At present, the remedy that is in place as stated in the OU A ROD is monitored natural attenuation (MNA) of petroleum in the groundwater at the site and institutional controls (ICs). In addition, booms are being used to control the sheen that is visible in surface water. The groundwater is monitored for free product six times a year as part of the Navy Free Product Recovery Program.

In April 2018 an Engineering Evaluation/Cost Analysis (EE/CA) was finalized, and identified a preferred remedy enhancement alternative applying an OBB along the shoreline to mitigate sheen to surface water. Proof-of-concept testing was conducted at SWMU 60 for the OBB and a remedial design has been finalized and submitted to ADEC and EPA. In addition to furthering protection of the surface water and potentially eliminating the need for booms across South Sweeper Creek, the OBB is being evaluated for possible deployment along East Canal.

Construction for the summer of 2022 has been awarded and the planning of the work has already begun.





### C. Free Product Recovery Program

Sealaska Remediation Solutions (Sealaska) is the Navy contractor working on the Free Product Recovery Program. Sealaska staff are on island once a month to maintain booms on East Canal and South Sweeper Creek and to monitor wells six times a year to recover free product.

Recovery volumes from the previous 12-month period and the current period to date:

Past 12-Month Recovery Periods	Total Product Recovered (gallons)
October 2014 to September 2015	66.5
October 2015 to September 2016	37.7
October 2016 to September 2017	11
October 2017 to September 2018	8.2
October 2018 to September 2019	12.7
October 2019 and September 2020	8.85
October 2020 to August 2021	4.67

Recovery this year has been from 11 wells at the six different sites. Product has been recovered from each site during this period. Initially, 27 wells were monitored for product, but the number has dropped to 18 based on nine of the wells hitting the milestone of no measureable product for one year.

A total of five booms are maintained during the monthly boom event. East Canal has three and Sweeper Creek has two. One former boom location is monitored for a sheen in East Canal.

## **10. LONG-TERM MONITORING UPDATE (LTM) AND INSTITUTIONAL CONTROLS (ICs)**

### **A. Groundwater/Surface Water/Soil Sampling**

During the 2020 monitoring event, groundwater, surface water, and sediment samples were collected from 82 monitoring locations from 15 sites. The summary report for 2020 will be finalized this fall.

The Navy annual sampling for 2021 was contracted to Sealaska. The sampling was conducted from 19 to 26 August 2021. Activities included:

- Monitored and inspected 38 wells at three sites. Planned to sample 31 wells at the three sites but four wells had product at or above the thickness required for non-sampling so 27 were actually sampled.
- Collected two sediment samples at two sites.
- Collected one surface water sample at one site.
- Analyses include benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO), polycyclic aromatic hydrocarbons (PAHs), total lead, and dissolved lead.

Results of this sampling event will be used to refine future sampling events. Analytical results will be received prior to the next RAB meeting.

### **B. Dig Permits**

The Navy processed 12 dig permits since the last RAB meeting.

- April 2021 – City of Adak – Install backflow preventer by Building 157C
- April 2021 – City of Adak – Investigate water lines by Kuluk Housing.
- April 2021 – City of Adak – Improve drainage at B6-B7 of Bayshore Housing & 121 Beverly Cove
- April 2021 – City of Adak – Improve drainage at Adak Airport

- April 2021 – City of Adak – Excavate test pits at Small Boat Harbor
- April 2021 – United States Air Force – Cable installation
- May 2021 – AECOM – NSZD study at East Canal area
- June 2021 – Sealaska – Monitoring well decommissioning, repair and replacement
- July 2021 – The Aleut Corporation – Repair to cathodic protection system at Fuel Dock
- July 2021 – Adak Telephone Utility – Installation of a new fiber optics line to Building 224
- August 2021 – The Aleut Corporation – Installation of three monitoring wells at the former Public Works Building
- September 2021 – Adak Eagle Enterprises – Excavate and remove concrete base and footings, plus communication wiring, at the UAF building.

As always, the Navy would like to thank the groups that submitted dig permits.

