

St. George Island, Alaska  
No Further Remedial Action Planned  
Carpentry Shop UST  
TPA Site No. 22-2

RECEIVED  
AUG 13 2003

Dept. of Environmental Conservation  
SPAR Contaminated Sites - DOD

**Site:** Carpentry Shop Underground Storage Tank (UST), Two-Party Agreement (TPA) Site Number 22-2

**Location:** Lot 9 of Tract 43, Qawax Subdivision, Seward Meridian on St. George Island, Alaska. TPA 22-2 is on the east side of the current St. George Tanaq Corporation Carpentry Shop in the City of St. George. (Figures 1 and 2)

**Type of Release:** Diesel fuel.

**History:** A 500-gallon UST was installed in the early 1960s to supply diesel heating fuel to the carpentry shop constructed at that time. In the 1970s, this UST was replaced by an above ground storage tank and taken out of service. In 1997 St. George Tanaq Corporation and subcontractors per a contract with the National Oceanic and Atmospheric Administration (NOAA) removed the UST and approximately 341 yd<sup>3</sup> of diesel-contaminated soil. (Polarconsult 1997a)

**Summary of Site Investigations:**

No investigations were performed apart from the UST removal and site assessment. Surface contamination was noted around the tank fill and vent pipes. During tank removal, heavy fuel odor, soil stains, and elevated field instrumentation readings indicated a release had occurred.

**Summary of Clean up Actions:**

UST removal and site remediation was conducted in accordance with the Project Work Plan (Polarconsult 1997b), and was carried out in June and August of 1997. Upon removal, the tank was found to be in poor condition with corrosion holes. Areas of contaminated soil surrounding and immediately under the tank confirmed that the majority of the site contamination was attributable to subsurface fuel leakage. Due to the non-homogenous nature of the fill and surrounding soils, leaking fuel traveled in discrete vertical and lateral paths. Visual, olfactory, and field instruments were used to direct digging of contaminated soil. Additionally, soil samples from the excavation sidewalls and bottom were collected for fixed lab analyses to determine areas requiring further soil removal. Excavation continued until soil diesel range organic (DRO) concentrations were confirmed below 200 mg/kg, further vertical excavation was deemed impracticable due to equipment limitations, or the stability of the carpentry shop foundation was threatened (Figure 3). A total of approximately 341 yd<sup>3</sup> of DRO contaminated soil was removed and transported to NOAA's Petroleum Contaminated Soil (PCS) stockpile, about one mile west of the City of St. George. The PCS stockpile was treated using NOAA's enhanced thermal conduction system in 2000 and 2001 (Polarconsult 2001). The excavation was backfilled with soil from the local scoria mine. An impermeable plastic sheet was placed over the excavation and covered with scoria to reduce surface water infiltration.

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Figure 4 shows the former UST location, horizontal extents of the excavation, sample locations, sample depths, and fixed lab sample results. Samples SS 124/131 (SS 131 is a duplicate), SS 125, and SS 129 indicate that soil contaminated with DRO above the Under 40 Inch Zone, Method 2 cleanup concentration of 250 mg/kg was left in portions of the site. Soil at sample locations SS 125 and SS 129 was not removed due to concerns about undermining the carpentry shop foundation. Soil at sample location 124 was judged to be at the maximum excavation depth achievable at this site. Analyses for other potential contaminants were not conducted due to the tank history of storing only diesel fuel, and the knowledge that DRO contamination levels would drive cleanup decisions. Sample results are shown in Table 1.

In summary, the contamination source and all contaminated soil that is practicably accessible has been removed from TPA Site 22-2. Contamination due to diesel fuel migrating to the water table is being addressed in a separate action that is inclusive of groundwater throughout the City of St. George (TTEMI 2003).

**Recommended Action:**

In accordance with paragraph 59 of the Two Party Agreement (1996), NOAA requests written confirmation that all corrective action has been completed at the TPA 22-2 site in accordance with the Agreement and that no further remedial action is planned (“No Further Remedial Action Planned Letter”).

