

Solving Cleanup Challenges Through Risk Reduction

Remediation Project Update



Presentation for Paducah CAB

October 21, 2010
DRAFT



EM Environmental Management

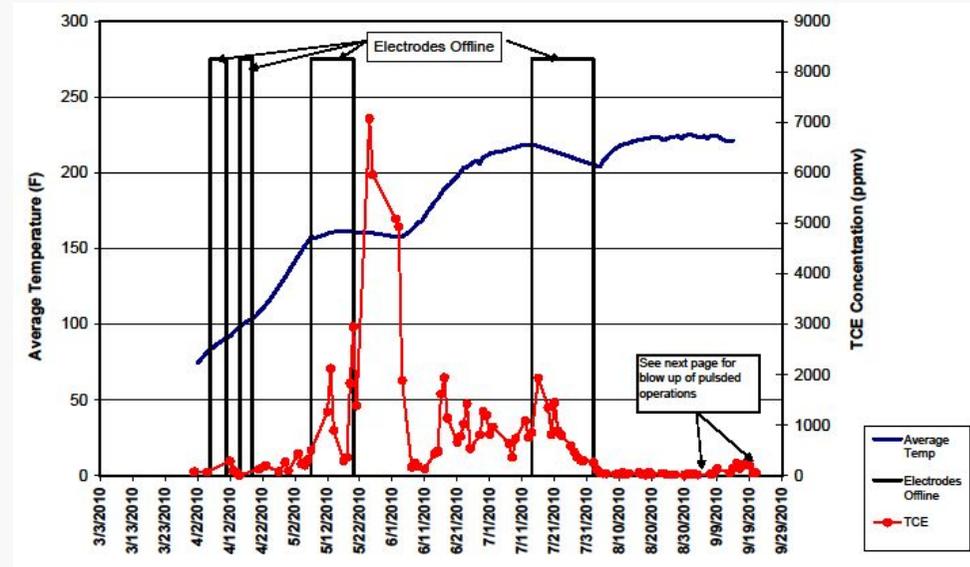
safety ♦ performance ♦ cleanup ♦ closure



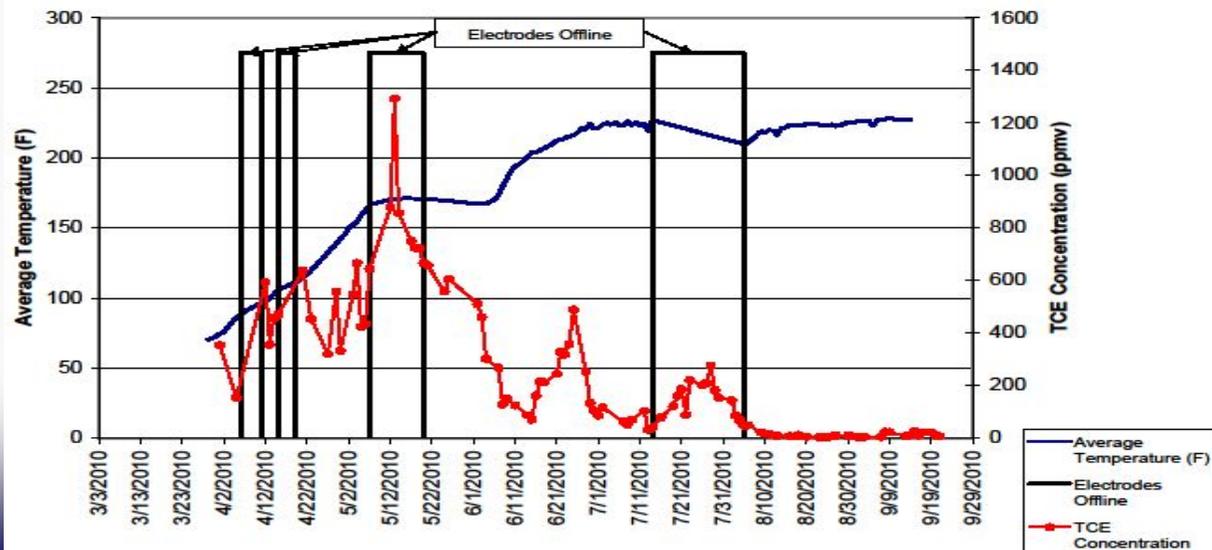
C-400 TCE Source Removal

- More than 530 gal of TCE removed since April startup
- TCE removal has leveled off

