

*Exxon Valdez* Oil Spill  
Restoration Project Annual Report

Archaeological Restoration, Index Site Monitoring, 1998

Restoration Project 98007A  
Annual Report

This annual report has been prepared for peer review as part of the *Exxon Valdez* Oil Spill Trustee Council restoration program for the purpose of assessing project progress. Peer review comments have not been addressed in this annual report.

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**Study History:** The Archaeological Index Site Monitoring project was designed to allow monitoring of vandalism and other site injury through the time since the *Exxon Valdez* oil spill. A representative group of sites injured from vandalism or from oiling was identified to provide a gauge of the level of continued injury to all sites in the area. The large number of sites potentially susceptible to injury is so large, that not all sites can be reasonably monitored. The strategy of monitoring index sites began after the FY93 project. The aim of the project is to monitor the index sites on a ten year period as a minimum time to detect trends in vandal activity.

**Abstract:** The Index Site Monitoring project seeks to gauge levels of vandalism injury to archaeological sites in the *Exxon Valdez* oil spill area. Selected sites are visited on alternate years and a few on a yearly basis. During 1998, ten sites were scheduled for monitoring however several were not visited because of weather conflicts. Evidence of vandalism was found at one of the scheduled sites but not recent vandalism. Other sites were visited as the opportunity presented itself and in conjunction with other programs. Evidence of human disturbance was also found at a site not scheduled but visited as the opportunity arose. Erosion continues to be the primary agent of site destruction.

**Key Words:** Archaeology, *Exxon Valdez*, index sites, monitoring, vandalism

**Project Data:** Project data is provided in narrative form in the annual reports and will be summarized in the final report. Artifact catalogs are recorded in dBase III+ and will be deposited with the collections at the University of Alaska Museum. Availability will be subject to Museum policy.

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# ARCHAEOLOGICAL RESTORATION, INDEX SITE MONITORING, 1998

## INTRODUCTION

The overall intent of the archaeological site monitoring program is to maintain a current assessment of the status of vandalized sites in the oil spill area and sites oiled during the spill (Figure 1). Knowledge of continuing and current site status is required to protect the sites from degradation. The objectives of the FY97 project are:

1. Monitor vandalized sites to identify continuing vandal activity in order to protect the sites. Information about index sites will be projected for management planning to the larger inventory of sites in the spill area.
2. Monitor sites contaminated by oil during the Exxon Valdez Oil Spill to identify any encroachment of subsurface oil into the cultural deposits from surrounding sediments.

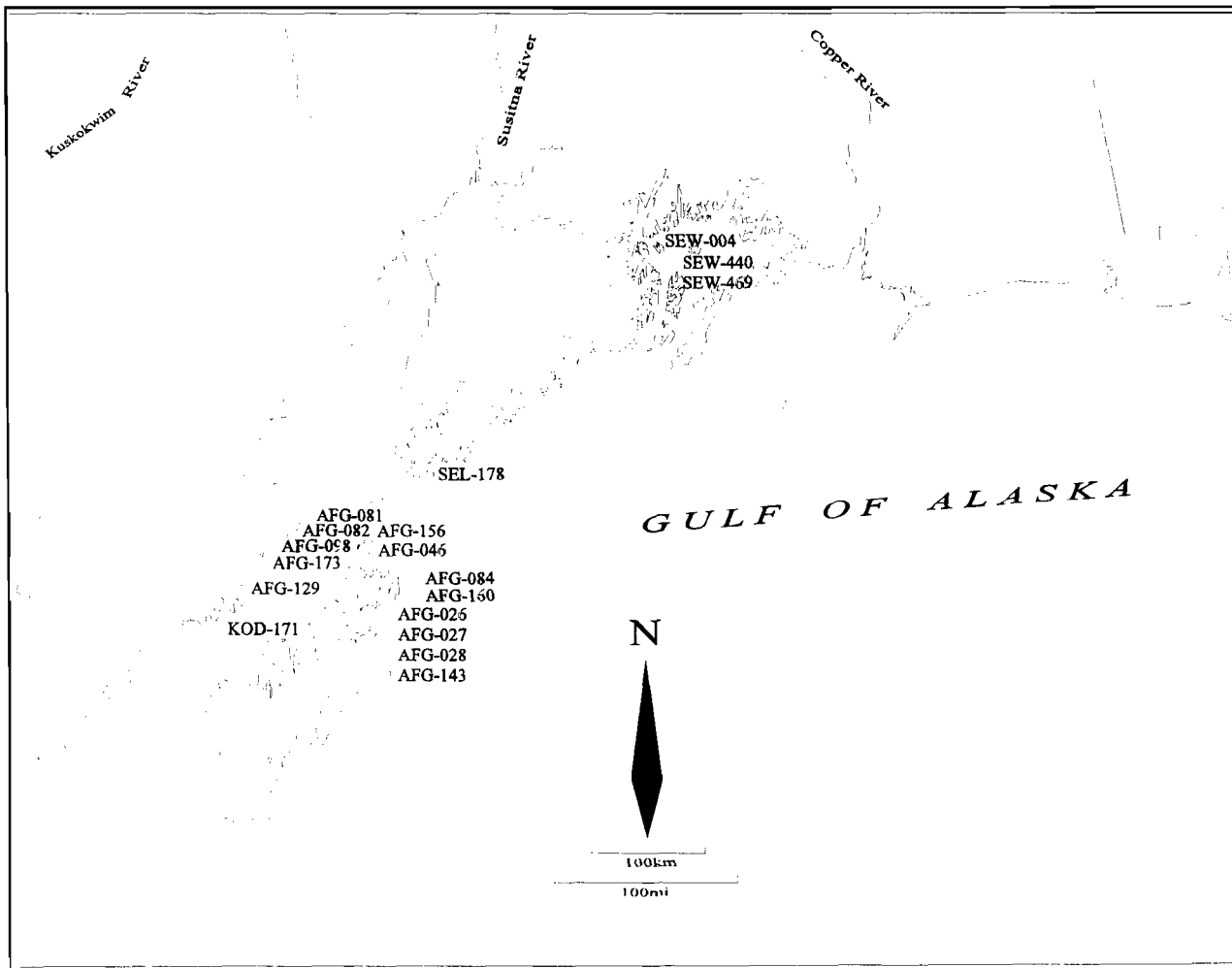


Figure 1. Sites monitored during 1998.