**References:**

NOAA 1996. Pribilof Islands Environmental Restoration Two Party Agreement, Attorney General's Office File No. 66 1-95-0126. National Oceanic and Atmospheric Administration. January 26, 1996.

Polarconsult 1997a. Environmental Site Investigation, St. George Debris Cleanup & UST Decommissioning Report, Pribilof Islands Environmental Restoration Project. Polarconsult Alaska, Inc. November 2, 1997.

Polarconsult 1997b. Work Plan for Site Assessment and Contaminated Soil Removal. Polarconsult Alaska, Inc. May 1, 1997.

Polarconsult 2001. Draft Report Revision 1, Remediation of Petroleum Contaminated Soil, NOAA Part II Pribilof Islands Environmental Cleanup Project, St. George Island, Alaska. Polarconsult Alaska, Inc. December 27, 2001.

TTEMI 2003. Field Investigation Report Pribilof Environmental Restoration Project St. George Island, Alaska. Tetra Tech EM Inc., Mountlake Terrace, Washington. Draft report May 2003.

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Table 1: Summary of Analytical Data for TPA 22-2 Excavation

<i>Sample ID</i>	<i>Sample Type</i>	<i>Sample Depth BGS (ft)</i>	<i>OVM Analysis Result (ppm)</i>	<i>DRO by AK-102 Result (mg/kg)</i>
SS 120	E	18.0	26	ND
SS 121	E	14.0	16	10
SS 122	E	17.0	6	8
SS 123	E	9.0	4	ND
SS 124	E	18.0	186	<b>7330</b>
SS 125	E	10.0	190	<b>4360</b>
SS 126	E	19.0	3	ND
SS 127	E	14.0	2	ND
SS 128	E	18.0	3	45
SS 129	E	14.0	177	<b>712</b>
SS 130	E	15.0	1	ND
SS 131	E	18.0	Duplicate	<b>6890</b>
SS 142	E	5.0	1	175
SS 143	E	10	0	57.6
SS 144	E	5.0	1	197
<b>Cleanup Level (mg/kg)</b>	--	--	--	<b>200</b>

**Notes:**

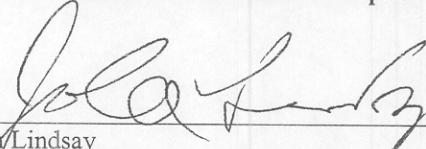
ND = Soil not detected above the Practical Quantitation Limit

Sample Types: E = excavation confirmation sample

Source of Analytical Data: Polarconsult 1997a.

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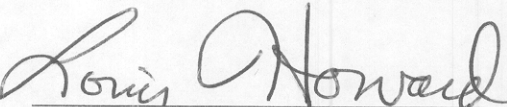
For the National Oceanic and Atmospheric Administration

  
\_\_\_\_\_  
John Lindsay  
NOAA, Pribilof Project Office

8/8/03  
Date

**Approvals:** In accordance with Paragraph 59 of the Two Party Agreement, this is to confirm that all corrective action has been completed at TPA Site Number 22-2, the Carpentry Shop UST, in accordance with the Agreement and that no further remedial action is planned. *\* see ADEC closure letter*

