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NAS CECIL FIELD
5090.3a

TECHNICAL MEMORANDUM REGARDING GROUNDWATER RESULTS FOR SAL TAYLOR
CREEK BANK SITES NAS CECIL FIELD FL
6/16/1997
ABB ENVIRONMENTAL



8544-80 TKB

June 16, 1997

Mr. Eric Nuzie
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blairstone Road
Tallahassee, Florida 32399-2400

Dear Eric:

**Subject: Technical Memorandum, Groundwater Results
Sal Taylor Creek Bank Sites
NAS Cecil Field, Jacksonville, Florida
Contract No. N62467-89-D-0317/090**

INTRODUCTION

The recommendation of the North Fuel Farm Area JP-5 Spill Site and Sal Taylor Creek Bank Sites Contamination Assessment Report (CAR) Addendum (ABB Environmental Services, Inc. [ABB-ES], 1996a) was that a Remedial Action Plan (RAP) for the JP-5 Spill Site should be prepared and that the excessively contaminated soil detected at the Sal Taylor Creek Bank Sites be allowed to naturally biodegrade. In response to this recommendation, the Florida Department of Environmental Protection, in a letter dated April 26, 1996, requested that as part of the RAP, two water table monitoring wells be installed in the immediate vicinity of soil borings 95I-58 and 95I-86 (Figures 1 and 2 in Attachment A) and be sampled and analyzed for the Kerosene Analytical Group (KAG) parameters.

Soil boring 95I-58 is located at Bank site 93I-10 and soil boring 95I-86 is located at Bank site 93I-20. Nine Bank sites (93I-6, 93I-10, 93I-18, 93I-20, 93I-36, 93I-37, 93I-45, 93I-51, and 93I-53) were identified along the banks of Sal Taylor Creek and are located among the various spill containment sites (Aviation Ordnance [AVORD] Dam, North Containment Pond, AVORD-Perimeter Road, Gate-10 Dam, Alpha Dam, Possum Dam, and Gate-14 Dam). The locations of the bank and spill containment sites are presented in Figure 3 (Attachment A). Details of the seven spill containment sites contamination assessments are presented in a separate CAR (ABB-ES, 1996b).

FIELD INVESTIGATION

Two monitoring wells, CEF-STC-PZ1 and CEF-STC-PZ2, were hand installed using bucket augers and sampled on January 17, 1997. The screen of the monitoring wells was installed approximately one foot below the water table because the borehole would not stay open due to the flowing sands. Subsequently, little groundwater could be purged before the well was pumped dry. This resulted in the collection of turbid groundwater samples.

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RESULTS

No organic compounds were detected in the two groundwater samples. Lead was detected in both samples at concentrations of 133 micrograms per liter ($\mu\text{g}/\ell$) in CEF-STC-PZ1 and $8.6 \mu\text{g}/\ell$ in CEF-STC-PZ2. The presence of lead is most likely the result of turbid groundwater samples and is not of concern because it is not a component of JP-5 fuel. A copy of the analytical results is presented in Attachment B.

RECOMMENDATIONS

Based on these groundwater results, it is recommended that no further remedial action be conducted at the Sal Taylor Creek Bank Sites. The RAP for the JP-5 Spill Site will continue as part of the North Fuel Farm RAP.

REFERENCES

ABB Environmental Services, Inc. (ABB-ES). 1996a. *Contamination Assessment Report Addendum, North Fuel Farm Area JP-5 Spill Site and Sal Taylor Creek Bank Sites, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command, North Charleston, South Carolina.

ABB-ES. 1996b. *Contamination Assessment Report Addendum, North Fuel Farm Area Sites, Sal Taylor Creek JP-5 Spill Containment Areas, Naval Air Station Cecil Field, Jacksonville, Florida*. Prepared for Southern Division, Naval Facilities Engineering Command, North Charleston, South Carolina.

Very truly yours,

ABB ENVIRONMENTAL SERVICES, INC.


