

Periodic Review Report

**First Review Report
for
Akutan Naval Station
FUDS Property No. F10AK0018,
HTRW Project 03
Akutan, Alaska**

September 2014



(Akutan Naval Station, circa 2011)

**PREPARED BY:
U.S. Army Corps of Engineers, Alaska District
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Executive Summary

The remedies for the Formerly Used Defense Site (FUDS) Akutan Naval Station included for soil, limited cover and informational institutional controls and for marine sediment, limited monitoring and reserved-use designation.

The site achieved Remedial Action Complete on 03 August 2007. In accordance with the decision document the trigger for the periodic review was the completion of five years of limited monitoring of the marine sediment which was March 2013. This review is a policy review under the DERP statute at 10 USC §2701(b)(1) and not statutory requirement.

The assessment of this periodic review found that the remedy was constructed in accordance with the requirements of the Decision Document.

It is recommended that annual site inspection continue for the intertidal and upland areas.

Periodic Review Summary Form

SITE IDENTIFICATION		
Property name (from FUDSMIS): Akutan Naval Station		
FUDS ID: F10AK001803	FFID: None	
EPA ID: None	ADEC rekey: 1996X132401	
Project name: 32,000-BBL BUNKER C	Project Number: 03	
Region: 10	State: AK	City/County: Akutan, Aleutians East Borough
SITE STATUS		
NPL status: <input type="checkbox"/> Final <input type="checkbox"/> Deleted <input checked="" type="checkbox"/> Other (specify) Not on the NPL		
Remediation status (choose all that apply): <input type="checkbox"/> Under Construction <input type="checkbox"/> Operating <input checked="" type="checkbox"/> Complete		
Multiple Projects? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Construction completion date: 08/03/2007	
Has site been put into reuse? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
REVIEW STATUS		
Lead agency: <input type="checkbox"/> EPA <input type="checkbox"/> State <input type="checkbox"/> Tribe <input checked="" type="checkbox"/> Other Federal Agency Department of Defense, FUDS		
Author name: Thomas J. Reed		
Author title: Environmental Engineer	Author affiliation: USACE, Alaska District	
Review period: 08/03/2007 to 08/31/2014		
Date(s) of site inspection: 4/2/2008, 6/15/2008, 7/30/2008, 8/26/2008, 9/10/2008, 6/15/2009, 7/2/2009, 8/26/2009, 9/10/2009, 6/12/2010, 7/12/2010, 8/6/2010, 10/3/2010, 11/3/2010, 6/11/2011, 7/3/2011, 8/8/2011, 10/6/2011, 5/22/2012, 6/6/2012, 7/3/2012, 8/25/2012, 5/25/2013, 6/20/2013, 7/21/2013, 8/16/2013		
Type of review: <input type="checkbox"/> Post-SARA <input type="checkbox"/> Pre-SARA <input type="checkbox"/> NPL-Removal only <input checked="" type="checkbox"/> Non-NPL Remedial Action Site <input type="checkbox"/> NPL State/Tribe-lead <input type="checkbox"/> Regional Discretion		
Review number: <input checked="" type="checkbox"/> 1 (first) <input type="checkbox"/> 2 (second) <input type="checkbox"/> 3 (third) <input type="checkbox"/> Other (specify) _____		

Triggering action: <input type="checkbox"/> Actual RA Onsite Construction <input type="checkbox"/> Actual RA Start at Project _____ <input type="checkbox"/> Construction Completion <input type="checkbox"/> Previous Five-Year Review Report <input checked="" type="checkbox"/> Other (specify) Remedial Action Complete
Triggering action date (FUDS Remedial Action Complete): **08/03/2007
Due date (Proposed): ## 3/31/2013
Scheduled completion date: 09/30/2014

** The decision document states “At the end of 5 years (of the limited monitoring program), a review of the site status and inspection data will be conducted to determine if continued monitoring is necessary.”

The signed decision document does not specify the trigger date nor the completion date of the periodic review. The end of the five years of monitoring was complete with the submittal of the final 2012 Visual Inspection and Monitoring Report, March 2013.

Issues:

- A deed notice on the upland land parcel should be implemented.
- ADNR Reserve Use Designation needs to be placed on intertidal area.

Recommendations and Follow-up Actions:

- Reduce number of inspections to one per year and reevaluate as necessary.
- Send letter to land owner with copy of draft deed notice for upland soil.
- Send letter to ADNR requesting they place a reserve use designation on the tidelands.

Protectiveness Statement(s):

The remedy at the Akutan Naval Station is currently protective of human health of the environment. However, in order for the remedy to be protective in the long term, the administrative components of the remedies should be implemented by the landowners (recording of the deed notice and reserved use designation).

Other Comments:

The presence of a sheening substance has been identified in the visual monitoring reports. There appears to be a periodic minor discharge from the adjacent pier piling in the marine sediment which causes sheen on the seawater. The sheen is only in the project area directly adjacent the pier piles, which are in an advanced state of degradation and therefore allowing petroleum based preservatives to leach into the surrounding water. The pier piling was part of a dock that was in the past subsequently used by others and is not considered part of the FUDS project.

I. INTRODUCTION

The purpose of this periodic review is to ensure that the remedial action objectives for the Akutan Naval Site are met, that they continue to be protective of human health and the environment, and are functioning as designed. To achieve this purpose, this review evaluates the status of implementation of the selected remedies and recommendations for further action.

The former Akutan Naval Station (NS) site is located on Akutan Island, one of the first islands in the eastern Aleutian Chain (Figure 1-1). Since 1996, the USACE has conducted environmental restoration activities at the former NS under the DERP for Formerly Used Defense Sites (FUDS).

The former Akutan NS is located across Akutan Harbor, approximately 1.5 miles southwest of the City of Akutan, in the southern half of Township 70 South, Range 112 West, Seward Meridian. The site encompasses approximately 9 acres and is situated on a benched area located adjacent to the harbor. The coordinates for the site are 54 degrees 13 minutes north by 165 degrees 77 minutes west, Seward Meridian.

The former Akutan NS is listed under FUDS property number F10AK0018 and Alaska Department of Environmental Conservation (ADEC) record key (ReckKey) number 1996X132401.

The former Akutan NS is not listed on the National Priorities List.