The intent of the project at its conclusion is to have maintained a presence at the vandalized sites for a long enough period of time to gauge levels of vandalism and discourage that activity by our presence. The long range intent by FY2004 is to reduce that activity to zero. Oiled sites will be considered restored when they have remained oil free for the life of the project. Oil in surrounding sediments will be considered stable or immobile by that time.

The current program of monitoring “index sites” for vandalism and contamination of site sediments is a continuation of the strategy identified in the early post-Spill working sessions. That strategy was to monitor representative sites for continued damage and for return to the pre-Spill state of equilibrium or level of degradation. The intent was to remove the vandal activity and site contamination related to the Spill. To that end, a period of ten years was agreed upon for monitoring selected sites. Sites with minimal or moderating damage are examined on a less frequent schedule. With the exception of site SEW-440, the sites identified for visit during 1998 have not been visited yearly.

### **State of Alaska, Department of Natural Resources Field Monitoring, 1998**

Douglas R. Reger

Office of History and Archaeology

The sites selected for monitoring by the Alaska Department of Natural Resources during 1998 were SEL-178 on the Kenai Peninsula and AFG-082, AFG-084, and AFG-160 on Shuyak Island (Figure 1). The latter two sites have not been visited by State archaeologists since the early post-Spill cleanup activities. SEL-178 and AFG-082 have been repeatedly visited in the intervening years.

#### **Port Dick, Kenai Peninsula**

The Port Dick House Depression Site was visited during September 1998. The site was accessed at high tide to allow use of a Grumman Widgeon as transportation. The tide level was not particularly high so that the beach at the back side of the spit was accessible. Because a fixed wing aircraft was used, other sites could also be flown over to monitor general site conditions. In that manner, the sites in the Nuka Island area and at Gore Point were also observed. No damage was observed at those sites during the flight.

#### **SEL-178, Port Dick House Depressions, Segment PD-003**

The Port Dick House Depressions were first identified during damage assessment surveys by Exxon archaeologists in 1989. Previous annual reports referred to the site as the Port Dick Cabin Site; owing to the presence of a cabin built by the Alaska Department of Fish and Game on the site. The house depressions are located on the spit at the mouth of Port Dick Creek. Fire cracked rock fragments and stone artifacts occasionally erode onto the beach or the access trail to the cabin. The site was the location of a helicopter fuel cache and refueling site during Oil Spill cleanup.

The archaeological site was mapped and briefly tested during 1991 by State archaeologists and also archaeologists from the State University of New York at Binghamton. The latter group was under to contract to the U.S. Forest Service on behalf of the State and

Federal land managing agencies to test for effect of the Oil Spill on area sites.

A map prepared by the State during 1993 displayed site features and stations established as photo reference points. During 1996, fire cracked rock fragments were eroding from the path to the cabin. Continued use of the cabin was the apparent reason for the erosion. Erosion of the fire cracked rock deposit was again noted during 1998. The rate of disturbance has increased significantly. Areas of exposed fire cracked rock during 1996 have been completely denuded by 1998 and presence of the deposit can be seen only along the edges of the trail.

The remaining features at SEL-178 do not appear disturbed in 1998. An examination of the beach along the northwest margin of the spit revealed no artifacts where past visits revealed artifacts. Trails established through the south house depression in prior years have re-vegetated with thick growth of beach grass. The route across the base of the spit is now the only active trail. Photographs taken from Photo Station 93-3 at the southeast corner of the spit do not reveal any significant changes on the spit.

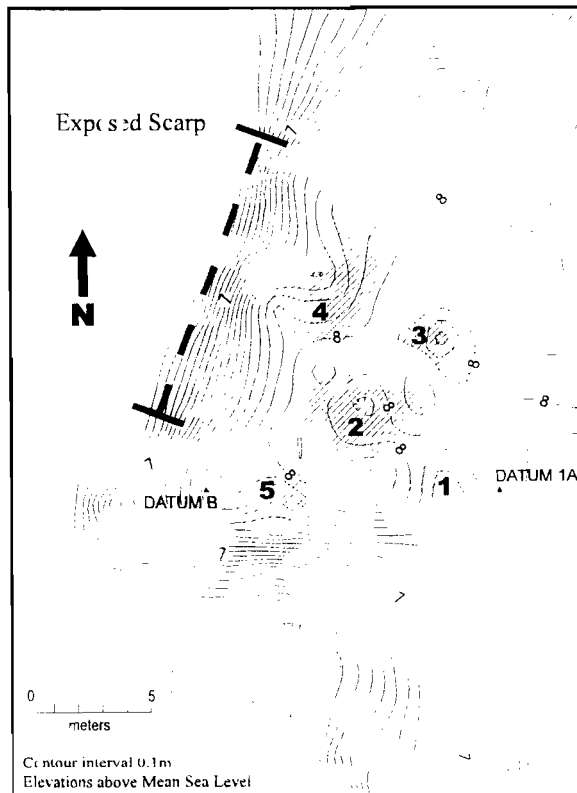
### Shuyak Island

The time during which sites on Shuyak Island were visited was mostly clear but very windy. Prevailing winds were blowing up Shelikof Strait making travel to monitored sites by boat very dangerous. During the periods when access to two of the sites was not possible, other sites were visited (Figure 1). All of the scheduled sites were eventually reached. As has been the custom when monitoring the remote sites on Shuyak Island, other nearby sites were visited as well. AFG-046, AFG-081, AFG-098, AFG-156, and AFG-173 were briefly visited in addition to the scheduled sites.

