

SITE SUMMARY

Issue:

- o Naval Air Station at Oceana, Virginia: Line Shack 130-131 (Site 2B)

Summary:

- o One round of soil sampling and two rounds of groundwater sampling has been conducted at this site. Based on the EP toxicity results, the soil samples were not considered to be a hazardous waste. VOC concentrations were detected in some of the wells above the MCL standards.

Background:

- o Line Shacks 130 and 131 were built in 1963. An oil disposal area has been located on the south and east sides of these buildings since 1963. The waste material consists of chemical compounds commonly used in aircraft maintenance for lubrication, paint stripping, and grease removal. The wastes are believed to have been dumped or poured directly on the ground. The volumes discharged into the disposal area are unknown, but an estimated combined total for all five line shacks was 7,000 to 15,000 gallons of wastes disposed.

Discussion:

- o Two rounds of field work have been conducted at this site. In 1986, only groundwater samples were collected. In 1988, groundwater and soil samples were collected.
- o Soil samples were collected from 5 surface locations, 15 soil borings, and 3 monitoring well boreholes. Sample depths in both the soil borings and the monitoring well boreholes were zero to 2 feet, 3 to 5 feet, and 8 to 10 feet.
- o Groundwater samples were collected from three monitoring wells in 1986. In 1988 groundwater was sampled from these wells and three additional monitoring wells.
- o The chemical analyses conducted on the soil samples consisted of EP toxicity metals (EP tox) and VOC. The chemical analyses on groundwater

consisted of oil and grease, and VOC, including ethylene dibromide (first round); priority-pollutant metals, and VOC (second round).

- o The soil samples were not considered hazardous, based on the EP tox results.
- o Cadmium was the only priority pollutant metal to exceed the MCL. The concentration in 2b-MW1 was 17 ppb; the MCL is 10 ppb. Iron and manganese, however, exceeded secondary MCL standards in all wells.
- o VOCs found to exceed MCLs are as follows:

<u>Chemical</u>	<u>Location</u>	<u>Conc (ppb)</u> <u>1986</u>	<u>Conc (ppb)</u> <u>1988</u>	<u>MCL</u>
1,1-dichloroethene	2b-MW1	25	13	7
	2b-MW3	ND	420	
	2b-MW5	-	49	
Trichloroethene	2b-MW1	1,300	340	5
	2b-MW2	3.7	5	
	2b-MW3	58	820	
	2b-MW5	-	22	
Vinyl chloride	2b-MW1	99	31	2
	2b-MW3	3	ND	
	2b-MW5	-	55	

