# SOIL REUSE SUBMITTAL
# BOURNE LANDFILL
# BOURNE, MASSACHUSETTS

## DOCUMENTATION:

1.) A completed Bourne Landfill Soil Reuse Submittal Form (attached)

2.) An opinion letter by the LSP or other qualified environmental professional managing the source site that certifies the material meets the criteria of DEP policy # COMM-97-001 for reuse at lined landfills

3.) Data summary table comparing laboratory results against the COMM-97-001, Table 1 - Maximum Contaminant Levels for Lined Landfills.

4.) A site sketch showing all sampling locations, limits of the proposed material to be imported, and major structures.

5.) All laboratory reports, including the chain-of-custody(s).

## REUSE FORM AND OTHER GUIDANCE:

### A. SITE INFORMATION

**Site Name:** General Name to which the site is commonly referred (i.e. Logan Airport, Harvard University)
**Location Description:** Provide additional or descriptive information that identifies the location or type of work (e.g., cross street, mile marker, utility excavation, 100 yards east of building 1) Use this field to define separate submittals at large sites (i.e. airports, universities).
**Address:** Provide nearest street name or intersection if no formal street address is available

### B. GENERATOR INFORMATION

Person or organization legally responsible for submittal

### C. CONSULTANT INFORMATION

Provide company and contact of the Qualified Environmental Professional responsible for the characterization of the submittal.

### D. ESTIMATED SOIL QUANTITY:

Provide estimated soil quantity to be transported to the landfill in Cubic Yards or Tons.

## E. LABORATORY ANALYSIS:

**The following analysis is required per a minimum of every 500 cubic yards of soil to be transported for reuse:**

Total Volatile Organic Compounds (VOCs) - Total concentration of compounds listed in EPA Method 8260

Total Semi-Volatile Organic Compounds (SVOCs) - Total concentration of compounds listed in EPA Method 8270. NOTE: Analysis for Poly-Aromatic Hydrocarbons (PAHs) only by Selective Ion Monitoring (SIM) will not be accepted as a substitute for the SVOC analysis requirement.

Total Poly-Chlorinated Biphynels (PCBs) - Total of concentrations of compounds listed in EPA Method 8080

Total Petroleum Hydrocarbons (TPH) - VPH and EPH total carbon chain groups may be substituted for TPH

Total Arsenic (As), Cadmium (Cd), Chromium (Cr), Lead (Pb), and Mercury (Hg)

**Additional Analysis:**

Conductivity - required where elevated concentrations of NaCl may be encountered. Any location within or adjacent to a marine environment or historically filled marine environment requires conductivity analysis. In addition, any site which was or may have been impacted by the storage or use of road salt requires conductivity testing.

TCLP (Listed or Characteristic Hazardous Waste) - required for metals or organic compounds when total concentrations in the soil are above the theoretical levels at which TCLP criteria may be exceeded

NOTE: ATTACH ALL LABORATORY REPORTS AND DATA SUMMARY TABLES TO SUBMITTAL

## F. DESCRIPTION / SOURCE OF RELEASE:

**Tank/Container:** If the source of contamination is from a Tank (above ground, under ground, or motor vehicle) or container, provide description of release including the substance released and, if known, quantity and date of release.

**Other Source:** Any other suspected/known source of OHM (i.e. urban fill)

**Contaminants of Concern:** List OHM of concern based on identified source or past/current OHM usage/storage.

## G. SITE HISTORY

Provide the current and past site history including past incidents involving a release of OHM and/or past and present management practices of OHM, if applicable.

## H. PHYSICAL DESCRIPTION:

Describe the physical description of soil with regards to size, type, and composition.

Indicate by checking the appropriate boxes is any of the following materials are present: Construction Debris, Coal, Ash, Organic Matter, Vegetative Matter, or other material.

## I. SOIL SAMPLING METHODOLOGY

Indicate the sample type and collection methods by checking the appropriate boxes.

Provide name(s) of the Qualified Environmental Professional(s) who collected the samples.

## J. SOIL CHARACTERIZATION METHODOLOGY

Indicate how soil was characterized, a stockpile, in-situ, or other (i.e. roll-off), by checking appropriate boxes

**Stockpile** - A composite sample is required per a minimum of each 500 cubic yards of soil to be transported. The composite sample may be obtained from more than one stockpile provided that the total soil quantity does not exceed 500 cubic yards. Stockpiles should be assigned identifications if more than one stockpile exists. The sample must adequately characterize the material to be shipped to the landfill for reuse

**In-situ** - For in-situ characterization, the area of soil to be reused should be divided into 3 dimensional sections or "quadrants" of a maximum of 500 yards per section. For heterogeneous soil conditions, the "quadrants" should be segregated by specific soil type with each "quadrant" not exceeding 500 cubic yards of material.

"Hotspot" - If the material was characterized in-situ and the material from a quadrant is identified as not meeting the requirements of the Policy, all sections adjacent to the "hotspot" quadrant must demonstrate the material meets the Policy through analytical testing. The procedures in which the "hotspot" was segregated from acceptable material should be provided. (i.e. The excavation was supervised by a Qualified Environmental Professional and the hotspot material was directed to a separate stockpile to be disposed at a licenced facility)

## K. CERTIFICATION

The individual who is named in Section B as the contact must sign and legibly print his or her name and date.

