STATE OF MAINE
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PAUL MERCER
COMMISSIONER

October 3, 2017

Kathy Zeigler
Director, Environmental Remediation
Mallinkrodt US LLC
444 McDonnell Boulevard
Hazelwood, Missouri 63042

RE: MDEP Acceptance of Scrap Metal Yard Closure Report dated July 24, 2017

Dear Ms. Zeigler:

MDEP accepts the reference document. The MDEP Project Team has reviewed the referenced document and determined it to be complete and appropriate. We did not review the document in fine detail as much of the information was reviewed at a previous time during the planning and execution. This acceptance and determination does not prohibit MDEP from requesting additional information on the matter in the future.

MDEP appreciates Mallinckrodt's efforts throughout the Corrective Measure Implementation process. The remediation of Scrap Metal Yard was no small task and resulted in a measurable improvement of our precious environment.

If you have any questions, comments or concerns, do not hesitate to contact me via phone (207) 530-1494 or email kyle.jellison@maine.gov.

Sincerely,

Digitally signed by Kyle R. Jellison
Date: 2017.10.03 13:41:30 -04'00'

Kyle Jellison, Project Manager
Division of Remediation
Bureau of Remediation and Waste Management

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

Mallinckrodt US LLC

July 24, 2017

Mr. Kyle Jellison
Bureau of Remediation and Waste Management
Maine Department of Environmental Protection
17 State House Station
Augusta ME 04333

Subject: Scrap Metal Yard Closure Report
Orrington Remediation Site
Orrington, Maine

Dear Mr. Jellison:

Please find enclosed the **Scrap Metal Yard Closure Report** for the Orrington Remediation Site. This Closure Report includes a summary of the remedial construction activities completed in accordance with the Scrap Metal Yard Corrective Measures Implementation (CMI) Plan – Rev 1 dated June 22, 2016. The report also summarizes the construction quality assurance (CQA) program, operations and submittals completed as part of the remedial work and related quality control documentation.

If you have questions or comments regarding this report please feel free to contact me at 314-281-5947.

Sincerely,

Kathy Zeigler

Kathy Zeigler
Remediation Program Manager

cc: Chris Greene, Geosyntec
John Weston, CDM Smith
Pat Duft, Mallinckrodt US LLC
Susanne Miller, DEP-Bangor

CLOSURE REPORT

Scrap Metal Yard Construction Closure Report

Orrington Remediation Site

Orrington, Maine

Prepared by:

CDM Smith, Inc.
25 Industrial Ave.
Chelmsford, MA 01824

Geosyntec Consultants, Inc.
289 Great Road, Suite 105
Acton, MA 01720

Mallinckrodt US LLC

July 2017

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Acronyms and Definitions

Adam's	Adam's Hydroseed
Alpha	Alpha Analytical
BEP	Board of Environmental Protection
CDM Smith	CDM Smith, Inc.
CES	CES, Inc.
CF1	Common Fill Type 1
Charter	Charter Contracting Company, LLC
CMI	Corrective Measures Implementation
CMI Plan	Scrap Metal Yard CMI Plan
CQA	Construction Quality Assurance
DEP	Department of Environmental Protection
E&S	Erosion and Sediment
FDT	Field Density Test
ft	feet
Geosyntec	Geosyntec Consultants, Inc.
GWTP	Ground Water Treatment Plant (on-site)
HASP	Health and Safety Plan
HDPE	High Density Polyethylene
Mallinckrodt	Mallinckrodt US LLC
mg/kg	milligrams per kilogram
MEPDES	Maine Pollutant Discharge Elimination System
MPS	Media Protection Standard
MQC	Manufacturers' Quality Control
NRPA	Natural Resources Protection Act
Order	State of Maine Board of Environmental Protection Order
OSM	Onsite Reuse Material
PAMP	Perimeter Air Monitoring Plan
QA	Quality Assurance
QC	Quality Control
Report	The Scrap Metal Yard Closure Report
RFI	Requests for Information
Site	Orrington Remediation Site
TechLaw	TechLaw, Inc.
TSSA No.1	Temporary Soil Stockpile Area Number 1
USFWS	United States Fisheries and Wildlife Service

Section 1.
Introduction and Project Organization

1.1 Purpose

The purpose of this Scrap Metal Yard Construction Closure Report (Report) is to summarize the construction activities, quality control (QC) documentation, and quality-assurance (QA) monitoring and QA documentation activities (Closure Activities) during the Scrap Metal Yard Corrective Measures Implementation (CMI) construction at the Orrington Remediation Site (Site) located at 99 Industrial Way, Orrington, Maine. The work occurred between July 7, 2016 and November 11, 2016. The Scrap Metal Yard is shown on the Site Plan in **Figure 1-1**. Requirements for the Scrap Metal Yard Closure Activities were set forth in the State of Maine Board of Environmental Protection (BEP) Order (Order) (ME BEP, 2014) effective April 3, 2014, and the Scrap Metal Yard CMI Plan (CMI Plan) [1] (CDM Smith, 2016) and other relevant contract documents herein referred to as the Project Documents, listed in Section 1.4.

1.2 Report Organization

The Report is organized as follows:

- Section 1 – Introduction and Project Organization;
- Section 2 – Summary of Construction Activities;
- Section 3 – Summary of Construction Quality Assurance (CQA) Program;
- Section 4 – Summary of QC and CQA Activities;
- Section 5 – Conclusion; and
- Section 6 – References.

Documentation presenting the results of the Construction Quality Assurance (CQA) monitoring and testing activities performed by Geosyntec Consultants Inc. (Geosyntec) and record drawings are provided in the appendices to this Report.

1.3 Project Team

Key stakeholders and companies for the Scrap Metal Yard CMI area presented below, along with their roles and responsibilities.

[1] Because of the numerous citations herein to the Scrap Metal Yard CMI Plan, the reference (CDM Smith, 2016) has not been inserted into the report text next to each citation.

Oversight Agency – Maine Department of Environmental Protection, Augusta, Maine

The Maine Department of Environmental Protection (DEP) provided oversight of the remediation work including remediation construction activities, and provided feedback and approvals of the Project Documents submitted to them for review.

Owner – Mallinckrodt US LLC

The Owner of the Site is Mallinckrodt US LLC (Mallinckrodt). Mallinckrodt was responsible for the remediation of the Scrap Metal Yard CMI and contracted with the Remediation Project Manager to implement the Project Documents.

Remediation Project Manager – CDM Smith Inc., Boston, Massachusetts

CDM Smith Inc. (CDM Smith) was hired by Mallinckrodt to provide construction management services during the Scrap Metal Yard CMI activities. CDM Smith retained a Design Engineer, Remediation Contractor and a CQA Engineer to implement the CMI Plan and perform the Closure Activities in accordance with the approved CMI Plan (CDM Smith, 2016) and the Order (BEP, 2014). CDM Smith provided health and safety oversight, constructed the Southerly Stream by-pass, managed the Temporary Soil Stockpile Areas (TSSAs) and rail car loading and implemented the site-wide perimeter air-monitoring plan (PAMP) (CDM Smith, 2015a).

Design Engineer, CQA Engineer and On-site Analytical Laboratory – Geosyntec Consultants, Acton, MA

Geosyntec prepared design documents presented in the CMI Plan (CDM Smith, 2016) and performed CQA activities in accordance with the Construction Quality Assurance Plan provided in the CMI Plan. Geosyntec was directly accessible to the Owner and the Remediation Project Manager for technical direction and issues relating to QC/QA activities during construction. The CQA Engineer was responsible for carrying out the field sampling, quality control/quality assurance (QC/QA) oversight, and QC/QA documentation portion of the CMI Activities to ensure that the requirements of the Project Documents were met during construction. Geosyntec also operated and managed the Maine-certified On-site Analytical Laboratory during construction for confirmation and reuse soil sample analytical testing. Geosyntec also subcontracted off-site laboratory services to the following:

- Alpha Analytical (Alpha) of Westborough, Massachusetts was the CQA Engineer's off-site analytical test laboratory.
- CDM Smith Geotechnical Laboratory, Somerville, MA was the CQA Engineer's off-site Geotechnical Testing Laboratory with experience in the physical testing of soils and is familiar with, and properly equipped to perform the geotechnical testing required by the CQA Plan.

Remediation Transportation and Disposal Contractor – US Ecology, Boise, Idaho

US Ecology was responsible for transporting and disposing soils designated for offsite disposal. US Ecology was responsible for providing railcars for transportation, coordination with Pan-Am for picking up railcars, tracking railcars, weighing railcars, and preparing associated paperwork.

Ground Water Treatment Plant Operator - Woodard and Curran, Portland, Maine

Woodward and Curran operated the onsite ground water treatment plant (GWTP). Contact water from the construction activities was transported to the onsite GWTP for treatment prior to discharge in accordance with Maine Pollutant Discharge Elimination System (MEPDES) Permit ME0000C39.

Onsite Agency Representative – TechLaw, Inc. North Chelmsford, Massachusetts

The Regulatory Agency Onsite Representative provided onsite oversight for the Regulatory Agency (Maine DEP) and coordinated with the CQA Engineer for confirmation sampling. TechLaw, Inc. (TechLaw) also subcontracted off-site laboratory services to the following:

- Katahdin Analytical Services of Scarborough, Maine was the Onsite Agency Representative's analytical test laboratory.

