

**ITEM 04203.9920 M - PID SCREENING OF EXCAVATED SOIL**

**ITEM 04203.9921 M - TRANSPORTATION AND DISPOSAL OF NON-HAZARDOUS  
PETROLEUM CONTAMINATED SOIL**

**A. DESCRIPTION:** This work shall include PID screening, for volatile organics, of soil excavated from areas where non-hazardous petroleum contamination has been identified. It shall also include the transportation and disposal of soil from these areas, which is confirmed by the PID screening to contain elevated levels of volatile organics.

**B. MATERIALS:** None specified.

**C. EQUIPMENT:** The Contractor shall supply a minimum of one HNU Model 101 or a comparable model photoionization detector (PID) with complete calibration equipment, carrying case, operating instructions, and all related equipment required for operation of the selected unit.

**D. CONSTRUCTION DETAILS:**

**General:**

1. Locations and Quantities: Non-hazardous petroleum contaminated soil has been confirmed in samples from the area(s) identified in the Special Note entitled "Excavation and Screening of Non-Hazardous Petroleum Contaminated Soil". The estimated quantities of non-hazardous petroleum contaminated soil are also outlined in that Special Note.

2. In-Situ Sampling Results: In-situ sampling of the areas identified above will be completed by NYSDOT prior to construction. The samples will be analyzed for the following parameters: full Toxicity Characteristic Leaching Procedure (TCLP) and ignitability (Method 1030). These analytical results will be provided to the Contractor by the State. The number of in-situ sample analyses which will be provided by NYSDOT in each area is indicated in the above noted Special Note.

3. Pre-Excavation Requirements: Prior to excavation of the non-hazardous petroleum contaminated soil, the Contractor shall prepare a Health and Safety Plan for the protection of workers and the public during excavation. The Health and Safety Plan shall be prepared in accordance with the Standard Specifications as amended, Section 107-05A and shall include the following:

- a. Site name, address and name of the HASP preparer
- b. Description of work
- c. Site description
- d. Key Personnel
- e. Hazardous Substance Evaluation - types of chemicals
- f. Hazard Assessment - physical and toxic effects
- g. PID (organic vapor) monitoring procedures
- h. Personnel Protective Clothing (PPC) and Equipment (PPE) and PID action
- i. Decontamination of Personnel, Disposal of PPC and PPE
- j. Safety rules
- k. Emergency procedures
- l. Emergency Contacts and phone numbers

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- m. Route to Hospital
- n. Site map
- o. Training (list OSHA training. One person on site shall have supervisor training as per 29 CFR 1910.120 (E)(4).
- p. Affidavit (signed by site personnel)

A copy of this plan shall be submitted to both the Engineer and the Regional Environmental Contact for review and approval. Upon approval of the plan the Contractor shall contact the appropriate regional offices of the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH), and the local fire department and shall provide these offices with a schedule for excavation of non-hazardous petroleum contaminated soil.

Prior to excavation the Contractor shall identify the NYSDEC permitted Waste Transporter that will transport the soils which are verified by the PID screening to contain elevated levels of volatile organics, and also identify the RCRA Subtitle D permitted Beneficial Use Facility or RCRA Subtitle D permitted Sanitary Landfill Facility at which these soils will be disposed of.

The Contractor shall furnish the Waste Transporter and the Facility with the in-situ sampling analytical results which will be provided by the State. This shall be done prior to excavation to ensure that the non-hazardous petroleum contaminated soils will be accepted. The Contractor shall be responsible for any other sampling and analysis which the Facility may require for acceptance of the soil. Any additional analytical testing shall be performed by a NYSDOH approved laboratory which is acceptable to the final disposal facility. The identified Waste Transporter and the Facility shall be submitted to the Engineer for approval prior to excavation.

4. Excavation Limits: Excavation shall be kept to the minimum practical needed to perform the roadway and drainage work, and laying back of slopes will not be allowed unless approved by the Engineer. The Contractor shall be responsible for the cost of screening, transportation, disposal and any other costs associated with excavation beyond the minimum practical needed to perform the roadway and drainage work, as determined by the Engineer. Excavation will be paid for under the appropriate excavation item.

