104-35

Radiation Sites
Peer Review Presentation

Presented by

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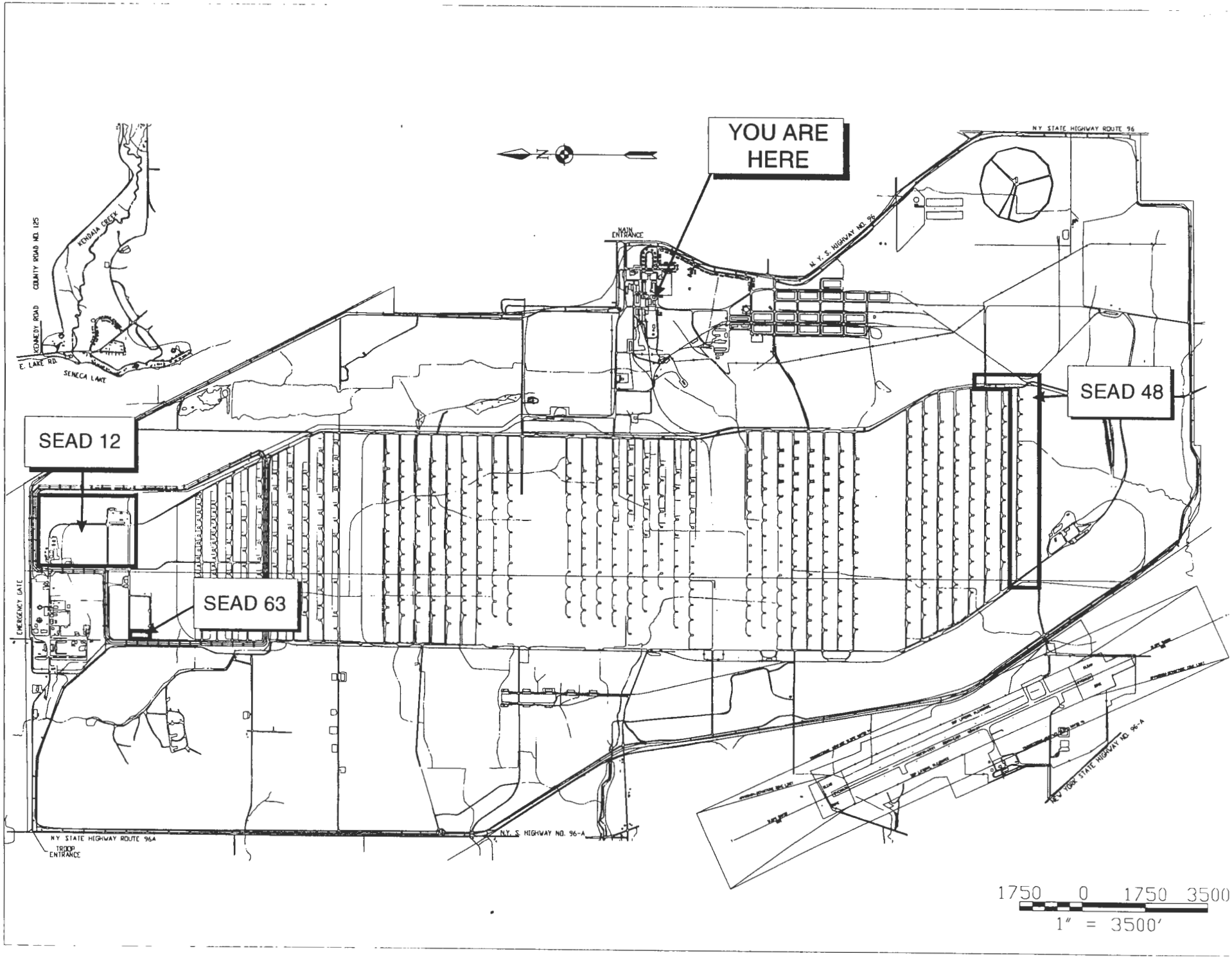

YOU ARE HERE
SEAD 12
SEAD 63
SEAD 48
MAIN ENTRANCE
N.Y. STATE HIGHWAY ROUTE 96
N. Y. S. HIGHWAY NO. 96
COUNTY ROAD NO. 125
KENDAIA CREEK
KENNEDY ROAD
E. LAKE RD.
SENECA LAKE
EMERGENCY GATE
N.Y. STATE HIGHWAY ROUTE 96A
TROOP ENTRANCE
N.Y. S. HIGHWAY NO. 96-A
NEW YORK STATE HIGHWAY NO. 96-A
1750 0 1750 3500
1" = 3500'

Radiation Sites
Former Weapon Storage Area

- Site History
- Project Schedule
- Site Characterization
- Reuse Implications
- Risk Assessment
- Technology Selection
- Cost
- Initiatives to Reduce Cost
- Summary