The DERP statute at 10 USC §2701(b)(1) provides the Department of Defense, acting through the USACE, with authority to respond to releases of hazardous substances, pollutants and contaminants at eligible FUDS properties. By CERCLA definition, crude oil or any fraction thereof unless specifically listed or designated as a hazardous substance under (A) through (F) of 42 USC 9601(14) is not a CERCLA hazardous substance, nor is it a pollutant or contaminant. See 42 USC 9601(14) and (33). USACE's authority under DERP to respond to petroleum, oil and lubricant (POL) releases which do not qualify as a CERCLA "hazardous substance" is based on 10 USC 2701(b)(2). This statute provides USACE authority to remediate releases of petroleum where the release poses an imminent and substantial endangerment to public health or welfare or to the environment. It was under the authority of statutes 10 USC §2701(b) (1) & (2) that USACE responded and remediated the petroleum contamination at the Akutan NS. The United States Army Corps of Engineers (USACE) has conducted a review of the remedial actions implemented at the former Akutan Navy site on Akutan Island. This review was conducted during April thru August 2014. This report documents the results of the review.

This is the first periodic review for the former Akutan Navy site. The triggering action for this review is the requirement in the Decision Document (USACE 2006).

II. SITE CHRONOLOGY

Table 1 – Chronology of Site Events	
Event	Date
Whale Processing Facility	1912-1939
Naval Station	1942-1944
Site Visit	1992
Remedial Investigation	1996-1998
Interim Removal Action	1996
Marine Sediment RI	2000-2001
Focused Feasibility Study	2001
Groundwater Monitoring Program	1996-2002
Decision Document	2006
Remedial Action	2006
Visual Monitoring	2007-2013

III. BACKGROUND

Site History

The former Akutan NS functioned as a whale processing facility from 1912 through 1939. During WWII, the site was used as a fueling, supply, and repair facility for Russian ships operating between the United States and Russian ports and as an emergency landing site for seaplanes from 1942 until 1944. From 1945 until 2004, the site was used by local fisherman to store nets, crab pots, and other fishing equipment. Since 2004 the land has remained vacant. The presence of fuel-related constituents in the area is a result of World War II-era military use of the site. The site will likely be used to store fisheries-related equipment in the future.

The former Akutan NS lies on two adjacent parcels of private property and extends into the public tidelands. The western parcel is owned by the Akutan Corporation, and the larger eastern parcel is owned by Trident Seafoods Corporation. The eastern portion of the site has residual contaminated soil and the land owner has future plans to store miscellaneous fisheries-related equipment on the property. The Akutan Corporation parcel does not have POL contamination above cleanup levels. The tidelands are owned by the Alaska Department of Natural Resources.

Summary of Land Use and Ownership

From 2007 to the present the inland soil covered under the Decision Document has remained under the ownership of Trident Seafoods, Inc. It appears that the land use has not changed. No commercial activity has been observed on the property. The land owner has been provided the annual reports and is informed of the residual soil contamination. USACE is not aware of planned changes to the site.

The part of the FUDS property owned by Akutan Native Corporation is not subject to the remedy in the Decision Document because investigations have shown there is no contamination above ADEC cleanup levels.

From 2007 to the present, the marine sediments have remained in the ownership of State of Alaska Department of Natural Resources (ADNR) and no development or changes have occurred.

Land and Resource Use

The remaining POL contamination, at the former Akutan NS, lies on two adjacent parcels, the upland parcel owned by Trident Seafoods Corporation and other is tidelands owned by the State of Alaska, Department of Natural Resources (ADNR). Currently the upland parcel is not being used, but in the past the former Akutan NS site was used to store fisheries-related equipment, and may be used for a similar purpose in the future. The tidelands are accessed by landing small boats on the beach.

The Decision Document has separate remedies for the Inland Soil area and the Marine Sediment area and these areas correspond to the different land ownership.

FUDS Project Summary

There have been two approved projects for the Akutan Naval Station property, F10AK001802 (CON/HTRW) and F10AK001803 (HTRW). The proposed Building/Debris Removal project (F10AK001801) was not approved. Project 02 consisted of the removal of above ground storage tanks at the site and was closed in September 2006. This report addresses project 03.

History of Contamination

During World War II, the Akutan Naval Station was constructed at a previous whaling station site and used as a fueling, supply, and repair facility for Russian ships operating between the United States and Russian ports and as an emergency landing site for seaplanes from 1942 until 1944. After the war the facility, including fuel containing above ground storage tanks, were abandoned. The presence of fuel-related constituents in the area is believed to be a result of the World War II-era military use of the site along with discharge from the abandoned facility.

Initial Response

Restoration activities were conducted at the former Akutan NS between 1992 and 2001. The activities addressed contamination in soil, sediment, air, and groundwater; the impact on human health; and environmental receptors. Three primary restoration activities were conducted: site investigations, Remedial Investigations, and interim removal actions (IRAs). Site investigations were conducted between 1992 and 1996 to identify the presence and extent of contamination observed during site reconnaissance. These site investigations confirmed the presence of fuel constituents in soil and water and also identified oily sludge and water in aboveground storage tanks.

In 1996 an Interim Removal Action (IRA) was conducted and consisted of cleaning and removing six Aboveground Storage Tanks (ASTs), removing and transporting approximately 4,000 cubic yards of petroleum, oil, and lubricant (POL)-contaminated soil which was thermally treated on Amaknak Island, Unalaska, Alaska. As part of this action the site was graded and drainage channels were constructed in order to prevent erosion and keep surface water away from remaining contaminated soil.

Upon completion of tank and contaminated soil removal, a passive biovent system was installed to promote biodegradation of remaining hydrocarbons unable to be excavated due to the presence of shallow groundwater, shallow bedrock, or other limiting site conditions. The biovent system was successful in reducing the groundwater hydrocarbon concentrations below the ADEC groundwater cleanup levels. The passive biovent system was decommissioned in 2002.

Basis for Taking Action

Contaminants

The primary environmental contaminants released at the Akutan Naval site were petroleum hydrocarbons (diesel range organics (DRO), residual range organics (RRO)), and polycyclic aromatic hydrocarbons (PAHs). These contaminants were identified in soil, marine sediment, and groundwater.

IV. REMEDIAL ACTIONS

In 2006, the final remedial action was completed at the former Akutan NS. The effort was part of the selected remedy outlined in the 2006 Decision Document (USACE 2006). The field effort was conducted in the fall of 2006 to place geotextile fabric and cover material over seven selected areas of the site with elevated POL concentrations as part of the inland soil remedy and to begin the monitoring program for the intertidal area. These areas were reseeded to promote vegetation of the cover material.

Remedy Selection

The Decision Document (DD) for this Hazardous, Toxic and Radioactive Waste (HTRW) project number 03 was approved by USACE on 24 August 2006. ADEC concurred with the selected remedy on 20 August 2006. The selected remedy was chosen in accordance with DERP, the Administrative Record for this site, and based upon the successful results of interim removal actions (IRA) and treatment of excavated soil. The Decision Document identified the Inland Soils and Marine Sediment as the two areas that had residual petroleum contamination and required further action.