### C. IC Materials

The Navy continues to make quarterly inquiries to provide IC materials to the community as requested. Additionally, the Navy would like to encourage community members to reach out at any time for materials if a need arises. Inquiries were sent to the community in April and July 2021. Based on the responses received, the IC materials listed in the table below have been distributed. Groups represented are the City of Adak, Adak Airport, Adak Island Inn, Adak Lodging and Outfitters, and Aleutian Outfitters.

Item	Total Disbursed
Hiking Trail Maps	450
Laminated Hiking Posters	16
Boomer the Otter Posters	0
Mugs	122
Coloring Books	0
Large Magnets	0
Small Magnets	0
DVDs, Child	0
DVDs, Adult Visitor	0

The Navy trialed a QR code method of ordering materials as an alternative to responding to an e-mail inquiry and would appreciate feedback on community preference.

**D. IC Inspections**

Sealaska performed the 2021 annual IC inspections between 26 August and 3 September 2021. This was a moderate IC Inspection year. IC inspections were conducted at 28 sites, which included seven landfills and the Parcel 4 boundaries. No five-year review sites were inspected, as they were inspected as part of that CERCLA process.

Inspections include looking for evidence of excavations, well installations for domestic use, erosion areas, change of site usage to residential, signage (still present and legible), fencing and gates, tampering with a remedy, seeps, odors, sheens, ponding, status of vegetation on vegetated caps, discoloration of landfill caps, manmade debris coming up through cap, review of previous findings, and if recommendations were completed.

IC surveys have been in a QR-code electronic format since 2020 due to COVID precautions. There is an informational sheet posted around town and a business card with a QR-code that links to the online survey.

The IC survey component used to include visiting the kids in the school. That is no longer done due to COVID precautions but Sealaska does verify that the teachers show the UXO video to the kids and some of them use the QR code to complete the survey.

**E. Institutional Control Repairs****Minor IC Repairs**

Sealaska concluded IC inspections on 3 September. APTIM is contracted to perform the minor repairs in late September 2021. The results of the inspections and repairs will be reported at this RAB meeting.

**Major IC Repairs**

The Navy conducted extensive IC repair work in 2021. Work accomplished included removal of fencing in Parcel 4 as well as armoring the seawall at Metals Landfill.

