

08100



Defense Environmental Restoration Program
for Formerly Used Defense Sites
(DERP-FUDS)

*Former Lake Ontario
Ordnance Works*

Restoration Advisory Board Presentation
July 12, 2000



Restoration Advisory Board
MEETING AGENDA

- Administrative rules
- Action items
- Corps update
- Administrative
- Public comments...Q&A's



Restoration Advisory Board
ADMINISTRATIVE & GROUND RULES

- Administrative
 - ◆ Question cards are available as needed
 - ◆ Answers to questions will be mailed
- Ground Rules
 - ◆ 5 minutes for RAB member questions after each presentation
 - ◆ Question period for public limited to 20 minutes
 - ◆ Please identify yourself before asking a question



Restoration Advisory Board
CLOSED ACTION ITEMS

- Counsel determination on consensus voting question
 - ◆ As stated in the Operating Rules, this Board is not an "Advisory committee" and has not been established to provide committee recommendation(s).
 - ◆ The Board can vote as a group on technical matters but cannot provide a consensus opinion as it is not a defined function of the Board.
- Corps to provide status of plans, budget concerns, and funding for year 2000
 - ◆ to be addressed during presentations



Restoration Advisory Board
CLOSED ACTION ITEMS

- Niagara Falls Storage Site Remediation History
 - ◆ Applicable documents available
 - History portion of Field Sampling Plan for the Remedial Investigation (July 1999)
 - Post Remedial Action Reports for Vicinity Properties (December 1986, January 1989)
 - Comprehensive Radiological Survey of Off-Site Property G (April 1984)
 - Castle Garden Dump and Rochester Burial Area



Restoration Advisory Board
OPEN ACTION ITEMS

- Niagara Falls Storage Site remediation history
 - ◆ Corps would like to interview people who worked at the site between 1940 and 1986
 - Advertised in July 2000 - Will review questions for interviews during presentation
- Response to concerns regarding NFSS environmental reports
 - ◆ Verbal response provided at last meeting
 - ◆ Written response in draft



Restoration Advisory Board
OPEN ACTION ITEMS

- Niagara County Health Department (Mr. Dicky) to identify availability of someone from New York State Health Department to present information on future health studies
 - ◆ Will remain an action item
- Corps to send letter to New York State Health Department regarding restraining order
 - ◆ Documentation available
 - ◆ Corps is scheduled to address this issue



Restoration Advisory Board
OPEN ACTION ITEMS

- Corps to update RAB regarding contractors for each site
 - ◆ Corps will discuss during presentations



Former Lake Ontario Ordnance Works
UPDATE

- Projects update
- Future projects and initiatives
- Summary



Former Lake Ontario Ordnance Works *PROJECTS UPDATE*

• TNT & Chemical Waste Sewer Pipeline Removal

◆ Objective

- Remove remaining underground TNT & CWS pipelines

◆ Scope

- TNT Line: 3,750 linear feet of pipeline to be removed
- CWS Line: 2,200 linear feet of pipeline to be removed
- Will collect approximately 100 soil/sediment samples for lab analysis prior to pipe removal to confirm presence/absence of chemical contamination inside and outside of pipes



Former Lake Ontario Ordnance Works *PROJECTS UPDATE*

• TNT & Chemical Waste Sewer Pipeline Removal

◆ Schedule

- May: Contract awarded May 9, 2000
- May-June: Work plan development & approvals
- July: Mobilization & work start
- October: Work complete (target)

◆ Contractor

- Severson Environmental Inc. - \$1.6 million task order

◆ Location

- Chemical Waste Management Inc. property



Former Lake Ontario Ordnance Works *PROJECT UPDATE*

• Engineering Evaluation & Cost Analysis (Area-C Drum Trench and Trash Pit)

◆ Objective

- Evaluate and select methods for removing or treating known hazards quickly
- Comply with environmental review requirements
- Provide public notification and seek feedback



Former Lake Ontario Ordnance Works *PROJECT UPDATE*

- Engineering Evaluation & Cost Analysis
(Area-C Drum Trench and Trash Pit)
 - ◆ Scope
 - Area-C Drum Trench and Trash Pit
 - ◆ Schedule
 - July-Aug: Public review (30 days)
 - Aug-Sep: Address public comments and finalize document
 - ◆ Location
 - Chemical Waste Management Inc. property



Former Lake Ontario Ordnance Works *PROJECT UPDATE*

- Phase-II Remedial Investigation
 - ◆ Objective
 - To assess potential environmental impacts to the former LOOW resulting exclusively from former Department of Defense use of the property
 - ◆ Scope of investigation
 - TNT production area, Air Force Plant 68, former workshops, former incinerator
 - Sampling and analysis of soil, sediments, water and wastes
 - Mapping results and providing report of findings



