



Soil Piles Sampling and Analysis Plan

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Soil Piles

- Sampling data will be used to determine nature and extent of contamination and if future actions are required
 - If future actions are required, data obtained will minimize waste disposal sampling
- Phased approach allows for refining of techniques as sampling proceeds
- SAP submitted 2/9/07
 - KDEP comments 2/26/07
 - KY Radiation Control comments (draft) 2/27/07
 - EPA comments 3/13/07



Proposed Phase II, Step 1 Sampling

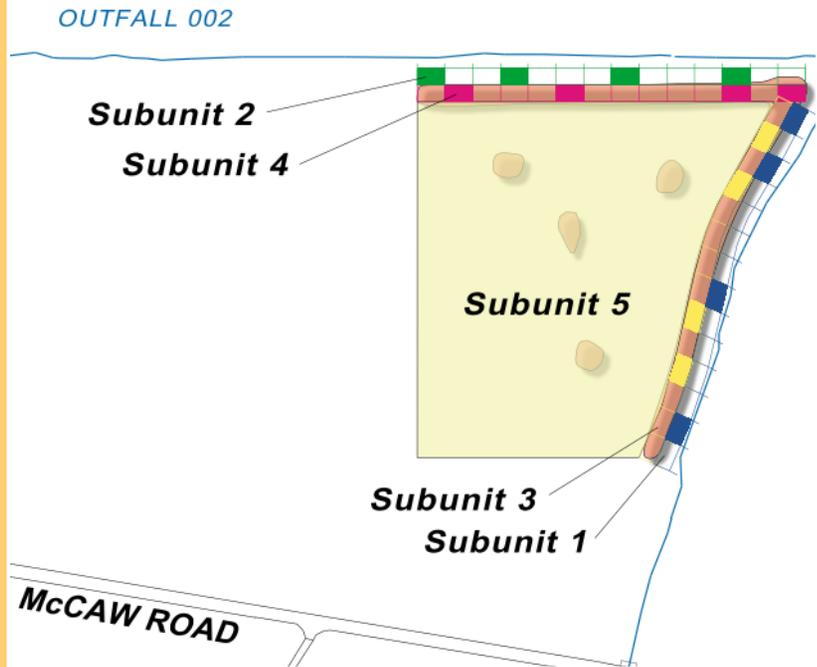


- Sampling soils and five trees
- Sampling at more than 700 locations/depths
 - 218 samples will be sent to lab for analysis
 - Lab samples for PCBs, radiation, volatile and semi-volatile organic compounds and metals
 - Remainder of sampling consists of field samples for radiation, PCB and metals

This is the instrument that will be used for field radiation detection.



Proposed Phase II, Step 1 - Soil Pile "I"



- Pink and yellow blocks, surface and subsurface samples taken
- Green and Blue blocks, surface samples only
- Subunit 5, surface samples only

- Soil Pile I is not a single distinct pile, but an area covering several acres
 - Two 700-foot long, 30-foot wide piles
 - Multiple small piles
- Area divided into five subunits for sampling purposes; subunits selected based on process knowledge, initial sampling results
 - Subunit 1 and 2 - buffer areas
 - Subunit 3 and 4 - soil pile, divided into 30X50-foot blocks for sampling purposes
 - Subunit 5 - area south and west of the soil piles



Phase II, Step 1 - Soil Pile "I"

	Surface Samples Analyzed by Lab	Subsurface Samples Analyzed by Lab	Surface and Subsurface Samples Analyzed in Field
Subunit 1	20	NA	128
Subunit 2	20	NA	128
Subunit 3	20	60	188
Subunit 4	20	60	188
Subunit 5	18	NA	97

Totals

98*

120

729

NOTE: Each subunit 1-4 surface sample analyzed in a lab is a composite of 5



Sample Management & Quality Control



- Kentucky and U.S. EPA will split samples with DOE and use separate labs to analyze data
- Quality Control samples will be taken
- Contingency samples will be collected from Subunit 5 if required by SAP criteria

One of the portable radiation detectors with a GPS unit.



Schedule

- Field work for Step I sampling will take 30-40 days to complete
- Will start immediately (24 hours) after regulatory approval
- Lab analysis/data validation will follow
- Develop sampling plans for Phase II Steps 2 and 3
 - Accuracy of field tests in Step 1 will determine if field tests, lab samples or both are used
- Complete all sampling by 10/31/07 pending continued timely regulatory approvals
- Determine if future actions are needed
- CAB will be updated monthly on sampling results



Schedule

Sampling and Analysis Plan #1							
Addenda	Scope	SAP Submittal Date	Start of Field Sampling	Estimated Field Duration	Sample Analysis	Sample Validation and Risk Analysis/Data Assessment	SWMU Assessment Report Schedule
Addendum 1-A	Soil areas identified along Little Bayou Creek - between McCaw Road to Outfall 002	2/9/07	Immediately after receiving KY and EPA approval of SAP Addendum	40 days	30 days from when last sample is collected	45 days	Within 45 days of receipt of final validated data for entry into OREIS
Addendum 1-B	Remaining soil areas ⁽¹⁾ identified along Little Bayou Creek and along North South Diversion Ditch	Within 7 days of receipt of final validated data from Addendum 1-A for entry into OREIS	Immediately after receiving KY and EPA approval of SAP Addendum	Duration will be defined in Addendum based on approved scope	30 days from when last sample is collected	45 days	Within 45 days of receipt of final validated data for entry into OREIS
Addendum 2	Soil areas identified along Bayou Creek and unnamed tributary	15 days after EPA and KY approval of Addendum 1-A	Immediately after receiving KY and EPA approval of SAP Addendum	Duration will be defined in Addendum based on approved scope	30 days from when last sample is collected	45 days	Within 45 days of receipt of final validated data for entry into OREIS
Sampling and Analysis Plan #2							
N/A	Rubble areas located on DOE reservation	45 days after EPA and KY approval of Addendum 1-A	Immediately after receiving KY and EPA approval of SAP	Duration will be defined in SAP based on approved scope	30 days from when last sample is collected	45 days	Within 45 days of receipt of final validated data for entry into OREIS





DOE Portsmouth/Paducah Project Office