

Remediation, Assessment & Industrial Testing



PetroFLAG® Hydrocarbon Test Kit For Soil

Features

- rapid and simple field testing procedure for broad range hydrocarbon contamination in soil
- most sensitive to heavier hydrocarbons such as oils & greases
- quantitative or semi-quantitative results for up to 14 fuels
- test up to 10 samples at one time
- results for up to 25 samples in less than 60 minutes
- Dexsil patented chemistry
- EPA SW-846 Method # 9074

Test Result Type

- Quantitative or semi-quantitative

Samples per Kit

- Up to 10 soil sample test results can be obtained per kit, depending upon the number of runs and response factors used.

Assay Range

- 10 ppm to 50,000 ppm with reduced sample size.
- range of detection is dependent upon specific hydrocarbon present.

Sample Preparation

- Soil samples require prior extraction using PetroFLAG soil extraction technique.
- PetroFLAG sample extraction materials are in each kit and include enough materials to extract 10 samples.

Sampling Time

- "Dirt-to-Data" in less than 15 minutes.
- Soil extraction time is typically 5 minutes per sample plus assay run time of approximately 10 minutes.



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Basic Test Procedures

- Prepare soil extraction tube and developer vial by labeling with sample ID.
- Weigh 10 grams of soil into labeled tube.
- Set timer for 5 minutes. Add extraction solvent to labeled tube. Shake and incubate for 1 minute.
- Pour free liquid from labeled tube into syringe barrel, add plunger and dispense into 6 ml vial.
- Add extraction solvent to developer solution. Shake for 10 seconds.
- Set timer for 10 minutes.
- Read results of developed samples in PetroFLAG Analyzer. Select pre-programmed response factor.

Specificity

The PetroFLAG Hydrocarbon in soil test kit is used in conjunction with the PetroFLAG Analyzer to allow users to select the response factor that is appropriate for the suspected contaminant at each site. The following are response factors and Method Detection Limits for common hydrocarbons:

| Hydrocarbon Type | MDL (ppm) | Response Setting |
|--------------------|-----------|------------------|
| Transformer Oil | 15 | 10 |
| Grease | 15 | 9 |
| Hydraulic Fluid | 10 | 8 |
| Transmission Fluid | 19 | 8 |
| Motor Oil | 19 | 7 |
| #2 Fuel Oil | 25 | 7 |
| #6 Fuel Oil | 18 | 6 |
| Diesel Fuel | 13 | 5 |
| Gear Oil | 22 | 5 |
| Low Aro. Diesel | 27 | 4 |
| Penn. Crude Oil | 20 | 4 |
| Kerosene | 28 | 4 |
| Jet A | 27 | 4 |
| Weathered Gas. | 1000 | 2 |

Test Kit Components

- 12 blue-capped polypropylene soil tubes
- 12 polypropylene filter assemblies
- 12 screw capped developer vials
- 11 break-top vials containing soil extraction solvent
- adhesive labels
- 1 break-top vial containing calibration solution
- 12 metal spatulas

Storage & Precautions

- Shelf life typically one year from date of manufacture, with specific kit expiration date information provided on product packaging.
- Components can be stored and operated at room temperature.
- Extraction solvent and calibration standards contain methanol.
- PetroFLAG Analyzer must be used at temperatures from 4°C to 45°C.

Required Materials

- | | |
|---|-------------------|
| | <u>SDI Part #</u> |
| ◦ PetroFLAG Analyzer | 7065400 |
| contains: 10 soil reagents, calibration standards, digital-hand held analyzer, digital balance, timer and carry case. | |

Recommended Materials

- Personal protective clothing (i.e. latex gloves)
- Absorbent paper
- Liquid and solid waste containers
- Note pad for record keeping

Ordering Information

- | | |
|-----------------------------------|-------------------|
| | <u>SDI Part #</u> |
| ◦ PetroFLAG Analyzer | 7065400 |
| ◦ PetroFLAG Soil 10 pack Reagents | 7065300 |



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