Remediation Contractor – Charter Contracting Company, LLC. (Charter), Boston Massachusetts

Charter performed the construction portion of the Closure Activities to satisfy the requirements of the Project Documents. Additionally, Charter performed construction QC activities to document that materials being used and activities being completed were in accordance with the project specifications and drawings. The Remediation Contractor employed the services of subcontractors, coordinated material sources, and interfaced with the Remediation Project Manager and the CQA Engineer throughout the Closure Activities. Charter subcontracted the following companies to support the QC activities:

- CES, Inc. (CES) of Brewer, Maine was Charter's Maine Land Surveyor and provided survey control and as-built surveys of the remedial construction.
- S. W. Cole of Bangor, Maine was Charter's Geotechnical Test Laboratory and provided geotechnical soil testing on QC samples throughout construction.

1.4 Project Documents and Communication

The requirements for the Scrap Metal Yard Closure Activities are described in the following Project Documents:

- The State of Maine BEP Order, effective April 3, 2014.
- *Scrap Metal Yard Corrective Measures Implementation (CMI) Plan Revision 1,* prepared by Geosyntec and issued by CDM Smith dated June 22, 2016, including;
    - *Health and Safety Plan (HASP), Orrington Remediation Site,* prepared by CDM Smith Inc. dated October 9, 2014
    - *PAMP, Orrington Remediation Site,* prepared by CDM Smith Inc. dated July 22, 2015
- *Contractor Construction Work Plans*, prepared by Charter, including:
    - *Excavation and Restoration Plan,* dated June 21, 2016;
    - *Construction Water Management Plan,* dated June 15, 2016;
    - *Work Zone Air Monitoring Plan,* dated June 29, 2016;
    - *Traffic Control Plan*, dated July 15, 2016
- *General Guidelines for Confirmation Sampling and Split Sampling Protocols*, dated August 8, 2016;
- *Construction Submittals*, prepared by Charter, and *Construction Submittal Responses*, prepared by Geosyntec; and
- *Contractor Requests for Information (RFIs),* prepared by Charter, and Responses to Contractor RFIs, prepared by Geosyntec.

The organization structure and lines of communications for the Project Team were set forth in the CQA Plan provided as an appendix in the CMI Plan. Members of the project team including CDM Smith, Charter, TechLaw, and Geosyntec held weekly construction progress meetings on-site to review progress updates, address questions, and convey schedule updates. As part of the CQA Engineer

responsibilities, Geosyntec issued daily field reports summarizing daily construction progress, QC/QA activities, and highlighting any matters requiring action. Daily field reports were issued to CDM Smith regularly, and are included in **Appendix A**. Additional communications made throughout the closure activities were documented in Contractor RFIs and subsequent responses, QC submittals and subsequent responses, Charter daily field reports, monthly teleconferences with Maine DEP, and daily toolbox meetings.

Section 2.
Summary of Construction Activities

2.1 Permitting

Permitting requirements were summarized in the CMI Plan. The following is a list of permits obtained for the Scrap Metal Yard Closure Activities:

- US Army Corps of Engineers Maine General Permit Pre-Construction Notification, approved by the USACE on April 4, 2016 ; and
- Construction General Permit, approved by the Maine DEP on June 2, 2016, for construction activity greater than 1 acre.

The general construction permit required weekly Erosion and Sediment (E&S) Control inspection and reports. E&S reports are discussed in Section 4.2 below.

2.2 Scope of Activities

The CMI Plan includes details for the excavation of soils with mercury concentrations above the mercury media protection standard (MPS) (e.g., materials required for off-site disposal) and restoration of the Scrap Metal Yard. Remedial construction in the Scrap Metal Yard included the following primary components in the general order in which they were executed:

- Pre-construction activities, site setup, clearing, grubbing, and access road construction;
- Construction of the Southerly Stream Bypass;
- Implementation of the PAMP;
- Excavation, transportation, and disposal of materials required for off-site disposal;
- Survey, reuse soil sampling, and confirmation sampling of the excavation area;
- Backfilling the excavation to final grades; and
- Surface stabilization of the final grading area.
- Restoration of the area

A photographic log summarizing the major construction components is provided in **Appendix B**.

Approval of the CMI Plan was received from the Maine DEP on July 22, 2016. The approval included a request to add metals to the sampling protocol for on-site soils to be reused and after discussion with Maine DEP cadmium was added to the parameter list.

Charter mobilized to the Site on July 5, 2016 to commence pre-construction activities in advance of the conditional approval. Charter commenced excavation on July 26, 2016. The following subsections describe the work Charter performed for each component of construction. **Table 2-1** summarizes the construction equipment Charter used for each component of construction.

2.2.1 Site Preparation and Pre-Construction Activities

CDM Smith implemented the site-wide PAMP in accordance with the conditions of the approval letter. PAMP stations were setup around the site at designated locations from previous work performed on

the site, and were operated in accordance with the PAMP. PAMP stations remained in place throughout construction activities.

As part of Site Preparation, CDM Smith began installing the Southerly Stream bypass pipe on July 12, 2016 and completed the Southerly Stream bypass inlet structure on August 11, 2016. The installation consisted of an inlet structure east of Landfill 2, an outlet structure discharging to a channel leading to a pipe under the Plant Area, and 12-inch high density polyethylene (HDPE) pipe.

Upon arrival, Charter established E&S controls including berms and coir fiber rolls prior to performing site work. Charter then commenced stripping, clearing, and grubbing activities and began importing access road construction materials. Charter constructed an access road leading from the Plant Area to the Scrap Metal Yard staging area as shown on the CMI Plan drawings. An exclusion zone and contaminant reduction zone were established in accordance with Charter's Contractor Excavation and Restoration work plan. A temporary decontamination pad was established for use during excavation activities.

Charter mobilized and set up five 21,000-gallon fractionation tanks, a bag filter system, a flow meter and totalizer, and installed a 3-inch diameter HDPE pipe from the filters to the GWTP. The system was installed in accordance with the *Construction Water Management Plan,* dated June 15, 2016, and included sump pumps used in the excavation area as the excavations progressed.

2.2.2 Southerly Stream Bypass

Prior to commencement of excavation activities, a bypass was installed to divert water flowing in the Southerly Stream by CDM Smith. The bypass started upstream of the Scrap Metal Yard and Landfill 2 and included the construction of an inlet bypass at the outlet of the existing gravel pit northeast of Landfill 2. A 12-inch diameter HDPE pipe was installed from the inlet structure at the gravel pit to the existing 30-inch culvert southwest of the Scrap Metal Yard.

2.2.3 Excavation and Confirmation Sampling

Charter excavated 22,999 yd^3 of impacted soil from the Scrap Metal Yard, based on a comparison of the existing conditions (pre-construction) survey and the bottom of excavation survey, and relocated the material to Temporary Soil Stockpile Area (TSSA) No. 1 between July 26, 2016 and October 6, 2016.

Excavation of each excavation area (e.g., SMY-1, SMY-2, etc.) progressed generally from the east-to-west with lateral extent and uniform bottom elevations defined in the CMI Plan, including the specifications and drawings. Excavation slopes were maintained by benching in accordance with the Contractor Excavation and Restoration Plan, Site HASP, and applicable safety regulations.

Two types of materials were excavated; materials requiring off-site disposal (e.g., materials with mercury concentrations greater than the MPS) and Onsite Reuse Material (OSM) (e.g., material excavated from the Scrap Metal Yard Area that did not require off-site disposal).

2.2.3.1 Materials for Off-Site Disposal

Charter transported the soils requiring off-site disposal to TSSA No. 1, where CDM Smith loaded the soil into railcars operated by US Ecology. Charter decontaminated haul trucks prior to exiting the exclusion zone and traveling to TSSA No. 1. Soil was transported via railcar to offsite disposal facilities.

2.2.3.2 Onsite Reuse Materials

Excavated OSM was transported to the area west of the maintenance building to be stockpiled on a concrete pad and sampled to determine if it was acceptable for reuse. Equipment used to excavate and

transport OSM was decontaminated if it had been previously used to excavate and transport material for off-site disposal. Additional details regarding OSM sample procedures, results, and approvals are provided later in this Report.

2.2.3.3 Asbestos Concrete Pipe Debris

Asbestos concrete pipe debris was observed in SMY-14 on September 1, 2016. The material was left in place and excavation continued in other areas of the Scrap Metal Yard while disposal options were evaluated. On September 15, 2016, the asbestos concrete pipe and surrounding soil was excavated by certified personnel from Charter and placed on plastic tarps in the area west of the maintenance building where it was covered with plastic tarps and sand bags and clearly labeled. Additional asbestos concrete pipe debris was observed in SMY-14 on September 19, 2016 and was excavated by certified personnel from Charter on September 20, 2016. The additional asbestos concrete pipe debris excavated on September 20, 2016 was placed in the stockpile with the other asbestos concrete pipe debris west of the maintenance building. The asbestos concrete pipe debris and surrounding soil was loaded into rail cars for off-site disposal by certified personnel from Charter on November 14, 2016.

