siteLAB®
Petroleum Hydrocarbon Solutions

Quick Reference Guide

Instructions for TD-500D Petroleum Hydrocarbon Applications

Online @site-lab.com Call Toll Free 877-SITELAB or Dial (USA) 978-363-2299

Sample Preparation & Analysis...

Testing Soil?

Using the digital scale and spatulas, weigh 5 grams of soil into an extraction jar (within +/- 0.1 gram)

Testing Water?

Using a plastic test tube, measure out 10 mL of water sample and add to extraction jar.

2. Add Solvent

Add Methanol to solvent dispenser bottle. Using a test tube, dispense solvent to the 10 mL line. Empty into the extraction jar. This creates a 2X Extract Dilution. Shake soil jars by hand for several minutes. Shake water jars for ten to twenty seconds.

3. Filter Extract

Let soil extract jars settle for a few minutes before removing lid. Suck up 2 to 4 mL of extract from the jar's surface using a syringe. Attach/screw a filter to the syringe and dispense contents into test tube. Label extract tube with sample ID and 2X Dilution – keep track!

4. Dilute Extract

Adjust the setting on the Sitelab pipette, attach a tip and use a 2nd test tube to prepare a larger dilution for analysis - in order for the sample to be detected within the analyzer's calibration range.

Recommended Dilutions:
Extract Volume + Solvent = DIL
"100"uL into 5 mL = 100X
"020"uL into 10 mL = 1,000X

5. Add to Cuvette

Pour dilution into a glass cuvette from test tube or use the adjustable pipette to transfer extract to cuvette about ¼ to ½ full. Place cuvette into the plastic cuvette holder. Use tissue wipes to keep cuvette clean. Clean to moderate samples, test 100X dilution first.

6. Test Sample

Lower the sample into the test chamber and press "Read." Concentration units are displayed as ppm for TPH-Oil or ppb for PAHs. Next, calculate final result by multiplying the reading by the dilution tested. Avoid readings near zero or below detection limit.

Products Used...

Sitelab test procedures listed here require the following...

TD-500D Analyzer & Lab Tools:

- Cuvette Holder
- Scale & Spatulas
- Adjustable Pipette
- Solvent Dispenser
- Test Tube Rack
- Tissues & Markers

20 Sample Extraction Kits: Product No. EXTR010-20

Includes jars, filters, cuvettes and other materials needed to prepare samples for analysis (shown here)

WARNING! Product uses flammable alcohols – Methanol, HPLC grade. Dispose solvent waste properly.

Calibrate Instrument...

1. Calibration Kit

Choose a certified Sitelab Calibration Kit for your application. Examples:

Calibrator	Concentration
TPH-Oil:	100 ppm
Total PAHs:	500 ppb

Only use on Channel A!
Press "A/B" key to select A.

2. Setup Analyzer

Turn on instrument. Press "Std Val" and use arrow keys to adjust value to calibrator's concentration. Press Enter when finished

Analyzer will memorize value until you manually change it (if calibrating to something else).

3. Calibrate

Press "Cal" and place the cuvette into analyzer with clean solvent. Press Enter to read blank and empty out cuvette. Next, fill cuvette with calibrator using pipette and press Enter. Press Enter again when asked to accept.

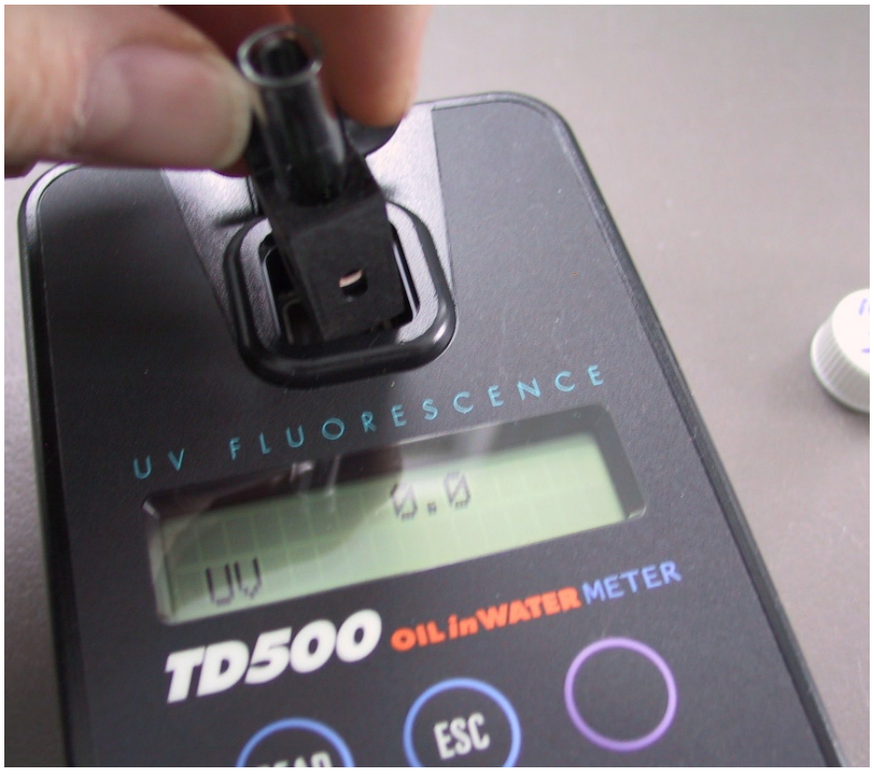
Quality Controls...