The selected remedy in the DD for POL remaining in inland soil was Limited Cover and Informational Institutional Controls. The stated remedy included covering the remaining “hot spots” with a semipermeable geotextile, then constructing a cover of clean fill over the fabric. The DD stated the construction in combination with implementation of informational institutional controls in the form of a deed notice would mitigate the opportunity for human contact with the

remaining subsurface contamination. A monitoring program would ensure that the cover remains intact and that unacceptable risks and exposure pathways are avoided.

The selected remedy in the DD for elevated POL levels in marine sediments was Limited Monitoring and Reserved-Use Designation. The elevated POL levels are identified in Figure 3-1 as Polycyclic Aromatic Hydrocarbons (PAH) constituent concentrations above NOAA effects range median benchmarks. The DD stated the remedy was a limited monitoring program in conjunction with classifying the intertidal zone under reserved-use designation as defined by ADNR. The limited monitoring program included conducting visual inspections of the marine sediments and surface water up to four times annually over a 5-year period. After 5 years, a review of the site status and inspection data would be conducted to determine if continued monitoring is necessary.

Remedy Implementation

In late October through November 2006 the remedial action specified in the Decision Document was completed for the project. The Inland Soil “hotspots” were covered with geotextile and clean fill and reseeded (USACE 2006).

From 2007 to 2013, the limited monitoring program of four annual site visits with reporting has been conducted. Also during some site visits small areas of the geotextile liner were recovered and reseeded. In 2013, at ADEC’s request, limited sampling and laboratory analysis of surface water was conducted.

USACE drafted a deed notice for the inland soil for ADEC review in 2011. Draft revisions of the deed notice language occurred throughout 2011, but no agreement was reached between USACE and ADEC on the final text. The reserved use designation for the marine sediments has not been implemented. USACE contacted the Alaska Department of Natural Resources (ADNR) about the implementation but ADNR has not completed the reserved use designation.

Summary of Monitoring Program

Visual Monitoring for the inland soil and marine sediments has been conducted four times per year from 2007 to 2013. The monitoring events confirmed that the implemented physical remedies have remained protective by reducing the risk of exposure to potential receptors from the petroleum, oil, and lubricants remaining at the site. No sheen has been observed releasing from the undisturbed areas of known contaminated marine sediments.

During some of the site visits sheen was observed in the area of the marine sediment but in each case was attributed to the treated pier piling. It is likely that newly exposed creosote or tar from the piling is being released to the surface water. The pier piling was part of a dock that was subsequently used by others and is not considered part of the FUDS project.

As expected, when test holes were dug into the known contaminated marine sediment areas sheen was observed on the water in the hole. In August 2013 eight test holes were dug and the surface water at the three most likely contaminated holes was sampled and analyzed for ADEC

water quality parameters. There were no ADEC Water Quality Standard exceedances in the samples collected.

Although not part of the remedy in the decision document, noting of washed up debris on the beach was included in 2012. There is a concern that unrelated debris may wash up and contaminate the sediment.

For the inland soil, vegetative growth has rebounded significantly since the final remedial action in 2006. Periodically the monitoring reports note evidence of tire ruts. These ruts are believed to be settlement from the heavy equipment tracks during the 1997 and 2006 remedial actions. In 2011 the ruts were filled in and reseeded. Some minor recovering and reseeding of the geotextile material occurred, but the protective covering of the hotspots remains protective. The diverting drainage ditches, installed as part of the 1996 interim removal action, remain effective.

A more detailed yearly summary of the monitoring program is as follows:

2007- There were no visible signs of petroleum contamination identified during the four site inspections. The selected remedies are adequate and have reduced the exposure risk to potential receptors from the petroleum, oil, and lubricants remaining at the site. There were no signs of intrusive site activities which may affect the exposure risk, and the cover materials at each of the seven cover areas were intact. Vegetation was noted on each of the seven covered areas, and the amount of vegetation at each area has increased throughout the summer (USACE 2008).

2008- There were no visible signs of petroleum contamination identified during the four site inspections performed during 2008. The selected remedies are adequate and have reduced the exposure risk to potential receptors from the petroleum, oil, and lubricants remaining at the site. There were no signs of intrusive site activities which may affect the exposure risk, and the cover materials at each of the seven cover areas were intact. Exposed geotextile fabric was identified at several locations in the drainage channel, but those areas were covered with native soils and reseeded during 2008. Native soils were also installed in a low lying area where frequent ponding has occurred.

The vegetative growth at each of the seven cover areas and access roads continued to increase during 2008. (USACE 2010)

2009- There were no visible signs of petroleum contamination identified during the four site inspections performed during 2009. The small sheen observed on the water in Akutan Harbor adjacent to the site during the August site inspection originated from treated pier piling presumably the result of newly exposed creosote or tar preservation and does not appear to be from petroleum in intertidal sediments. The selected remedies are adequate and have reduced the exposure risk to potential receptors from the petroleum, oil, and lubricants remaining at the site.

There were no signs of intrusive site activities which may affect the exposure risk, and the cover materials at each of the seven cover areas were intact. Exposed geotextile fabric identified at several locations in the drainage channel during 2007 and 2008 were covered with native soils and reseeded during 2008. 2009 inspections documented that the new cover remained in place and that grass vegetation had been re-established in these areas.

Water ponding has occurred in low lying areas within the central drainage ditch but the ditch appears to be working. The ponding was intermittent and occurred following high precipitation events. The periodic surface water in the lined drainage ditch did not appear to be an environmental concern.

The vegetative growth at each of the seven cover areas and access roads continued to increase in 2009 and the Central Bench was estimated to be 90 percent vegetated (USACE 2012).

2010- There were no visible signs of petroleum contamination identified during the four site inspections performed during 2010. The small sheen observed on the water in Akutan Harbor adjacent to the site during the August site inspection most likely originated from treated pier piling presumably the result of newly exposed creosote or tar preservation and does not appear to be from petroleum in intertidal sediments. The selected remedies were adequate and have reduced the exposure risk to potential receptors from the petroleum, oil, and lubricants remaining at the site.

There were no signs of intrusive site activities which may affect the exposure risk. The cover material at each of the seven cover areas was intact. The tire ruts were identified in the 2010 monitoring report.

Water ponding has occurred in low lying areas within the central drainage ditch. The ponding was intermittent and occurs following high precipitation events. The periodic surface water in the lined drainage ditch did not appear to be an environmental concern. The drainage channels were working properly.

The vegetative growth at each of the seven cover areas and access roads has stabilized and the Central Bench was estimated to be 90 percent vegetated during summer months (USACE 2011a).

