

United States Army  
Corps of Engineers

Alaska District  
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# Trip Report

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Gambell FUDS Site  
Gambell, Alaska  
21 – 22 July 2004



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29 July 2004

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**1. General**

A team from the Alaska District, U. S. Army Corps of Engineers (the District or the Corps) traveled to Nome, Alaska and the Village of Gambell on St. Lawrence Island to conduct a site visit, hold a public meeting, distribute ordnance posters/pamphlets, conduct oversight for the ongoing Native American Lands Environmental Mitigation Program (NALEMP) project, collect a groundwater sample, and move the Nome Information Repository to a new location. The members of the team were:

- a. Lisa Geist, Environmental Scientist (CEPOA-EN-EE),
- b. Scott Kendall, Environmental Engineer, (CEPOA-EN-EE), and
- c. Carey Cossaboom, Project Manager (CEPOA-PM-P).

The team traveled to Nome, Alaska on July 21, 2004 and continued on to Gambell in the afternoon. The team returned to Anchorage on July 22, 2004.

**2. Purpose**

The objectives of the July 2004 trip included ongoing community relations activities, a public meeting to discuss the Proposed Plan for Remedial Action in Gambell (FUDS), a site visit for the remedial design engineer, distribution of ordnance safety posters/pamphlets, and collection of a potential fuel free product sample from groundwater near the washeteria, and oversight of the ongoing NALEMP debris excavation activities.

**3. Background**

The Gambell site was used by the U.S. Army, U.S. Navy, and U.S. Air Force from approximately 1948 until the late 1950s, but was largely dismantled in the early 1960s. Various facilities around the village of Gambell were constructed to provide housing, communications, and other functions. All DOD structures were demolished, burned, or scavenged, and debris buried on-site.

A Phase I Remedial investigation was started at Gambell in 1994. A Phase II investigation was completed in 1997. A removal action was conducted by Oil Spill Consultants during the summer of 1999 to remove surface debris and contaminated soils. A Supplemental Remedial Investigation was conducted during 2001. A removal action was completed in 2003 by Montgomery Watson Harza under the NALEMP program to excavate buried drums and debris.

**4. Field Activities**

The major on-site tasks for the 2004 site visit were:

- a. Re-locate the Nome Information Repository from the National Park Service Building to a new location.
- b. Hold a Public Meeting regarding the Proposed Plan for Remedial Action in Gambell
- c. Collect a sample of reported free product from the vicinity of former soil boring location SB-18A near the local Washeteria building.

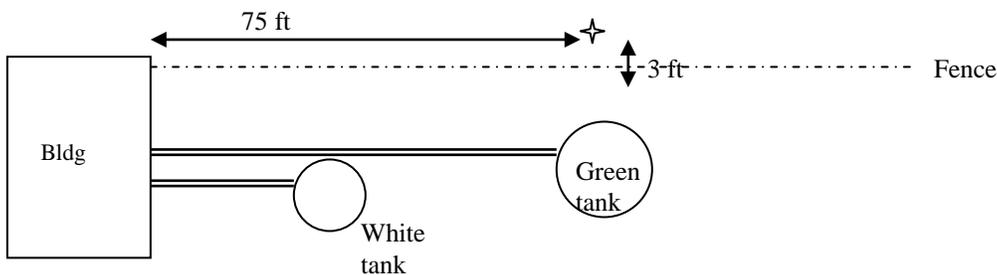
- d. Observe the sites proposed for remedial action for design purposes, including Site 7 Former Power Facility, Site 8A the airport runway and exposed marsten matting, Site 8D Beach Ammunition Debris pit, and Site 12.
- e. Document the status of existing monitoring wells at Site 5.
- f. Distribute pamphlets on Safety Around Military Ammunition to interested community members, hang educational posters in prominent locations around town.
- g. Provide oversight to the Native Village of Gambell staff conducting the NALEMP debris excavation activities.

On Wednesday, July 21, 2004, Carey Cossaboom and Lisa Geist arrived in Nome around 9:30 am. They met with Brad Bennett at the National Park Service office in Nome to discuss transferring the Information Repository materials currently located at their office. The team organized the existing materials, then visited the city library and the U.S. Army National Guard facility. Space was not available at these locations. The team then spoke with Gary Smith, Director of the University of Alaska Fairbanks, Northwest Campus. Gary Smith agreed to house the St. Lawrence Island documents at the campus library. Carey and Lisa were assisted by personnel from the National Park Service and completed moving the documents in the afternoon.