#### AFG-082, Segment WO-003,

The AFG-082 Site was first noted during 1983 and tested during 1991. The site consists of five subdued depressions in a grassy knoll overlooking a rocky beach (Figure 2). Adjacent to the site is a pond created by drift logs and other storm deposited debris, damming a small drainage. The knoll is comprised of organic rich soil midden, poor in shell or other organic remains. The bone fragments recovered were calcined fragments. A single fragment of clam shell was recovered from the limited tests excavated. The midden is positioned on a bedrock knob. The front of the midden is exposed by tidal erosion. Artifacts are found on the beach gravel at the base of the exposure.

Excavations at the site during 1991 yielded a collection of ground slate and chipped stone artifacts. Comparisons of the artifacts and interpretation of the



**Figure 2.** Exposed scarp at area of erosion, AFG-082.

radiocarbon dates obtained from charcoal, suggest a Kachemak Tradition affiliation. The subdued topography of the depressions also compares with other Kachemak housepit sites in the Kodiak area.

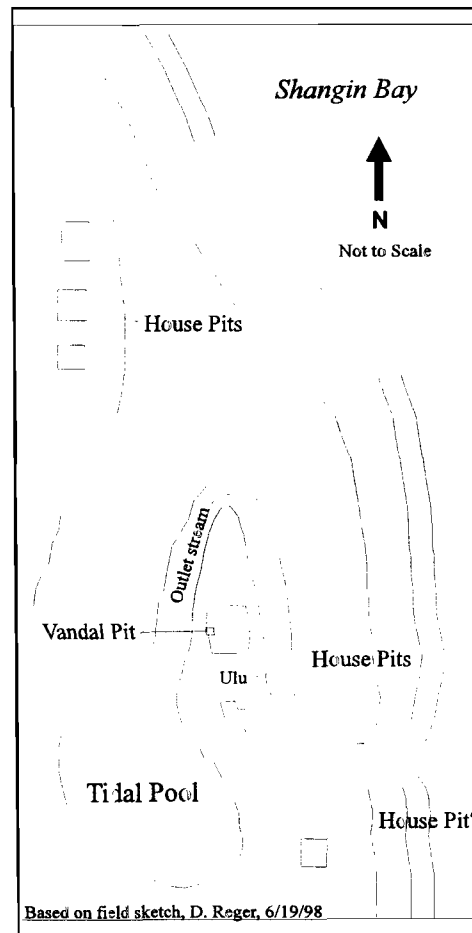
The visit to the site during 1998 revealed continued erosion due to storm waves but no evidence of vandal activity (Figure 2). No tar balls or mousse like that seen in 1991 were found in 1998. No artifacts were collected from the beach. A few fragments of ground slate, boulder chips, and fire cracked rocks were present among the gravels.

#### **AFG-084, Segment SH-001,**

This site was located during 1983 and was described as two house depressions with midden on a low gravel spit (Klingler 1983). The spit, located near the head of Shangin Bay, lays between a tidal pond and the bay shore (Figure 3). The outlet stream of the pond is eroding the site both behind and in front of the house depressions.

Artifacts were found in both areas of erosion. Vandalism was noted at the site in 1983 but location of the damage was not specified. Archaeological testing at the site documented culturally stained soil, fire cracked rocks, bone, a few shells, and artifacts beneath a deposit of Katmai Ash. The artifacts were attributed to Koniag affiliation in a later report (McMahan 1993). A hole was dug into the west wall of the northermost house pit on the spit. It is near the center of the back wall and is now enlarging due to natural slumping of the beach gravel matrix. The square shape of the pit and the condition of the pit walls suggest it was excavated within the past year or two. No grass or other vegetation has invaded the open pit walls.

Another, nearby, site area was found during the 1998 visit to the head of Shangin Bay. The two house pits on the low gravel spit were again located and overlooking the spit from a higher terrace to the south was a large rectangular depression. It may represent a house depression but was not tested. West of the documented site on the spit, at the base of the hillside were two more square depressions and perhaps a third depression. The northernmost depression is indistinct in the tall beach grass cover. The depressions are arranged in a line parallel to the base of the slope about 15m to the west. No testing was attempted around the apparent house pits. The distinct pit outlines suggest a recent or historic age.



**Figure 3.** AFG-084 site area.



### AFG-160, Tetrakof Housepit Site, Segment SI-010,

During the 1998 field season, the Tetrakof Housepit Site, AFG-160 was identified for examination for damage from vandal activity. The site was identified by Exxon archaeologist Don Abbott during July 1989. He noted that there were six distinct house depressions with a possible additional pit at the north end of the site. The house pits appear to be single room pits situated on a narrow, low, ridge between a fresh water pond and the active ocean beach (Figure 4). The alignment of the pits is staggered generally along a south-north line. The house pits are situated on the inland side of the ridge and the distance between the beach and house pits is about 20m. The pits range from 5m to 9m in diameter. Most pits have small spruce trees growing within the circumference of the pit.

Midden is evident between the northern most pits and the eroding ocean beach scarp and is exposed at the north end of the site in tree roots and beneath a thin sod cover. The scarp measures 0.5m to 1.0m in height. Broken clam and crushed mussel shells are exposed through the sod. No test excavation was attempted. During the 1998 visit, no midden was found exposed at the beach. In 1989 midden, composed of clam and mussel shell, fire cracked rock, charcoal and fish bone, was eroding along the scarp in an area 0.2m high and 0.3m wide. Beach grass has grown over any previously exposed midden. No evidence was seen for vandal activities at the site. The shores of Tetrakof Point were examined for additional sites. Root wads and erosional exposures were checked for cultural remains. The ridge west of the freshwater pond was also surveyed. No midden or house pits were found.

