

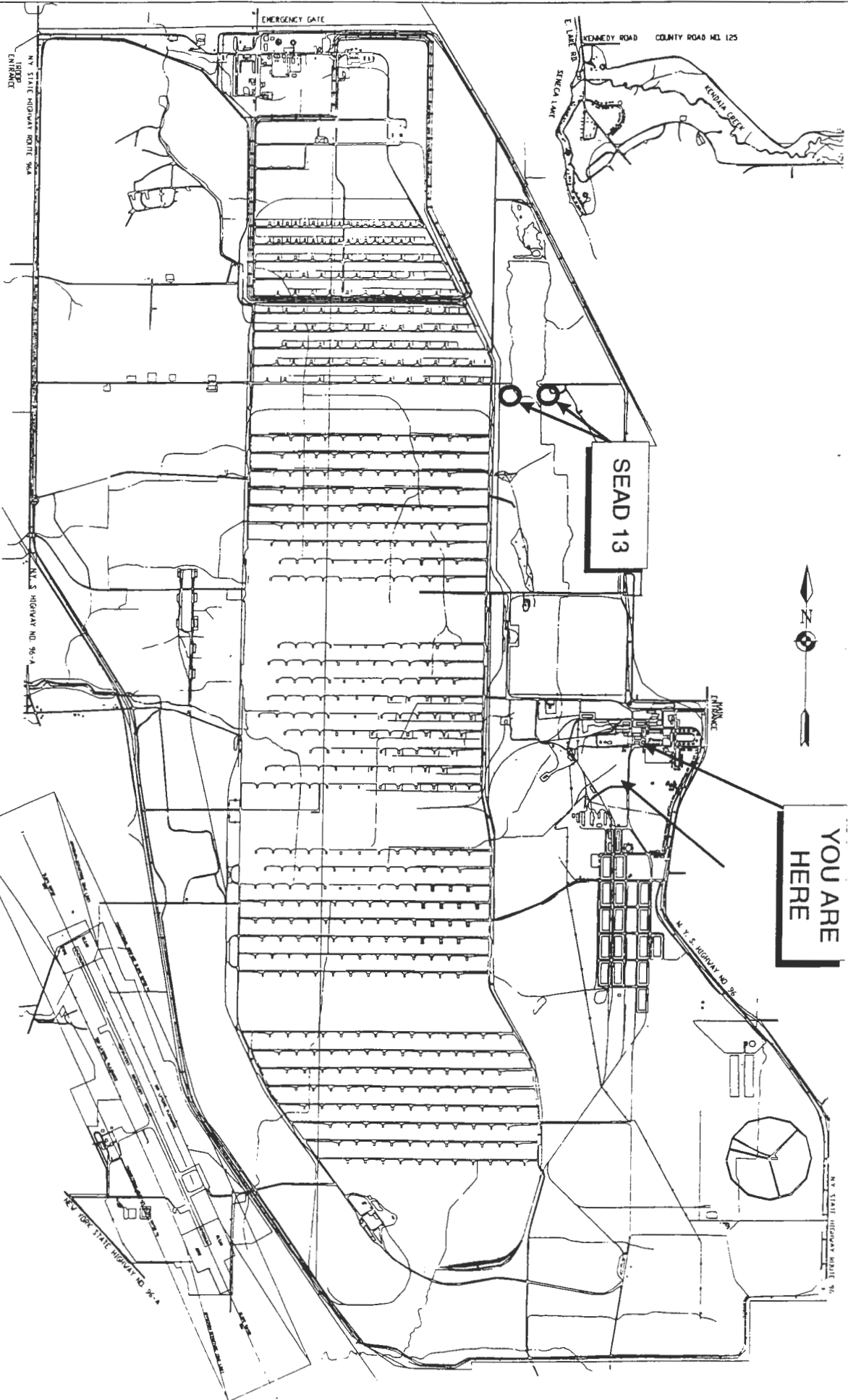
104-41

IRFNA Disposal Site Peer Review Presentation

Presented by
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IRFNA Disposal Site Presentation

- Site Background
- Project Schedule
- Site Characterization
- Reuse Implications
- Risk Assessment
- Technology Selection
- Cost
- Summary