East Treatment Area TCE Recovery



Southwest Treatment Area TCE Recovery



C-400 Heating Progress

- Pulsing treatment system through September as required pre-shutdown
- Will be working with Kentucky and EPA on Phase II path forward

East Area Temperature

Average Temperature

Target Temperature UCRS (20-50 ft deep) **194 °F**

223 °F

Target Temperature UCRS (50-60 ft deep) **199 °F**

228 °F

Southwest Area Temperature

Average Temperature

Target Temperature UCRS (20-50 ft deep) **194 °F**

225 °F

Target Temperature UCRS (50-60 ft deep) **199 °F**

233 °F

Target Temperature RGA (60-70 ft deep) **212 °F**

224 °F

Target Temperature RGA (70-100 ft deep) **220 °F**

~130 °F

C-746-A East End Smelter Demolition

- Structural demolition began September 8, **completed September 17; 1 year early**
- Structural waste disposition completed
- Work crews re-assigned to C-410 and C-340 buildings

Workers wrap furnace in plastic prior to packaging for disposition



Early stages of demolition

C-746-A East End Smelter Demolition



The high bay of the East End Smelter is toppled as demolition nears completion



C-746-A East End Smelter Demolition



Removing the final part of the structure

C-340 Metals Reduction Plant



Disassembling equipment for removal



A worker removes process piping

- On track to have C-340 A, B, and C demolition ready ahead of milestone date of 9/30/11
- All ARRA major milestones met on or ahead of schedule
 - Demolition of support facilities
 - Demolition of conveyor system
 - Systems removal
- On track to meet 9/27/10 milestone to complete asbestos abatement



C-410 Feed Plant Work



Recovering copper bussbars for reuse

- Demolition scheduled to begin this fall on eastern end of C-410 Complex
 - Sector 4, area that housed fluorine generators
 - C-411, former cell maintenance area
- Both demolitions are ahead of schedule
- 25,000 lbs of copper bussbars are being recovered for reuse