2011- There were no visible signs of petroleum contamination identified during the four site inspections performed during 2011. The small sheen observed on the water in Akutan Harbor adjacent to the site during the August site inspection most likely originated from treated pier piling presumably the result of newly exposed creosote or tar preservation and did not appear to be from petroleum in intertidal sediments. The selected remedies were adequate and have reduced the exposure risk to potential receptors from the petroleum, oil, and lubricants remaining at the site.

With one exception, no visible signs of contamination or suspect discoloration were identified in the inspected intertidal areas, inland soils, ditches and channels, or on the adjacent marine water surface. Two petroleum sheens were noted on the water in Akutan Harbor adjacent the site during the August 8 site visit. Both sheens were small in size measuring approximately 2 feet long by 8 inches wide and they were believed to have originated from creosote or tar preservation in the piling and not the intertidal sediments. Overall there was abundant wildlife and vegetation noted and documented in both the inland soil and marine environments.

There were no signs of intrusive site activities which may affect the exposure risk. The cover material at each of the seven cover areas was intact. The tire ruts were smoothed out with a rake and shovel and seeded in November 2011. Exposed geotextile fabric, identified in 2010 at three locations in the drainage channel, was recovered with native fill in 2011.

Water ponding has occurred in low lying areas within the central drainage ditch. The ponding was intermittent and occurred following high precipitation events. The periodic surface water in the lined drainage ditch did not appear to be an environmental concern. The drainage channels were working properly.

The vegetative growth at each of the seven cover areas and access roads had stabilized and the Central Bench was estimated to be 90 percent vegetated during summer months (USACE 2012).

2012- The only signs of petroleum contamination identified during the four site inspections performed during 2012 occurred in the May and August visits. The small sheens observed during May and August on the water in Akutan Harbor most likely originated from treated pier piling, presumably the result of newly exposed creosote or tar preservation and does not appear to be from petroleum in intertidal sediments.

Eight test holes were dug along transects TS03 through TS08. Six of the holes had sheen and/or foam observed and possible petroleum sheen was observed in test holes along TS04 and TS08. (Figure 3-2, USACE 2013a).

New significant debris was not observed during the 2012 site visits. Foam was only observed at the shoreline during the August 2012 site visit.

There were no signs of intrusive site activities, which may affect the exposure risk. The cover material at each of the seven cover areas is intact. No soil work was conducted in 2012.

Water ponding has occurred in low lying areas within the central drainage ditch. The ponding is intermittent and occurs following high precipitation events. Ponding was noted during the May, June and August 2012 site inspections. No standing water ponds were noted during the July inspection but the area was damp. The periodic surface water in the lined drainage ditch does not appear to be an environmental concern. The drainage channels are working properly.

The vegetative growth at each of the seven cover areas and access roads has stabilized and the Central Bench is estimated to be 90 percent vegetated during summer months, as it was in 2011. No signs of distressed vegetation in the inland soils were observed in the May, June and July site inspections during 2012. However, possible distressed vegetation or natural decay due to onset of fall weather was noted during the August 2012 event.

2013- During the 2013 site visits, debris visible on the beach was the typical storm-surge debris which includes miscellaneous pieces of wood and metal, plastic bottles, pieces of nylon rope, pieces of fishing nets, crab pot pieces, and buoys. No contaminated debris was noted. Foam was not observed at the shoreline during the 2013 site visits.

Abundant marine wildlife is present at the site including barnacles, mussels, clams, starfish and shorebirds. There were no signs of intrusive site activities, which may affect the exposure risk. The cover material at each of the seven cover areas is intact. During the 2013 August site visit it was noted that areas that had been smoothed in previous years were completely covered with vegetation growth over the geotextile. Only gravel roadways lack vegetation in inland locations. The vegetative growth at each of the seven cover areas and access roads has stabilized and the Central Bench was estimated to be 90 to 100 percent vegetated during the August site visit.

Signs of petroleum contamination were identified during one of the four site inspections conducted in 2013. Small areas of sheen were observed on the Akutan harbor water surface at the northwest corner of the dock during the May event. However, this most likely originated from treated pier piling, presumably the result of newly exposed creosote or tar preservation, and does not appear to be from petroleum in intertidal sediments. No other sheen was observed in the other three site visits. No hydrocarbon odor was noted during the July site inspection, but an unusual odor was noted on an exposed sand bar. This area was re-investigated during the August site visit and no odor was detected.

As part of the August site visit, eight test holes were dug and the surface water at the three most likely contaminated holes were sampled. The holes were targeted in the areas of known historic contamination. As expected, sheens were observed on the water in seven of the eight test holes (Figure 3-1). The samples from the three most likely contaminated holes were laboratory analyzed for ADEC water quality parameters. There were no ADEC Water Quality Standard exceedances in the samples collected.

Water ponding has occurred in low lying areas within the central drainage ditch. The ponding is intermittent and occurs following high precipitation events. Ponding was noted during all four of the 2013 site inspections. The periodic surface water in the lined drainage ditch does not appear to be an environmental concern. The drainage channels are working properly (Figure 2-2) (USACE 2014).

V. PROGRESS SINCE THE LAST REVIEW

This is the first periodic review for the Akutan Naval Station. No significant issues have been identified.

VI. PERIODIC REVIEW PROCESS

Administrative Components

The ADEC project manager was notified of the initiation of the periodic year review in November 2013. Thomas Reed of the USACE, Alaska District prepared the review documentation. Andy Sorum, USACE Project Manager, coordinated the review documentation.

Site Inspection

Site Inspections at the Akutan Naval Station site were conducted: 4/2/2008, 6/15/2008, 7/30/2008, 8/26/2008, 9/10/2008, 6/15/2009, 7/2/2009, 8/26/2009, 9/10/2009, 6/12/2010, 7/12/2010, 8/6/2010, 10/3/2010, 11/3/2010, 6/11/2011, 7/3/2011, 8/8/2011, 10/6/2011, 5/22/2012, 6/6/2012, 7/3/2012, 8/25/2012, 5/25/2013, 6/20/2013, 7/21/2013, 8/16/2013. The annual inspection reports are considered adequate to document site conditions.

Interviews

There is no statutory requirement for interviews to be conducted for this periodic review and none were conducted.

Community Notification and Involvement

There is no statutory requirement for direct community notification and involvement for this periodic review and none was conducted.

At the completion of this periodic review USACE will provide copies of this report to the City of Akutan, Akutan Traditional Council, the Landowners, Trident Seafoods and Akutan Native Corporation, and ADEC.