## L. SITE SKETCH

Provide a Site Diagram indicating major structures and/or roads. Soils which meet the Policy requirements and are proposed to be transported to the Landfill should be clearly marked on the sketch. Include North Arrow and the following:

**Stockpile Characterization:** Provide a sketch of each stockpile location and identification which is proposed for shipping. The area of excavation where the stockpile originated and the location of each part of the composite sample should also be identified.

**In-situ Characterization**: Provide a sketch depicting each quadrant of soil to be shipped and quadrant identification. The boundaries of each quadrant and all sampling locations must be provided on the sketch. The boundaries of each quadrant for shipment to the landfill should be clearly marked. For sites at which multiple quadrants exist vertically, provide additional sketches which depict the proposed excavation areas at specific depths. (i.e. two sketches, one depicting 0 to 5 feet below ground surface, and one depicting 5 to 10 feet below ground surface)

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## A. SITE INFORMATION:

| | |
|---|---|
| Name: | Contact: |
| Address: | Phone: |
| City: | State, Zip: |
| Release Tracking No. or Site ID No. (if applicable): | |

## B. GENERATOR INFORMATION:

| | |
|---|---|
| Name: | Contact: |
| Address: | Phone: |
| City: | State, Zip: |

## C. CONSULTANT INFORMATION:

| | |
|---|---|
| Company: | Contact: |
| Address: | Phone: |
| City: | State, Zip: |

## D. ESTIMATED SOIL QUANTITY:

| | |
|---|---|
| Tons: or | Cubic Yards: |

## E. LABORATORY ANALYSIS

Check the following laboratory analysis performed on the material to be reused (check all that apply):

☐ VOCs, SVOCs, TPH, PCBs, As, Cd, Cr, Pb, Hg (required)

☐ TCLP (if required by total levels) ☐ Conductivity

☐ Other laboratory analysis performed _____

☐ Field screening performed _____

Attach data summary tables and all laboratory reports

## F. DESCRIPTION / SOURCE OF RELEASE:

| | |
|---|---|
| UST: **Y / N** (if yes, describe) | |
| Date of Release (If known): | Estimated Quantity of Release (if known): |
| Other (Describe): | |
| Contaminants of Concern: | |

## G. SITE HISTORY:

☐ Check if extra sheet attached

| |
|---|
| Past Use(s): |
| Current Use(s): |

## H. PHYSICAL SOIL DESCRIPTION:

Physical Description (sand, gravel, silt, peat, fill, etc.): _____

_____

Check if the following materials are present (check all the apply):

☐ Clay ☐ Coal ☐ Ash

☐ Construction Debris ☐ Vegetative Matter ☐ Other Material: _____

## I. SOIL SAMPLING METHODOLOGY:

Sampling Methods (check all that apply):

☐ Grab ☐ Composite ☐ Headspace Screened

☐ Visually Contaminated ☐ Olfactory Contaminated ☐ Other: _____

| |
|---|
| Name of Sampler: |

## J. SOIL CHARACTERIZATION METHODOLOGY:

Soil Characterization (check all that apply):

☐ Stockpile ☐ In-situ ☐ Other: _____

| | |
|---|---|
| No. of Samples Collected: | "Hotspots" identified (material not suitable for reuse at lined landfills: **Y / N** |
| Describe how "hotspots" were segregated (if applicable): ☐ Check if extra sheet attached: _____ | |

## K. CERTIFICATION

I, the generator, having used due diligence determined that there is no reason to suspect or believe that the contaminated soil has been impacted by any releases of oil or hazardous materials other that of the known source or I have identified the additional oil and hazardous material and hazardous materials that are suspected or known to be present in the soil, in addition to those associated with the known release

| | |
|---|---|
| Signature of Generator: | Date: |
| Generator - Printed Name: | |

## L. SITE DIAGRAM:

A site diagram is required indicating any major strictures or roads, excavation areas and stockpile locations. All sampling locations must be noted:

☐ Check if Diagram is Attached

# BOURNE LANDFILL
# BOURNE, MASSACHUSETTS

☐ Check if Bill of Lading is Attached (Massachusetts Sites only)
☐ Check if Material Shipping Record is Attached

## Table 1
## Soil Reuse Testing Requirements and Acceptable Limits

| Contaminant | Acceptable Level (mg/kg) (Lined Landfill) |
|---|---|
| Total Arsenic | 40 |
| Total Cadmium | 80 |
| Total Chromium | 1,000 |
| Total Lead | 2,000 |
| Total Mercury | 10 |
| Total Petroleum Hydrocarbons (TPH) | 5,000 |
| Total Polychlorinated Biphynels (PCBs) | < 2 |
| Total Semi-volatile Organic Compounds (SVOCs) | 100 |
| Total Volatile Organic Compounds (VOCs) | 10 |

## Table 2
## Additional Testing Requirements

| | |
|---|---|
| Conductivity (umhos/cm) if suspected to contain elevated NaCl | 8,000 umhos/cm |
| Listed or Characteristic Hazardous Waste (TCLP) - required if total metals indicate that mathematically TCLP levels can be exceeded | |