2.2.3.4 Dewatering

Charter performed excavation dewatering during and after storm events and when groundwater was encountered within an excavation area. Excavation dewatering was performed from sumps constructed for this purpose with 2 and 3-inch diameter trash pumps inside a perforated section of HDPE corrugated pipe surrounded by crushed stone. The pumps transferred water to the fractionation tanks previously described in Section 2.2.1 of this Report.

2.2.3.5 Confirmation Sampling

Post-excavation confirmation samples were obtained from the excavation, and the location of each sample was surveyed. Confirmation sample results were reviewed by Charter, CDM Smith, Geosyntec, TechLaw, and the Maine DEP. Written notification was then sent to the Maine DEP indicating soils requiring offsite disposal had been removed based on the results of the confirmation samples and discussions on-site with TechLaw. CDM Smith then provided notification to Charter that it was acceptable to backfill each area or group of areas. Additional details regarding confirmation sample results and approvals are provided later in this Report.

Charter was notified by Geosyntec and CDM Smith if confirmation sample results exceeded the mercury MPS. If the results exceeded the MPS, Charter performed additional excavation around the sample location as described in Section 4.2.2.2. Charter excavated and transported the additional material to TSSA No. 1. Additional confirmation samples were obtained by Geosyntec, results were reviewed, and approvals were issued according to the methods described above. Once excavation for an area(s) was complete, Charter's surveyor (CES) obtained as-built survey information of the lateral extent and elevations of the excavation.

2.2.4 Backfill

Backfill activities including material delivery, placement, and compaction occurred between August 9, 2016 and October 25, 2016. Two types of backfill material were used; OSM and imported Common Fill Type 1 (CF1). Charter began importing CF1 on July 26, 2016. CF1 was directly placed, stockpiled within a completed excavation area, or stockpiled on a plastic tarp in the Scrap Metal Yard Staging Area.

Excavated OSM was stockpiled and sampled in the area west of the maintenance building. After review of the sampling results by CQA personnel, OSM with mercury concentrations below the MPS was used

as backfill in the Scrap Metal Yard. Additional details regarding OSM sampling procedures, results, and approvals are provided later in this Report.

As described above, backfill of soil materials commenced upon notification by CDM Smith and Geosyntec that the confirmation sampling results were sent to the Maine DEP. Backfill was placed in excavation areas in 12-inch thick loose lifts, moisture conditioned if necessary, and compacted. In locations where standing water was observed on the excavation surface (e.g., due to runoff accumulation or groundwater), Charter dewatered the area by manual removal or by using 2 and 3-inch diameter pumps. Once water was removed from the area, backfilling commenced.

2.2.5 Revegetation and Restoration

On August 29, 2016 Charter installed a 30-inch diameter HDPE corrugated pipe to replace a Southerly Stream culvert removed during excavation. In October 2016, after backfilling had been completed Charter restored the access road through the Scrap Metal Yard leading to Landfills 3, 4, & 5. Dense Graded Gravel was imported between October 6, 2016 and October 25, 2016 and either directly placed and compacted, or stockpiled in the access road area and later graded and compacted.

After completing backfill activities in October 2016 Charter placed topsoil and erosion control blankets in areas of the Scrap Metal Yard outside the Southerly Stream (the Southerly Stream will be restored as part of the Southerly Stream CMI. Charter imported topsoil between October 18, 2016 and October 25, 2016 and placed it directly on the prepared subgrade. The topsoil was spread in one continuous lift generally from the northeast to the southwest of the Scrap Metal Yard areas. Since it was too late in the growing season to plant seed, Charter placed erosion control blankets along the slope to the Southerly Stream and the swale north of the Landfills 3, 4, & 5 access road, and their landscaping subcontractor, Adams Hydroseeding (Adams), applied hay mulch and tackifier to the remainder of the Scrap Metal Yard area on November 7, 2016. TSSA No. 3 was constructed in the Scrap Metal Yard between June 5, 2017 and July 14, 2017. TSSA No. 3 is scheduled to be removed and the Scrap Metal Yard Restoration will be completed as a part of the Plant Area Restoration.

2.3 Requests for Information

During construction activities, Charter issued RFIs for clarifications regarding the Project Documents. Responses to RFIs were prepared by Geosyntec. Response to RFIs are listed in **Table 2-2** and are presented in **Appendix C**.

Consistent with CQA procedures for CMI construction in other areas of the site, the responses to RFIs, were marked with either a "Yes (Y)" or "No (N)" indicating whether the response includes a modification to the approved design as presented in the CMI Plan. As shown on **Table 2-2**, none of the Scrap Metal Yard Responses to RFIs were marked (Y). Five Responses to RFIs were marked as (N). For responses marked as (N), the issues were addressed in the field and additional guidance was given, if necessary, regarding the intent of the design.

Section 3.
Summary of CQA Program

3.1 Overview of CQA Program

The scope of CQA activities performed by Geosyntec during the closure activities included review of quality control (QC) documents, coordination of QC / CQA sampling and testing, obtaining and testing post-excavation confirmation and OSM samples, review of confirmation sample and OSM test results, and monitoring and documentation of the Remediation Contractor's work and any associated field CQA operations to ensure that work was performed according to the CMI Plan.

3.2 Field CQA Operations

Geosyntec monitored construction activities, reviewed QC documentation provided by Charter, reviewed QA test results collected by Geosyntec, and compared observations and construction progress to the requirements of the Project Documents. Geosyntec notified Charter when construction practices and/or QC/CQA results were not in compliance with the Project Documents. Charter then implemented appropriate corrective actions which were monitored and/or tested by Geosyntec.

The main components of the field CQA operations included:

- observing construction activity and performing tests for quality assurance inspection activities;
- verifying that the QC testing of materials was implemented in accordance with the Scrap Metal Yard CQA Plan and Specifications;
- performing independent on-site inspections of the work to assess compliance with design criteria, drawings, and specifications;
- obtaining post-excavation confirmation samples in accordance with the Confirmation Sample Protocol and the drawings presented in the CMI Plan;
- obtaining OSM stockpile samples in accordance with the Reuse Stockpiling and Soil Sample Plan included as part of the Soil Use Plan in the CMI Plan;
- verifying that QC and CQA tests were conducted according the requirements of the specifications and CQA Plan presented in the CMI Plan; and
- reporting the results of inspections and corrective actions to the Maine DEP.

Weekly meetings were held on site to discuss the following:

- health and safety;
- construction progress and schedule;
- site management activities (erosion and sediment control, dust, noise, traffic, air monitoring, trespassing, etc.);
- project management activities (e.g., status of submittals and RFIs); and
- additional project-related topics as necessary.

As previously mentioned, daily CQA activities and construction activities were documented by Geosyntec in daily field reports, which are provided in **Appendix A**.

Section 4.
Summary of QC and CQA Activities

A description of the material pre-qualification process including QC document review, and CQA activities associated with remediation of the Scrap Metal Yard is provided below. Each section summarizes the scope of QC and CQA activities associated with construction work performed.

4.1 Materials Pre-Qualification and QC Submittal Review

Charter provided contractor work plans, material QC information, and as-built survey information in the form of submittals to CDM Smith and Geosyntec as required by the CMI Plan (specifically, the drawings and specifications). Geosyntec reviewed the submittals and generated corresponding submittal responses. Submittal responses marked as "Reviewed – no comments" or 'Comments as noted" were issued to CDM Smith and Charter. For submittal responses marked as "Revise and Resubmit" Charter revised the submittal according to the comments, and Geosyntec reviewed the updated submittal to verify the materials, products, and/or methods met the requirements of the CMI Plan drawings and specifications. Submittals included imported soils (CF1, dense graded gravel, topsoil, ¾" stone, and drainage sand Type 2), and riprap material source and QC result information, OSM QC results, geosynthetics, E&S control materials, Southerly Stream bypass materials, restoration and vegetation materials, contractor work plans, and as-built surveys.

A complete list of material pre-qualification and QC submittals and corresponding responses are provided in the Submittal Register and Log in **Table 4-1**. Below is a brief description of the pre-qualification and QC submittal review process relating to specific products. Further details are provided in the submittals and corresponding submittal responses provided in **Appendix D**.

Prior to delivery, imported soils were tested in accordance to the analytical testing requirements of the Soil Use Plan and the requirements of the specifications provided in the CMI Plan. CDM Smith imported materials for the Southerly Stream Bypass Construction, including Riprap from the Queen City Quarry in Bangor, ME, bypass plug sand from the Dunham Pit in Winterport, ME and CF1 from the Foley Pit in Winterport, Maine. Imported soils (common fill, drainage sand and topsoil) used by Charter were from Thornton Construction's Pit 5 mine in Orrington, ME. Stockpiled OSM was also tested according to the requirements in the Soil Use Plan.

Charter, or Charter's geotechnical laboratory, SW Cole, collected QC samples of imported soil material and OSM either from the borrow source or as material was stockpiled on site. The samples were sent to SW Cole's geotechnical laboratory for testing based on the frequencies set forth in the specifications. For each soil and riprap material, the required test, the required test frequency, the total quantity of imported material (as determined by truck count volumes (i.e., loose volume)), required number of QC test results, the number of tests performed, the actual frequency at which the test was performed, and whether or not the QC test result was passing (e.g., met the requirements of the CMI Plan specifications and drawings) are documented in **Table 4-2A**.