Document Review

This initial periodic review consisted of compiling and reviewing the following information and documents:

- 2006 USACE FUDS Decision Document, Akutan Naval Station Akutan (USACE 2006)
- 2007 Visual Inspection and Monitoring Report. (USACE 2008)
- 2008 Visual Inspection and Monitoring Report. (USACE 2010)
- 2009 Visual Inspection and Monitoring Report. (USACE 2012a)
- 2010 Visual Inspection and Monitoring Report. (USACE 2011a)
- 2011 Visual Inspection and Monitoring Report. (USACE 2012b)
- 2012 Visual Inspection and Monitoring Report. (USACE 2013a)
- 2013 Visual Inspection and Monitoring Report. (USACE 2014)

Periodic Review Requirements

There is no statutory review requirement however the decision document states “at the end of 5 years (of the limited monitoring program), a review of the site status and inspection data will be conducted to determine if continued monitoring is necessary.”

The signed decision document does not specify the trigger date or the completion date of the periodic review. The end of the five years of monitoring was complete with the submittal of the final 2012 Visual Inspection and Monitoring Report, March 2013.

VII. TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

Yes. The onsite remedy implemented in 2006 has been effective. The geotextile fabric has remained intact and the soil cover has had minor subsidence and erosion, but these were recovered and reseeded. Settlement and ponding was observed in old tire tracks, but this was subsequently filled and reseeded. There is now adequate vegetation in this area. Currently there is a healthy vegetative cover over the remedy areas and no additional problems have been observed. The drainage ditches have maintained their effectiveness.

The administrative components of the selected remedies have not yet been implemented but the underlying objectives of these remedies have been met. The parcels of land covered by the administrative components are the upland parcel owned by Trident Seafoods and the tidelands owned by the ADNR. The underlying objective for the upland parcel is for the landowner to notify ADEC before any construction or disturbance to the site's soil. The underlying objective for the tidelands is for ADEC to be notified before any construction or disturbance of the sediment.

The landownership has not changed, the landowners are aware of the ADEC requirements, and they have had periodic contact with USACE. There is no immediate concern that the landowners would proceed with construction without notifying USACE or ADEC. Trident Seafoods has made known that have no immediate plans for construction on their parcel.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?

Yes. Land use remains the same and no additional risk factors have been identified. Soil and sediment cleanup levels for applicable COCs are the same since the signed Decision Document. The exposure assumptions used at the time of remedy selection are valid.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No, none have been identified during this periodic review.

Technical Assessment Summary

This technical assessment relied on the annual site inspections, conducted in accordance with the decision document, to be sufficient. A separate site inspection was not required.

The remedy is functioning as intended by the decision document and no changes are indicated. The site has a healthy re-growth and proper drainage and no discharge from the site has been observed.

The landowners are aware of ADEC notification conditions in state regulations. Land use remains private commercial and undeveloped and no changes are anticipated which could affect site usability and increase risk to potential receptors.

The land use remains the same and no additional risk factors have been identified. Soil and sediment cleanup levels for applicable COCs are the same since the signed Decision Document. The exposure assumptions used at the time of remedy selection are valid.

No new information has identified during this periodic review that would call into question the protectiveness of the remedy.

VIII. ISSUES

Issues	Affects Protectiveness (Y/N)	
	Current	Future
A deed notice on the upland land parcel should be implemented.	N	Y
ADNR Reserve Use Designation should be placed on intertidal area.	N	Y

IX. RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Follow-up Actions: Affects Protectiveness (Y/N)	
				Current	Future
Reduce number of inspections to one per year and reevaluate as necessary.	USACE	ADEC	September 2015	N	Y
Send letter to land owner with copy of draft deed notice for upland soil.	USACE	ADEC	December 2014	N	Y
Send letter to ADNR requesting they place reserve use designation on the tidelands.	USACE	ADEC	December 2014	N	Y

X. PROTECTIVENESS STATEMENT

The remedy at the Akutan Naval Station is currently protective of human health of the environment. However, in order for the remedy to be protective in the long term, the administrative components of the remedies should be implemented by the landowners (recording of the deed notice and reserved use designation).

XI. NEXT REVIEW

This was a one-time review to evaluate the selected remedy but as no further reviews are required by the FUDS program, none will be conducted. Any future evaluation of the remedy will only be conducted as part of a required and established monitoring program.

XII. REFERENCES

ADEC 2004. (26 May). Oil and Other Hazardous Substances Pollution Control. 18 AAC 75.
(Applied to Decision Document)