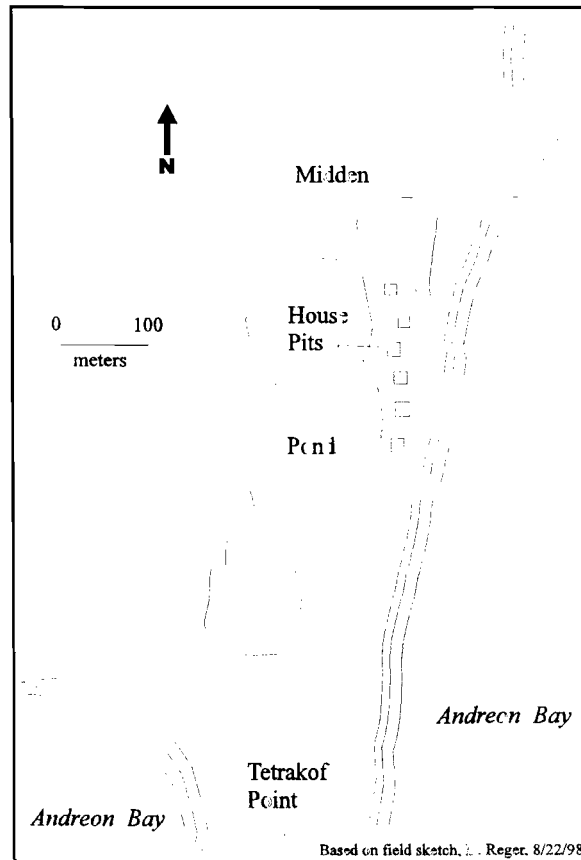


Figure 4. Tetrakof Housepit Site area map.

### AFG-046, Perevalnie Passage Site

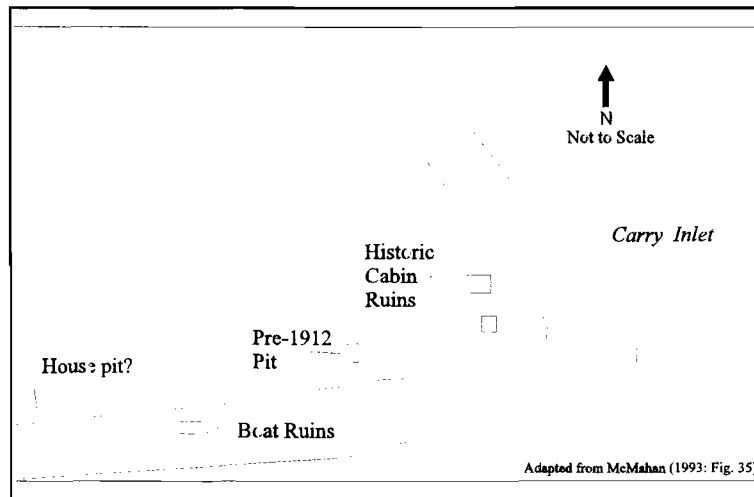
The Perevalnie Passage Site was not scheduled for a visit during 1998 but was on the route taken to visit the east side of Shuyak Island. Because the site has been subject to vandalism and erosion yearly since monitoring began, the opportunity was taken to again stop to document status of the site. Erosion has taken a heavy toll on the site deposits over the past year. Several fresh exposures were found where thicker cultural deposits are exposed near the east end of the site. Artifacts and bones were found on the beach, washed clean by

the tide. Fourteen human bones were collected from the beach and placed in a protected crevice in the bedrock. The bones were covered with rock and soil rubble to protect them from further disturbance. Some of the bones were placed in a pile by an earlier visitor to the site. Their point of origin is not known.

Human and deer tracks were found on exposed midden faces near the center and west end of the site. The faces were fresh exposures but could not be attributed to human or to animal activities.

### AFG-156

When high winds prohibited travel on Shelikof Strait to visit index sites to be monitored, we walked to Carrie Inlet to check on known sites located there. The AFG-156 Site was mapped and archaeologically tested during 1990. Presence of Katmai Ash in some features and not in others suggested occupation in the early 20<sup>th</sup> Century. Artifacts



**Figure 5.** Site area map, AFG-156, showing surface features.

and structural remains are still exposed at the site eight years after initial mapping. West of the apparent mining remains, about 100m, is a newly discovered, rectangular depression oriented parallel to the beach scarp (Figure 5). It lays about 1m from the bluff edge and is very indistinct. The trail along the bluff edge traverses the depression which is disguised by irregular clumps of moss cover and trees. It has the appearance of an old house depression but was not tested.

### AFG-098

The AFG-098 Site at the head of Neketa Bay was re-visited during weather delays from visiting scheduled sites. The fire cracked rock and hearth remains which were exposed on the beach in prior years still is exposed. The beach remains seem to be moved around by storm waves but stay in much the same area of the beach. No significant new erosion is evident. No disturbance from vandal or animals digging is present.

### AFG-173

The opportunity arose while waiting for transportation to the east side of Shuyak Island, to visit the Neketa Bay Village Site, AFG-173, first documented during 1990. The site remains much as it was during the first visit. Some erosion continues at the west end of the beach but not where the house depressions are located. No evidence was seen of vandalism.

## **AFG-081**

The index site, AFG-081, was not slated for monitoring during 1998 but was visited at the same time AFG-082 was checked. The beach access point for both sites is found on the same location. Thus, AFG-081 was visited to see how the vandal damage seen during 1996. No new evidence of vandalism was found during 1998. The natural re-vegetation seen in progress during 1997 continues.

## **U.S. Fish and Wildlife Service Oil Spill Monitoring on Kodiak: 1998 and a summary**

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The U.S. Fish and Wildlife Service began monitoring sites damaged during the cleanup of the Exxon Valdez Oil Spill in 1993 when the Trustees made funds for the monitoring program available. The sites selected for monitoring were those for which damage had been documented during the cleanup efforts. For Service lands this included four sites around Izhut Bay on the east coast of Afognak Island (AFG-026, AFG-027, AFG-028, and AFG-143), and one site (KOD-171) on the west coast of Kodiak Island at Chief Cove at the mouth of Uyak Bay. A single site on Ban Island (AFG-129), off the west coast of Afognak, was added to the monitoring list in 1995.