Product data sheets for the bypass pipe, geosynthetics, E&S controls, and revegetation materials listed above were submitted by CDM Smith or Charter and evaluated by Geosyntec prior to material deliveries to the Site. Charter submitted product data sheet certifications for each geosynthetic material and roll-specific manufacturers' QC (MQC) test data for the geotextiles. In addition, several clarifications regarding material prequalification and QC requirements were made during this process and were recorded in the responses to RFIs for:

- RFI 001 – addressing the requirements for non-woven geotextile in the decontamination pad;
- RFI 002 – addressing the requirements for silt fence; and
- RFI 003 – addressing the requirements for riprap in the bypass inlet and outlet structures.

Additional details regarding the response to RFIs, including the original RFIs, are summarized in **Table 2-2** and provided in **Appendix C**. Materials and products submitted as part of the material pre-qualification and QC submittal review process met the requirements of the CMI Plan drawings and specifications and the response to RFIs identified above.

4.2 Summary of CQA Activities

Primary components of the Field Oversight Activities included CQA materials testing, confirmation sampling, and monitoring and performing independent inspections of construction activities. The following subsections provide a summary of those activities performed by Geosyntec in the field during the closure activities.

4.2.1 CQA Laboratory Testing

Samples of imported soil materials and OSM were obtained by on-site personnel from Geosyntec and sent to the CDM Smith Geotechnical Laboratory for CQA testing in accordance with the CQA Plan included in the CMI Plan. Geosyntec reviewed the laboratory test results and verified whether they met the requirements of the CQA Plan and Specifications included in the CMI Plan. The required CQA test, the test frequency, the total quantity of imported material (as determined by truck count volumes (i.e., loose volume)), required number of CQA test results, the number of CQA tests performed, the actual frequency at which the tests were performed, sample information, and whether or not the CQA test result was passing (e.g., met the requirements of the Project Documents) are provided for each soil in **Table 4-2B**. The actual frequency at which the CQA tests were performed is calculated as determined by truck count volumes (i.e., loose volume). Laboratory CQA test result reports are provided in **Appendix E.**

4.2.2 Confirmation Sampling

Geosyntec monitored the excavation and relocation of soil required for off-site disposal, inspected active excavation areas (including the bottom of each excavation area) for visual or beads of mercury, reviewed preliminary bottom and extent of excavation surveys provided by Charter, coordinated collection of the post-excavation confirmation samples, and reviewed the results. Prior to collecting samples, preliminary surveys were provided to Geosyntec by Charter to confirm the bottom of excavation elevations and lateral extent of each excavation area had been met. Geosyntec notified CDM Smith, Charter, and TechLaw if there were areas that, based on these surveys, required additional excavation to reach the target elevations and extent. Post-excavation confirmation samples were then collected and delivered to the Onsite Analytical Laboratory where they were entered into the project database and prepared for analytical testing. Split samples were created at the on-site analytical testing laboratory and provided to the Maine DEP off-site analytical laboratory as required for samples identified ending in "-DEP", or as requested by the Maine DEP on-site representative (TechLaw), in accordance with the Confirmation Sampling Protocol incorporated as part of the CMI Plan. Results were provided to the Maine DEP regularly throughout construction activities.

4.2.2.1 Initial Confirmation Sample Collection and Results

Geosyntec collected bottom-of-excavation confirmation samples at 51 locations and sidewall confirmation samples at 17 locations in accordance with the CMI Plan. Results of the confirmation

sample testing performed for those original confirmation bottom and sidewall sample locations are summarized in **Table 4-3A**. Confirmation sample laboratory reports from the on-site analytical laboratory are provided in **Appendix F**.

4.2.2.2 Re-Sampling

For locations where confirmation samples exceeded the mercury MPS, Geosyntec, CDM Smith, Charter, and TechLaw identified the required extent of additional excavation and performed additional excavation . Bottom of excavation sample locations BS-SMY-24, BS-SMY-25, BS-SMY-40 (collected twice), BS-SMY-48, BS-SMY-49, and BS-SMY-50 and sidewall sample locations SW-SMY-01, SW-SMY-16, and SW-SMY-17 were resampled due to mercury concentration exceeding the MPS. For bottom samples exceeding the MPS, a 20 ft wide by 20 ft long by 1 ft deep excavation centered on the sample location was performed by Charter and an additional confirmation sample at the bottom of that excavation was obtained and tested. For the sidewall sample that exceeded the MPS at SW-SMY-01, additional excavation was advanced 7.5 feet beyond the original sidewall location. For samples that exceeded the MPS at SW-SMY-16 and SW-SMY-17, additional excavation was advanced 15.2 feet and 17.3 feet beyond the original sidewall locations, respectively. **Figure 4-1** shows the extent of additional excavation around these sidewall samples. The additional excavation limits were discussed with TechLaw prior to performing the excavation. Geosyntec collected additional bottom of excavation confirmation samples at six locations, and additional sidewall confirmation samples at three locations where original confirmation samples exceeded the MPS. Results and details regarding the additional confirmation samples are provided in **Table 4-3B**, and on-site analytical laboratory are provided in **Appendix F**.

For each of the locations where concentrations of mercury were detected above the MPS criterion, Charter performed additional excavation and CES surveyed the area in accordance with the methods described above.

4.2.2.3 DEP Notification and Backfilling

Prior to backfilling, Geosyntec issued written notifications to the Maine DEP summarizing each completed excavation area and the post-excavation confirmation samples and their results. The backfill notification was discussed with the Maine DEP onsite representative (TechLaw) prior to being submitted. When the backfill notification had been submitted to the Maine DEP, backfill could commence in the areas discussed in the backfill notification in accordance with the emailed titled General Guidelines for Confirmation Sampling and Split Sampling Protocols, dated August 8, 2016. Excavation area SMY-28 was ready to be backfilled prior to finalizing the *General Guidelines for Confirmation Sampling and Split Sampling Protocols on* August 8, 2016. This area and the confirmation sampling results were discussed with TechLaw and the Maine DEP on August 4, 2016 and approval to backfill this area was granted on August 8, 2016 A list of backfill notifications showing the excavation areas and corresponding notification dates is provided in **Table 4-4**.

4.2.2.4 As-Built Survey

The horizontal and vertical extent of excavation is presented on the Scrap Metal Yard Bottom of Excavation As-Built Record Drawing submittal provided in **Figure 4-1**. Geosyntec received and reviewed the bottom of excavation survey prepared by CES and submitted by Charter.

4.2.2.5 OSM

Soil designated for OSM based on the pre-design investigation activities was segregated and excavated to the elevations and lateral extent presented in the CMI Plan, after the excavator and haul trucks used to remove and transport impacted soil had been decontaminated. OSM was transported to a concrete slab that had been swept clean of soil and other debris or to an area were new plastic tarps had been

placed. OSM was stockpiled as presented in the Soil Use Plan (included in Appendix A of the CMI Plan). Four of the fourteen total stockpiles were divided and samples were analyzed separately because of construction sequencing. Stockpiles that were divided have letters added to their sample name to differentiate between samples (e.g. RSP-01A-SMY).

Three grab samples of equal volume (greater than or equal to 60 ml) were collected from different areas of each haul truck load that was added to each stockpile. Samples were collected after the truck was unloaded in the stockpile area, but before the soil was moved into the stockpile. Each of the grab samples from each haul truck load was aggregated into three separate composite samples for each of the stockpiles presented in the Soil Use Plan. Each of the three composite samples was homogenized and analyzed for mercury following the procedures utilized for the pre-design investigation samples. If each of the three samples contained mercury concentrations less than the MPS (2.2 mg/kg), the stockpile was considered acceptable to be reused. If any of the three samples contained mercury concentrations above the MPS, the soil was transported to TSSA No. 1 to be disposed of offsite.

One OSM stockpile, RSP-10B-SMY, contained mercury concentrations greater than the MPS and was transported to TSSA No. 1 for offsite disposal. All other stockpiles that were analyzed contained mercury concentrations less than the MPS. Reuse soil testing results are presented in **Table 4-5A.**

Samples of OSM were sent to Alpha to be analyzed for VOCs, cadmium, and chloropicrin as described in the Soil Use Plan included in the CMI Plan. The results of VOC testing are presented in **Table 4-5B**, and results of cadmium and chloropicrin testing are presented in **Table 4-5C.**

Soil designated for reuse in excavation cell SMY-15 was not analyzed in the onsite lab because asphalt debris was observed in the soil material which made it unsuitable for backfill. This material was transported to the TSSA for disposal.

4.2.3 CQA Field Oversight Activities

CQA field oversight activities included routine inspection of E&S controls, observation of construction activities, monitoring material deliveries, performing field density tests (FDTs) and thickness verifications for backfill materials, attending daily and weekly construction meetings, and coordinating confirmation and reuse soil sampling as previously discussed. A summary of the daily CQA activities is provided in the Geosyntec daily field reports provided in **Appendix A**. A brief description of these CQA activities is provided below.

E&S controls inspections were performed weekly and after precipitation events accumulating ≥0.5 inches of rainfall. Forms completed during E&S inspections are provided in **Appendix G.** Geosyntec notified Charter when areas requiring repair or improvement of the erosion and sediment control measures were identified during Geosyntec's inspections. Charter then performed necessary corrective actions (e.g., repair/replacement of silt fences and removal of sediment buildup). Based on Geosyntec's observations and daily field reports, Charter installed and maintained erosion and sediment controls in accordance with the requirements set forth in the CMI Plan.