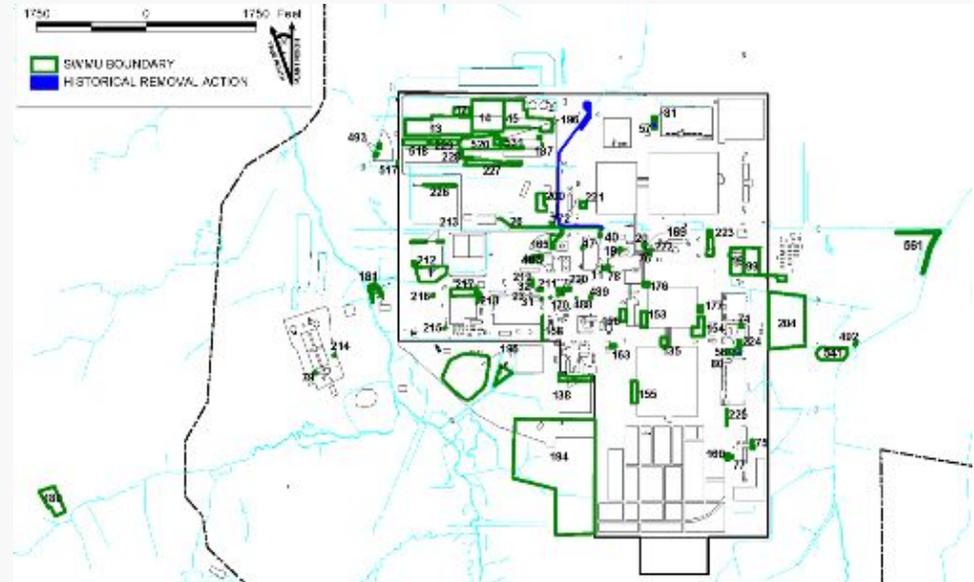


C-411 portion of C-410 Complex

Soils Remedial Investigation

- Soils Operable Unit contains 86 solid waste management units (SWMU) covering more than 120 acres
- More than 2,900 samples collected to date from 54 SWMUs covering 85 acres