No sites were monitored in 1994. Fish and Wildlife Service archaeologists made several visits to Kodiak that season but each time, bad weather prevented visits to the sites.

The sites in Izhut Bay were monitored in 1993, 1997, and 1998. The upland portions of the sites are privately owned but all have intertidal components managed by the Alaska Maritime National Wildlife Refuge, which had sustained damage during cleanup. They were not scheduled for annual monitoring because there was no sign of continuing damage during the initial survey in 1993. The 1997 monitoring visit was planned as a follow-up to the 1993 visit. The sites were surveyed again in 1998 because two of the sites (AFG-027 and AFG-143) were not located in 1997 due to a mapping error.

Chief Cove (KOD-171) was visited in 1993, 1995, and 1996. The investigation in 1997 was cancelled because of deteriorating weather and poor landing conditions. It was not monitored in 1998. It was visited annual because of the continued evidence for vandalism. A small piece of the northern part of the site is within the Kodiak National Wildlife Refuge, which had built a cabin on adjacent Native Allotment land. The boundaries of the allotment were poorly defined and not surveyed until 1997/98 when we learned the bulk of the site was not refuge land. The Service had been involved in negotiations to buy the allotment but the deal fell through. The site remains in Native ownership, which precludes further monitoring by the Service.

Ban Island (AFG-129) was added to the monitoring list in 1995 because it too had sustained damage during oil spill cleanup but had somehow missed being included in the initial list. The site was checked annually in 1995, 1996, 1997, and 1998 because the initial

injury was actual vandalism and digging as opposed to oiling, increased erosion or surface artifact collecting. There was no evidence of any further vandalism but some erosion continues.

The U.S. Fish and Wildlife Service arranged with staff of the Alutiiq Museum to visit sites on and near Afognak Island as proposed in the Index Site Monitoring detailed work plan for FY98. The agreement is part of an effort to further a site stewardship program by the Fish and Wildlife Service in the Kodiak area. Alutiiq Museum staff visited sites AFG-026, AFG-027, AFG-028, AFG-129, and AFG-143. Although all of the sites visited show effect of continued erosion, only AFG-027 displays evidence of recent vandalism. A significant accomplishment of the Museum effort was re-location of AFG-027, AFG-028, and AFG-143 which were more accurately mapped.

### **AFG-026, Izhut Bay Site, Segment IB-008,**

The Izhut Bay Site is located in Kitoi Bay on the south side of Afognak Island. The site was noted by Hrdlicka during the 1930's and has been visited periodically since by various researchers. Exxon archaeologists visited the site to monitor condition during 1989 and 1990. The site consists of a large shell midden, separated into two sections by a bedrock outcrop. The southern exposure is known as Area A and the northern area is Area B.

The Alutiiq Museum staff archaeologists noted no vandalism at the site during 1998. Tidal erosion is effecting the lower deposits in Area A. Natural erosion along the midden face has exposed fire cracked rock fragments, clam shells, mussel shells, and bird bones. Pitting in the upper surface of Area A, assumed to be vandal damage from earlier years, has re-vegetated.

Area B midden exposed along the bluff face has re-vegetated with horse tail, cow parsnip, grass and fireweed. Fire cracked rock and clam shells were seen in the high energy intertidal zone, but no manufactured artifacts. At the extreme northeast end of Area B, tidal erosion is undercutting the bank and artifacts, fire cracked rocks, and bone fragments litter the beach in front of the exposure.

### **AFG-027, McDonald Lagoon Site, Segment IB-008,**

The McDonald Lagoon Site has been incorrectly located on maps maintained in agency files. The first task accomplished during the 1998 fieldwork was re-location of the site and plotting of the accurate location. The major portion of the site is midden in a mound about 30m long and 3m above sea level. The deposit is 40cm thick.

Extensive vandalism occurred at AFG-027 during the cleanup phase of the oil spill. Tunneling into the midden and exposure of the deposit left clam shells, fire cracked rocks and artifacts littering the beach in front of



**Figure 6.** View of beach at AFG-027.

the site. Modern use of the area can be seen with presence of a hunting camp in the woods above the site. There is no new evidence of vandalism along the top of the midden. Five previously dug holes have re-vegetated and three other holes are either eroding or have slumped.

The north section of the site has been vandalized. A large area measuring approximately 4m wide and 2m high has been dug a meter into the bank. The digging exposed fire cracked rocks, shell and fish bone all of which litter the beach in front of the site. The vandalism further undercut a large spruce tree which will destroy an addition part of the site when it falls.

### **AFG-028, Ruth Bay Site, Segment IB-007,**

The Ruth Bay Site too was re-located and accurately mapped during the 1998 visit. The site consists of a heavily vegetated midden which measures approximately 63m long, 23m wide and 1m deep. It contains a house depression which has partially eroded. Artifacts found at the site in the past suggest Kachemak and Koniag cultural affiliation.



**Figure 7.** View of Ruth Bay Site, AFG-028.

No vandalism was evident during the 1998 monitoring visit. All vandal holes on the bank

and in the house depression are well vegetated. Two driftwood logs embedded in the cobble beach in front of the site protect it from erosion. Slumping has occurred where the logs do not protect the deposit. A few artifacts and a slab-lined hearth were seen in the slumping area. A depression thought to be a multi-roomed house depression was noted immediately south of the midden. A modern hunting camp has been established there but does not appear to impact the feature.

### **AFG-143, Cajun (Coonass) Point Site, Segment IB-008**

The Cajun Point Site is the third site which was re-located and more accurately mapped. The site is located near the south side of the entrance to McDonald Lagoon off Izhut Bay. The site consists of a midden, 15cm to 20cm thick, which rests on a bedrock shelf. The midden covers an area approximately 50m long x 30m wide. The face of the midden is eroding on to the beach. Three or four house depressions are located in a grassy area of the shelf.