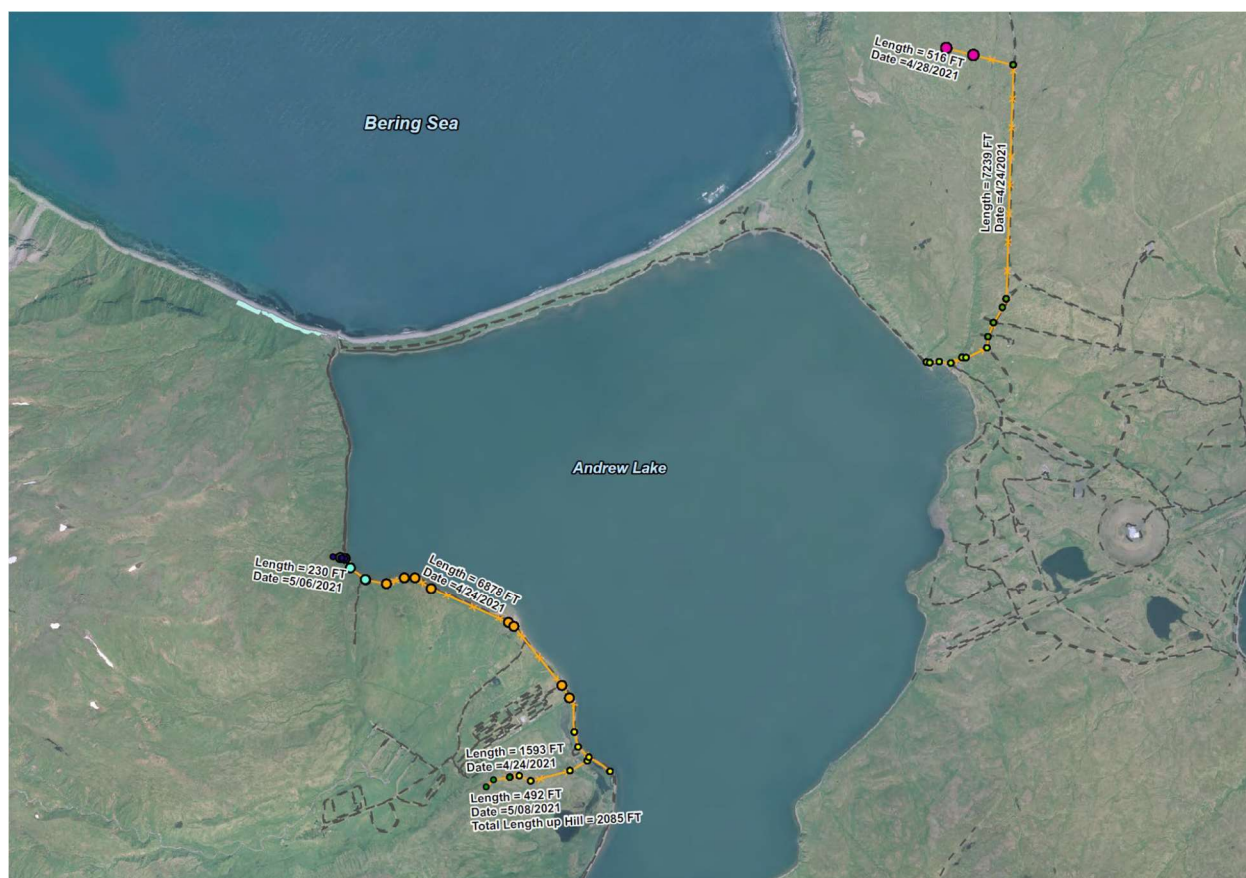
**Fencing**

Removal of barbed wire fencing was accomplished along completed areas of Parcel 4 on both the east and west sides of Andrew Lake. The work was conducted between 20 April and 19 May 2021.

On the west side of Andrews Lake, 9,193 linear feet of fencing was removed along the side of the road and going up the hillsides on either side of Moffett Valley. On the east side, 7,755 feet



was removed from the perimeter of RAA-04. Total length of fencing removed was 16,948 with an approximate weight of 22,000 pounds.



### Metals Landfill

The seawall revetment along Metals Landfill requires repair every approximately 5 years. Repairs were last conducted in 2010 and 2015. APTIM repaired the revetment this year, with the quarry work occurring early in the summer and the rock placement on the landfill occurring between 1 and 31 August. Work performed included:

- Areas requiring repair were evaluated by drone survey
  - Areas where the revetment stone had slumped were identified and repaired.
  - Areas where the originally-placed stone was undersized were replaced with larger stone.
  - Over 1,428 linear feet of revetment was repaired.
  - Filter stone was placed where earth is exposed due to slumping.
- Estimated to be 5,786 tons of stone required for the repair
  - Over 6,000 tons of stone was placed on the landfill revetment.
- Large heavy equipment was barged to the project to safely handle the stone

- 35-ton off-road dump, two Cat 349 excavator with thumb, Cat 988 loader.
- Stone was quarried on Adak and transported to the landfill revetment.
- Protective measures were placed over roads and utility crossings to protect asphalt and subsurface utilities. These measures were removed when the project was completed.
- Haul road was built on Metals Landfill cover and removed at the end of the project.







Work at South Davis Road Landfill was originally planned for 2021, but has been pushed a year and is currently scheduled for 2022.

## **11. COMMUNITY REPORT / RAB MEMBERSHIP**

## **12. REVIEW OF NEW ACTION ITEMS**

**13. NEXT RAB MEETING**

Date and time to be established by the RAB.