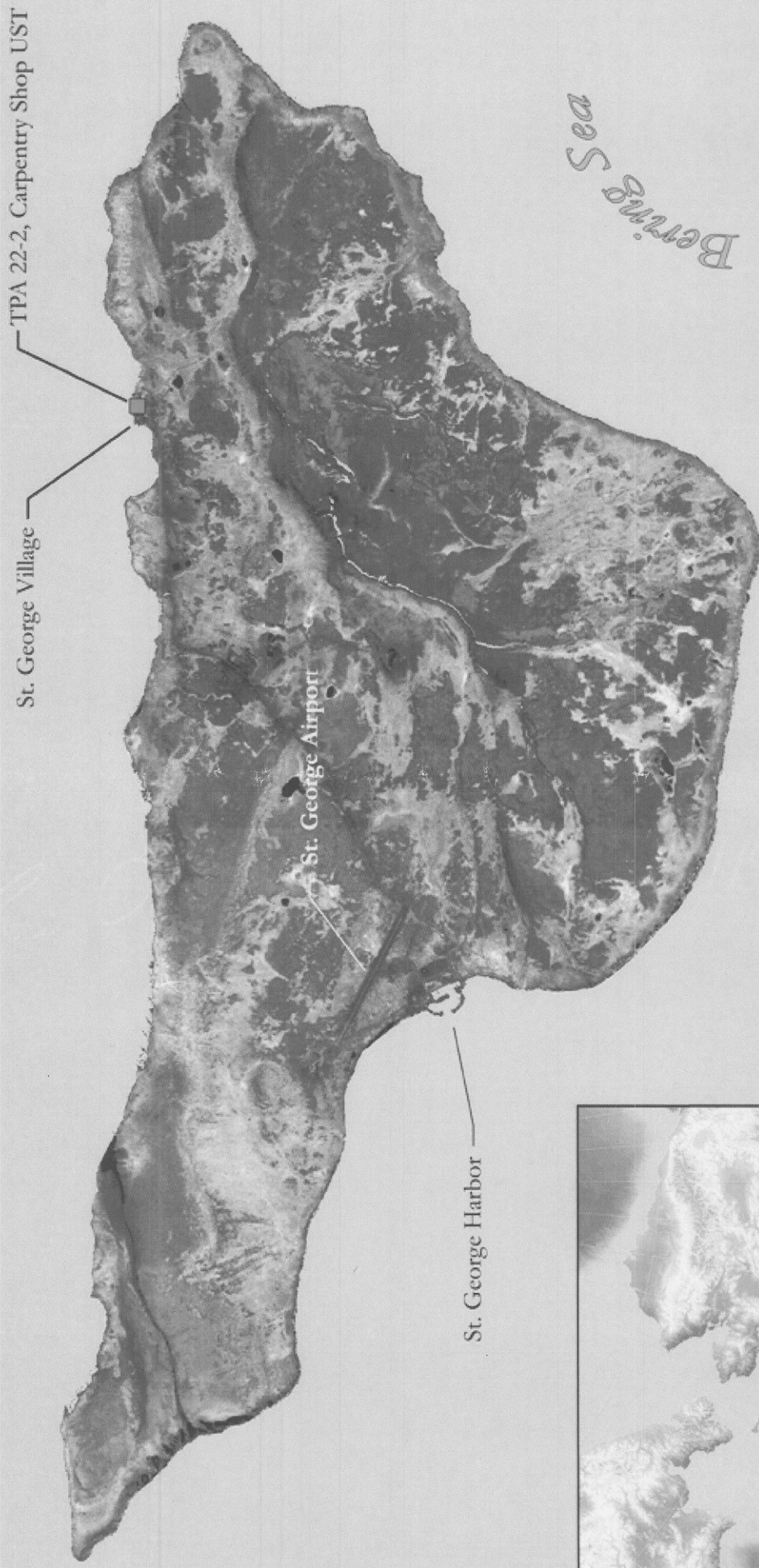
For the Alaska Department of Environmental Conservation

  
\_\_\_\_\_  
Louis Howard  
Alaska Department of Environmental Conservation  
Remedial Project Manager