No evidence for recent vandalism was found in 1998. No change was found from the conditions seen in 1993. Vandal damage noted in 1989 continues to re-vegetate. While no active erosion occurs, the beaches around the site are littered with fire cracked rocks, clam

shells, and crushed mussel shells.

**AFG-129, Ban Island Housepits Site, Segment BI-010,**

The Alutiiq Museum staff archaeologists also monitored AFG-129 during 1998. The site is located in three loci around the lagoon at the island. There is no new vandalism noted and most of the earlier noted disturbance has re-vegetated. The exception is at the eastern-most locus of site. In that area, the seaward bank is slumping. Animal activities appear to have exacerbated erosion in the eroding areas. A fox den with multiple entrances has been created at the west end of the eastern locus causing considerable damage. Three slate point preforms were found in the slump area.

Erosion at the northern locus of the site has exposed additional midden. That erosion has occurred in a bank behind a beach littered with firecracked rocks and a stone hearth ring. Additional depressions thought to be house pits not documented in previous investigations were seen in various parts of the site.

**EVOS Archaeological Monitoring on the Chugach National Forest, 1998**

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Chugach National Forest

Three sites, SEW-004, SEW-440 and SEW-469 were monitored by Chugach National Forest archaeologists in July 1998. The crew took extensive photographs and compared the present condition of each site with past observations. The archaeologists made a second visit to SEW-469 in September 1998 with a survey crew. The surveyors installed a permanent brass cap to serve as a datum for future mapping and photography. All three sites were found to be in satisfactory condition with no new indications of vandalism or erosion since the previous monitoring visit. SEW-469 did contain two foreign items that indicate human visitation to the site in the past year. This was the final year that the Chugach National Forest monitored SEW-004 because the site has recently been conveyed to Chugach Alaska Corporation under ANCSA 14(h)1.

**Crafton Island Cave, SEW-004, Segment CR-002,**

SEW-004 is an Index Site in the *Exxon* Valdez Oil Spill Archaeological Site Restoration and Monitoring Program (Figure 6). The program is a result of the EVOS settlement between *Exxon* Corporation, the Federal government and the State of Alaska. Certain damaged archaeological sites and associated artifacts were specifically identified as a resource to be restored and protected. Active site monitoring, for a period of ten years, was recommended as an effective way to gauge further vandalism and also to detect long term injury from oiling.

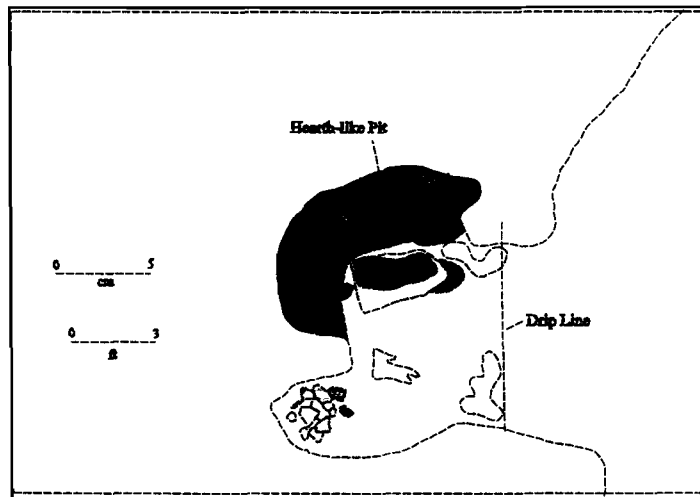
Crafton Island Cave is an occupation and burial cave within the traditional territory of the Chugach Eskimo. MacMaster discovered the site in 1969 and collected stone tools, faunal remains and a human skeleton. The Chugach Alaska Corporation selected the site under ANCSA 14(h)1, (BLM no. AA-10957), prompting a field investigation by the Cooperative Park Studies Unit (CPSU) in 1981. CPSU reported evidence of the midden having been re-worked by tidal action resulting from the 1964 earthquake though it is presently beyond tidal

influence. Four slate points, 2 manos or pestles, lithic debris, wood artifacts, antler and bone were collected.

After the *Exxon Valdez* oil spill in 1989, the site became a focus of assessment and monitoring. Exxon contract archaeologists investigated SEW-004 in 1989 and 1990 and reported recent vandalism. The Research Foundation of the State University of New York visited the site in 1991 as

part of an evaluation of the effect of the *Exxon Valdez* oil spill on archaeological sites. They reported disturbances from animals and humans in form of shallow excavations and backfill piles along the back wall (northwest portion) of SEW-004 (Figure 7). A grinding stone was found near the entrance but not collected. Linda Yarborough of Chugach National Forest monitored the site in 1992 and also noted recent disturbance in form of excavations and shifting of rocks. She recorded bones of seal, sea lion, salmon, shells and wood planks.

The rockshelter is located on the northeast side of Crafton Island along an exposed shoreline with steep 10m to 15m high rock faces. The cave opening is at the base of the rock cliff with no beach in front and at high tide the rockshelter is isolated from the rest of the coast. The cave opening is currently at the high tide line with tidal pools extending partway into the cave. More of the cave floor must have experienced tidal action before the area was uplifted 1m in the 1964 earthquake (Lethcoe 1990). A broad tidal bench extending 50m from the base of rocky shoreline, is exposed at low tide. Crafton Island is vegetated by dense hemlock-spruce forest with an understory of alder, skunk cabbage and ferns.



**Figure 8.** Crafton Island Cave map.



**Figure 9.** Interior of Crafton Island Cave, view to the northwest (Chugach National Forest photo, 7/10/98).

The site visit was conducted on July 10, 1998 (Figure 7). Comparisons were made with fieldnotes and a scaled map produced from previous fieldwork (Dekin, et al. 1993). The cave opening is oriented to the southeast and measures 9m wide by 22m high. The interior is 16m wide by 14m deep. The midden covers a 4m x 10m area and is over a meter deep. The prominent rock slab at the entrance is covered by a thin layer of midden, large mammal bones, slate debitage, and otter or fox scat.