**14. ADJOURN**



# ADAK

## Restoration Advisory Board (RAB)

### Meeting Materials

### 23 September 2021

#### Attachment A

#### Current RAB Membership September 2021

Name	Affiliation	Location	Voting Member
Layton Lockett	RAB member (Community Co-Chair)	Adak, AK	1
Ben Leon-Guerrero	RAB member	Adak, AK	2
Elaine Smiloff	RAB member	Adak, AK	3
Jack Stewart	RAB member	Adak, AK	4
Kim Turnbull (Mik)	RAB member	Adak, AK	5
Tom Spitler	RAB member	Adak, AK	6
Dustan Bott	RAB member (USEPA)*	Seattle, WA	
Darren Mulkey	RAB member (ADEC)*	Anchorage, AK	
Justin Peach	RAB member (Navy Co-Chair)*	Silverdale, WA	

\* Non-voting member

A quorum to take action will consist of 1/3 of the RAB members.

Action items will be reviewed and approved by a 2/3 vote of RAB members participating in the meeting.

Additional members may be added to the RAB by a quorum present and a 2/3-majority vote of present RAB members.

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Adak website:

[https://bracpmo.navy.mil/brac\\_bases/other\\_west/former\\_naf\\_adak.html](https://bracpmo.navy.mil/brac_bases/other_west/former_naf_adak.html)

**Attachment B**  
**USACE Fact Sheets**



# FACT SHEET

U.S. ARMY CORPS OF ENGINEERS

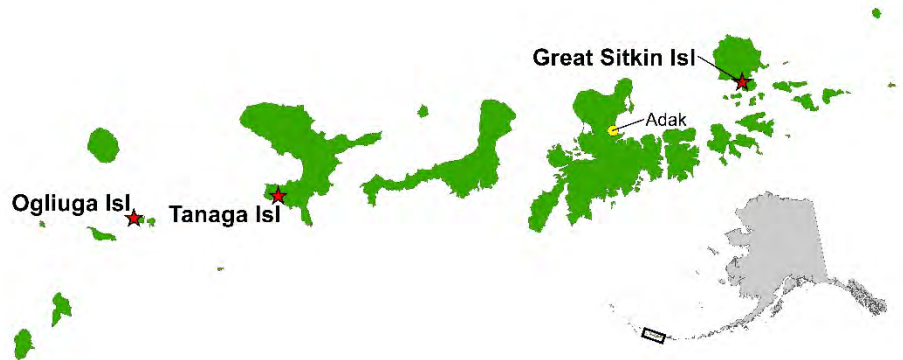
BUILDING STRONG®

September 2021

**SUBJECT:**

Update on USACE Clean-Up  
Activities near Adak, AK

**PURPOSE:** To summarize site  
information and Formerly Used  
Defense Site (FUDS) project status  
for the Adak RAB



**Ogluaga Island FUDS**

A Phase III HTRW Remedial Investigation (RI) was conducted during the spring of 2021, May 1<sup>st</sup> – June 2<sup>nd</sup>.

USACE and Ahtna, Inc., successfully conducted the second season of RI field work. Surface and subsurface soil samples were collected to close data gaps left over from the summer 2020 field season. UVOST was used to further delineate petroleum oil lubricant (POL) plumes at multiple locations. Groundwater monitoring wells were installed and sampled to further delineate plumes.

Incremental Sampling Methodology (ISM) samples were collected across the island to determine if there are impacts to site soil that exceed any Risk Based Screening Limits (RBSLs).

Communications with onsite personnel were limited during the fieldwork. As a result, detailed summaries of the exact work that was accomplished have not yet been generated for USACE review. All field work was documented using portable tablet computers that contained field forms, historical imagery/maps, and work plan requirements. The tablets were linked to high quality GPS units so the field crews knew where they were at all times and digitally collected all pertinent field data. These data will support the creation of a Phase III RI Report for the 2020 and 2021 field seasons that will be generated over the next several months.

The team was also able to support research being conducted by the National Oceanic and Atmospheric Administration while they were on the island.