**YOU ARE
HERE**

SEAD 13

EMERGENCY GATE

NEW YORK STATE HIGHWAY NO. 96-A
NORTH ENTRANCE

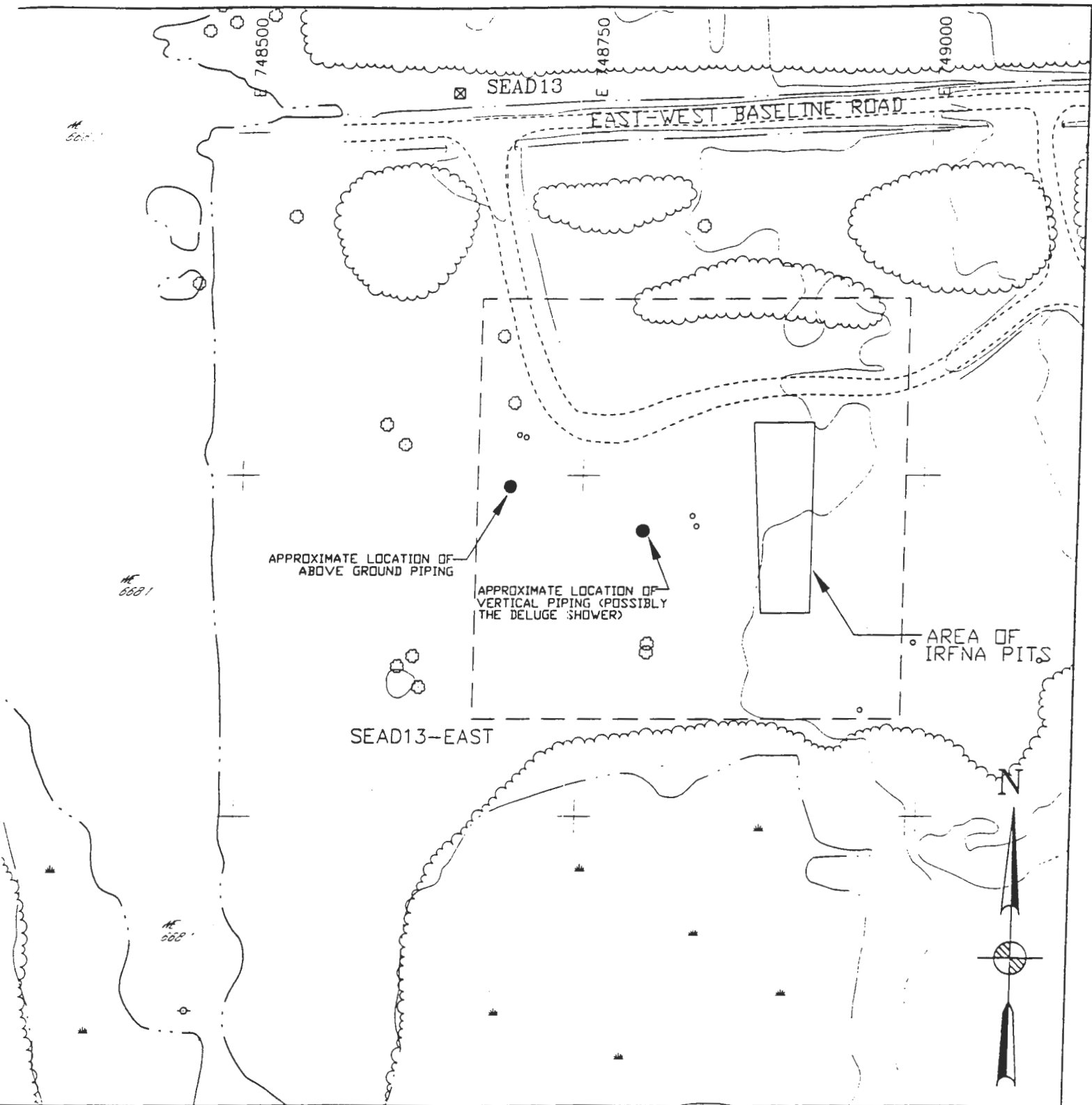
E. LAKE RD
KEDADY ROAD COUNTY ROAD NO. 125