A Forest Service sign placed inside the entrance in the northeast corner of the cave is still present. A mound of dense midden behind the sign contains large vertebrae and a concentration of shell in a small nook of the rock wall. The matrix is blackish-brown, dry and loosely compacted. The midden extends along the northwest wall and consists of dark gray, loosely compacted sediment with mussel and clam shell, sea mammal, fish and bird bones, slate debitage, and fire-cracked rock. The disturbances originally reported by Exxon contract archaeologists (Mobley et al. 1990), are still evident along the back wall in the northwest corner as indicated on the 1991 map (Dekin 1993). They consist of shallow excavations and small backfill mounds and may be from continued animal disturbance. There is a trench-like depression (1.54m long x 0.35m deep) along the west wall in a small nook in the rockshelter wall. Stratigraphy in the trench reveals bone and shell midden throughout and several slate artifacts. The midden does not extend into the southwest corner of the rockshelter. The rock lined pit in the south corner of the the cave, shown on the 1991 map (Dekin 1993), is currently obscured by additional rock fall. The only feature not illustrated on the 1991 map is a hearth-like depression 5.3m southwest of the USFS sign. The depression is 0.12m deep and 0.42m in diameter. There were no additional signs of disturbance other than noted in previous monitoring visits by Dekin's crew in 1991 and Yarborough in 1992. This was the final year that SEW-004 was monitored by the Forest Service because of its conveyance to the Chugach Alaska Corporation.

#### **Eleanor Island Camp, SEW-440, Segment EL-054,**

Eleanor Island Camp was discovered by Exxon contract archaeologists in 1989 after the *Exxon Valdez* oil spill. The intertidal zone at SEW-440 was heavily oiled. The site was further disturbed from subsequent cleanup activities. As a mitigation procedure, Eleanor Island Camp was archaeologically tested by the Chugach National Forest in 1994 (Yarborough 1997) and has been monitored annually since then.

SEW-440 is a prehistoric camp site and consists of midden and lithic artifacts. Midden with fire cracked rock is exposed in the bank at the head of the pre-1964 beach (Figure 8). The midden exposure is 12m long and at least 0.5m thick. Artifacts noted in the intertidal zone include a stone lamp (collected by Exxon archaeologists), a greenstone adze and a water worn adze. Eight culturally modified trees are located in the surrounding forest. Artifacts recovered from the excavation by the Forest Service include an adze flake, graters, whetstones, abrading stones, grinding slabs, polishing stones, burnishers, notched stones, awls, red ochre, debitage and fire cracked rock. Calibrated radiocarbon dates indicate two periods of occupation: around AD 75-380 (early Palugvik Phase), and AD 89001225 and AD 790-1225 (late prehistoric Chugach phase) (Yarborough 1997).

SEW-440 is located at the head of 30m long pebble/cobble beach with a 30m wide intertidal zone. The beach faces southeast into Northwest Bay and is relatively protected by the surrounding coastline and islands. The beach is part of a 42m long tombolo (Yarborough 1997) that connects a forested bedrock knob on the northeast with the main part of Eleanor Island to the southwest. Both the bedrock knob and the main part of Eleanor Island are



characterized by a steep shoreline with 2m high rock faces.

The upper end of the modern beach has a gentle bank which rises to a 2m wide pebble/cobble berm sparsely vegetated by alders and young spruce. This area represents the upper portion of the beach that was active prior to the 1964 earthquake which uplifted the area 1.2m (Lethcoe 1990). A pronounced 1m high bank at the head of the pre-1964 beach leads to the forested tombolo formation. The coastal hemlock/spruce forest is open with an understory of skunk cabbage, moss, ferns, devils club, berries and willow. The tombolo is about 40m across.

The opposite beach faces northwest and is more exposed to wind and strong seas.

Ludwig and Gilliam visited the site on July 7, 1998 and examined the bank at the head of the beach, the intertidal zone and the forested upland. Maps and fieldnotes taken by Yarborough (1997) were used to relocate the midden exposure, the former test pits and survey stakes.

The midden exposure and fire cracked rocks are visible but the bank at the head of the beach looks stable with no evidence of erosion or looting. Weathered dimensional lumber is present at the head of the beach. Investigation of the beach at low tide revealed fire cracked rock and unmodified greenstone but no artifacts. The crew relocated the east/west and north/south lines of survey posts and test pits from the 1994 excavation. The test pits are re-vegetating well and their outlines are barely visible. Remains of a collapsed cabin are still visible. No vandalism or erosion was observed during 1998.

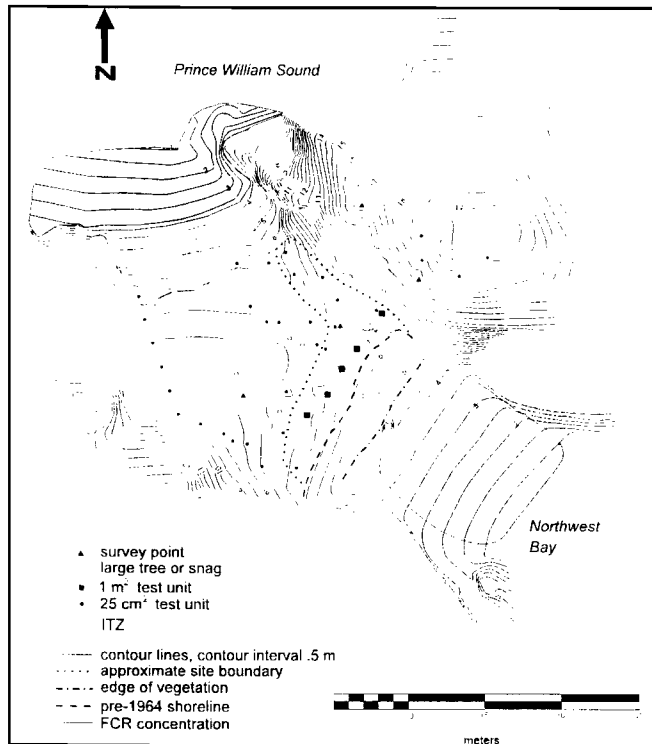


Figure 10. SEW-440 area map.