Geosyntec monitored the placement, and compaction of OSM and import soil materials including:

- Dense Graded Gravel for the Scrap Metal Yard access roads and staging area;
- CF1 and OSM for general backfill;
- Drainage Sand Type 2 for the decontamination pad; and
- Topsoil for final restoration.

Geosyntec visually inspected the imported materials to minimize the use of soils containing undesirable constituents such as rubbish and large organic debris. Geosyntec inspected the subgrade prior to backfill material placement. FDTs and thickness verifications were performed for each lift of soil material to verify compaction and thicknesses met the requirements of the Project Documents. Thickness verifications were performed by visual monitoring and/or test holes at each location where an FDT was performed. **Table 4-2B** summarizes the number of FDT and thickness verification tests performed. FDT results were recorded for Dense Graded Gravel in **Table 4-6A**, and FDT and thickness verifications performed for Dense Graded Gravel are provided on **Figure 4-2**. FDT results for Common Fill Type 1 (CF1) are presented in **Table 4-6B** and the locations of FDTs and thickness verifications for each lift of Common Fill Type 1 are shown on **Figure 4-3A** through **Figure 4-3M**. FDT results for OSM are presented in **Table 4-6C** and the locations of FDTs and thickness verifications for OSM are shown on **Figure 4-4A** through **Figure 4-4G**. If a FDT did not meet the requirements, the lift was recompacted and retested. If the FDT still did not meet the requirements the lift was moisture conditioned to add or remove moisture from the lift and the soil was recompacted and retested. If the lift failed a third time, then the lift was removed and new material was placed in the subject area and recompacted before retesting.

During restoration activities, Geosyntec inspected topsoil as it was delivered and stored at the Site, monitored topsoil placement, and monitored the installation of erosion control blankets. Geosyntec confirmed the following:

- Topsoil was placed in one continuous lift from the bottom of the slope to the top, and track walked prior to applying straw mulch and tackifier;
- Topsoil was free of brush, litter, or deleterious material prior to mulch and erosion control blanket installation; and
- Erosion control blankets were properly stored, and deployed.

Final hydroseeding and Scrap Metal Yard restoration will occur as part of the Plant Area restoration activities. TSSA No. 3 may remain in place or be removed during Scrap Metal Yard restoration.

After completion of the restoration and vegetation activities described above, erosion control blanket and restoration areas limits were surveyed and submitted by Charter. Geosyntec reviewed the Final As-Built Survey of Scrap Metal Yard Record Drawing provided in **Figure 4-5**, and verified that the surveyed lateral extent of these items met the requirements set forth in the Project Documents and subsequent response to RFIs discussed below.

As discussed in Section 2.2 above, Charter issued the following RFIs requesting clarification of aspects of the restoration work:

- RFI 004 – Clarifications were made to the extent of the restoration area regarding the concrete structures north of the staging area, former roadway areas, and staging area; and
- RFI 005 – A portion of the northern bank of the Southerly Stream was regraded to widen the Southerly Stream channel.

Section 5.
Conclusions

Geosyntec observed the construction and implementation of the Scrap Metal Yard CMI Plan at the Orrington Remediation Site during the period of July 7, 2016 to November 11, 2016. During that time, CQA field personnel monitored the installation of the Southerly Stream bypass pipe, excavation of soils required for disposal (e.g., soils with mercury > MPS), excavation of and backfilling with imported materials and OSM, and restoration of the Scrap Metal Yard including site grading, Southerly Stream subgrade preparation, and restoration of the access road leading to Landfills 3, 4, & 5.

Geosyntec CQA personnel collected bottom and sidewall confirmation samples from the completed excavation areas to verify mercury concentrations were below the MPS. Notifications of backfill were issued to the Maine DEP upon completion of confirmation sampling. Geosyntec CQA personnel collected composite samples of OSM in the Scrap Metal Yard to verify applicable MPS parameter concentrations were below the MPS. CQA personnel verified that conformance and CQA testing were performed on the construction materials at the frequencies required in the Project Documents, and that materials meeting the requirements set forth in the Project Documents were used for the remedy. CQA personnel correspondingly verified that conditions or materials identified as not conforming to the Project Documents were removed, replaced, repaired and/or retested, as described in this Report.

As of July 2017, excavation and restoration activities described herein are complete, and the results of the CQA activities performed by Geosyntec confirm that the excavation and restoration activities as described herein for the Scrap Metal Yard were performed in accordance with the Project Documents and changes approved through the RFI process.

Christopher Greene
Senior Principal, Project Manager

Scott M. Luettich, P.E.
CQA Engineer-of-Record
Maine PE No. 7452

Section 6.
References

CDM Smith, Inc. and Geosyntec Consultants, 2016. Scrap Metal Yard Corrective Measures Implementation Plan Revision 1, Orrington Remediation Site, Orrington, Maine, June 22.

CDM Smith, Inc. 2015. Perimeter Air Monitoring Plan (PAMP), Orrington Remediation Site, Orrington Maine, July 22.

Maine BEP, 2014. Mallinckrodt US LLC et al. v. Department of Environmental Protection. April 3, 2014.

Maine DEP, 2008. Compliance Order: Designation of Uncontrolled Hazardous Substance Site and Order in the Matter of United States Surgical Corporation, Mallinckrodt LLC Concerning a Chloralkali Manufacturing Facility in Orrington, Penobscot County, Maine Formerly Owned and Operated by Mallinckrodt Inc., Proceeding Under 38 M.R.S.A. § 1365, Uncontrolled Hazardous Substance Sites Law; November 24.

TABLES

Table 2-1 - List of Construction Equipment
Scrap Metal Yard
Orrington Remediation Site
Orrington, ME

	Activity				
	Site Setup, E&S Controls	Excavation and Disposal of Soils with Concentrations > MPS	Backfill	Reuse Soil Sampling and Stockpiling	Revegetation and Restoration
Charter					
CAT 950K Front End Loader	X	X			X
Komatsu 490LC Excavator with GPS		X		X	
CAT CS563E Smooth Drum Vibratory Roller	X		X		X
Volvo A35C Haul Truck with Tailgate	X				
Komatsu Articulating Haul Truck		X	X	X	
CAT 289C Skid Steer			X	X	X
Komatsu D61PX Bull Dozer with GPS			X		X
John Deere 160G LC Excavator					X
CDM Smith					
CAT 950M Front End Loader		X			
Bobcat T598 Skid Steer	X		X		
CAT 305.5E Mini Excavator	X				
Hitachi 160LC Excavator	X				

Table 2-2 - Request For Information Log
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

RFI Number	Description	Date Received	Design Modification	Date sent to CDM	CMI Document Reference	Comments
001	DRAWINGS - Geotextiles - Decon Pad two layers of 16 oz/yd^2 non-woven for one layer of 32 oz/yd2 substitution	7/12/2016	N	7/13/2016	02710 Detail 1, Drawing No. 15	2 layers of 16 oz/yd^2 substitute OK, puncture resistance
002	SPECIFICATIONS - Silt Fence - Proposed alternative	7/28/2016	N	7/29/2016	02120 Detail 1 Drawing No. 17	Silt fence variant approved, lower unit weight and tensile strength OK for Scrap Metal Yard
003	DRAWINGS - 4" - 8" riprap substitution for 3" - 5" riprap	8/1/2016	N	8/4/2016	02200 Detail 1/Detail 2 Drawing No. 16	4"-8" riprap to be use in lieu of 3"-5" riprap for bypass system
004	DRAWINGS - Extents of Restoration	9/7/2016	N	9/19/2016	Drawings No. 2 and No. 14	Restoration limits clarified.
005	DRAWINGS - Stream Construction	10/19/2016	N	10/20/2016	Drawing No. 14	Northern Bank of Southerly Stream regraded