Former Lake Ontario Ordnance Works *PROJECT UPDATE*

- Phase-II Remedial Investigation
 - ◆ Schedule
 - May-September: Field work (in progress)
 - September - December: Prepare report of findings
 - ◆ Contractor
 - EA Engineering & Science Inc.
 - \$2.3 million contract task order



Former Lake Ontario Ordnance Works *PROJECTS UPDATE*

- Phase-II Remedial Investigation
 - ◆ Locations
 - Chemical Waste Management Inc.
 - Somerset Group
 - Town of Lewiston
 - Modern Disposal Inc.
 - Background soil and groundwater samples: Up to 30 sites being considered throughout original 7,500 acre LOOW boundary



Former Lake Ontario Ordnance Works *PROJECTS UPDATE*

- Future projects and initiatives
 - ◆ Potential USACE funding for demolition of former wastewater treatment plant buildings on Town of Lewiston property
 - ◆ Potential investigation of underground storage tanks
 - ◆ Await funding (\$6 M) for remediation of Area-A drum trench and Area-B burn pit



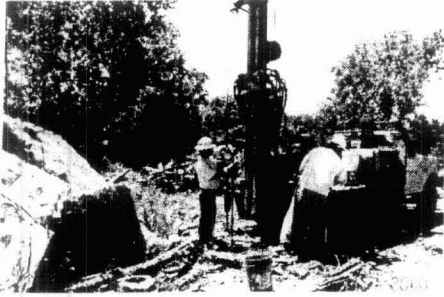
Former Lake Ontario Ordnance Works *SUMMARY*

- Budget requirements are satisfactory this year
- TNT/CWS Pipeline removal
 - ◆ In progress - scheduled completion by October
- EE/CA (Drum Trench/Trash Pit)
 - ◆ Public comment period will begin in July 2000
 - ◆ Work will be planned for next year (\$1.8 M)
- Phase II Remedial Investigation
 - ◆ Field work will continue from May - Sep 2000
 - ◆ Final report next year



US Army Corps
of Engineers

Former Lake Ontario Ordnance Works *PROJECT UPDATE*





US Army Corps
of Engineers

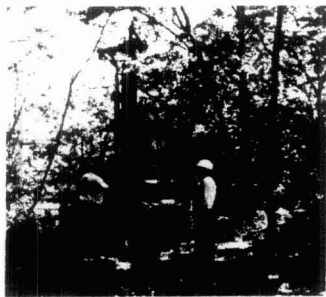
Former Lake Ontario Ordnance Works *PROJECT UPDATE*





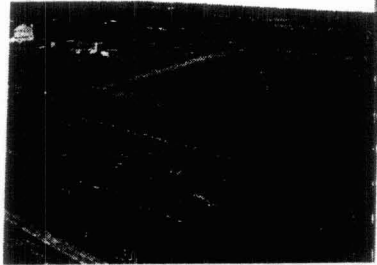
US Army Corps
of Engineers

Former Lake Ontario Ordnance Works *PROJECT UPDATE*





NIAGARA FALLS STORAGE SITE



Formerly Utilized Sites Remedial Action Program (FUSRAP)
(Radioactive Material Program)



NFSS Status Summary

- Overview
 - ◆ Results: Phase I Remedial Investigation
 - ◆ Status: Interim cleanup actions
 - ◆ Next steps



Remedial Investigation (RI)

- Purpose
 - ◆ Identify on-site contaminants
 - ◆ Determine extent of contaminants
 - ◆ Determine risk of contaminants to people and the environment



RI Schedule

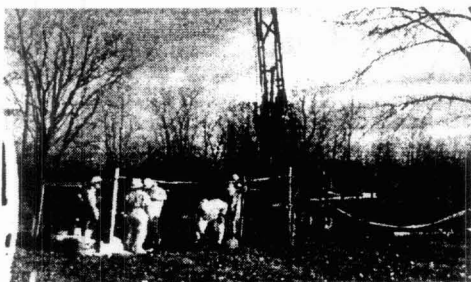
- Phase 1 Sampling: Complete
- Phase 2 Sampling: Start on August 7th
- Risk determinations and report by December 2000



Phase 1 RI Sampling & Results (Overview)

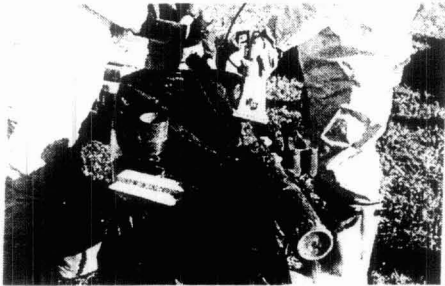


Soil Sampling





Split Spoon Sample





Soil Sample Summary

- Samples taken:
 - ◆ 69 surface soil samples
 - ◆ 78 subsurface soil samples
 - (69 planned + 9 extra)
 - ◆ 39 sediment samples



