

ITEM 06203.9901 M - FIELD IDENTIFICATION OF PETROLEUM-CONTAMINATED SOIL
ITEM 06203.9902 M - SEGREGATION AND STOCKPILING OF PETROLEUM-CONTAMINATED SOIL

DESCRIPTION

Field identify using observation and field organic vapor monitoring equipment, segregate and stockpile petroleum-contaminated soil removed from project excavations. The petroleum product may include, but is not limited to: gasoline, heating oils, diesel fuel, kerosene, jet fuel, lubricating oils, motor oils, greases, and other fractions of crude oil.

MATERIALS

Furnish all materials needed to accomplish the work, including, as a minimum:

- 10 mil minimum plastic sheeting for base of any stockpiles;
- 6 mil plastic sheeting for covering of contaminated soil in any stockpiles;
- Waterproof tarpaulins for covering of any trucks/roll-offs; and

CONSTRUCTION DETAILS

I. Advance Preparation

The lead times for submittals and notifications detailed in these Advance Preparation requirements are for work that is included in the original project contract where the potential for petroleum contamination is expected. For work that was not included in an original project contract resulting from unexpected encountering of petroleum contamination which does not allow for indicated lead times, the time frames for submittals and notifications will be negotiated at the time of the agreement for this work.

A. Petroleum Health and Safety Plan (PHASP) - At least 30 days prior to commencing work in the petroleum-contaminated areas, prepare and submit a PHASP to the Engineer-in-Charge (EIC) and the Department Regional Landscape Architecture Environmental Services Unit for review and acceptance. The PHASP shall be prepared in accordance with Section 107-05A of the Standard Specifications as amended and in accordance with OSHA regulation 29CFR part 1910.120 and shall include, at a minimum, the following: name and address of the PHASP preparer; site name description and map; location of any intended stockpiles; description of work; hazardous substance evaluation - types of chemicals; hazard assessment - physical and toxic effects; photo ionization detector (PID) or flame ionization detector (FID) monitoring and any other air monitoring procedures and action levels; key personnel; training (list OSHA training (at least one person on site shall have supervisor training as per 29CFR1910.120 (E) (4) and list training and experience of the independent air monitoring firm's individual(s) who will conduct PID/FID air monitoring); personal protective clothing (PPC) and personal protective equipment (PPE); decontamination of personnel and equipment and disposal of PPC and PPE; safety rules; emergency procedures; emergency contacts and phone numbers; and directions to the hospital (with map). The PHASP shall address any subsequent work involving petroleum-contaminated soil such as disposal activities if included in this contract.

B. Notifications - At least 10 days prior to beginning the work, provide the EIC with the anticipated scheduled dates and work locations for excavation of potentially petroleum-contaminated soil. Also at least 10 days prior to beginning the work, contact the applicable regional New York State Department of Environmental Conservation (NYSDEC) Spill Office and local fire department in writing and provide them with the scheduled dates for field identification, excavation, treatment, or disposal of all contaminated materials and intended stockpile locations. Provide a copy of this correspondence to the EIC.

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II. Field Activities

A. Field Identification:

The Contractor shall hire an independent firm experienced in air vapor monitoring to provide trained personnel as necessary to perform photo ionization detector (PID) or flame ionization detector (FID)) monitoring as described in this Specification.

The locations where petroleum-contaminated soils are potentially present and will require testing are as indicated in the contract documents. Perform testing consisting of visual and odor observation and organic vapor monitoring of the soil during excavation of the areas indicated in the contract documents or as indicated by the EIC. *Note: Odor determinations are intended to be observation of general odors of the excavated soil; For health and safety reasons, personnel should not directly smell grab samples.*

To conduct organic vapor monitoring, provide and operate field organic vapor test equipment that is either a photo ionization detector (PID) with a 10.2 volt lamp or a flame ionization detector (FID). The PID/FID must be capable of detection of 0.2 ppm general organic vapor levels. Calibrate the PID/FID daily, just before starting field work. Test at sufficient intervals to continuously observe and monitor soil excavations for contamination. Maintain and provide legible field notes to the EIC indicating weather conditions, PID/FID readings, visual and odor observations, quantities of both contaminated and non-contaminated soils excavated at each location, stockpile locations for all contaminated soil and any unusual conditions encountered. The PID/FID must be operated by a person thoroughly trained in sampling protocols, organic vapor monitoring procedures, and equipment calibration procedures.