TRAILHEAD

NEW YORK STATE HIGHWAY NO. 96-A

NEW YORK STATE HIGHWAY NO. 96-A





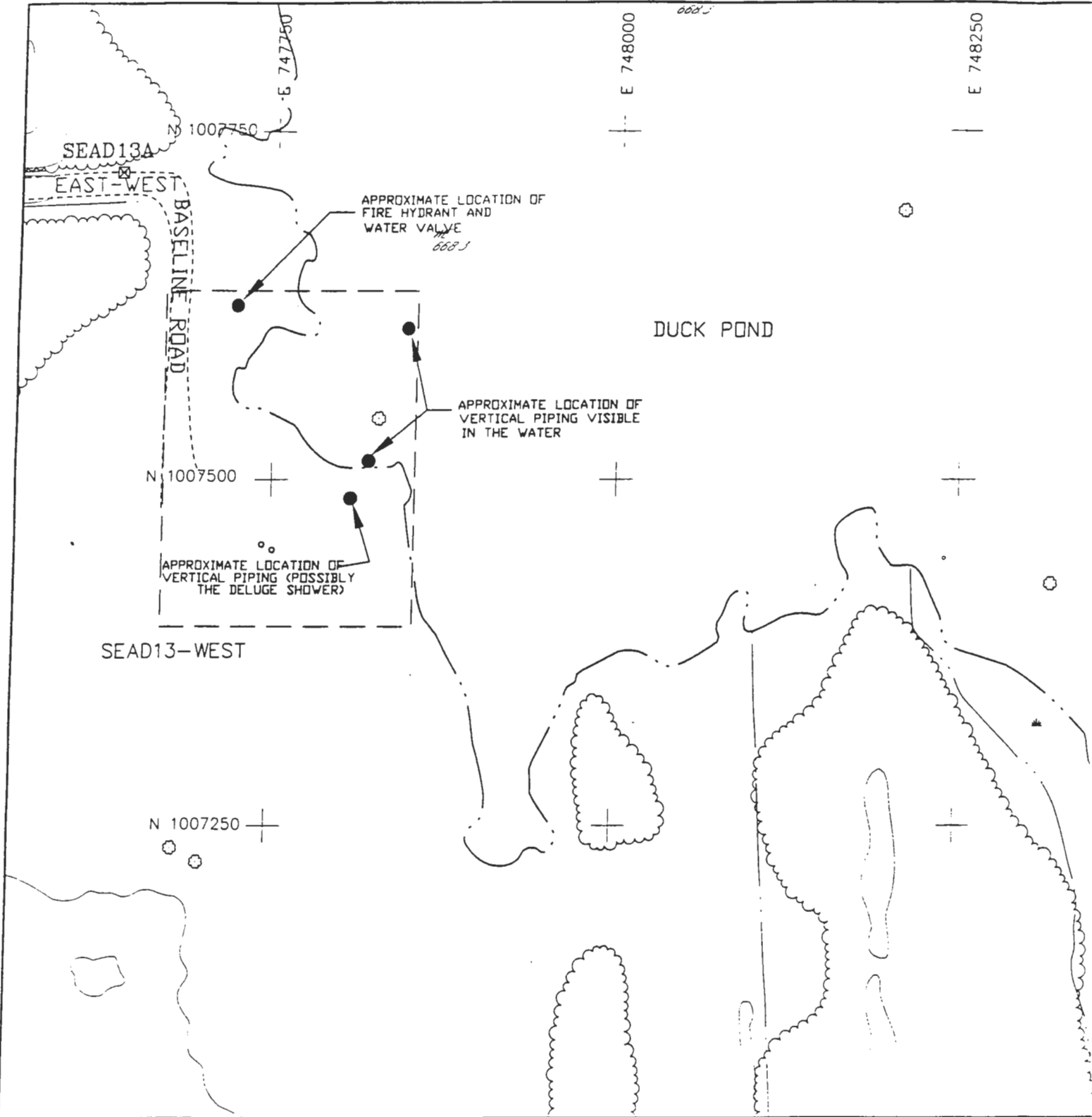
P PARSONS
PARSONS ENGINEERING SCIENCE, INC.