Site History

Radiation Sites

History

Radioactive Waste Sites

- Q Area: Built between mid 1955-1957, one of 13 complexes built
- Purpose- storage, maintenance, and operational readiness of Special Weapons stockpile
- Jointly operated by AEC, Armed Forces Special Weapons Project, and Department of the Army
- Operations transferred to DA in 1962 after a reorganization
- Three sites in Q: 12A, 12B, and 63
- Other site, SEAD 48, to be discussed later

History

Radioactive Waste Burial Pits, SEAD 12A

- 5 Disposal pits, for laboratory and maintenance waste, vertical concrete pipes, concrete slab top
- Other pits to dispose of military components (non-radioactive waste)
- In use from late 50's through at least late 1960's
- Pits excavated in 1986, all material disposed at licensed radioactive waste landfill

History

Dry Disposal Pit and Storage Tank, SEAD 12B

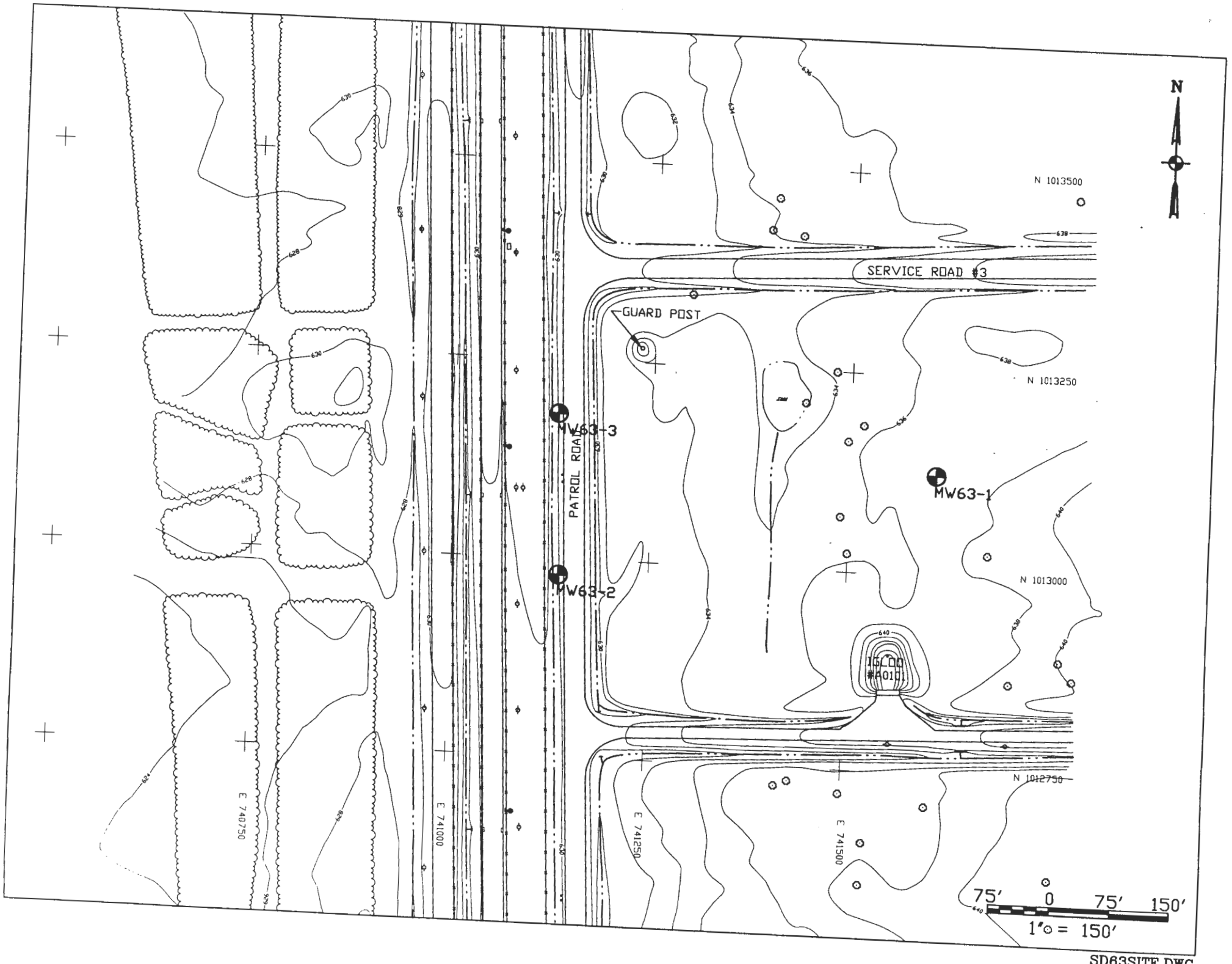
- Dry disposal pits and 5000 Gallon Waste Holding Tank
- Pit: 4X6X6 for temporary storage of waste generated from Bld. 804
- Waste included swipes, gloves, butcher paper, and lead wire seals
- Tank: For fissile material in case of accidental release during maintenance. No record of ever being used
- AEC removed their waste before leaving site
- Area also excavated in 1986, no material in pits, unable to remove tank