Notify the EIC immediately of any soil that appears to contain unknown contaminants (based on visual, odor, or PID/FID testing) or that varies significantly from the material originally identified.

B. Segregation and Stockpiling:

Segregation

Segregate soil as follows or as indicated by the EIC:

1. **Non-Contaminated Soil** - Soil with no visual or odor evidence of contamination for which PID/FID readings are under 5 ppm above background or as otherwise determined by the EIC shall be considered non-contaminated and shall be disposed of in accordance with the Standard Specification Section 203, Unclassified Excavation and Disposal.
2. **Preliminarily Contaminated Soil** - Soils determined by visual, odor, and/or with PID/FID testing values greater than 5 ppm above background or as determined by the EIC shall be segregated into preliminarily contaminated pile(s). If general areas of apparently highly contaminated soil and apparently marginally contaminated soil exist, segregate the apparently highly contaminated soils from the marginally contaminated soils as feasible and as directed by the EIC.

The EIC has the final determination of the preliminary classification of specific soils.

Stockpiling

1. Place soil into stockpiles as determined by field testing as outlined in Field Identification, above. Contaminated soil may be in stockpiles or placed into trucks or rolloffs.

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If placed in stockpiles, prepare the stockpile area by removing all large stones, roots, or other debris which may puncture the liner. Place the stockpile on a minimum of 10 mil or equivalent plastic ground cloth and cover by 6 mil minimum polyethylene sheeting or equivalent to protect against leaching or

runoff of contaminants into groundwater, storm water and/or surface water. Weight or secure the sheeting by appropriate means and seal seams to prevent tearing or removal by weather. Grade surrounding surface to provide for positive drainage away from the pile. Maintain covering and grading for as long as stockpile exists. Storage must not exceed 60 days, unless approval is obtained from the EIC and NYSDEC. *Note: Stockpile locations must be within the right-of-way and must be approved by the EIC.*

If soil is placed in trucks or roll-offs, cover with waterproof tarpaulins. Secure the tarpaulin and maintain the cover throughout storage. *Note: Any soil moved off site must be in NYSDEC Part 364 permitted vehicles.*

Subsequent disposal of stockpiled soil is not included in these items and is included in other specifications included in this contract or is not the Contractor's responsibility for disposal.

Do not mix contaminated material with soils that are determined to be non-contaminated.

2. Institute appropriate procedures and security measures to ensure the protection of site personnel and the public from petroleum-contaminated materials.

METHOD OF MEASUREMENT

Field Identification - The quantity shall be measured by time in hours required for specialty monitoring services.

Segregation and Stockpiling - The quantity shall be measured by the number of cubic meters of preliminarily contaminated soil as computed in the stockpile(s).

BASIS OF PAYMENT

Field Identification - The unit price shall include the cost of furnishing all labor, materials, instruments, equipment, Petroleum Health and Safety Plan preparation and documentation to complete the work.

Segregation and Stockpiling - The unit price shall include the cost of furnishing all labor, materials, equipment, transportation, and any other incidentals necessary to complete the work. Any additional costs incurred by the Contractor for excavation work in petroleum-contaminated soil shall be included in this item; excavation of all soils will be paid for under Section 203 of the Standard Specifications.

Payment will be made under:

ITEM NO.	ITEM DESCRIPTION	PAY UNIT
06203.9901 M -	FIELD IDENTIFICATION OF PETROLEUM-CONTAMINATED SOIL	HOURS
06203.9902 M -	SEGREGATION AND STOCKPILING OF PETROLEUM-CONTAMINATED SOIL	CUBIC METERS