

SITE SUMMARYISSUE

- o NAVSTA Roosevelt Roads, PR: Army Cremator Disposal Area (Site 5)

SUMMARY

- o Sediment, surface water, and groundwater samples were taken from this site. Some contaminants were detected at levels higher than comparison values. Based on the low concentrations relative to background levels, the site does not pose any threat to human health or the environment.

BACKGROUND

- o This site was operated as a landfill from the early 1940s to the early 1960s. Wastes disposed of at this site were burned to reduce their volume.
- o The type of wastes disposed of at this site included inert solid wastes, domestic refuse, construction debris, tires, appliances, cars, paints, and dry cleaning solvents.
- o IR information has been provided to the U.S. EPA and the Commonwealth of Puerto Rico. A Remedial Investigation is underway.

DISCUSSION

- o Ten sediment samples were collected (5 in round 1 and 5 in round 2). These samples were analyzed for pH, priority pollutants, hexavalent chromium, xylene, MEK, MIBK, and EDB. Isolated, low levels of pesticides, in addition to elevated levels of antimony, selenium and methylene chloride were found present. Maximum contaminant levels exceeding comparison levels are as shown below:

<u>Parameter</u>	<u>Round 1 Concentrations</u>	<u>Round 2 Concentrations</u>	<u>Comparison Value</u>
Methylene Chloride (ug/kg)	---	3,600	None
DDE, PP' (ug/kg)	---	272	None
DDT, PP' (ug/kg)	---	138	None
Antimony (ug/kg)	24.0	---	<1 - 8.8 Common range in soil
Selenium (ug/kg)	85.4	6.5	<0.1 - 4.3 Common range in soil

- o A total of ten surface water samples (5 in round 1 and 5 in round 2) were collected. These samples were analyzed for pH, priority pollutants, hexavalent chromium, xylene, MEK, MIBK, and EDB. Several metals were detected at levels exceeding ambient water quality criteria, but when evaluated relative to shallow background groundwater quality data, are not significant. Maximum levels exceeding comparison levels are as shown below.

<u>Parameter</u>	<u>Round 1 Concentrations</u>	<u>Round 2 Concentrations</u>	<u>Comparison Value</u>
Arsenic ug/L	105	---	0.0022 ug/L AWQC*
Chromium (Total) ug/L	7.49	108	50 ug/L AWQC*
Copper ug/L	2.0	24.8	12 ug/L AWQC*
Nickel ug/L	33.6	---	13.4 ug/L AWQC*
Selenium ug/L	---	221	10 ug/L AWQC*
Thallium ug/L	116	---	13 ug/L AWQC*

