



Location Description and Rationale for Investigation (NDEP may not agree with upgradient and downgradient descriptions)				
Grid Location	Boring No.	GE Permits	Spectra in	Sample Depths (ft, bgs)
Western Area Power Administration (WAPA) site as part of site-wide coverage for potential historical chemical use. Borehole SA6E will be converted into well M-145. GW anticipated at ~38 feet bgs.				
R-8				0.5
R-8				10
R-8				25
R-8				25 (dup)
R-8				38
S-8				0.0
S-8				0.5
S-8				10
S-8				10 (dup)
S-8				25
S-8				41
S-8				0.0
S-8				0.5
S-8				10
S-8				25
S-8				35
S-8				35
Number of Samples: 33				
Location (has not been relocated). SA77 RSAS6				

Sampled June 09 - requires field check.

analyzed by grid location as shown on Plate A - Starting point is on the northwestern most grid in Area 3 (N-7) and ending with the southeastern most grid

Notes:

- X Sample will be collected and analyzed.
- DD* Sample depth to be determined in the field where DD = sample depth (ft).
- TPH-GRO Total petroleum hydrocarbons - Gasoline-Range Organics.
- TPH-DIO Total petroleum hydrocarbons - Diesel-Range Organics/Oil-Range Organics.
- SPLP SPLP samples will be analyzed by EPA method 1312 using two preparation methods: 1) with extraction fluid #2 (reagent water at pH 5.00 ± 0.05), and 2) with extraction fluid #1 (reagent water at pH 5.00 ± 0.05). If area is paved, samples will be collected at 0.5 ft below or from the surface.
- 1. The 0.5 ft bgs sample will be collected from the 0.0 to 0.5 ft bgs interval, unless the area is paved. Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Vanadium, Zinc, and Zirconium.
- 2. Metals analysis includes Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Selenium, Vanadium, Zinc, and Zirconium.
- 3. Hexavalent Chromium
- 4. Samples for VOC analysis will be preserved in the field using sodium bisulfite (or DI water) and methanol preservatives per EPA Method 5035.
- 5. Wet chemistry parameters include: alkalinity (total, CO₃, HCO₃), ammonia, bromide, chlorate, chloride, conductivity, nitrate, nitrite, perchlorate, pH, phosphate (total), and sulfate.
- 6. Organochlorine Pesticides (includes analysis for hexachlorobenzene).
- 7. Semi-volatile Organic Compounds
- 8. Polychlorinated biphenyls - Sample locations will be analyzed by USEPA methods 8082 and in some cases 1698A. Concrete surfaces at these locations will also include analysis for PCBs.
- 9. Dioxins/furans will be analyzed by EPA Method 8260 for all samples. Screening reports will be provided for 90% of the samples and full data packages for 10% of the samples.
- 10. Radionuclides consists of alpha spec reporting for isotopic thorium and isotopic uranium, and Radium-226, plus Radium-228 by beta counting (per NDEP).
- 11. Organophosphorus Pesticides were added to the SAP by NDEP (July 21, 2008). Tronox proposes to sample at 0.5 ft bgs, capillary fringe, and in some cases at the surface.
- 12. Organic Acid analysis includes the following analytes: 4-Chlorobenzoic sulfonic acid; Benzenesulfonic acid; O-C-Diethylphosphorodithioic acid; O-C-Dimethylphosphorodithioic acid.
- 13. Soil samples for asbestos analysis will be collected from a depth of 0 to 2-inches bgs.
- 14. Geotechnical Tests consist of: moisture content (ASTM D-2216), grain size analysis (ASTM D-422 and C117-04), Soil Dry Bulk Density (ASTM D-2937), Grain Density (ASTM D-2937).
- # Sample depth dependent upon depth of the Mn tailings/soil interface. Final depth will be determined in the field.
- ## Sample depth should be 19-ft deeper than the Mn tailings/soil interface sample or 1-ft below a pipeline invert. Final depth will be determined in the fields.