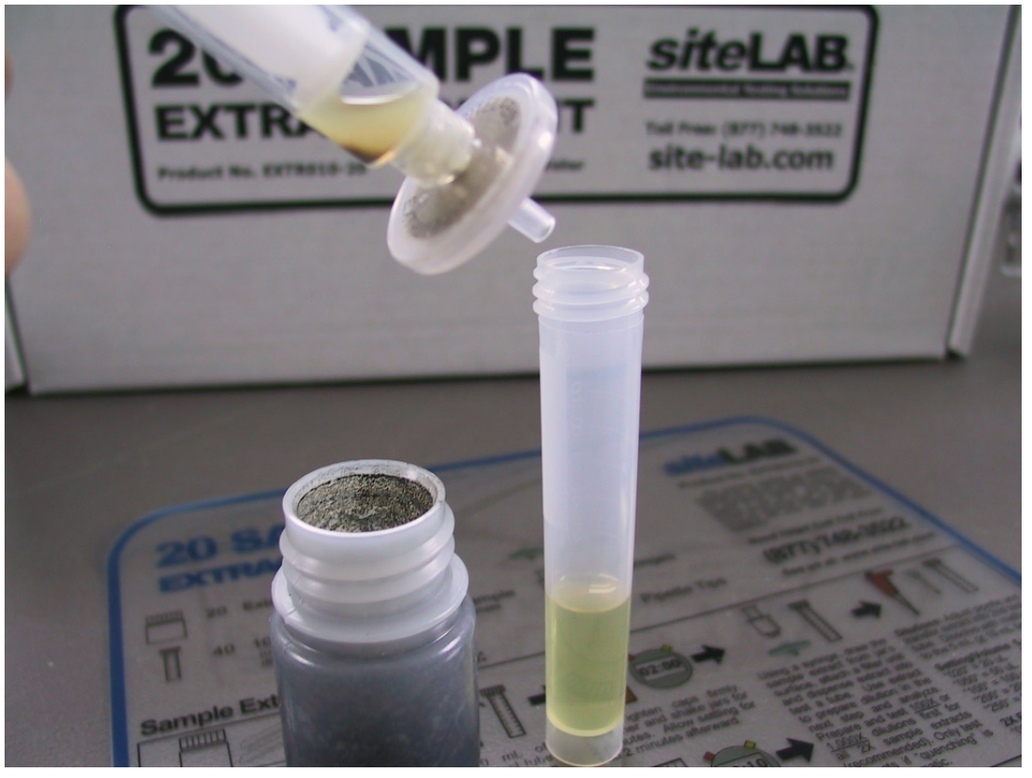
4. Diagnostic Data

At any time, press the "Diag" key to check the fluorescence sensitivity of the calibration curve. Blank should be close to zero and %FS Std should be within the range listed with each Sitelab Calibration Kit Certificate.

5. Check Curve

Periodically check how linear the calibration curve is by testing the calibration standards provided with your calibration kit. Check the detection limit standard and methanol (blank). Press "Read" to test.

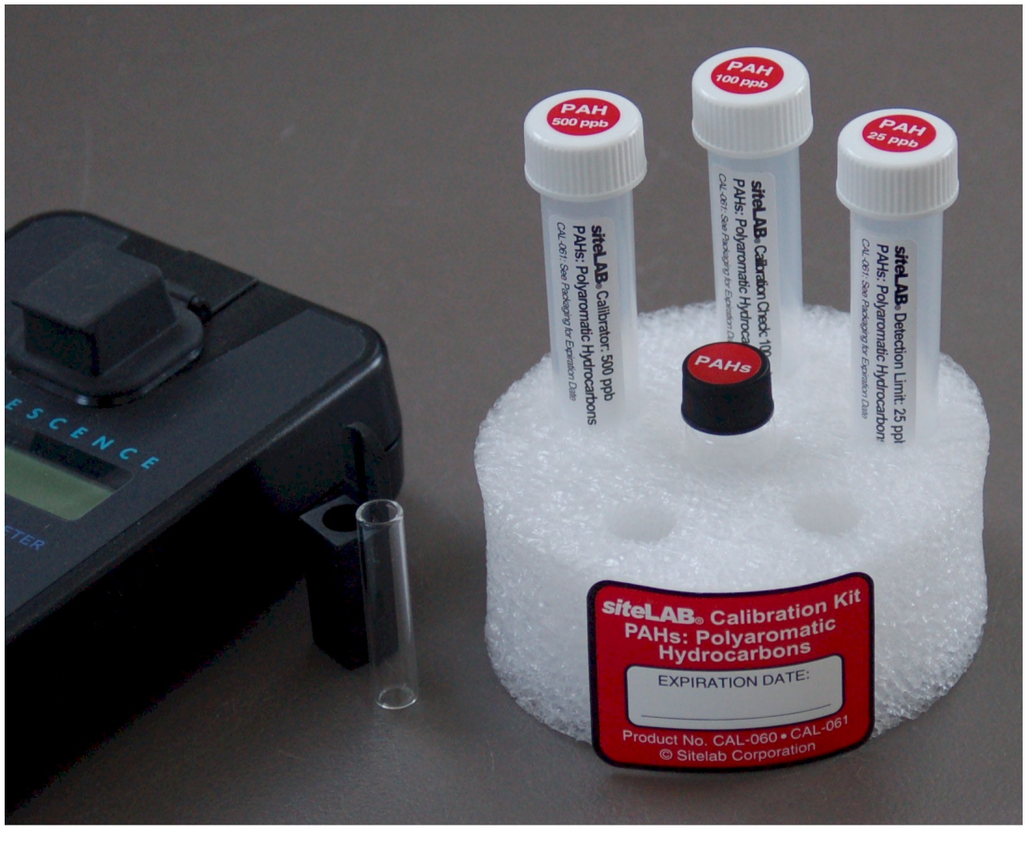




Cuvette placement ▲

Extraction filter ◄

PAH kit TD500 ►



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