- Data will be included in a Remedial Investigation Report
 - Draft scheduled for release in March 2011
 - Feasibility Study scheduled for November 2011

Soils Operable Unit SWMUs



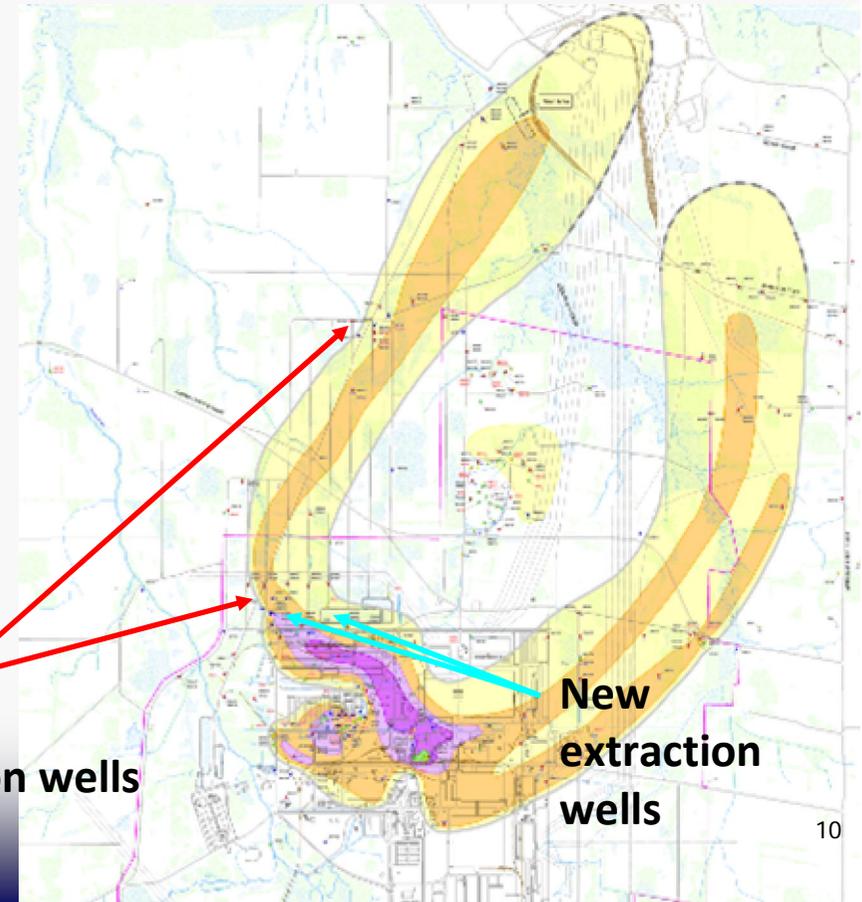
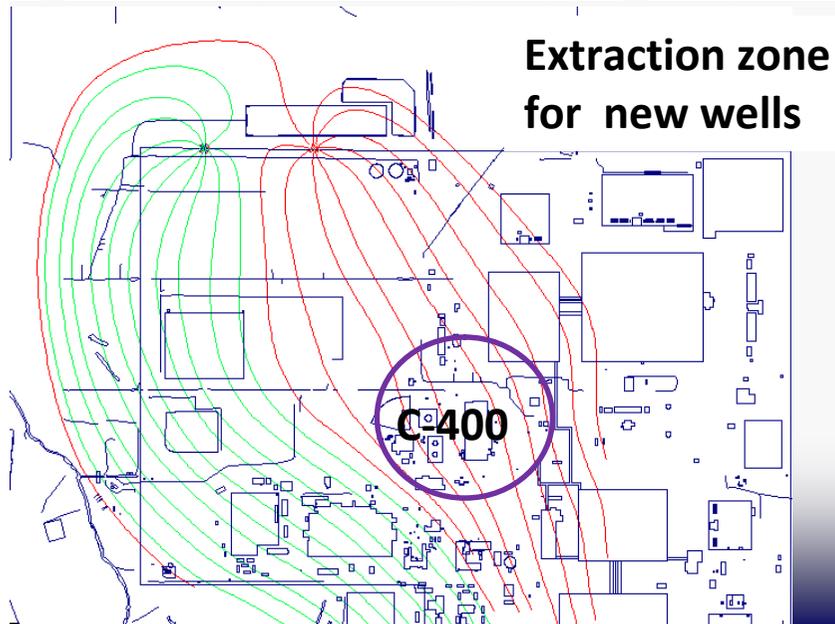
Workers collect a sample to the southwest of the plant