N
E 743250
E 743750
E 744250
E 744750
UNNAMED CREEK
SERVICE ROAD
ROAD 68
1" = 750'

History

Miscellaneous Components Burial Site

- Miscellaneous components burial site- SEAD 63
- Located on west side of Q area
- Approximate size is 480 X 300 feet
- Used during late 50's through 60's to dispose of classified parts
- Burial site is a series of elongated trenches dug to weathered shale
- Inert materials buried in this disposal pit



SD63SITE.DWG

Project Milestones and Schedule

Radiation Sites

SEAD-12 Milestones

- Draft Report ESI Issued April, 1995
- Draft-Final ESI Issued Jan., 1996
- Army Recommended an RI
- Draft RI Workplan Issued Dec. 1995
- EPA Comments Recd.July, 1996
- NYSDEC Comments Recd.July, 1996

Project Schedule

Draft RI/FS Work Plan	Dec 95
Draft RI	Oct 97
Draft FS	Mar 88
Draft PRAP	July 88
Draft ROD	Jan 99

Site Characterization

Radiation Sites

Expanded Site Investigation

- Geophysical Surveys
- Test Pitting Activities
- Soil Boring and Soil Sampling Information
- Groundwater Results

ESI Geophysical Surveys

- Four 120 ft. Seismic Refraction Lines
- Water Table at 3 to 5 feet below surface
- Depth to bedrock estimated to be between 10 to 15 feet
- Forty-seven 900 ft. Electromagnetic lines (EM-31) conducted at SEAD-12a
- Ten 400 ft. EM-31 lines conducted at SEAD-12b
- Identified three dispsoal pit areas containing metallic objects
- Twenty 800 ft. Ground Penetrating Radar (GPR) conducted at SEAD-12a
- Six 300 ft. GPR lines condcuted at SEAD-12b

ESI Test Pitting Activities

- Eleven Test Pits Excavated at SEAD-12, (8 at SEAD-12A and 3 at SEAD-12B)
- TP12A-1,TP12A-2, TP12A-3 and TP12A-4 contained various unknown components
- Elevated radiological readings were obtained in 2 to 4 foot zone at TP12A-1

Soil Boring, Monitoring Wells and Surface Water/Sediment Sampling

- Seven Soil Borings Performed
- Six Monitoring Wells installed, (3 at SEAD-12A and 3 at SEAD-12B)
- Three Surface Water and Four Sediment Samples Collected

Soil Sampling Results from ESI

- Soil from TP12A-1 at 2.5 feet contained Radium 226 at 8.6 pCi/g (Including Background ~1.5 pCi/g)
- Soil from TP12A-1 at 3 feet contained Radium 226 at 24 pCi/g(Including Background ~1.5 pCi/g)
- Above the UMTRCA allowable value of 16.5 pCi/g for Subsurface Soils

ESI Groundwater Results

- Gross Alpha at MW-12A-1 was measured at 15 pCi/L
- Gross Alpha at MW-12A-2 was measured at 38 pCi/L
- NY Class GA Groundwater Standards for Gross Alplha is 15 pCi/L

Reuse Implications

Conservation/Recreation Area

Reuse Information Note

- Area has not yet been addressed under the National Historic Preservation Act
- An eligibility determination will be necessary for possible inclusion to the National Register of Historic Places
- One or more buildings may be eligible
- The entire Q complex may be considered as a historic district

Risk Assessment

Actual Risk Assessment to be determined during the RI/FS

Technology Selection

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

Technology Selection (cont.)

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

Initiatives to Reduce Cost

Radiation Sites

Initiatives to Reduce Cost

- Inclusion of SEAD- 63 with SEAD-12A and B
- Combined effort of contractor and in-house personnel (RI/FS and RAD Survey together)
- Combined sampling of locations in affected areas
- Use of contractors laboratory for all samples
- Use of field equipment when applicable
- Proposes reduction of QA/QC rinse blanks

Cost
Radiation Sites

• FY 99	RD	$ 1OOO K
• FY 00	RA	6600 K

Radiation Sites Summary

- This presentation for Q area only
- Finalization of regulatory comments in progress
- RI/FS for SEAD-12A, 12B, and SEAD-63 will begin this spring. Geophysical survey currently on-going
- Combined efforts with Rad Survey project to reduce overall costs
- Additional information for Risk Assessment and Selected Technology for Remedial Action has yet to be determined
- Draft ROD due January 1999