Gamma Walkover Surveys

- Downhole gamma survey (each borehole)
- Gamma walkover of 10 X 10 meter locations in boring and surface sample locations
- Gamma walkover of ditches near collection points for sediment and surface water
- All gamma surveys done prior to sample collection



Summary of Contaminants Found Soils and Sediments

- Radionuclides
- PAHs
- Aroclor 1260 (a PCB)
- No pesticides or toxic metals

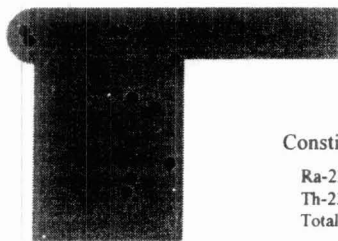


Location of Contaminants

Soils and Sediments



Surface Soil Exceedances Radionuclides

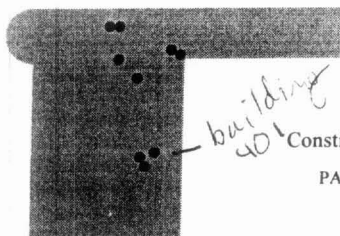


Constituents

Ra-226
Th-230
Total Uranium



Surface Soil Exceedances Semi-Volatile Organics

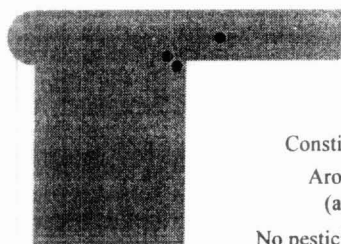


Constituents

PAHs



Surface Soil Exceedances Pesticides and PCBs



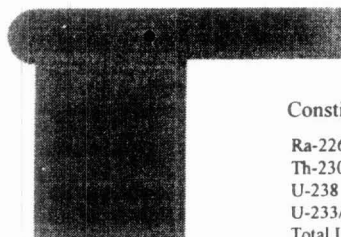
Constituents

Aroclor 1260
(a PCB)

No pesticides found



Subsurface Soil Exceedances Radionuclides

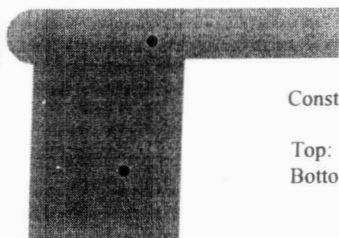


Constituents

Ra-226
Th-230
U-238
U-233/234
Total Uranium



Subsurface Soil Exceedances Volatile Organics

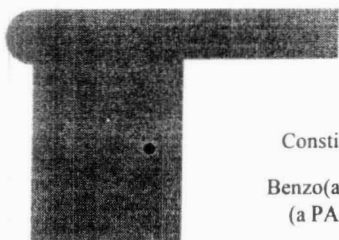


Constituents

Top: TCE, PCE
Bottom: TCE



Subsurface Soil Exceedances Semi-Volatile Organics

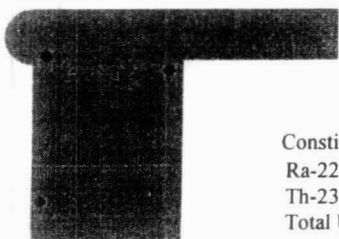


Constituents

Benzo(a)pyrene
(a PAH)



Sediment Exceedances Radionuclides

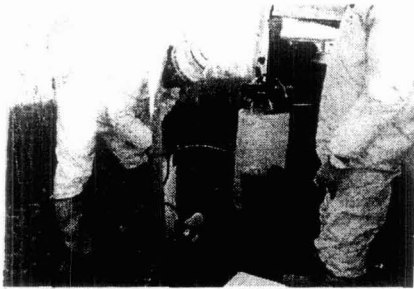


Constituents

Ra-226
Th-230
Total Uranium



Water Sampling






Water Samples

- 40 surface water samples
- 69 temporary well points
 - ♦ (56 samples, 13 dry borings)
- 35 existing wells sampled