Pump-and-Treat System Upgrade

One of two new groundwater extraction wells

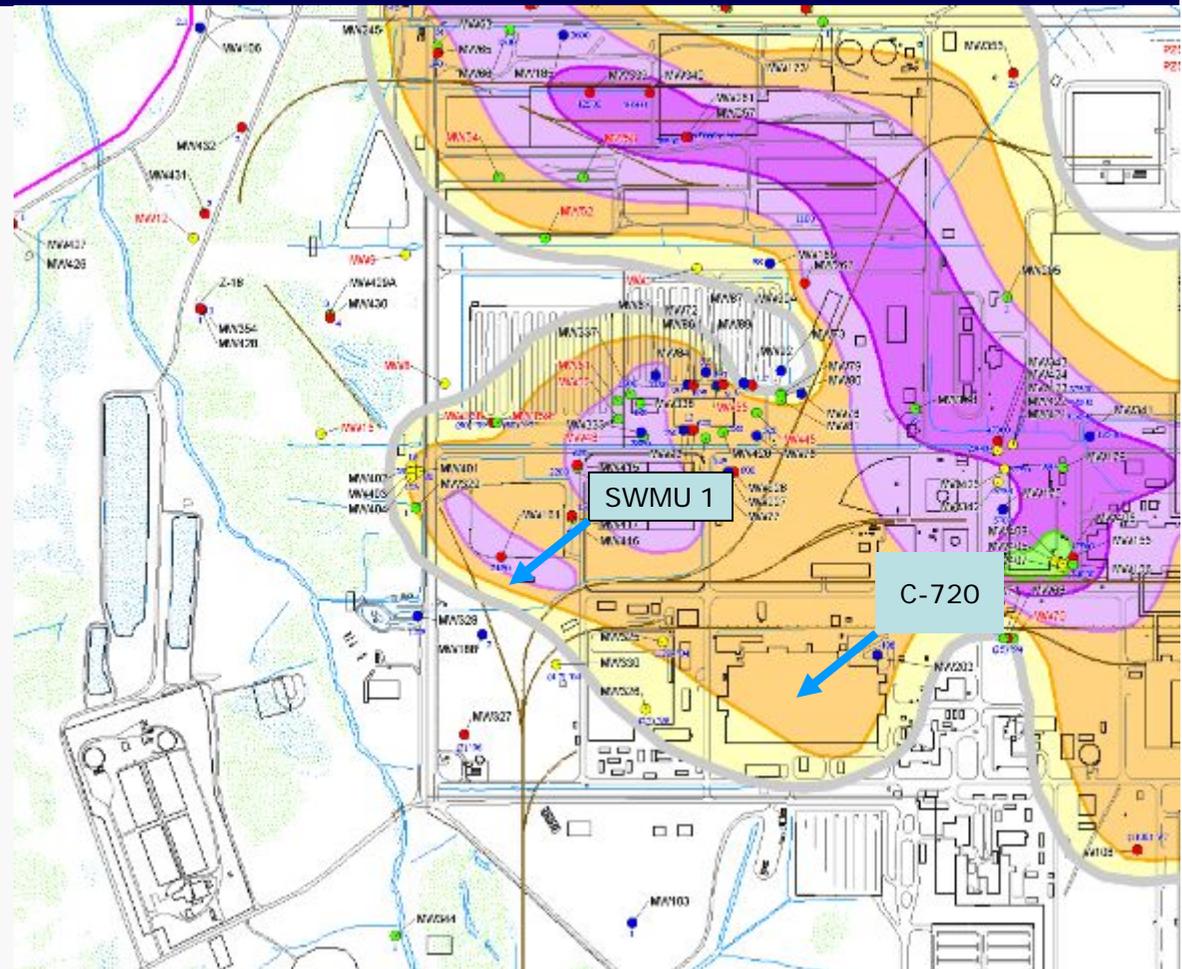


- Two new extraction wells are online for the Northwest Groundwater Pump-and-Treat System



Southwest Plume

- DOE has asked for an extension to submit D2/R1 Proposed Plan
- New information from C-400 Phase I is being evaluated
- Data suggests Soil Vapor Extraction could be suitable for C-720 source



Southwest Plume Sources
(SWMU 1 and C-720)

Surface Water 'Hot Spot' Removal



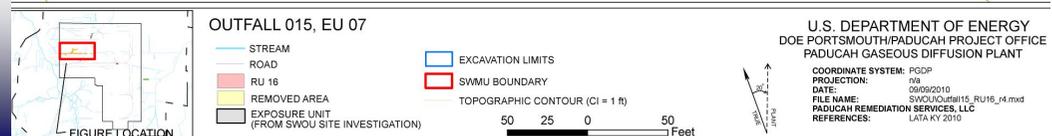
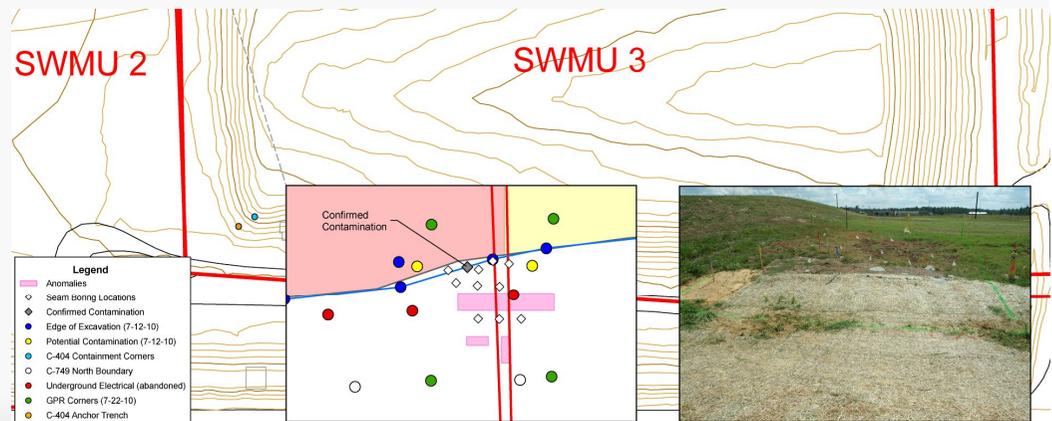
- **Project Completed**