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U.S. ARMY CORPS OF ENGINEERS – ALASKA DISTRICT

Environmental and Special Programs Branch (CEPOA-PM-ESP), P.O. Box 6898, JBER, Alaska 99506

<http://www.poa.usace.army.mil>





Starting fieldwork in early May was beneficial because vegetation had not yet regrown. This enabled site workers to more effectively locate site features. Also, birds had not started building nests so the field crews were able to effectively limit their interactions with nesting birds.

Staying warm was hard at times. But some days were clear and had good views.

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**U.S. ARMY CORPS OF ENGINEERS – ALASKA DISTRICT**

Environmental and Special Programs Branch (CEPOA-PM-ESP), P.O. Box 6898, JBER, Alaska 99506

<http://www.poa.usace.army.mil>





UVOST was used to detect POL in surface and subsurface soils. Soil samples were collected across the site to document contamination across the FUDS.



**U.S. ARMY CORPS OF ENGINEERS – ALASKA DISTRICT**

Environmental and Special Programs Branch (CEPOA-PM-ESP), P.O. Box 6898, JBER, Alaska 99506

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As with all USACE and Ahtna field efforts, safety was a daily topic at morning meetings.



Site access is generally difficult in the Aleutians. A SeaLegs® skiff allowed for relatively easy access to the beach from the live-aboard vessel.

### **Tanaga Island FUDS**

#### **Hazardous Toxic and Radioactive Waste (HTRW) project**

Work Plan development for a summer FY22 field season continues.

#### **Military Munitions Response Program (MMRP) Project**

Work Plan development for a summer FY22 field season continues.



**Great Sitkin Island FUDS**

A Phase II HTRW Remedial Investigation was conducted during the summer of 2021, June 9<sup>th</sup> – August 26<sup>th</sup>.

USACE, Jacobs Technology Inc (Jacobs) engineers, scientists, and subcontractors pulled off an impressive season of work which totaled 78 days in the field. There were no accidents or incidents. The Great Sitkin Volcano was active throughout the summer and a major earthquake near the Alaska Peninsula which resulted in a tsunami watch and temporary evacuation of the onsite field camp until the “all clear” was given by the National Weather Service.



Views of the Great Sitkin Volcano from the field camp. The resurgent dome grew during the field season, with periodically visible steam and glowing lava. Jacobs had frequent communications with the staff at the Alaska Volcano Observatory.





During 2021 field work, UVOST and TarGOST field screening technologies were deployed and were successful in finding subsurface POL plumes in soil.

Jacobs and their subcontractor Geosyntec were experts in the interpretation of UVOST logs to determine if Aviation Gasoline was present in subsurface soils at the Aviation Gasoline Bulk Storage Tank fuel tank farm.

The UVOST was successfully used to locate and map subsurface soil fuel plumes from both Aviation Gasoline and Diesel releases from multiple storage tank locations through the advancement of 309 UVOST probes.

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TarGOST was used to determine if Bunker C/Special Fuel Oil was present in surface and subsurface soils. Multiple soil fuel plumes were successfully mapped with the TarGOST at the former Bunker C Bulk Storage Tanks, along pipeline routes, near pipeline system valve pits and surface releases through the advancement of 304 TarGOST probes.

This was the first use of TarGOST by USACE in Alaska.

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Surface and subsurface soils were sampled to document contamination presence and to determine the efficacy of the UVOST and TarGOST field screening methods. 162 surface soil samples and 125 subsurface soil samples were collected.



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The presence / absence of petroleum sheen was documented for all water bodies found on site. Avalanche probe was used to disturb the sediment to see if sheen could be produced.

Petroleum sheen was found in multiple locations.

60 sediment samples were collected to document potential POL contaminant migration from Bulk Storage Tank locations to nearby surface water bodies





60 monitoring wells were installed to determine the presence of site groundwater and to determine if POL releases had reached groundwater. 47 wells produced sufficient water for successful sample collection.

No free phase product was detected.



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Six miles of surface and subsurface pipelines were located using a variety of visual and geophysical techniques. Test pits were used to confirm the location, material types, condition, and contents of buried pipelines. Pipelines were drilled and tapped in multiple locations to document presence/absence and type of fluid contents, if any, so an estimate of residual fluid contained within each pipe section could be made. Pipelines were found to still contain POL fluids in multiple locations. A pipeline system valve inspection was also performed to help determine where fluids might still be present within sections of the pipeline system.