* AWQC - Ambient Water Quality Criteria

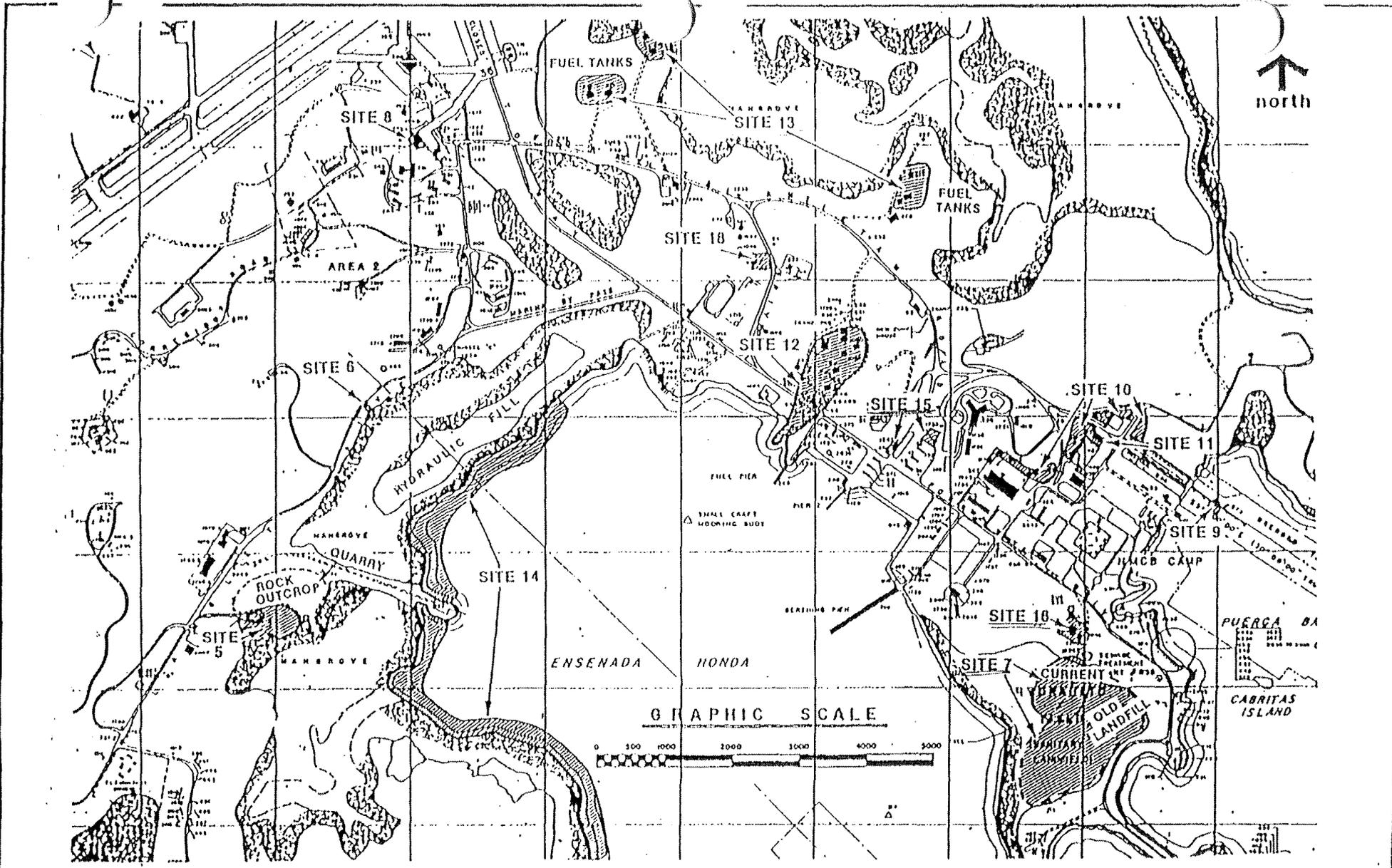
- o Five shallow monitor wells were installed. All wells were sampled twice. All groundwater samples were analyzed for pH, priority pollutants, hexavalent chromium, xylene, MEK, MIBK, and EDB. The only constituents of concern detected at significant levels were thallium, copper, arsenic, chromium (total and hexavalent) and selenium which exceeded primary drinking water standards. In addition, low levels of organic compounds were detected in some of the sample. Elevated phenol levels are attributable to naturally occurring phenolic compounds. Maximum contaminants levels exceeding comparison levels are as shown below:

<u>Parameter</u>	<u>Round 1 Concentrations</u>	<u>Round 2 Concentrations</u>	<u>Comparison Value</u>
Bis (ethylhexyl) phthalate (ug/L)	2	22	---
Pentachlorophenol (ug/L)	25	---	---
1,1,2,2-Tetrachloro- ethane (ug/L)	1.1	---	---
Phenols (ug/L)	Not analyzed	800	---
Arsenic (ug/L)	93.4	2.5	50 ug/L PDWS*
Chromium (Total) (ug/L)	28.4	205	50 ug/L PDWS*
Chromium (Hexavalent) (ug/L)	34.6	110	50 ug/L PDWS*
Copper (ug/L)	1,850	1,780	1,000 ug/L PDWS*
Selenium (ug/L)	---	359	10 ug/L PDWS*
Thallium (ug/L)	4,310	69.4	13 ug/L AWQC†

* PDWS - Primary Drinking Water Standard
† AWQC - Ambient Water Quality Criteria

- o The most probable exposure pathway is ingestion of surface water and shallow groundwater. Surface water and shallow groundwater are not used as a drinking water source at or near the site.

- o Future Plan--Based on the relative low concentrations of contaminants detected relative to background levels, no additional investigation of the site is recommended. A risk assessment will be performed for this site.