- Nearly 23,000 yd³ of soils removed from site ditches
- Ditches backfilled, restored



Contaminated Material Removal at Outfall 015

- Radioactively contaminated material discovered at Outfall 015 ditch in May
- Proximity to both C-404 and C-749 Burial Grounds limited ability to excavate without additional data
- 11 borings drilled to collect additional data
- Data confirmed the material was a small "seam," about 8 ft by 3 ft and less than a foot thick
- 34 yd³ of material excavated on September 14 and 15



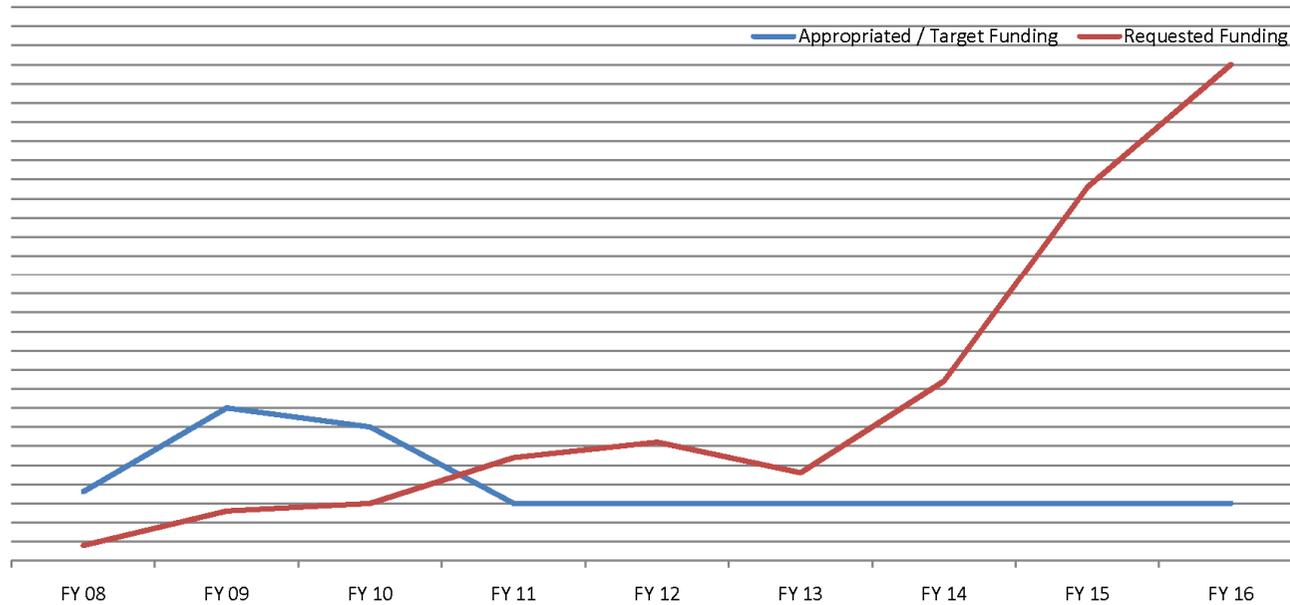
Other Projects

- Nickel Ingots
 - Proposal evaluation continuing
- DUF₆ Conversion
 - DOE Operational Readiness Review conducted August 24
 - Team identified 13 action items that are being addressed before 'hot' testing
 - Hot functional testing start anticipated for mid-October

Levelized Funding

Paducah Funding Projection

New Funding for Paducah Site



- As the President stated during the State of the Union, non-defense budgets will be held level through 2016

- Flat funding will mean resequencing of some site priorities and projects
- DOE is working with EPA and KY to finalize site priorities
- Project completion in 2019 is expected to be impacted

Transition



**LATA Environmental Services
of Kentucky, LLC**

- Transition to LATA Kentucky completed 7/26/10
- Project work has continued uninterrupted



DOE Portsmouth/Paducah Project Office