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Lead-acid battery removals were conducted at 12 locations. During the battery removals more batteries were found than expected, and several new locations were found with batteries that will require future actions. 59 surface soil samples were collected to document lead concentrations after batteries were removed.

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Three electrical transformers (one containing PCB oil) were removed from a standing power pole. The other transformers had been shot. Oil was found to be PCB-containing but not at levels that would cause the oil to be considered a hazardous waste. A total of 100 surface soil samples were collected in the vicinity of all known or suspected transformer locations to help delineate PCBs in area soils.

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A former waste dump and three drum dumps were surveyed to determine the extent of buried metal debris for future investigation.





The final loading of the barge went off without a hitch at the end of the field season.  
15,000+ hours of field work were executed by 58 different individuals without an accident.

### **Contact Information**

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**Attachment C**  
**Munitions Presentation**

# ADAK OPERABLE UNIT (OU) B-2 NON-TIME CRITICAL REMOVAL ACTION

CTO-4977 – 2021 Summary of Work Completed





# CTO-4977 PROJECT SCOPE (2021 FIELD SEASON)

- ▶ Scope of Field Work
  - > Excavation and clearance of disposal areas to depth of detection on both sides of Andrew Lake Spillway (ALDA-02 and ALSW)
  - > Transition to remote controlled excavators based on discovery of two 500-pound bombs in 2019
  - > Surface clearance west of the excavation areas on ALDA-02
  - > Monthly seawall sweeps
  - > Metals Landfill Repair
  - > Barbed Wire Fence removal where fencing is no longer needed
  - > Routine repairs to landfill drainage features and signage
- ▶ Reporting
  - > Completion Report for Metals Landfill and Fence Removal
  - > Interim Completion Report for RAA-05 Munitions Removal



# STATUS OF CTO-4977 NTCRA



# SURFACE CLEARANCE COMPLETED/PLANNED 2019 AND 2021

Site	Surface Clearance Area Total (acres)	Surface Clearance Area Completed 2019 (acres_%)		Surface Clearance Area Completed 2021 (acres_%)
RAA-05 ALDA-02	1.81	1.26	70%	0
RAA-05 ALSW	20.94	20.94	100%	NA
Totals	23.26	22.20	95%	0



# CTO-4977 TRENCHING WORK COMPLETED 2019 AND 2021\*

## Acreage Completed

Site	Excavation Area Total (acres)	Excavation Area Completed 2019 (acres_%)	Excavation Area Completed 2021 (acres_%)	Cumulative Excavation Area Completed (acres_%)
RAA-05 ALDA-02	1.89	0.27 4.3%	0.35 18.8%	0.62 33.1%
RAA-05 ALSW	1.00	0.9 90%	0.22 22.1%	1.12 112.0%
Totals	2.89	1.17 40%	0.20 20.5%	1.74 60.2%

## Munitions and Metallic Scrap Removed

	Total Completed	MPPEH (each)	MEC (each)	MDAS (lbs.)	Other Debris (lbs.)
2019 Totals		457	1,352	20,296.5	34,640
2021 Totals		418	219	16,056.0	22,883
Project to Date Totals		875	1,571	36,352.5	57,523

\* - 2021 work completed through August 21, 2021





# CTO-4977 2021 ALDA-02 FINDINGS

- ▶ MEC present but in reduced numbers in the western part of the site
- ▶ No MEC found in last three Seawall Sweeps





# SUCCESS OF ROBOTIC EXCAVATION



20210722





# IN SUMMARY

- ▶ Demobilize Landfill Repair Equipment October 15, 2021
- ▶ Mothball Robotic Excavators over winter 2021/2022
- ▶ Resume ALDA-02 Removal Action in April 2022
- ▶ Roadway and culvert removal
  - > 2022
- ▶ Total 2022 staffing: Approximately 55 personnel including field management and medic



# QUESTIONS

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