5. Site Restoration: Immediately following the excavation of non-hazardous petroleum contaminated soil, the Contractor shall complete the work for which the excavation is intended. The area shall be restored to the condition shown on the Plans and as directed by the Engineer.

**PID Screening of Excavated Soil (Item 04203.9920 M):**

1. Vapor Monitoring Personnel: The Contractor shall hire an independent firm experienced in air vapor monitoring to provide trained personnel as necessary to perform organic vapor (PID) monitoring as described in this Specification.

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2. Screening: The soil from the area(s) identified in the Special Note entitled "Excavation and Screening of Non-Hazardous Petroleum Contaminated Soil" shall be monitored continuously by the air monitoring personnel, with a PID, as it is excavated. At a minimum every fifth bucket shall be screened using the PID.

Soil which has PID readings that are 10 or more parts per million (ppm) above the naturally occurring background at the specific work site (as established by the air monitoring personnel) or which is stained, discolored or odorous as determined by the Engineer shall be transported and disposed of as non-hazardous petroleum contaminated soil under Special Specification 04203.9921 M.

Any soil which has PID readings that are less than 10 ppm above the naturally occurring background level at the specific work site (as established by the air monitoring personnel) and which is not stained, discolored or odorous as determined by the Engineer shall be considered not contaminated and shall be disposed of in accordance with the Standard Specifications, Section 203-3.08, Disposal of Surplus Excavated Materials, except that disposal within a sanitary landfill will not be permitted. All such material shall be disposed of by the Contractor prior to project completion.

3. Documentation: The Contractor shall provide the Engineer with a letter report or legible copy of the Vapor Monitor's field notes. This documentation shall include: all PID readings and soil observations, the volume of each type of soil (non-hazardous petroleum contaminated, not contaminated) excavated at each location, and a description of any unusual conditions encountered.

**Transportation and Disposal of Non-Hazardous Petroleum Contaminated Soil (Item 04203.9921 M):**

1. Transportation and Disposal: The soil which has been verified to be petroleum contaminated by the PID screening or as determined by the Engineer shall be immediately transported off-site for disposal. Transportation shall be by the NYSDEC permitted Waste Transporter approved by the Engineer. Disposal shall be at the RCRA Subtitle D permitted Beneficial Use Facility or RCRA Subtitle D permitted Sanitary Landfill Facility approved by the Engineer. All necessary shipping papers shall be prepared by the Contractor. The soil shall not be stockpiled prior to transportation.

2. Documentation: The Contractor shall provide the Engineer with documentation, as soon as it is available, from the NYSDEC permitted Waste Transporter and from the Beneficial Use Facility or sanitary landfill which verifies that the non-hazardous petroleum contaminated soil has been transported and disposed of in accordance with all applicable Local, State and Federal rules and regulations.

**E. METHOD OF MEASUREMENT:**

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**PID Screening of Excavated Soil (Item 04203.9920 M):** Payment will be made at the lump sum price bid.

**Transportation and Disposal of Non-Hazardous Petroleum Contaminated Soil (Item 04203.9921 M):** This work will be measured as the total number of metric tons of soil transported and disposed as non-hazardous petroleum contaminated soil. The measurement will be made based on weight tickets from the landfill facility. The conversion factor which will be used if the landfill weight tickets are not in metric units is 1 metric ton = 2205 pounds.

**F. BASIS OF PAYMENT:**

**PID Screening of Excavated Soil (Item 04203.9920 M):** The lump sum price bid for this item shall include the cost of all labor, equipment, and materials necessary to complete the work.

**Transportation and Disposal of Non-Hazardous Petroleum Contaminated Soil (Item 04230.9921 M):** The unit price bid per metric ton shall include the cost of all labor, materials and equipment necessary to satisfactorily complete the work, including the cost of any necessary permit or disposal fees.

Disposal of soil which when screened with the PID has a reading of less than 10 ppm above the naturally occurring background level and which is not stained, discolored or odorous will be paid under the appropriate excavation item.