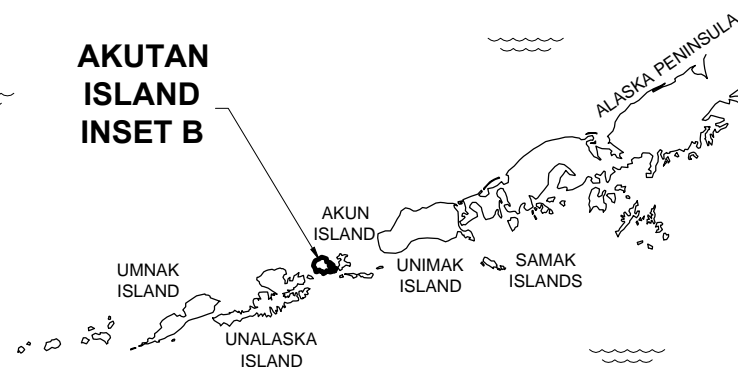
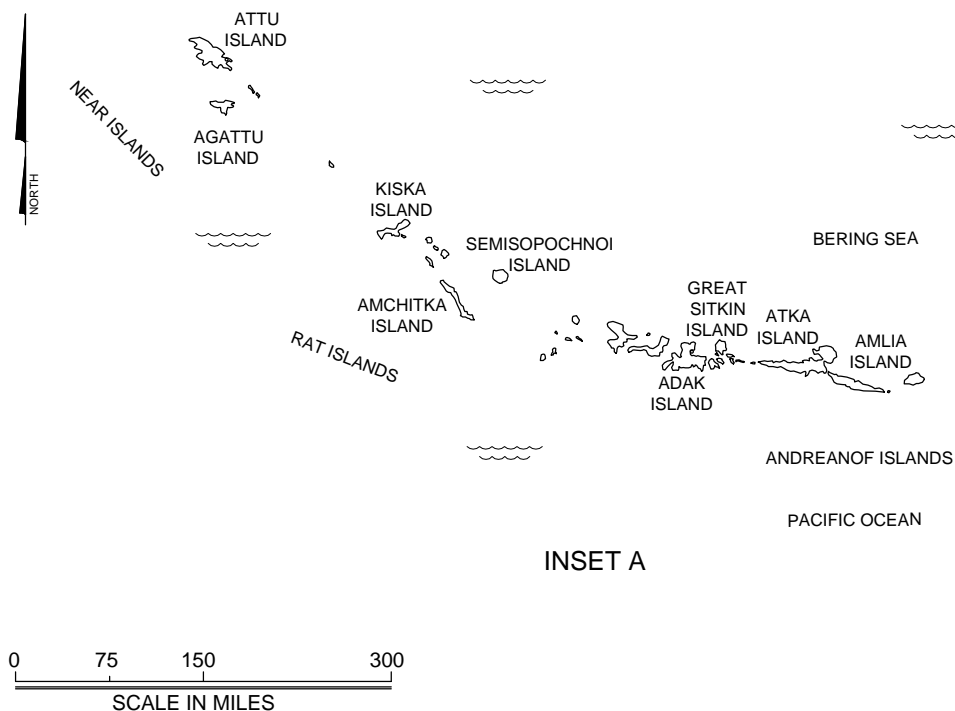
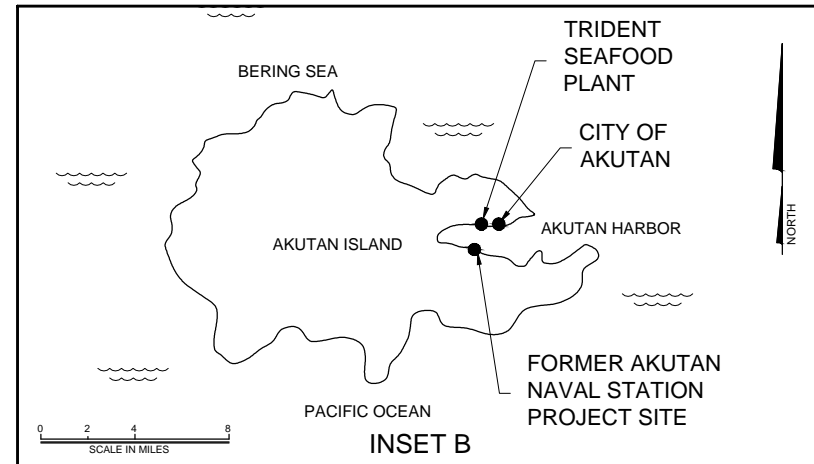
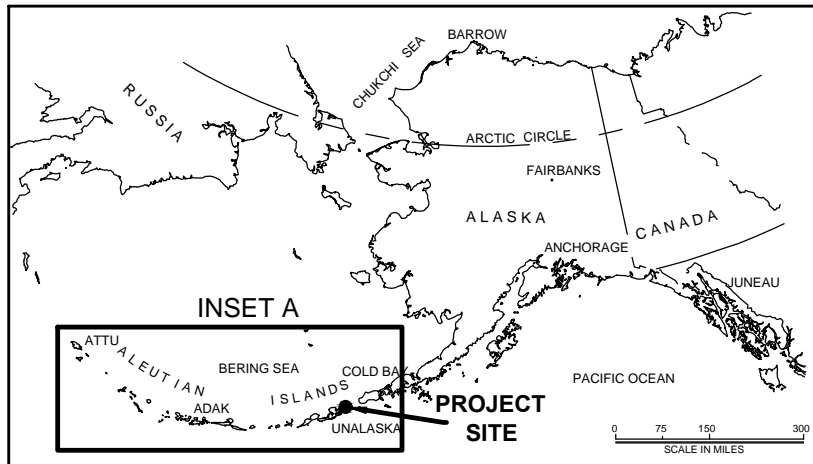
ADEC 1997. Water Quality Standards. 18 AAC 70. (Applied to Decision Document)

ADEC 2012. Water Quality Standards. 18 AAC 70. April. (Applied to 2013 Surface Water Sampling)

- USACE 1998. Remedial Investigation, Interim Removal Action and Risk Assessment, Akutan Naval Station, Akutan Island, Alaska. Final. Prepared by Jacobs Engineering Group Inc. 1998 (June). F10AK001803_03.10_0001_a
- USACE 2001. Marine Sediment Remedial Investigation Report, Akutan Island, Alaska. Prepared by Jacobs Engineering Group Inc. 2001 (October). F10AK001803_03.10_0004_a
- USACE 2006. USACE FUDS Decision Document Akutan Naval Station Akutan, Final 2006 (August). F10AK001803_05.09_0500_a
- USACE 2007. Work Plan Visual Inspection and Monitoring, Akutan Island, Alaska. Jacobs Engineering Group Inc. Prepared by Jacobs Engineering Group Inc. 2007. (May). F10AK001803_07.04_0005_p
- USACE 2008. 2007 Visual Inspection and Monitoring Report. Former Akutan Naval Station Akutan Island, Alaska. Prepared for U.S. Army Corps of Engineers, Alaska District. FES. 2008 (November). F10AK001803_07.04_0505_p
- USACE 2010. 2008 Visual Inspection and Monitoring Report. Former Akutan Naval Station Akutan Island, Alaska. Prepared for U.S. Army Corps of Engineers, Alaska District. FES. 2010 (February). F10AK001803_07.08_0502_p
- USACE 2011a. 2010 Visual Inspection and Monitoring Report. Former Akutan Naval Station Akutan Island, Alaska. Prepared for U.S. Army Corps of Engineers, Alaska District. FES. 2011 (August). F10AK001803_07.10_0502_p
- USACE 2011b. Final Site Safety and Health Plan, Visual Inspection and Monitoring, Former Akutan Naval Station, Akutan Island, Alaska. FES. 2011 (May). F10AK001803_07.04_0502_p
- USACE 2012a. 2009 Visual Inspection and Monitoring Report. Former Akutan Naval Station Akutan Island, Alaska. Prepared for U.S. Army Corps of Engineers, Alaska District. FES. 2012 (January). F10AK001803_07.02_0016_p
- USACE 2012b. 2011 Visual Inspection and Monitoring Report, Former Akutan Naval Station, Formerly Used Defense Site, Akutan Island, Alaska. FES. 2012. (May). F10AK001803_07.10_0503_p
- USACE 2013a. 2012 Visual Inspection and Monitoring Report, Former Akutan Naval Station, Formerly Used Defense Site, Akutan Island, Alaska. FES. 2013. (March). F10AK001803_07.10_0504_p
- USACE 2013b. Technical Memorandum. Addendum to the 2007 Work Plan for Visual Inspection and Monitoring at the Former Akutan Naval Station on Akutan Island, Alaska. FES. 2013 (August). F10AK001803_07.04_0504_p

USACE 2014. 2013 Final Visual Inspection and Monitoring Report, Former Akutan Naval Station, Formerly Used Defense Site, Akutan Island, Alaska. FES. 2014. (January).
F10AK001803_07.11_0500_a