CLIENT/PROJECT TITLE
**SENECA ARMY DEPOT ACTIVITY
 RI/FS PROJECT SCOPING PLAN
 SEAD-13 IRFNA DISPOSAL SITE**

DEPT ENVIRONMENTAL ENGINEERING Des. No. 720478-02000

**FIGURE 1-2
 SITE PLAN**

1" = 100' JUNE :995 A



LEGEND

	MINOR WATERWAY		SURVEY MONUMENT
	MAJOR WATERWAY		ROAD SIGN
	FENCE		DECIDUOUS TREE
	UNPAVED ROAD		FIRE HYDRANT
	BRUSH LINE		MANHOLE
	LANDFILL EXTENT		GUIDE POST
	RAILROAD		POLE
	GROUND SURFACE ELEVATION CONTOUR		UTILITY BOX
			COORDINATE GRID (250' GRID)
			OVERHEAD UTILITY MAILBOX/RR SIGNAL

SENECA/RIF/S/DI3/S/DI3/S/DI3.DWG

Site Background

IRFNA Disposal Site

Inhibited Red Fuming Nitric Acid (IRFNA) Disposal Site, Seneca Army Depot

Site Background

- Inhibited Red Fuming Nitric Acid (IRFNA)
- An oxidizer used in missile liquid propellant systems
- Disposal site for quantities of unserviceable IRFNA
- Site active in early 1960's

Disposal Method

- Six pits, 30 X 8 X 4 deep, excavated to native shale
- Aprox. 2.5 feet of limestone placed in bottom of pit, sides were also lined
- Barrels were emptied via a stainless steel ejector, use of water pressure
- Ejector discharged water and IRFNA under surface of water into pit
- Ten 18.8 gallon barrels per day into a pit
- By-products of neutralization included nitrates, nitrites, and fluoride

Project Schedule

- Draft RI/FS Work Plan Nov 95
- Draft RI Nov 98
- Draft FS Mar 99
- Draft PRAP July 99
- Draft ROD Jan 00

Site Characterization

IRFNA Disposal Site

Inhibited Red Fuming Nitric Acid (IRFNA) Disposal Site, Seneca Army Depot

IRFNA Disposal Site

- Soils: Impacted by metals and fluoride
- Groundwater: Impacted by metals, fluoride, and nitrate/nitrite
- Surface Water: Impacted by metals

Summary Soil Statistics Data

SEAD-13 IRFNA Disposal Area

COMPOUND	MAX. (mg/Kg)	MEAN (mg/Kg)	NYSDEC SOIL TAGM CRITERIA (mg/Kg)	NUMBER OF TIMES DETECTED	NUMBER OF TIMES ABOVE TAGM
<u>Volatiles</u>					
None Exceeded the TAGM Criteria					
<u>Semivolatiles</u>					
Phenol	14.0	14.0	0.030	1	1
4-Methylphenol	3.3	3.3	0.900	1	1
<u>PCBs/Pesticides</u>					
None Exceeded the TAGM Criteria					
<u>Metals</u>					
Aluminum	19,800	14,900	14,592	12	11
Antimony	5.8	4.9	3.6	8	8
Arsenic	10.2	6.2	7.5	33	8
Barium	584	113.4	300	33	1
Beryllium	1.1	0.69	0.73	33	12
Chromium	35.8	21.8	22.1	33	14
Copper	18.9	11.2	25	33	16
Lead	7.7	26.8	22	33	1
Nickel	57.1	36.3	33.6	33	19
Zinc	103	66.8	82.5	33	7

Reuse Implications

Conservation/Recreation Area

Inhibited Red Fuming Nitric Acid (IRFNA) Disposal Site, Seneca Army Depot

Risk Assessment

To be determined during the RI/FS
process

Technology Selection

IRFNA

Inhibited Red Fuming Nitric Acid (IRFNA) Disposal Site, Seneca Army Depot

Technology Selection

- No action
- Excavation/hauling/landfilling
- Low temperature thermal desorption
- Soil vapor extraction
- Solidification/stabilization
- Soil/sediment washing
- In-situ detoxification
- Resource reclamation

Technology Selection

- Implementation of institutional controls
- Composting
- Excavation/incineration
- RCRA subtitle D landfill
- Off-site treatment and disposal

Cost

FY 98	RI/FS	\$ 1702 K
FY 00	RD	600 K
FY 01	RA	4400 K

Summary

- Site was used to dispose of Inhibited Red Fuming Nitric Acid
- RI/FS to begin in FY 98
- RA to begin in FY 01