Table 4-1 - Submittal Register and Log
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Reference No.	Submittal Title	Revision	Date Received	Specification Section	Date Returned	Comments
001R3	Excavation and Restoration Plan	3	22-Jun-16	13020 1.04 A	24-Jun-16	
002R2	Construction Water Management Plan	2	16-Jun-16	02140 1.04	21-Jun-16	
003R1	Dust Control Plan (Air Monitoring Plan)	1	29-Jun-16	02050 1.04	6-Jul-16	
003R1	Dust Control Products Data Sheets	1	29-Jun-16	02050 1.04	6-Jul-16	
004	Excavation Support Design	0	23-May-16	13020 1.04 A	24-Jun-16	
005R1	Surveyors Qualifications	1	22-Jun-16	02100 1.04 A	1-Jul-16	
006	Common Fill Type 1- Analytical Results 1	0	23-Jun-16	02200 2.08	28-Jun-16	See note 5.
006A	Common Fill Type 1 -Proposed Material Source 1	0	23-Jun-16	02200 2.08	28-Jun-16	See note 5.
006A	Common Fill Type 1- Initial Source Result 1	0	23-Jun-16	02200 2.08	28-Jun-16	See note 5.
006A	Common Fill Type 1- QC Results 1	0	23-Jun-16	02200 2.08	28-Jun-16	
007A	Common Fill Type 1- QC Results 2	0	22-Aug-16	02200 2.08	23-Aug-16	
007B	Common Fill Type 1- QC Results 3	0	25-Aug-16	02200 2.08	31-Aug-16	
007C	Common Fill Type 1- QC Results 4	0	31-Aug-16	02200 2.08	1-Sep-16	
007D	Common Fill Type 1- QC Results 5	0	14-Sep-16	02200 2.08	19-Sep-16	
007E	Common Fill Type 1- QC Results 6	0	22-Sep-16	02200 2.08	26-Sep-16	
007F	Common Fill Type 1- QC Results 7	0	22-Sep-16	02200 2.08	26-Sep-16	
007G	Common Fill Type 1- QC Results 8	0	22-Sep-16	02200 2.08	26-Sep-16	
007H	Common Fill Type 1- QC Results 9	0	22-Sep-16	02200 2.08	26-Sep-16	
007I	Common Fill Type 1- QC Results 10	0	26-Sep-16	02200 2.08	30-Sep-16	
007J	Common Fill Type 1- QC Results 11	0	26-Sep-16	02200 2.08	30-Sep-16	
007K	Common Fill Type 1- QC Results 12	0	26-Sep-16	02200 2.08	30-Sep-16	
007L	Common Fill Type 1- QC Results 13	0	4-Oct-16	02200 2.08	13-Oct-16	
007M	Common Fill Type 1- QC Results 14	0	4-Oct-16	02200 2.08	13-Oct-16	
007N	Common Fill Type 1- QC Results 15	0	4-Oct-16	02200 2.08	13-Oct-16	
007O	Common Fill Type 1- QC Results 16	0	4-Oct-16	02200 2.08	13-Oct-16	
007P	Common Fill Type 1- QC Results 17	0	4-Oct-16	02200 2.08	13-Oct-16	
007Q	Common Fill Type 1- QC Results 18	0	4-Oct-16	02200 2.08	13-Oct-16	
007R	Common Fill Type 1- QC Results 19	0	11-Oct-16	02200 2.08	14-Oct-16	
007R1	Common Fill Type 1 - Proposed Material Source 2	1	18-Jul-16	02200 2.08	21-Jul-16	
007R1	Common Fill Type 1- Analytical Results 2	1	18-Jul-16	02200 2.08	21-Jul-16	
007R1	Common Fill Type 1- Initial Source Result 2	1	18-Jul-16	02200 2.08	21-Jul-16	
007R1	Common Fill Type 1- QC Results 20	1	18-Jul-16	02200 2.08	21-Jul-16	
007S	Common Fill Type 1- QC Results 21	0	11-Oct-16	02200 2.08	14-Oct-16	
007T	Common Fill Type 1- QC Results 22	0	11-Oct-16	02200 2.08	14-Oct-16	
007U	Common Fill Type 1- QC Results 23	0	13-Oct-16	02200 2.08	14-Oct-16	
007V	Common Fill Type 1- QC Results 24	0	13-Oct-16	02200 2.08	14-Oct-16	
007W	Common Fill Type 1- QC Results 25	0	19-Oct-16	02200 2.08	10-Nov-16	
007X	Common Fill Type 1- QC Results 26	0	25-Oct-16	02200 2.08	2-Nov-16	

Table 4-1 - Submittal Register and Log
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Reference No.	Submittal Title	Revision	Date Received	Specification Section	Date Returned	Comments
007Y	Common Fill Type 1- QC Results 27	0	1-Nov-16	02200 2.08	10-Nov-16	
007Z	Common Fill Type 1- QC Results 28	0	8-Nov-16	02200 2.08	10-Nov-16	
008	HDPE Pipe - 12 inch I.D. Smooth-Walled	0	29-Jun-16	Drawings	6-Jul-16	See note 5
009	Geomembrane - 40 mil Thick Textured	0	29-Jun-16	Drawings	5-Jul-16	
010	Bypass Inlet Structure Plug: Sand and Bentonite	0	29-Jun-16	Drawings	6-Jul-16	See note 5
011	Bypass Geomembrane	0	7-Jul-16	Drawings	13-Jul-16	See note 5
012	Bypass Reducer	0	8-Jul-16	Drawings	11-Jul-16	This submittal was rejected and alternative methods were used. Reference submittal 017. See note 5.
013	Pre-Construction Survey	0	11-Jul-16	02100 3.02 A	21-Jul-16	
014	8 oz/yd^2 Non-Woven Geotextile Product Info	0	12-Jul-16	02710 2.01	13-Jul-16	For separation/filter application
014	32 oz/yd^2 Non-Woven Geotextile Product Info	0	12-Jul-16	02710 2.01	13-Jul-16	For cushion application; Reference RFI 001 - 16 oz/yd^2 non-woven geotextile, 2 layers
015	HDPE Culvert - 30 inch I.D.	0	11-Jul-16	Drawings	13-Jul-16	
016	4-inch to 8-inch Riprap - Proposed Material Source	0	15-Jul-16	02200 2.05	19-Jul-16	See notes 1 and 5
016	4-inch to 8-inch Riprap - Initial Source Results/Supplier Cert	0	15-Jul-16	02200 2.05	19-Jul-16	See note 5
017	Flared End Section - HANCHOR HI-Q or Equivalent	0	14-Jul-16	Drawings	18-Jul-16	See note 5
018R1	Silt Fence	1	22-Jul-16	02120 2.01 A	29-Jul-16	Reference RFI No. 002 - Silt Fence Alternative
019	Drainage Sand Type 2 - Proposed Material Source	0	18-Jul-16	02200 2.03	21-Jul-16	
019	Drainage Sand Type 2 - Analytical Results	0	18-Jul-16	02200 2.03	21-Jul-16	
019	Drainage Sand Type 2 - Initial Source Results	0	18-Jul-16	02200 2.03	21-Jul-16	
019	Drainage Sand Type 2 - QC Results	0	18-Jul-16	02200 2.03	21-Jul-16	
020	3/4-in. Stone - Proposed Material Source	0	18-Jul-16	02200 2.07	20-Jul-16	See note 1
020	3/4-in. Stone - Initial Source Results	0	18-Jul-16	02200 2.07	20-Jul-16	
020	3/4-in. Stone - QC Results 1	0	18-Jul-16	02200 2.07	20-Jul-16	
020A	3/4-in. Stone - QC Results 2	0	22-Aug-16	02200 2.07	23-Aug-16	
021	Traffic Control Plan	0	18-Jul-16	01500 1.09 B	20-Jul-16	
022	Dense Graded Gravel - Proposed Material Source	0	18-Jul-16	02200 2.11	21-Jul-16	
022	Dense Graded Gravel- Analytical Results	0	18-Jul-16	02200 2.11	21-Jul-16	
022	Dense Graded Gravel - Initial Source Results	0	18-Jul-16	02200 2.11	21-Jul-16	
022	Dense Graded Gravel- QC Results	0	18-Jul-16	02200 2.11	21-Jul-16	
023	16 oz/yd^2 Non-Woven Geotextile - MQC Results	0	21-Jul-16	02710 2.01	26-Jul-16	For cushion application; Reference RFI 001 - 16 oz/yd^2 non-woven geotextile, 2 layers
024	8 oz/yd^2 Non-Woven Geotextile - MQC Results	0	27-Jul-16	02710 2.01	29-Jul-16	For separation/filter application
025	Fiber Roll	0	27-Jul-16	02120 2.01 D	29-Jul-16	
026	On-Site Re-Used Material - QC Results 1	0	8-Aug-16	02200 2.02	10-Aug-16	

Table 4-1 - Submittal Register and Log
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Reference No.	Submittal Title	Revision	Date Received	Specification Section	Date Returned	Comments
026A	On-Site Re-Used Material - QC Results 2	0	26-Sep-16	02200 2.02	30-Sep-16	
026B	On-Site Re-Used Material - QC Results 3	0	11-Oct-16	02200 2.02	14-Oct-16	
027	Topsoil - Analytical Results	0	22-Aug-16	02200 2.04	23-Aug-16	
027A	Topsoil - QC Results	0	12-Oct-16	02200 2.04	14-Oct-16	pH and Organic content for 0-1000 and 1000-2000 referenced in submittal 029
028	Erosion Control Blanket	0	21-Sep-16	02120 2.01 B	26-Sep-16	
029	Topsoil - Initial Source Results	0	11-Oct-16	02200 2.04	14-Oct-16	
029	Topsoil Plant Suitability Soil Analysis	0	11-Oct-16	02920 2.01	14-Oct-16	
031	Bottom of Excavation	0	8-Nov-16	02100 3.05	1-Dec-16	Inlcudes soil sample locations
032A	Post-Construction Topographic Survey	0	20-Mar-17	02100 3.05	21-Mar-17	

Notes:
1. Analytical testing of stone products was not required per the Soil Use Plan.
2. Specification Section 02200 Article 2 requires a 50-lb sample of each material be provided. This requirement has been removed, and 50-lb samples are no longer required.
3. Materials to be submitted under Landfill 345 work are materials required for CDM Smith's portion of the SMY Work.
4. Common Fill Type 1 material must be submitted by Charter and by CDM Smith for their respective scopes of work in the SMY.
5. Indicates submittals related to the bypass pipe installation (CDM scope of work).