Figures



Revised from Fairbanks Environmental Services Figure 1-1. dated: 1/14/2014



ALASKA DISTRICT
CORPS OF ENGINEERS
ANCHORAGE, ALASKA

Site Vicinity and Location Maps 2014 Periodic Review Report

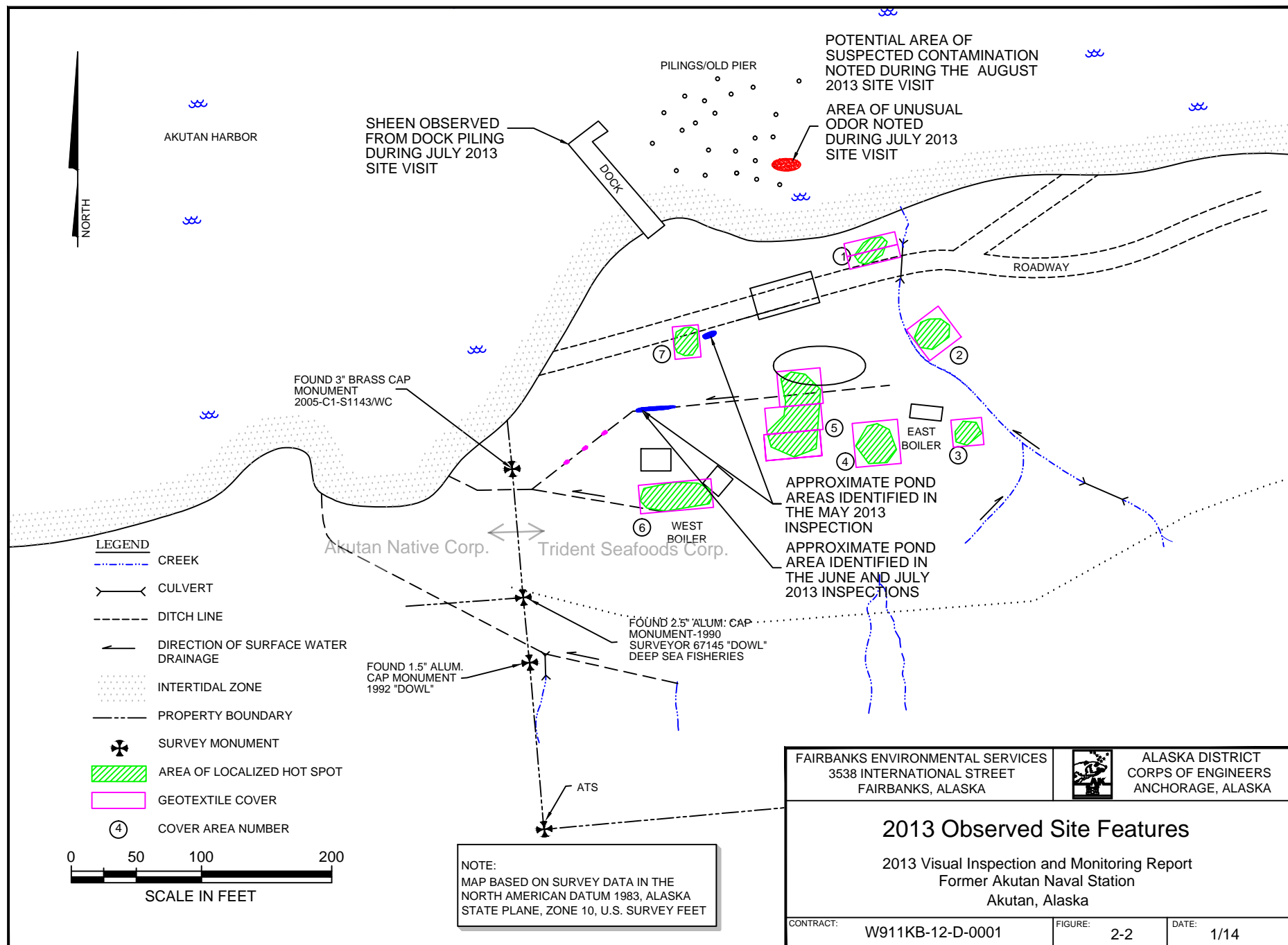
Former Akutan Naval Station
Akutan Island, Alaska

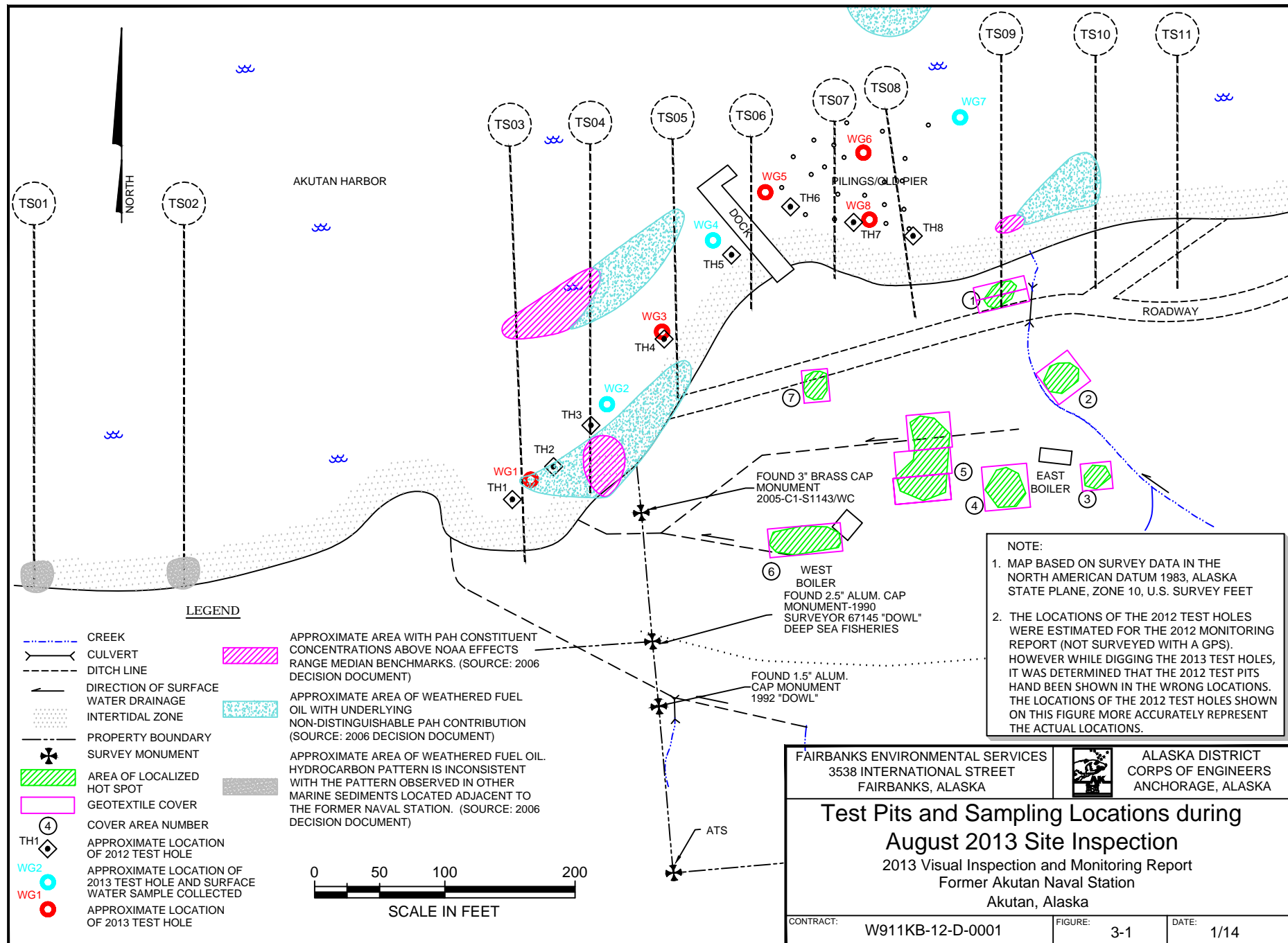
FIGURE:

1-1

DATE:

4/30





From: [Sorum, Andrew C POA](#)
To: [Bigelow, Danielle S CONTRACTOR @ POA](#)
Subject: FW: Akutan NS Periodic Review Report (UNCLASSIFIED)
Date: Thursday, December 04, 2014 1:44:46 PM
Attachments: [5-6-2011 Deed Notice Letter.pdf](#)

Classification: UNCLASSIFIED
Caveats: NONE

For FRMD

-----Original Message-----

From: Savage, Meredith S (DEC) [<mailto:meredith.savage@alaska.gov>]
Sent: Wednesday, December 03, 2014 1:57 PM
To: Sorum, Andrew C POA
Subject: [EXTERNAL] Akutan NS Periodic Review Report

Hello Andy,

I have completed my review of the 2014 Periodic Review Report for the Akutan Naval Station and have no comments or suggested changes to the report.

As a follow up to the text regarding the draft Deed Notice (page 5, paragraph five), I have attached ADEC's response letter regarding the March 29, 2011 draft. The text in the current Periodic Review Report states that "...no agreement was reached by USACE and ADEC on the final text." However, on page two of the May 6, 2011 letter from ADEC, ADEC states "Please incorporate these comments into the deed notice and submit a final version to ADEC." I haven't found any follow up from USACE in our files that would indicate any disagreement with ADEC's comments, so maybe this just inadvertently slipped to the back burner? If so, I think we can knock this off the task list pretty quickly!

Take care,

Meredith

Meredith Savage

Alaska Dept. of Environmental Conservation

Contaminated Sites Program

555 Cordova Street

Anchorage, Alaska 99501

907-269-7578

Meredith.Savage@alaska.gov

STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE CONTAMINATED SITES PROGRAM

555 Cordova Street
Anchorage, AK 99501
PHONE (907) 269-3056
FAX (907) 269-7649
www.dec.state.ak.us

File No: 2509.38.001

May 6, 2011

Mr. Thomas Reed
Department of the Army
US Army Engineer District Alaska
ATTN CEPOA-EN-EE-B (Reed)
PO Box 6898
JBER, AK 99506-6896

Re: Akutan Fueling Station Deed Notice Comments

Dear Mr. Reed,

Thank you for submitting the draft deed notice for petroleum contamination at the Trident Seafoods Corporation property located at Akutan Naval Station Formerly Used Defense Site, Alaska. The deed notice was received by the Alaska Department of Environmental Conservation electronically on March 29, 2011. ADEC has reviewed the document and provided the following comments:

1. Page 1, Paragraph 2: Please change the last sentences as follows:
~~"ADEC has determined that a~~ As long as the provisions detailed in this notice are followed the contaminant concentrations remaining on the site do not pose an unacceptable risk to human health or the environment.
~~Therefore, additional cleanup is not being requested; however, residual contamination needs to be properly managed."~~
2. Page 2, Paragraph 2: Please change paragraph to read: "Pursuant to 18 AAC 75.325(i)(1) and (2), ADEC approval is required prior to disposal, as defined in 46.03.900(7), of any soil or groundwater disposal are necessary, ADEC may require that the soil or groundwater be ~~characterized~~ sampled and analyzed and managed following regulations applicable at that time."
3. Page 2, Paragraph 3: Please change the paragraph to read: "This notice remains in effect until a written determination from ADEC is recorded that states that soil and groundwater at the site have been shown to meet the most stringent ~~soil~~ cleanup levels in method two of 18 AAC

75.340 and 18 AAC 75.345 and that off-site transportation and disposal of soil and groundwater are not a concern.”

Please incorporate these comments into the deed notice and submit a final version to ADEC.

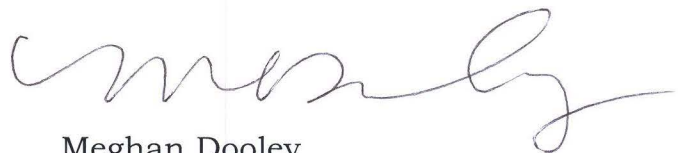
As stated in the Decision Document for the Akutan Naval Station in 2006, to comply with the remedy, the US Army Corps of Engineers (USACE) must carry out the following steps:

1. Perform periodic inspections of the marine sediments and inland soils and report inspections to ADEC.
2. Work with the Alaska Department of Natural Resources (ADNR) to place the intertidal area into reserved-use designation in order to limit future activities in the area impacted by residual petroleum.
3. Conduct a 5-year review to evaluate the effectiveness of the remedies for both the inland soil and marine sediments.

Our records show that we have not received a final inspection report for 2009, a draft report for the 2010 inspection, or a record for the reserved-use determination for the intertidal area. ADEC requests the final inspection report and the reserved-use determination documentation be submitted by June 30, 2011. ADEC requests an update on the status of the draft report for the 2010 field inspections.

If you have any questions regarding this letter please contact me by email at Meghan.Dooley@alaska.gov or by phone at (907) 269-3056.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Meghan Dooley', written in a cursive style.

Meghan Dooley
Environmental Program Specialist