On Wednesday afternoon, Scott Kendall joined the field team. The team arrived in Gambell around 4:30 pm where they were met by Hansen from the Sivuqaq Lodge and Edmond Appasingok from the Native Village of Gambell IRA (and local agent for Cape Smythe Airlines). Carey Cossaboom confirmed the meeting room arrangements with the City of Gambell. Lisa Geist and Carey Cossaboom set up the meeting room at 6 pm, including the conference telephone, power point projector and laptop. The Public Meeting started at 7:15 pm. Additional details on the meeting are contained in the separate meeting minutes document.

On Thursday, July 22, 2004, Lisa Geist and Scott Kendall walked to Site 18A and began to organize the well point supplies at 8:00 am. Carey Cossaboom joined the field team at 8:45 am with a locally rented ATV. The well point location was determined by consulting with prior field notes, and eventually confirmed with an historical mark on the 8<sup>th</sup> fence post of the washeteria fence. A well point consisting of a 36 inch drive point, 10-slot (0.01 screen size), 1 ¼ inch diameter, with 5-ft lengths of steel pipe risers. The well point was placed 3 feet north of the fence, directly in front of the 8<sup>th</sup> fence post, approximately 75 feet east of the northeast corner of the building (see photo log).

Figure 1 – Well point installation at Site 18A.



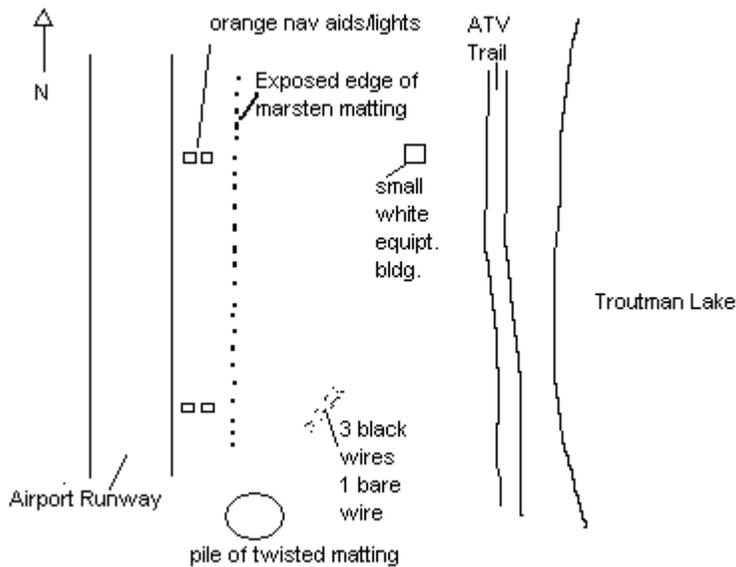
At 9:25 am, the well point was driven 14.5 feet below ground surface. The well point was tested for water using the bailer. The top of casing was measured at 45 inches. The water recovered in the bailer had a slight odor of fuel, with grey silty water. The well point was pounded in an additional 1.5 feet. At 9:45 am, the well point was completed. The final top of casing measurement was 31 inches above ground surface. The well point was

tested again for water. A strong fuel odor was present in the bailer. The well point was left to rest for several hours.

At 9:45 am, Carey Cossaboom departed for a scheduled meeting with the Native Village of Gambell IRA Council and NALEMP staff at their office building. Carey Cossaboom also took ordnance posters for distribution to the IRA Building, Native Store, City Hall, Village Public Safety Officer, Washeteria, Sivuqaq Lodge, and Post Office.

At 10:00, Lisa Geist and Scott Kendall traveled to the airstrip to view the exposed marsten matting. At 10:30 am, the team encountered Bruce B., the local airport maintenance employee. Bruce mentioned that Pat Kellerer was the FAA/DOT contact in Nome. The exposed marsten matting is concentrated along the southern half of the eastern side of the runway. Towards the southern end of the runway, an exposed group of wires was observed (see photo log). According to Bruce, the power lines for the runway lights are buried underneath the asphalt runway. However, the FAA's navigation aids appear to be connected by wiring which runs east of the runway (see sketch).

Figure 2 - Marsten matting along east side of airport runway (Site 8A)



The field team continued to Site 12 and Site 8D to observe current conditions. The location of Site 12 is adjacent to a fork in ATV trails south of Troutman lake. Some remnants of debris/trash were observed, but the lead-contaminated soil is not visible to the eye. Site 8D, the beach ammunition burial pits were located due west of Site 12. Two kinds of ammunition were predominantly observed. The casings included both intact and previously ruptured shells.

At 12:20 pm, the field team returned to the well point at Site 18A. The bailer was used to recover groundwater. The water had a slight fuel odor, but no visible free product layer. The water column was slightly silty at the bottom. Approximately 1 foot of water was present in the bailer.