Table 4-2A - Soils QC Test Results Tracking
Scrap Metal Yard
Orrington Remediation Site
Orrington, ME

Test	Frequency of Testing Required	Material Amount [1]	Number of Tests Required[2]	Number of Tests Performed	Frequency of Testing Performed (YD^3/Test)	Sample Name	Date Collected	Date Results Received	Passing (Y/N)	Comments
Common Fill Type 1										
Grain Size	1,000 yd^3	25,690 yd^3	26	26	<1,000	0-1000CY	5/12/2016	6/23/2016	Y	Reference Appendix D
						0-1000CY	6/2/2016	6/29/2016	Y	Reference Appendix D
						1000-2000CY	8/17/2016	8/22/2016	Y	Reference Appendix D
						2000-3000CY	8/24/2016	8/24/2016	Y	Reference Appendix D
						3000-4000CY	8/29/2016	8/31/2016	Y	Reference Appendix D
						4000-5000CY	9/8/2016	9/14/2016	Y	Reference Appendix D
						5000-6000CY	9/13/2016	9/22/2016	Y	Reference Appendix D
						6000-7000CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						7000-8000CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						8000-9000CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						9000-10000CY	9/21/2016	9/26/2016	Y	Reference Appendix D
						10000-11000CY	9/21/2016	9/26/2016	Y	Reference Appendix D
						11000-12000CY	9/21/2016	9/26/2016	Y	Reference Appendix D
						12000-13000CY	9/26/2016	10/4/2016	Y	Reference Appendix D
						13000-14000CY	9/26/2016	10/4/2016	Y	Reference Appendix D
						14000-15000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						15000-16000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						16000-17000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						17000-18000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						18000-19000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						19000-20000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						20000-21000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						21000-22000CY	10/6/2016	10/13/2016	Y	Reference Appendix D
						22000-23000CY	10/6/2016	10/13/2016	Y	Reference Appendix D
						23000-24000CY	10/17/2016	10/19/2016	Y	Reference Appendix D
						24000-25000CY	10/20/2016	10/25/2016	Y	Reference Appendix D
						25000-26000CY	10/25/2016	11/1/2016	Y	Reference Appendix D
						0-1000CY	5/12/2016	6/23/2016	Y	Reference Appendix D
						0-1000CY	6/2/2016	6/29/2016	Y	Reference Appendix D
						1000-2000CY	8/17/2016	8/22/2016	Y	Reference Appendix D
						2000-3000CY	8/24/2016	8/24/2016	Y	Reference Appendix D
						3000-4000CY	8/29/2016	8/31/2016	Y	Reference Appendix D
						4000-5000CY	9/8/2016	9/14/2016	Y	Reference Appendix D
						5000-6000CY	9/13/2016	9/22/2016	Y	Reference Appendix D
						6000-7000CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						7000-8000CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						8000-9000CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						9000-10000CY	9/21/2016	9/26/2016	Y	Reference Appendix D
						10000-11000CY	9/21/2016	9/26/2016	Y	Reference Appendix D
						11000-12000CY	9/21/2016	9/26/2016	Y	Reference Appendix D

Table 4-2A - Soils QC Test Results Tracking
Scrap Metal Yard
Orrington Remediation Site
Orrington, ME

Test	Frequency of Testing Required	Material Amount [1]	Number of Tests Required[2]	Number of Tests Performed	Frequency of Testing Performed (YD^3/Test)	Sample Name	Date Collected	Date Results Received	Passing (Y/N)	Comments
Moisture Content	1,000 yd^3	25,690 yd^3	26	27	<1,000	12000-13000CY	9/26/2016	10/4/2016	Y	Reference Appendix D
						13000-14000CY	9/26/2016	10/4/2016	Y	Reference Appendix D
						14000-15000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						15000-16000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						16000-17000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						17000-18000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						18000-19000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						19000-20000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						20000-21000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						21000-22000CY	10/6/2016	10/13/2016	Y	Reference Appendix D
						22000-23000CY	10/6/2016	10/13/2016	Y	Reference Appendix D
						23000-24000CY	10/17/2016	10/19/2016	Y	Reference Appendix D
						24000-25000CY	10/20/2016	10/25/2016	Y	Reference Appendix D
						25000-26000CY	10/25/2016	11/1/2016	Y	Reference Appendix D
						26000-27000 CY	11/4/2016	11/8/2016	Y	Reference Appendix D
Standard Proctor	1,500 yd^3	25,690 yd^3	18	18	< 1,450	0-1500CY	5/12/2016	6/23/2016	Y	Reference Appendix D
						0-1500CY	6/2/2016	6/29/2016	Y	Reference Appendix D
						1500-3000CY	7/12/2016	7/18/2016	Y	Reference Appendix D
						3000-4500CY	8/17/2016	8/22/2016	Y	Reference Appendix D
						4500-6000CY	8/29/2016	8/31/2016	Y	Reference Appendix D
						6000-7500CY	9/8/2016	9/14/2016	Y	Reference Appendix D
						7500-9000CY	9/13/2016	9/22/2016	Y	Reference Appendix D
						9000-10500CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						10500-12000CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						12000-13500CY	9/19/2016	9/22/2016	Y	Reference Appendix D
						13500-15000CY	9/26/2016	10/4/2016	Y	Reference Appendix D
						15000-16500CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						16500-18000CY	9/27/2016	10/4/2016	Y	Reference Appendix D
						18000-19500CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						19500-21000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
						21000-22500CY	10/6/2016	10/13/2016	Y	Reference Appendix D
						22500-24000CY	10/17/2016	10/19/2016	Y	Reference Appendix D
						24000-25500CY	10/20/2016	10/25/2016	Y	Reference Appendix D
						25500-27000 CY	11/4/2016	11/8/2016	Y	Reference Appendix D
Analytical Testing/ Clean Fill Certification	1/Source	25,690 yd^3	1	3	N/A	Common Fill Type 1	5/12/2016	6/23/2016	Y	Reference Appendix D
							6/15/2016	6/29/2016	N	Reference Appendix D
							7/12/2016	7/18/2016	Y	Reference Appendix D
Drainage Sand Type 2										
Grain Size	1,000 yd^3	144 yd^3	1	1	<150	0-1000CY	7/13/2016	7/18/2016	Y	Reference Appendix D

Table 4-2A - Soils QC Test Results Tracking
Scrap Metal Yard
Orrington Remediation Site
Orrington, ME

Test	Frequency of Testing Required	Material Amount [1]	Number of Tests Required[2]	Number of Tests Performed	Frequency of Testing Performed (YD^3/Test)	Sample Name	Date Collected	Date Results Received	Passing (Y/N)	Comments
Analytical Testing/ Clean Fill Certification	1/Source	144 yd^3	1	1	N/A	Drainage Sand Type 2	7/13/2016	7/18/2016	Y	Reference Appendix D
Topsoil										
Grain Size	1,000 yd^3	686 yd^3	1	2	<350	0-1000CY	10/6/2016	10/12/2016	Y	Reference Appendix D
						1000-2000CY	10/25/2016	11/1/2016	Y	Reference Appendix D
Organic Content	1,000 yd^3	686 yd^3	1	2	<350	0-1000CY	10/4/2016	10/11/2016	Y	Reference Appendix D
						1000-2000CY	10/4/2016	10/11/2016	Y	Reference Appendix D
pH	1,000 yd^3	686 yd^3	1	2	<350	0-1000CY	10/4/2016	10/11/2016	Y	Reference Appendix D
						1000-2000CY	10/4/2016	10/11/2016	Y	Reference Appendix D
Analytical Testing/ Clean Fill Certification	1/Source	686 yd^3	1	1	N/A	Topsoil	8/1/2016	8/17/2016	Y	Reference Appendix D
Dense Graded Gravel										
Grain Size	1,000 yd^3	436 yd^3	1	1	<500	0-1000CY	7/15/2016	7/18/2016	Y	Reference Appendix D
Moisture Content	1,000 yd^3	436 yd^3	1	1	<500	0-1000CY	7/15/2016	7/18/2016	Y	Reference Appendix D
Standard Proctor	1,500 yd^3	436 yd^3	1	1	<500	0-1000CY	7/15/2016	7/18/2016	Y	Reference Appendix D
Analytical Testing/ Clean Fill Certification	1/Source	436 yd^3	1	1	N/A	Dense Graded Gravel	7/15/2016	7/18/2016	Y	Reference Appendix D
3/4" Stone										
Grain Size	1,000 yd^3	320 yd^3	1	2	<350	0-1000CY	7/13/2016	7/18/2016	Y	Reference Appendix D
						1000-2000CY	8/3/2016	8/22/2016	Y	Reference Appendix D
Clean Fill Certification	1/Source	320 yd^3	1	1	N/A	3/4" Stone	7/13/2016	7/18/2016	Y	Reference Appendix D
Onsite Reuse Material[3]										
Moisture Content	1,000 yd^3	2,461 yd3	3	3	<850	0-1000CY	8/3/2016	8/8/2016	Y	Reference Appendix D
						1000-2000CY	9/21/2016	9/26/2016	Y	Reference Appendix D
						2000-3000CY	10/3/2016	10/11/2016	Y	Reference Appendix D
Standard Proctor	5,000 yd^3	2,461 yd^3	1	1	<2,500	0-1000 CY	8/3/2016	8/8/2016	Y	Reference Appendix D

Notes:
1. For all materials, the amount presented in the Material Amount column refers to the volume of material delivered from off site sources (i.e., loose volume) and not the volume of in-place material (i.e., compacted volume), with the exception of Onsite Reuse Material, therefore volume estimates are conservative.
2. The required number of tests is based on the testing frequency provided in the project Specifications (which refers to in place volumes as calculated by survey comparison), and represents the required number of tests based on in-place volumes as determined by survey.
3. The amount of Onsite Reuse Material was calculated based on survey comparisons provided by Charter.
4. NA = Not Applicable; NR = Not Required
5. Analytical samples of Onsite Reuse Material were sent to the analytical CQA laboratory by the CQA Engineer and is therefore provided in Table 4-2B.