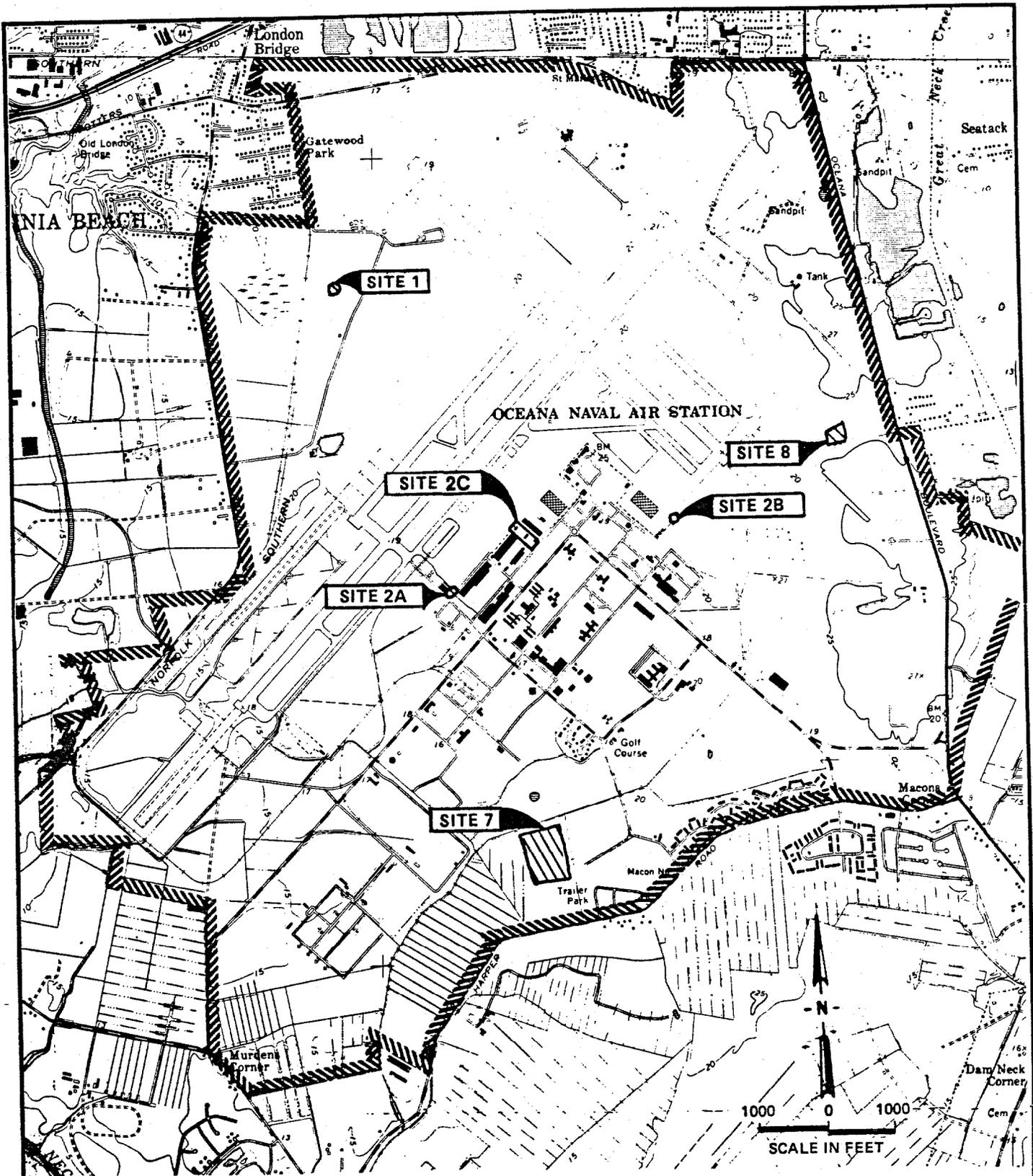
- o Compounds detected in groundwater which do not have an associated MCL:

<u>Chemical</u>	<u>Location</u>	<u>Conc (ppb)</u> <u>1986</u>	<u>Conc (ppb)</u> <u>1988</u>
cis-1,2-Dichloroethene	2b-MW1	ND	340
trans-1,2-Dichloroethene	2b-MW1	800	340
	2b-MW3	29	ND
Chloroethane	2b-MW1	2	ND
Toluene	2b-MW3	2.4	ND
MEK	2b-MW3	21	ND
MIBK	2b-MW3	6.6	ND
2-Hexanone	2b-MW3	9.1	ND
Chloroform	2b-MW2	2.8	ND

Future Plans:

- o The implementation of a Remedial Investigation (RI) is recommended. The RI will require the installation and sampling of additional monitoring wells to determine the source and extent of the groundwater contamination at this site.