Eric Blomberg
Principal Scientist


Rao Angara
Installation Manager

Attachments

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Lewis Shields, City of Jacksonville
file

ATTACHMENT A
FIGURES

A-1

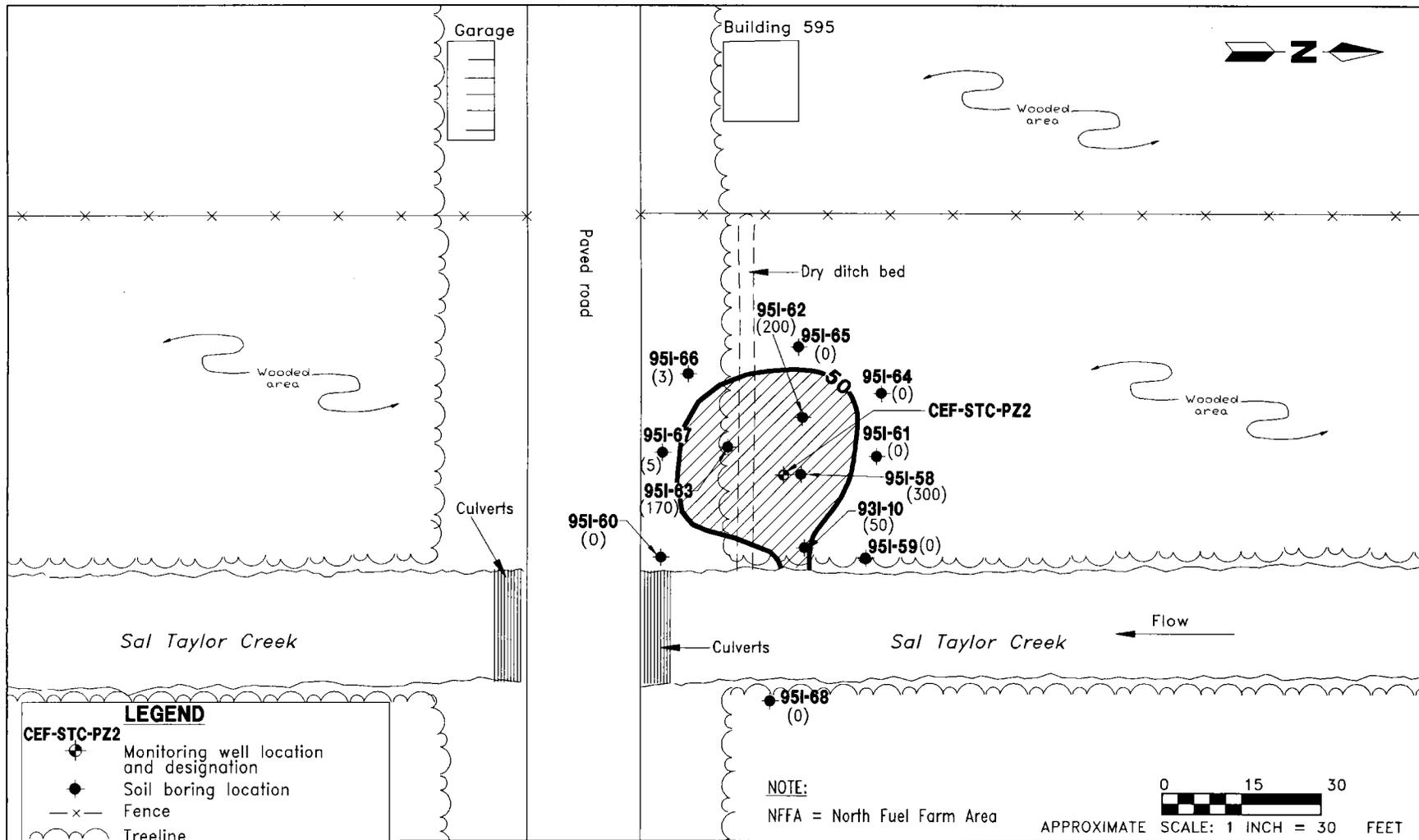
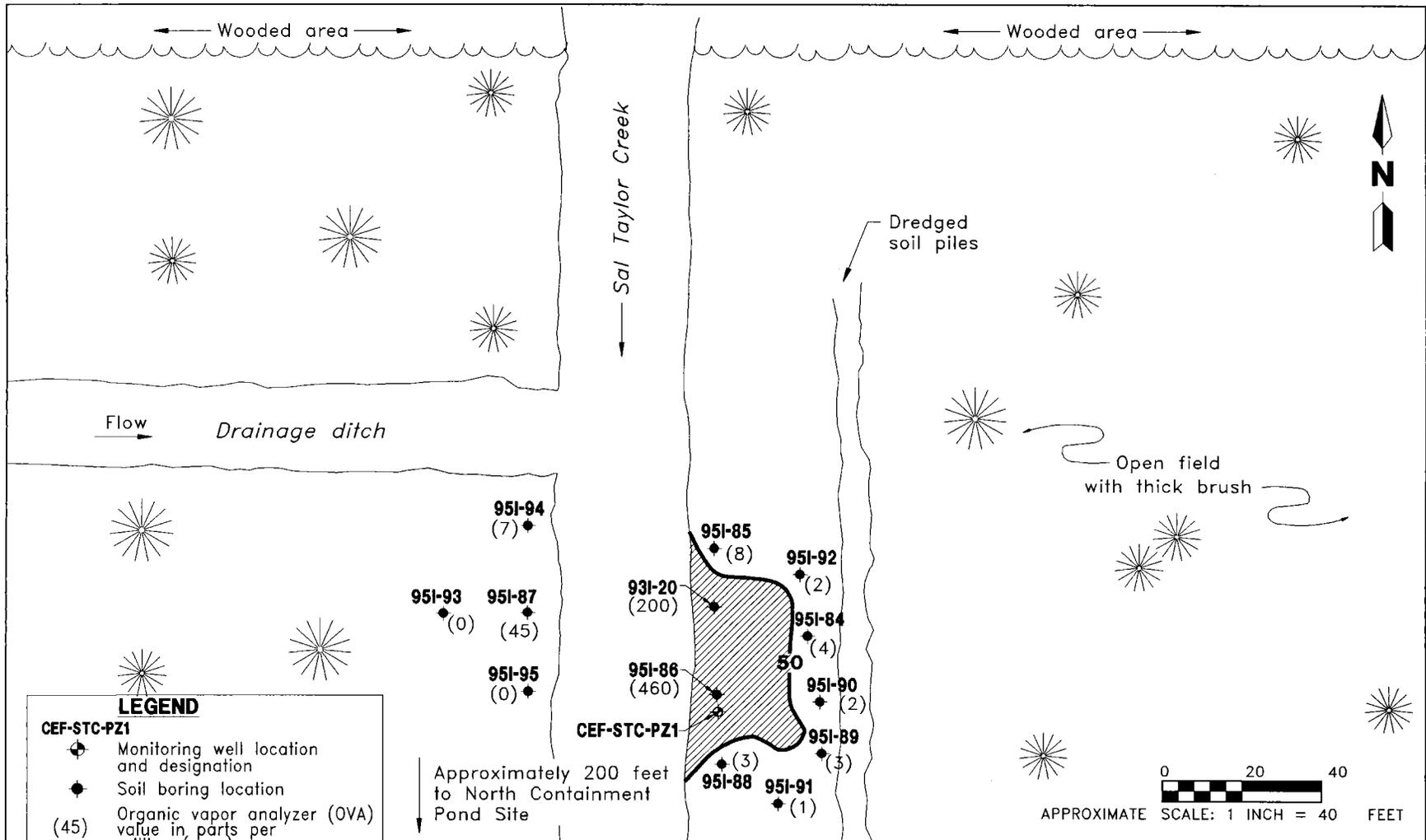