At 12:30 pm, the field team traveled to Site 5 to conduct an inventory the existing monitoring wells. MW28 was located southwest of the fenced Village water supply well building, and found filled with gravel. MW29 was located east of the ATV trail, and southeast of the water supply building. The well was locked, but would

require cutting of the lock to be opened. Slight frost jacking was observed. MW 32 was located due southeast of the water supply building. The top of the well was resting on the casing, no lock was present. Otherwise, the well seemed in good condition. MW 15 was located northeast of the water supply building. This well is an older vintage. No lock was present on the outer casing, but the interior well was capped with a white plastic PVC cap. MW30 was located northwest of the water supply building. The well was locked, but weathered in place and would require cutting. Another monitoring well not related to previous remedial investigations was documented due north of the water supply building. MW 14 was located further north from MW15. A plastic tie secured the top of the protective casing, the lock had been previously removed. The protective casing of MW14 was also loose.

Five additional older vintage monitoring wells were observed north of Site 5 in the vicinity of Sites 2 and 3. The previous location of the POL-contaminated soil excavation at Site 2 was approximately located and photographed. The area appeared discolored from campfire burning (ash), other local trash was visible. Just north of this area near rocks at the base of Sevuokuk Mountain, more local trash was observed, including metal rims from discarded ATV wheels (see photo log). The team continued along the north beach and back to the main village area.

At 1:45 pm, the field team returned to the well point at Site 18A to collect a groundwater sample. A slight sheen and fuel odor was observed from the water recovered from the bailer. The water was clear at the top of the bailer. Approximately 14 inches of water was recovered in the bailer. The total depth of the well point was 224 inches (to top of casing). The top of casing was 31 inches above ground surface. The total depth of the well point was 16 feet below ground surface. Water was encountered at approximately 14.5 feet below ground surface.

At 2:25 pm, the field team finished collecting enough water to completely fill two 50 ml amber sample jars, leaving no head space. The collected water had a definite sheen.

At 2:30 pm, the top 5 foot section of pipe was unscrewed and removed. The well point was abandoned in place by filling the remaining underground pipe with gravel.

The field team returned to the Sivuqaq Lodge to complete paperwork and package the samples and cooler for return to Anchorage. Since the sample was not free product as originally anticipated, the cooler did not require hazardous materials labeling. The sample was refrigerated at the COE and was transferred to chemist Chris Floyd on Friday morning, July 23, 2004. The sample was shipped to the laboratory on Monday, July 26, 2004.

At the end of the day, the field team observed the local NALEMP staff working on the excavation of buried debris at Site 18, just east of the washeteria/water treatment complex. The local laborers were hand cutting debris and loading a staged connex at the job site. The team noted that the John Deere 744H Loader's rear windshield was broken, and required covering with plastic bags by the equipment operator. Several supersacks were observed, but appeared to be only partially filled with contaminated soil. Many black plastic garbage bags had been used to containerize debris (later determined to be insulation) in piles. The excavation area was a large pit, with some twisted Quonset hut metal frames visible. A portion of a fuel pipeline had also been exposed near the washeteria fence. The job site area was marked with yellow caution tape. The local laborers moved the debris using ATV trailers and then transferring the debris by hand into the front-door of a standard connex box. The backhoe was also used to transport debris from the excavation pit location to the staging area.

The field team left Gambell at 5:00 pm, arrived in Nome and then Anchorage by 10:30 pm.

## **6. Conclusions and Recommendations**

During this trip, the District team visited with community members, and toured various areas to prepare for remedial design activities based on the Proposed Plan. The team provided oversight to ongoing NALEMP debris excavation activities. The free product noted in field notes/observations by previous contractor in 2001 was not present at Site 18A. The public meeting was well attended and generated much discussion regarding sites either planned for remedial action or considered for no further action. The main issue of concern was the possibility of buried ordnance near the base of Sevuokuk Mountain and underwater in Troutman lake. A dispute still exists over the adequacy of prior investigations by the Corps of Engineers and the memory of local residents.

Although the team did not spend a lot of time observing the ongoing NALEMP project, questions were raised regarding their familiarity with the workplan, and the effective use of laborers, equipment, and communicating safe work practices.

The information gathered will be used to help identify any remaining data gaps, respond to community concerns, prepare a decision document, and plan for future remedial actions.

Photos 1-4: Well point installation at Site 18A, adjacent to fence along northern boundary of washeteria area.

Photo 1- View southwest towards water treatment bldg    Photo 2 - View southeast towards tanks.



Photo 3 – view west, City Hall in background



Photo 4 – view east along fence



Photos 5-8: Vicinity of well point 18A

Photos 5 and 6 - view southeast



Photo 7 - view southwest



Photo 8 - view west



Photo 9: Sampling of well point 18A



Photo 10: Well point abandoned in place. Top 5 feet of casing removed.



