

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

GEOTECHNICAL BUREAU Phase II Environmental Site Assessment Drilling and Sampling Guidelines

A. Field Investigation and Drilling

1. A field investigation must be performed at Recognized Environmental Condition (REC) sites which were identified during the Phase I Environmental Site Assessment (ESA).
2. Property owners should be notified, and utilities located prior to start of field investigation. If applicable, property access letters must be sent out to property owners prior to any field investigation.
3. For proposed right-of-way acquisition at or adjacent to a REC site, including sites with a No Further Action (NFA) status from the Georgia Environmental Protection Division (GA EPD), drilling should be conducted in the proposed right-of-way as follows:
 - a. A maximum spacing of 100 feet between borings with a minimum of three (3) borings for right-of-way less than or equal to 500 feet.
 - b. A maximum spacing of 200 feet between borings with a minimum of four (4) borings for right-of-way greater than 500 feet but less than or equal to 1,000 feet.
 - c. A maximum spacing of 300 feet between borings with a minimum of five (5) borings for right-of-way greater than 1,000 feet.
4. If no proposed right-of-way acquisition is adjacent to a REC site, drilling should be conducted within the existing right-of-way as described in Section A (3) above.
5. All drilling should be conducted to a depth of 25 feet below ground surface or to refusal, whichever is less. If groundwater is encountered, samples should be taken and analyzed for environmental impacts. Please refer to Section A (11) below for additional information on soil and groundwater sampling.
6. For sites where no extensive excavations (greater than 5 feet) are proposed, shallow and/or hand auger borings may be conducted to ensure the safety of workers during construction. The depth and spacing of the borings should be coordinated with OMAT.
7. Soil samples should be screened at 5-foot intervals to a depth of 25 feet or refusal if above static groundwater level. All soil samples should be screened with a Photo-Ionization Detector (PID), Flame-Ionization Detector (FID) or other approved GAEPD method.
8. If impacts are visually detected or an odor is encountered, the soil sample should be collected and analyzed for further environmental impacts.

9. For all REC sites, the soil samples with the highest reading from the PID, FID, or other approved GAEPD method from a boring shall be analyzed.
10. In the case of a suspected non-volatile contaminant, the soil sample exhibiting discoloration, deleterious composition such as debris, slag, ash, etc. or other visual indicators shall be analyzed.
11. Soil and groundwater sample analytical protocol should be as follows:
 - a. For REC sites associated with gasoline and/or diesel sources only, samples should be analyzed for BTEX [Benzene, Toluene, Ethylbenzene and Xylene] and PAHs [Polynuclear Aromatic Hydrocarbons].
 - b. For all other REC and potential REC sites, samples should be analyzed for Volatile Organic Compounds (VOCs) and Semi Volatile Organic Compounds (SVOCs). Soil samples alone should also be tested for total Resource Conservation and Recovery Act (RCRA) 8 Metals. Each site should be individually considered and tested for other constituents such pesticides, herbicides, PCBs, etc. as necessary based on the findings of the Phase I ESA.
12. All sampling, written records and field notes shall be in general conformance with the guidelines in this document as well as the published field sampling procedures by the US Environmental Protection Agency (EPA), Region IV, for soil and groundwater which can be found at [EPA Field Sampling Procedures](#).
13. Samples should be transported to a certified environmental laboratory testing facility. The testing facility should be contacted for its requirements prior to sampling.

B. Visual Assessment and Notes

1. Visually inspect the sites and document the location(s) of any UST systems within the existing or proposed right-of-way in the field notes. Also, document any suspected UST systems that may exist on site in the field notes.
2. The boring logs should have the screening results shown.
3. The Federal Highway Administration (FHWA) has expressed their interests on the location of confirmed or suspected releases and monitoring wells. Therefore, the location of any monitoring wells should be identified and referenced in the field notes.