FIGURE 1
SOIL CONTAMINATION (MARCH 1995) AND
MONITORING WELL LOCATION MAP, SITE 931-10



TECHNICAL MEMORANDUM
NFFA, JP-5 SPILL SITE, AND
SAL TAYLOR CREEK BANK SITES

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA



LEGEND

CEF-STC-PZ1

- ◆ Monitoring well location and designation
- ◆ Soil boring location
- (45) Organic vapor analyzer (OVA) value in parts per million (ppm).
- 931-20** 1993 soil boring
- 951-95** 1995 soil boring
- 50 OVA isoconcentration line (50 ppm)

NOTE:
NFFA = North Fuel Farm Area

FIGURE 2
SOIL CONTAMINATION (APRIL 1995) AND
MONITORING WELL LOCATION MAP,
SITE 931-20



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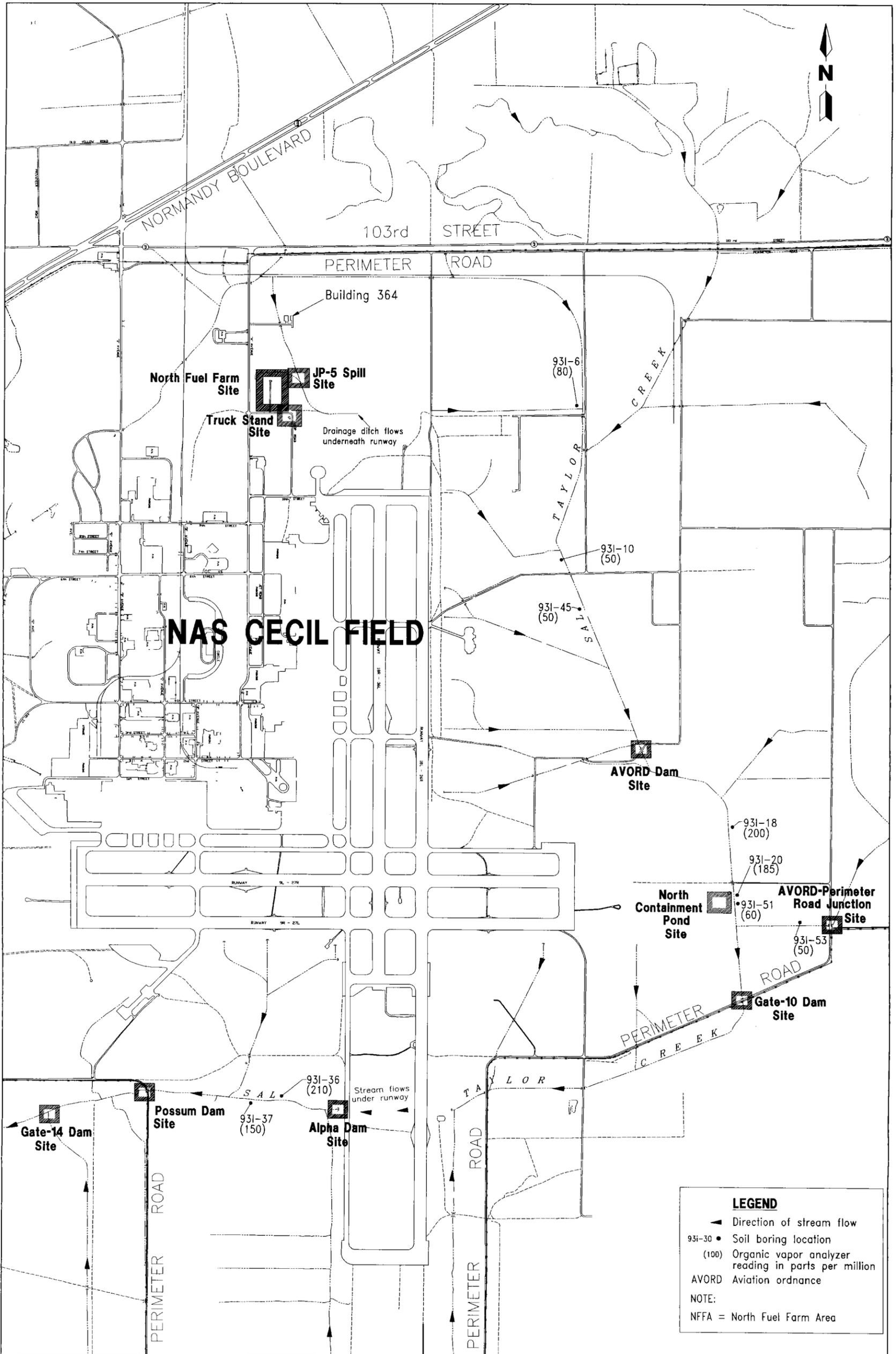


FIGURE 3
LOCATION MAP OF JP-5 SPILL SITE,
AND SAL TAYLOR CREEK SITES

0 800 1600
 SCALE: 1 INCH = 1600 FEET

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TECHNICAL MEMORANDUM
NFFA, JP-5 SPILL SITE, AND
SAL TAYLOR CREEK BANK SITES

NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

ATTACHMENT B
ANALYTICAL RESULTS

NAS CECIL FIELD -- SAL TAYLOR CREEK ANALYTICAL DATA
 REPORT NUMBER 8765

Lab Sample Number:	B7A2001330	B7A2001330
Site	NORTH FUEL FARM	NORTH FUEL FARM
Locator	CEFSTCPZ1	CEFSTCPZ2
Collect Date:	17-JAN-97	17-JAN-97