Photo 11 - 14: Marsten matting along east side of airstrip (Site 8A)

Photo 11- view southwest

Photo 12 - view south



Photo 13: view west, close up

Photo 14: view north



Photos 15 - 17: Airport lighting/navigation aids (Site 8A)

Photo 15: view north – ATV trail in background



Photo 16: view east towards Troutman Lake



Photo 17: detail view of power supply



Photos 18 -20: Decaying drums at Site 8A, northern edge of exposed marsten matting area



Photo 21: Exposed cables near southern end of airstrip. View southwest towards runway. Orange navigation aids / lights in background.



Photo 22: close up of cables



Photo 23: view north from southern end of airstrip



Photo 24: Exposed marsten matting along eastern edge of Airstrip, looking south (Site 8A)



Photo 25: Exposed marsten matting at Site 8A, view west



Photos 26 - 30: vicinity of Site 12, south of Troutman Lake

Photo 26: view east



Photo 27: view southeast



Photo 28: view south



Photo 29: view northwest



Photo 30: view north towards ATV trails



Photos 31- 26: vicinity of Site 8D beach ammunition burial pits

Photo 31: view northeast



Photo 32: view east, Site 12 in distance



Photo 33: close up of small arms ammunition



Photo 34: close up view



Photo 35: beach gravels



Photo 36: beach gravels



Photos 37 - 40: Site 5, Monitoring Well #29

Photo 37: Top view of MW29



Photo 38: view north along trail and Sevuokuk Mtn.



Photo 39: view north towards village water supply bldg



Photo 40: view east towards mountain



Photos 41 - 42: Site 5, Monitoring Well #32

Photo 41: close up of MW 32



Photo 43: Site 5, MW#31, close view

Photo 42: view northwest towards village water supply



Photo 44: view east from MW31

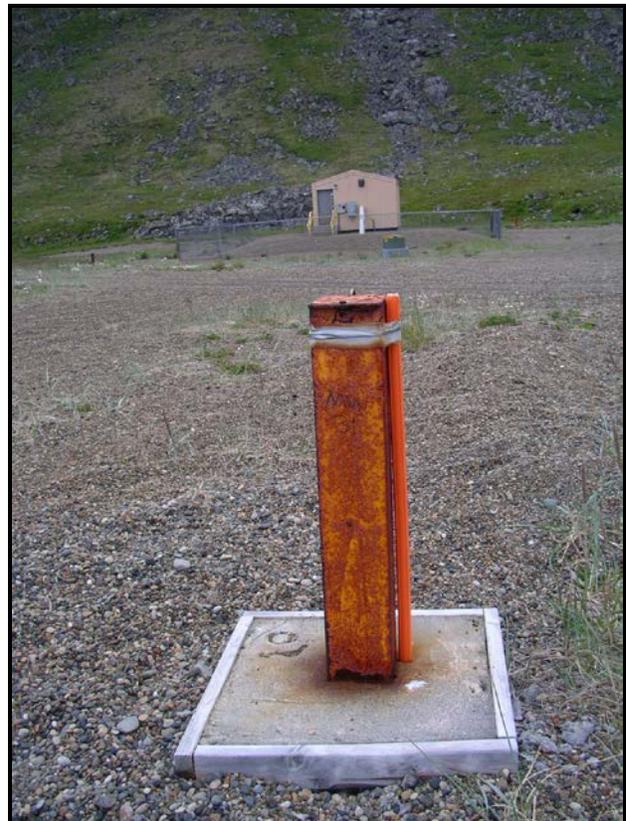


Photo 45: Site 5, unknown well, view south



Photo 46: Site 5, Monitoring Well #15 close view



Photo 47: Site 5, Monitoring Well #15, close up



Photo 48: view southwest from MW15



Photo 49: Site 5, Monitoring Well #14  
close up



Photo 50: view south from MW14



Photo 51: Monitoring well #30



Photo 52: view south-southwest from MW30



Photos 53 - 58: Site 2/3 – vicinity of 1999 soil excavation, local debris and campfire remnants



Photos 59 - 60: Near north beach and Sevuokuk Mountain, local debris and ATV wheel rims.



Photo 61: Fuel off-loading area at north beach

Photo 62: Pond/depression area located east of CAA housing and north of the main village.



Photos 63 - 65: NALEMP excavation activities at Site 18, east of the Washeteria complex. Views south and southeast towards Troutman Lake.



Photo 66: Village of Gambell, view northeast



Photo 67: Village of Gambell, view east



Photo 68: Aerial view of Gambell, view northeast, High School, power plant, and Sevuokuk Mountain



Photo 69: Aerial view of Gambell, view northeast. Airstrip in foreground, Troutman Lake, Village in distance.



Photo 70: Aerial view of Gambell, view southeast. End of Troutman Lake, Nayvaghat Lakes, West beach.