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Figure 1-1
 SITE MAP SHOWING LOCATIONS OF SITES
 OF POTENTIAL CONTAMINATION AT NAVAL
 STATION ROOSEVELT ROADS, PUERTO RICO



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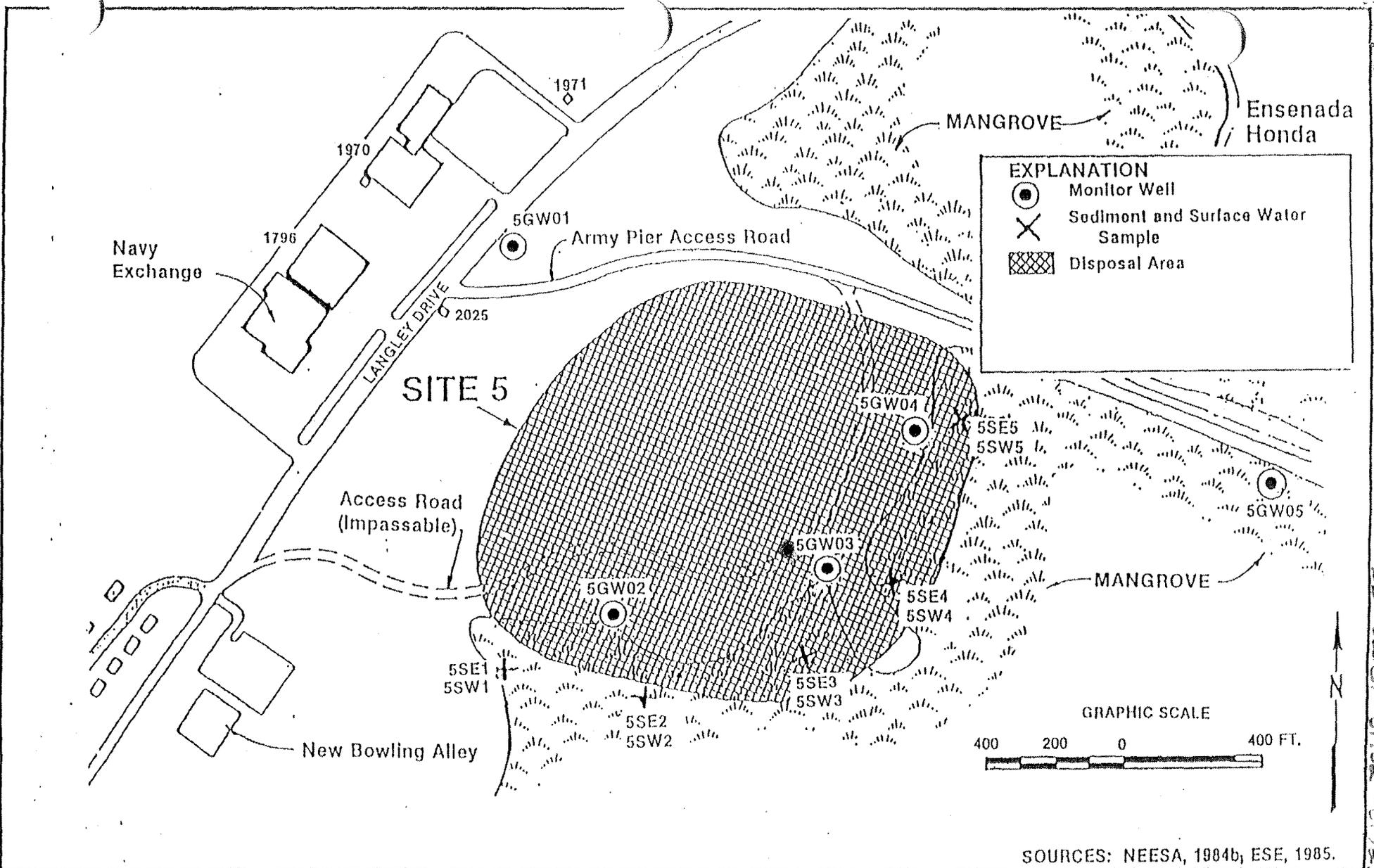


Figure 3-4
 ROUNDS 1 AND 2 SAMPLING LOCATIONS AT SITE 5,
 ARMY CREMATOR DISPOSAL AREA



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