

## **Instructions for UST in Soil Standards – NELAC Accreditation Set**

### **SCOPE AND APPLICATION**

Wibby Environmental's Underground Storage Tank (UST) Proficiency Testing (PT) Standards are designed to be used with promulgated federal and state methods as well as applicable methods from consensus organizations such as AWWA and ASTM. If you have any questions about the use of these standards, please contact Wibby Environmental Customer Service at 1-866-WibbyPT (866-942-2978).

### **INDIVIDUAL INSTRUCTION SHEETS ALSO AVAILABLE**

**NOTE:** This sheet contains instructions for all standards included in Wibby Environmental's UST in Water NELAC Accreditation Set. Individual instruction sheets for these standards are also available on line at [www.wibby.com](http://www.wibby.com) (click on the "PT" link in the blue bar that runs horizontally across the home page) or upon request. If your laboratory would prefer to receive individual instruction sheets with future orders instead of this sheet, please call customer service at 1-866-WibbyPT (866-942-2978).

### **SAMPLE PREPARATION, ANALYSIS AND STORAGE**

As summarized in the following steps, UST PT standards are supplied as ready to use standards or as concentrates that require spiking into the supplied matrix prior to use. For best results, all UST PT standards should be stored at the temperature listed on the label. PT standards stored at 4°C should be brought to room temperature (near 20°C) prior to use.

#### **UST Gasoline**

1. The UST Gasoline in Soil standard includes two separate containers; a VOA vial containing approximately 12 g of Blank Solid Matrix and a 2 ml flame sealed ampule containing the analytes of interest. The solvent for the Gas in Soil concentrate is methanol. The standard can be used with either the Direct Purge Method or after Methanol Extraction.
2. *Direct Purge Method*
  - 2.1. Open the Blank Soil Matrix vial and transfer 5 g of the matrix into your sparger cell.
  - 2.2. Carefully open the ampule containing the Gasoline concentrate by snapping off the top at the narrow part of the neck.

- 2.3. Transfer exactly 50 µL (micro liters) of the concentrate onto the Blank Soil Matrix in the sparger cell using a gas tight syringe. Add the spike below the surface of the matrix.
- 2.4. Add 5 ml of organic free deionized water to the sparger cell containing the Blank Solid Matrix and concentrate. The standard is now ready for analysis.

#### 3. *Methanol Extraction Method*

- 3.1. Open the Blank Soil Matrix vial and transfer 5 g of the matrix into your extraction vessel.
- 3.2. Carefully open the ampule containing the Gasoline concentrate by snapping off the top at the narrow part of the neck.
- 3.3. Transfer exactly 50 µL (micro liters) of the concentrate onto the Blank Soil Matrix in the extraction vessel using a gas tight syringe. Add the spike below the surface of the matrix.
- 3.4. Immediately add 5 ml of purge and trap grade methanol to the extraction vessel cell containing the Blank Solid Matrix and concentrate. The standard is now ready for extraction and analysis.

#### **UST Diesel**

1. The Diesel in Soil standard is packaged in two vials. Open one vial and quantitatively transfer the entire contents of the vial to your extraction apparatus. Rinse the vial thoroughly with extraction solvent and transfer the solvent to the extraction apparatus. For the purposes of calculating results, the percent moisture of the standard is 0% and the sample weight is 20.0 g.
2. Follow your normal procedures for extraction and analysis of a sample for Diesel in Soil.
3. The second vial has been provided for duplicate or backup preparation/analysis.

#### **UST TPH and Oil & Grease**

1. These standards are ready for preparation and analysis per the selected method(s) as received. The matrix should be mixed/homogenized prior to removing an aliquot for preparation/analysis.

### **REPORTING RESULTS**

1. Report results to three significant figures.
2. Report your results on line at [www.wibby.com](http://www.wibby.com). Click on the "Online Data Entry" link or the "PT Manage" link.
3. For the purposes of reporting results, the percent moisture of all UST Soil standards is 0%. Report all results on a dry weight basis.
4. You may also report your results using the Data Reporting Sheets enclosed with your standards. FAX your results to Wibby Environmental at 866-283-0269 or mail the results to Wibby Environmental, 6390 Joyce Drive, #100, Golden, CO, 80403.
5. Wibby Environmental must receive all results prior to the study closing date shown on the Data Reporting Sheets.

### **SAFETY**

These standards are designed for use by laboratory professionals who are familiar with handling environmental reference materials as well as hazardous materials. If you have any questions about the safe handling of these standards or require a Material Safety Data Sheet (MSDS,) please contact Wibby Environmental at 1-866-WibbyPT (866-942-2978).

### **QUESTIONS?**

If you have any questions regarding these standards or reporting requirements, please call Wibby Environmental at 1-866-WibbyPT (866-942-2978).