8/19/03  
Date



# St. George Island Vicinity



*Bering Sea*

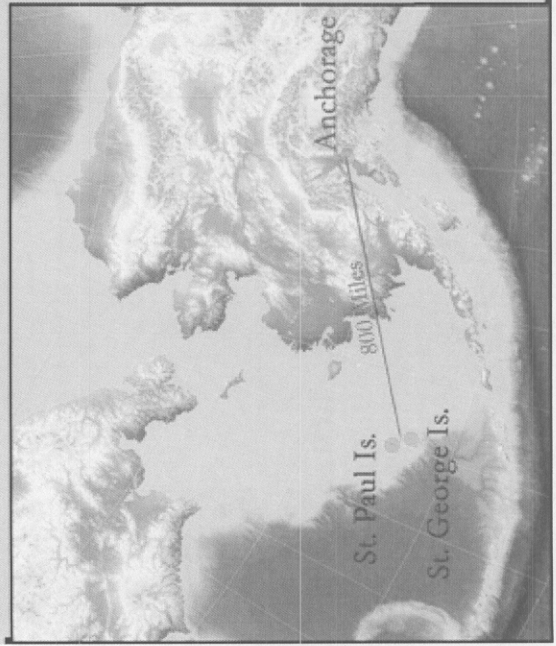
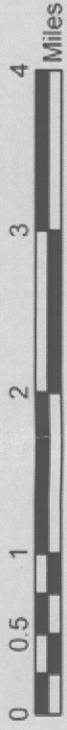
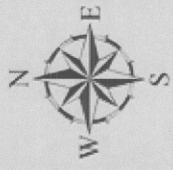


Figure 1. St. George Island and TPA 22-2 location.

TPA 22-2 Carpentry Shop UST  
Location of Excavation



Figure 2. TPA 22-2, Carpentry Shop UST (Source: IKONOS 2001 satellite image).

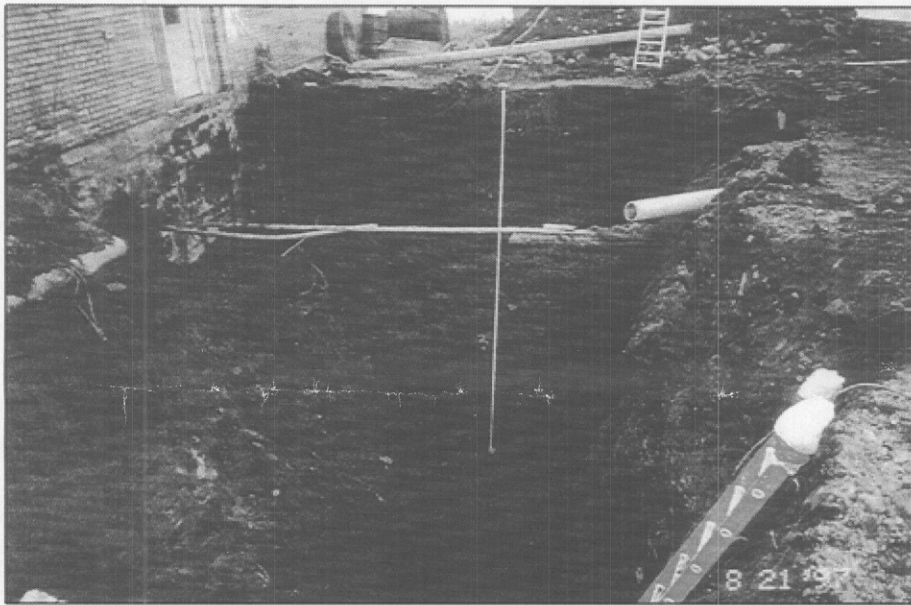
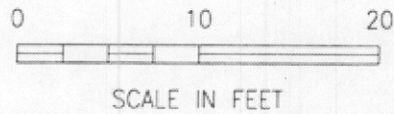
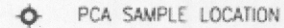


Figure 3. TPA 22-2, Carpentry Shop UST Excavation (Polarconsult 1997a).