Summary of Contaminants Found Groundwater

- Gross alpha
- Methylene chloride (perhaps)
- Pentachlorophenol

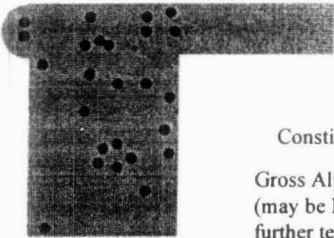


Location of Contaminants

Groundwater




Groundwater Exceedances
Radiological

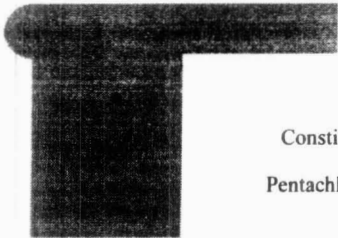


Constituents:
Gross Alpha
(may be NORM)
further testing pending

Handwritten notes:
1st. 2nd. 3rd. 4th. 5th. 6th. 7th. 8th. 9th. 10th. 11th. 12th. 13th. 14th. 15th. 16th. 17th. 18th. 19th. 20th. 21st. 22nd. 23rd. 24th. 25th. 26th. 27th. 28th. 29th. 30th. 31st. 32nd. 33rd. 34th. 35th. 36th. 37th. 38th. 39th. 40th. 41st. 42nd. 43rd. 44th. 45th. 46th. 47th. 48th. 49th. 50th. 51st. 52nd. 53rd. 54th. 55th. 56th. 57th. 58th. 59th. 60th. 61st. 62nd. 63rd. 64th. 65th. 66th. 67th. 68th. 69th. 70th. 71st. 72nd. 73rd. 74th. 75th. 76th. 77th. 78th. 79th. 80th. 81st. 82nd. 83rd. 84th. 85th. 86th. 87th. 88th. 89th. 90th. 91st. 92nd. 93rd. 94th. 95th. 96th. 97th. 98th. 99th. 100th.



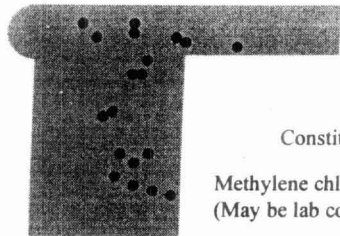
Groundwater Exceedances
Semi-Volatile Organics



Constituents
Pentachlorophenol



Groundwater Exceedances Volatile Organics



Constituents

Methylene chloride
(May be lab contaminant)



Next Steps in RI

- Phase 2 sampling to begin August 2000
- Thorough gamma walkover - Fall 2000
- Geophysical study of site - Fall 2000
- Pipeline sampling - Fall 2000
- Report expected November 2000

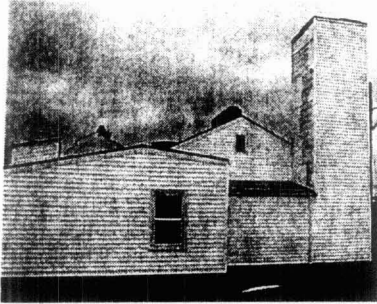


Interim Cleanup Actions

- Decon and demolish Building 403
- Off-site dispose palletized waste
- Address need to decon and demolish Building 401



Building 403





Schedule For Building 403

- Radiological decontamination accomplished in 1998
- Demolition contract awarded March 2000 (Sevenson)
- Work plans under review
- Building demolition scheduled August 2000



Palletized Waste



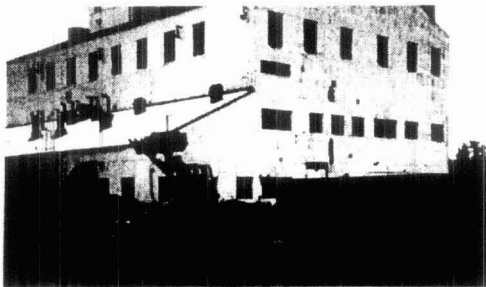


Palletized Waste Removal Schedule

- Waste characterized in mid 1999
- Some material shipped to WCS (Texas) in June 2000. Additional material is ready for shipment
- 2 containers to be shipped to Envirocare (Utah) next spring



Building 401





Purpose of Building 401 Interim Action

- Building currently locked and posted
- Building is deteriorating
- Survey underway to plan acceleration of decon/demolition



Contractors

- Maxim Technologies - Remedial Investigation
- Severson- Demolition of Building 403
- SAIC- Feasibility Study and Gamma Walkover
- Sudhakar - Maintenance



Interview Questions

- What years did you work at NFSS?
- What did you do when you worked there?
- (Show map with site boundaries): Where did you work?
- If you worked with a process, please describe it. Do you know where the waste for this process was disposed? Was any disposed on site?
- If you worked with site cleanup, please describe what was done?



Interview Questions

- Did you have anything to do with handling or testing radioactive material?
- Did you ever see any waste buried on site? Where? What kind?
- Did you ever see any drums buried on site? Where? Do you know what was in them?
- Do you know if there were any subsurface pipelines on site? If there were, do you know what they were used for?
- Do you have any questions for us?

Questions