### Passage Point Rockshelter and Burials, SEW-469, Segment KN-110,

SEW-469 was recorded as a result of shoreline cleanup activities in 1989, at which time the site was vandalized by an oil spill cleanup worker who removed part of the human skeletal material (Mobley, et al. 1990: 138). The on-site security officer mistook the remains to be from a drowning victim and called the Alaska State Troopers to the scene. The Troopers exhumed two prehistoric burials in the upper rockshelter. Eventually all human remains were recovered and the worker apprehended. The Chugach Alaska Corporation reinterred the human remains at the site in 1990. The site has been monitored annually by the Forest Service since 1993. A scale map was created by Forest Service archaeologists in 1997 (Figure 9).

SEW-469 is located near the mouth of a small bay at the north end of Knight Island. While the bay has a northern exposure, the rockshelter opening has a southeasterly exposure. The rockshelter is formed by the indentation at the base of the pillow basalt rock face which forms an impassable headland to the north. The shoreline in front of the rockshelter consists of low boulder headlands which makes access from the water precarious. However, the rockshelter may also be reached from the nearest pocket beach to the south at low tide. The opening is partially obscured by the dense coastal forest which consists of spruce, hemlock and cedar with an understory of alder, skunk cabbage and ferns. The area was uplifted about 1.3m in the 1964 earthquake (Lethcoe 1990).

U.S. Forest Service archaeologists, Ludwig and Gilliam visited the site on July 8, 1998. Known features and attributes of the site were relocated and the remains were examined to determine if there had been any disturbance since the site visit in 1997. Ludwig and Gilliam returned to the site on September 29, 1998, with Forest Service surveyors to set up a survey monument on a headland in front of the site.

The site consists of two overhangs. The main overhang serves as a large, dry rockshelter. It is 30m wide at the

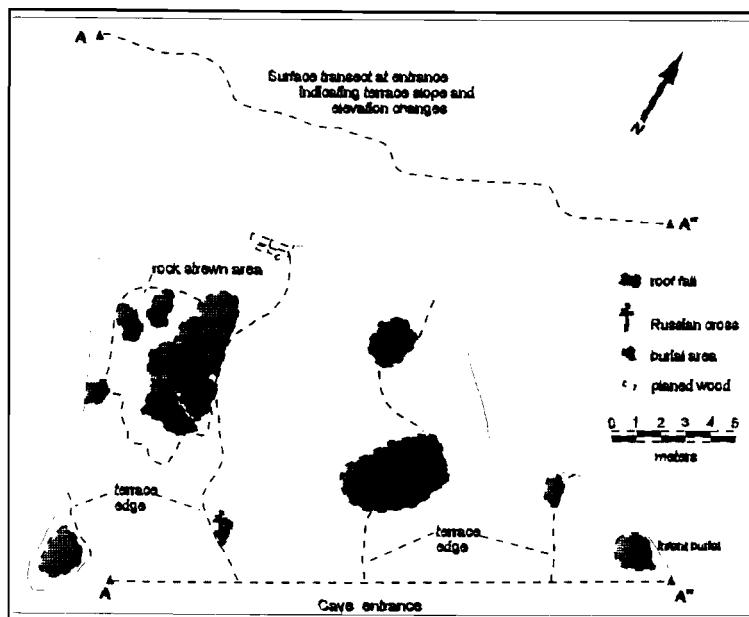


Figure 11. SEW-469 surface feature map.

opening and up to 15m deep. The interior floor is split with fine, dry and loosely compacted sediment among the slabs of roof fall rock. The shelter contains two areas of human skeletal remains. Fire cracked rock, and planed wood, bones of bird, fish, deer, and marine mammals, rodent bones and teeth, bird bone and feathers, mussel and other bilvalve shells, are abundant throughout the rockshelter.

The infant burial noted on the 1997 map (Yarborough and Barthold 1997) in the east corner at the lowermost end of the rockshelter appears intact. Material found on the surface in the vicinity of the burial includes woven mat fragments, planed wood, bird and sea mammal bone and clam shells. Cut bark planks are still present along the north wall of the uppermost level. Numerous pieces of shaped wood and wood points are scattered throughout the upper area. Modern trash was noted in the northwest corner of the rock shelter. The southwest corner of the rock shelter contains human bone fragments including carpals, metacarpals, and a sternum covered by sphagnum moss as indicated on the 1997 map. The Russian Orthodox cross remains standing, undisturbed except for decaying kiwi fruit "offering" (?) at its base.

The smaller overhang is located approximately 50m uphill (to the south) and is about 1.5m across. The overhang contains two wood slab planks and smaller pieces of planed wood along the north wall. A human vertebrae is wedged between the north wall and a small boulder on the floor of the overhang. The floor is covered by small to large rocks and loose reddish dry soil on the floor of the shelter.

There is one discrepancy between earlier observations and those made in 1998. No woven mat fragments were noted with the human remains in the southwestern corner of the main shelter as there were when SEW-469 was initially recorded in 1989 (Lora Johnson 1989 fieldnotes and photos; Linda Yarborough 1989 fieldnotes). However, no mention has been made of the mat fragments in any of the monitoring reports since 1989.

The 1998 monitoring found no new disturbance except for two recently introduced items near the cross and near the back wall. Otherwise the only disturbance is from small animals in the form of scat and burrows. Monitoring work at SEW-469 in 1999 will include setting up a second brass marker and creating a detailed map of the site using GPS.

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