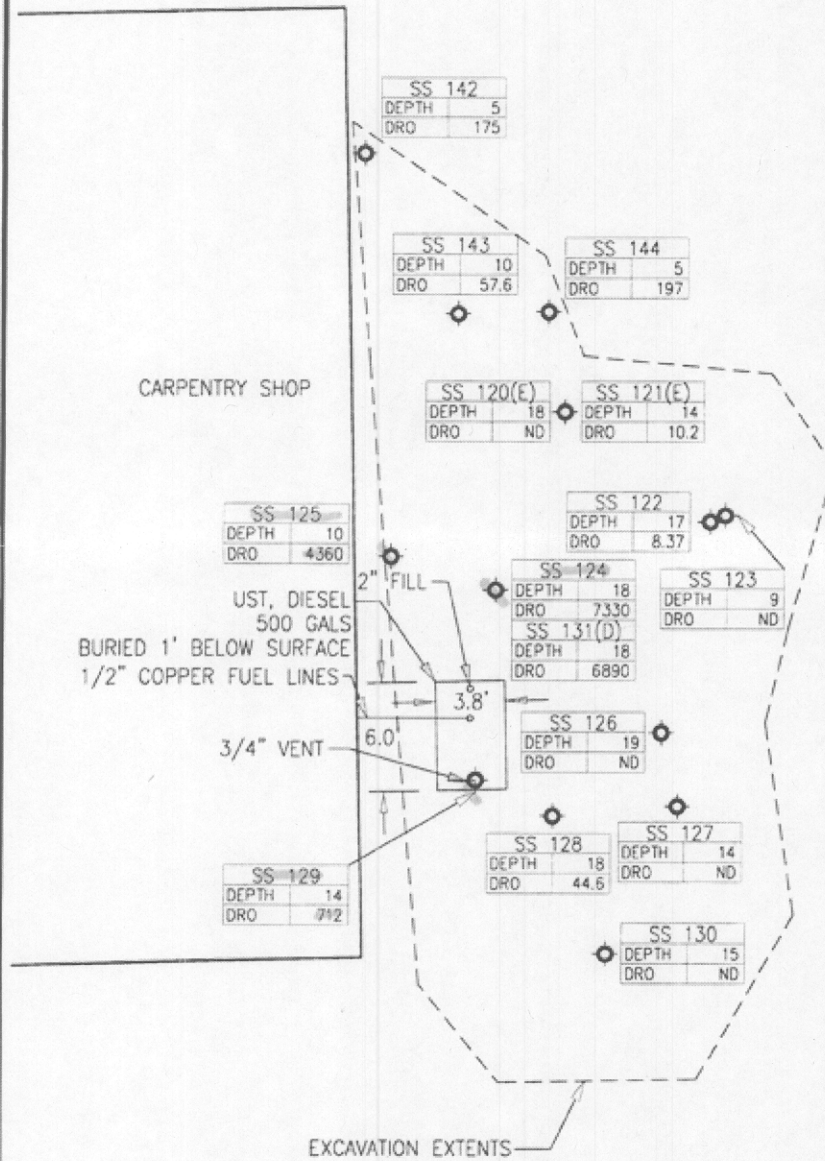
LEGEND



NAME	(D)(E)*
DEPTH	
DRO	
GRO	

PCA SAMPLE INFORMATION

- (D) - INDICATES DUPLICATE SAMPLE
- (E) - INDICATES SOIL WAS EXCAVATED
- \* - INDICATES ADDITIONAL PARAMETERS ANALYZED



10/25/97  
DESIGNED: DA  
DRAWN: DH  
CHECKED: DA  
SCALE: 1" = 10'  
FILE: STGCM04

SITE 22-2, TANAQ CARPENTER SHOP UST, SAMPLE LOCATIONS

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PROJECT  
ST GEORGE DEBRIS CLEANUP AND  
UST DECOMMISSIONING, NOAA PART 1  
OF PRIBILOF RESTORATION PROJECT  
St. George, Alaska

FIGURE

13

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Figure 4. Site 22-2, Carpentry Shop UST (Polarconsult 1997a).