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
KEROSENE GROUP								
1,1,1-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1
1,1,2,2-Tetrachloroethane	1	U	ug/l	1	1	U	ug/l	1
1,1,2-Trichloroethane	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1
1,1-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloroethane	1	U	ug/l	1	1	U	ug/l	1
1,2-Dichloropropane	1	U	ug/l	1	1	U	ug/l	1
1,3-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1
1,4-Dichlorobenzene	1	U	ug/l	1	1	U	ug/l	1
1-Methylnaphthalene	2	U	ug/l	2	2	U	ug/l	2
2-Methylnaphthalene	2	U	ug/l	2	2	U	ug/l	2
Acenaphthene	2	U	ug/l	2	2	U	ug/l	2
Acenaphthylene	2	U	ug/l	2	2	U	ug/l	2
Anthracene	2	U	ug/l	2	2	U	ug/l	2
Benzene	1	U	ug/l	1	1	U	ug/l	1
Benzo (a) anthracene	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (a) pyrene	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (b) fluoranthene	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (g,h,i) perylene	.1	U	ug/l	.1	.1	U	ug/l	.1
Benzo (k) fluoranthene	.15	U	ug/l	.15	.15	U	ug/l	.15
Bromodichloromethane	1	U	ug/l	1	1	U	ug/l	1
Bromoform	1	U	ug/l	1	1	U	ug/l	1
Bromomethane	1	U	ug/l	1	1	U	ug/l	1
Carbon tetrachloride	1	U	ug/l	1	1	U	ug/l	1
Chlorobenzene	1	U	ug/l	1	1	U	ug/l	1
Chloroethane	1	U	ug/l	1	1	U	ug/l	1
Chloroform	1	U	ug/l	1	1	U	ug/l	1
Chloromethane	1	U	ug/l	1	1	U	ug/l	1
Chrysene	.1	U	ug/l	.1	.1	U	ug/l	.1
Dibenzo (a,h) anthracene	.2	U	ug/l	.2	.2	U	ug/l	.2
Dibromochloromethane	1	U	ug/l	1	1	U	ug/l	1
Dichlorodifluoromethane	1	U	ug/l	1	1	U	ug/l	1
Ethylbenzene	1	U	ug/l	1	1	U	ug/l	1
Ethylene dibromide	.02	U	ug/l	.02	.02	U	ug/l	.02
Fluoranthene	.2	U	ug/l	.2	.2	U	ug/l	.2
Fluorene	2	U	ug/l	2	2	U	ug/l	2
Indeno (1,2,3-cd) pyrene	.1	U	ug/l	.1	.1	U	ug/l	.1
Lead	133		ug/l	50	8.6		ug/l	5
Methyl tert-butyl ether	1	U	ug/l	1	1	U	ug/l	1
Methylene chloride	1	U	ug/l	1	1	U	ug/l	1
Naphthalene	2	U	ug/l	2	2	U	ug/l	2
Phenanthrene	2	U	ug/l	2	2	U	ug/l	2
Pyrene	.2	U	ug/l	.2	.2	U	ug/l	.2
Tetrachloroethene	1	U	ug/l	1	1	U	ug/l	1
Toluene	1	U	ug/l	1	1	U	ug/l	1
Total petroleum hydrocarbons	.5	U	mg/l	.5	.5	U	mg/l	.5
Trichloroethene	1	U	ug/l	1	1	U	ug/l	1
Trichlorofluoromethane	1	U	ug/l	1	1	U	ug/l	1
Vinyl chloride	1	U	ug/l	1	1	U	ug/l	1

NAS CECIL FIELD -- SAL TAYLOR CREEK ANALYTICAL DATA
 REPORT NUMBER 8765

Lab Sample Number:
 Site
 Locator
 Collect Date:

B7A2001330
 NORTH FUEL FARM
 CEFSTCP21
 17-JAN-97

B7A2001330
 NORTH FUEL FARM
 CEFSTCP22
 17-JAN-97

VALUE QUAL UNITS DL VALUE QUAL UNITS DL

	VALUE	QUAL	UNITS	DL	VALUE	QUAL	UNITS	DL
Xylenes (total)	1	U	ug/l	1	1	U	ug/l	1
cis-1,3-Dichloropropene	1	U	ug/l	1	1	U	ug/l	1
trans-1,2-Dichloroethene	1	U	ug/l	1	1	U	ug/l	1
trans-1,2-Dichloropropene	-				-			

U = NOT DETECTED J = ESTIMATED VALUE
 UJ = REPORTED QUANTITATION LIMIT IS QUALIFIED AS ESTIMATED
 R = RESULT IS REJECTED AND UNUSABLE