WDR06/047

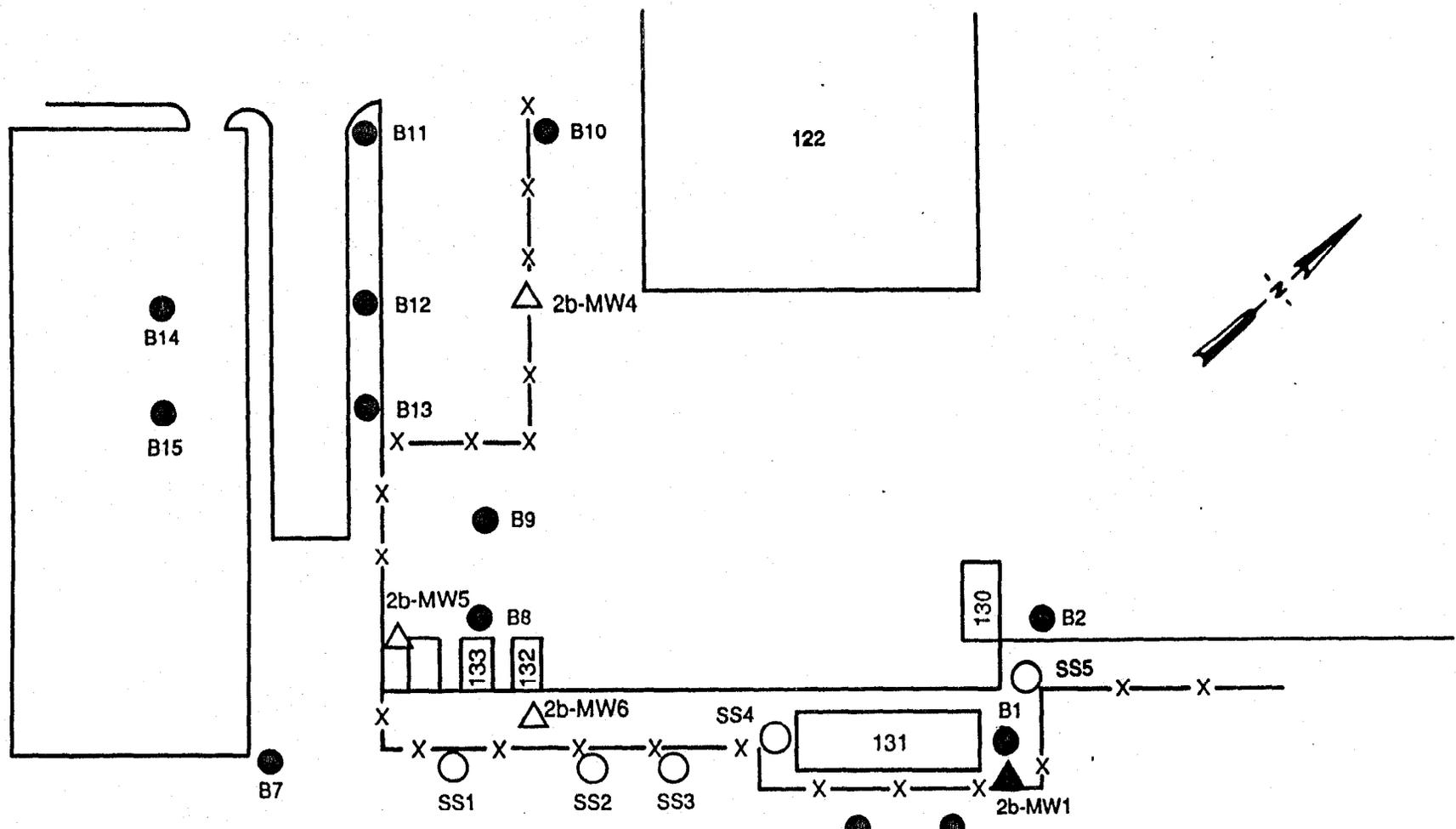


LEGEND

-  Base Boundary
-  Site Boundary
- SITE 1 – West Woods Oil Disposal Area
- SITE 2A – Line Shack (31–33) Disposal Area
- SITE 2B – Line Shack (130–131) Disposal Area
- SITE 7 – Fifth Green Landfill
- SITE 8 – North Station Landfill
- SITE 14 – Fentress Landfill is not located on this map

Site Locations
Naval Air Station, Oceana





- Surface Soil Sampling Locations
- Soil Boring Locations
- △ New Monitoring Well Locations
- ▲ Existing Monitoring Well Locations



SITE 2B
 APPROXIMATE LOCATIONS FOR SOIL SAMPLING,
 SOIL BORING AND MONITORING WELLS
 Naval Air Station, Oceana



REPRODUCED AT GOVERNMENT EXPENSE