Table 4-2B - Soils QA Test Results Tracking
Scrap Metal Yard
Orrington Remediation Site
Orrington, ME

Test	Frequency of Testing Required	Material Amount[1]	Number of Tests Required[2]	Number of Tests Performed	Frequency of Testing Performed (YD^3/Test)	Sample Name	Date Collected	Date Results Received	Passing (Y/N)	Comments
Common Fill Type 1										
Grain Size	10,000 yd^3	25,690 yd^3	3	4	<6,500	CF1-SMY-01	7/25/2016	7/25/2016	Y	Reference Appendix E
						CF1-SMY-02	9/22/2016	9/22/2016	N	Retested; Referenece Appendix E
						CF1-SMY-03	10/10/2016	10/10/2016	Y	Reference Appendix E
						CF1-SMY-04	10/17/2016	10/17/2016	Y	Reference Appendix E
Moisture Content	10,000 yd^3	25,690 yd^3	3	3	<8,600	CF1-SMY-01	7/25/2016	7/25/2016	Y	Reference Appendix E
						CF1-SMY-02	9/22/2016	9/22/2016	Y	Reference Appendix E
						CF1-SMY-04	10/17/2016	10/17/2016	Y	Reference Appendix E
Standard Proctor	10,000 yd^3	25,690 yd^3	3	3	<8,600	CF1-SMY-01	7/25/2016	7/25/2016	Y	Reference Appendix E
						CF1-SMY-02	9/22/2016	9/22/2016	Y	Reference Appendix E
						CF1-SMY-04	10/17/2016	10/17/2016	Y	Reference Appendix E
In-Place Density/ Moisture Content	5/acre/lift	88,172 ft^2/13 lifts	82	121	N/A	--	--	--	--	Reference Table 4.6
Thickness Verification	200 ft grid	88,172 ft^2/13 lifts	31	121	N/A	--	--	--	--	Reference Table 4.6
Topsoil										
Organic Content	10,000 yd^3	686 yd^3	1	1	<700	TS-SMY-01	10/18/2016	10/20/2016	Y	Reference Appendix E
pH	10,000 yd^3	686 yd^3	1	1	<700	TS-SMY-01	10/18/2016	10/20/2016	Y	Reference Appendix E
Thickness Verification	200 ft grid	88,172 ft^2	3	19	N/A	--	--	--	--	
Dense Graded Gravel										
Grain Size	1,000 yd^3	436 yd^3	1	1	<450	DGG-SMY-01	7/25/2016	7/25/2016	Y	Reference Appendix E
Standard Proctor	1,500 yd^3	436 yd^3	1	1	<450	DGG-SMY-01	7/25/2016	7/25/2016	Y	Reference Appendix E
In-Place Density/ Moisture Content	5/acre/lift	11,772 ft^2/1 lift	2	6	N/A	--	--	--	--	Reference Table 4.6
Thickness Verification	200 ft grid/ lift	11,772 ft^2/ 1 lift	2	6	N/A	--	--	--	--	Reference Table 4.6
3/4" Stone[4]										
Grain Size	10,000 yd^3	320 yd^3	1	1	<350	3/4" Stone	7/21/2016	7/21/2016	Y	Reference Appendix E
Onsite Reuse Material[6]										
Standard Proctor	10,000 yd^3	2,461 yd^3	1	1	<2,500	RSP-08-SMY	8/17/2016	8/23/2016	Y	Reference Appendix E
In-Place Density/ Moisture Content	5/acre/lift	9,492 ft^2/7 lifts	8	10	N/A	--	--	--	--	Reference Table 4.6
Thickness Verification	200 ft grid/ lift	9,492 ft^2/7 lifts	8	10	N/A	--	--	--	--	Reference Table 4.6

Table 4-2B - Soils QA Test Results Tracking
Scrap Metal Yard
Orrington Remediation Site
Orrington, ME

Test	Frequency of Testing Required	Material Amount[1]	Number of Tests Required[2]	Number of Tests Performed	Frequency of Testing Performed (YD^3/Test)	Sample Name	Date Collected	Date Results Received	Passing (Y/N)	Comments
Analytical Testing/Clean Fill Certification	20,000 yd^3	2,461 yd3	1	2	<2,500	RSP-10A-SMY-160809-01, RSP-06-SMY-160822-02	8/9/2016, 08/22/2016	8/12/2016, 8/24/2016	Y	Reference Appendix F-3

Notes:
1. For all materials, the amount presented in the Material Amount column refers to the volume of material delivered from off site sources (i.e., loose volume) and not the volume of in-place material (i.e., compacted volume), with the exception of Onsite Reuse Material, therefore volume estimates are conservative.
2. The required number of tests is based on the testing frequency provided in the project CQA Plan, and represents the required number of tests based on in-place volumes as determined by survey. 3. The amount of Onsite Reuse Material was calculated based on survey comparisons provided by Charter.
4. NA = Not Applicable; NR = Not Required

Table 4-3A - Confirmation Sample Summary Table - Original Samples
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Location ID	Date Collected	Area	Original Ground Surface El. (ft) (2)	Start Elevation (ft) (3)	End Elevation (ft) (3)	DMA Result (mg/kg) (4)	DMA Qual (5)	TechLaw Result (ug/g)	TechLaw Qual	Passing (Y/N)	Comments
BS-SMY-21	08/02/2016	SMY-28	70.6	65.1	65.1	0.3	J			Y	
BS-SMY-35	08/02/2016	SMY-28	70.3	65.1	65.1	0.3	J			Y	
BS-SMY-16	08/02/2016	SMY-28	70.2	65.1	65.1	0.3	U			Y	
BS-SMY-32	08/02/2016	SMY-28	64.5	62.5	62.5	0.3	U			Y	
SW-SMY-12	08/02/2016	SMY-28	69.3	67.1	66.1	1.2				Y	
BS-SMY-25	08/03/2016	SMY-1	67.2	62.6	62.6	12.1				N	See note 7
BS-SMY-26	08/03/2016	SMY-1	63.9	62.6	62.6	0.7	J			Y	
SW-SMY-16	08/03/2016	SMY-1	63.7	63.5	62.5	4.1				N	
SW-SMY-17	08/03/2016	SMY-1	63.6	63.5	62.5	2.1				N	Duplicate sample had a result of 4.2 mg/kg
SW-SMY-08	08/04/2016	SMY-30	72.3	69.0	68.0	0.3	U			Y	
SW-SMY-07	08/04/2016	SMY-26	72.0	66.5	65.5	0.3	U			Y	
BS-SMY-20	08/04/2016	SMY-30	67.9	67.8	67.8	0.3	U			Y	
BS-SMY-19	08/04/2016	SMY-30	74.7	67.8	67.8	0.3	U			Y	
BS-SMY-36	08/04/2016	SMY-29	73.6	65.3	65.3	0.3	U			Y	
BS-SMY-17	08/04/2016	SMY-26	72.7	65.3	65.3	0.3	U			Y	
BS-SMY-01	08/08/2016	SMY-2	64.0	60.3	60.3	0.3	U			Y	
SW-SMY-15	08/08/2016	SMY-5	62.4	62.0	61.0	0.3	U			Y	
SW-SMY-14	08/08/2016	SMY-5	63.1	62.0	61.0	0.3	U			Y	
BS-SMY-03	08/08/2016	SMY-5	63.3	59.2	59.2	0.3	U			Y	
BS-SMY-04	08/10/2016	SMY-5	64.7	59.7	59.7	0.3	U			Y	
SW-SMY-13	08/10/2016	SMY-5	63.2	62.0	61.0	0.3	U			Y	
SW-SMY-04	08/15/2016	SMY-21	77.5	73.0	72.0	1.8				Y	
SW-SMY-05	08/15/2016	SMY-21	76.7	73.0	72.0	0.3	U			Y	
SW-SMY-06	08/15/2016	SMY-21	75.9	73.0	72.0	0.3	U			Y	
BS-SMY-24	08/16/2016	SMY-6	67.6	61.3	61.3	8.3				N	See note 7
BS-SMY-28	08/16/2016	SMY-6	67.0	61.3	61.3	1.4	J			Y	
BS-SMY-27	08/16/2016	SMY-6	66.8	61.3	61.3	1.0	J			Y	
BS-SMY-05	08/16/2016	SMY-6	66.4	61.3	61.3	2.1				Y	
BS-SMY-14	08/17/2016	SMY-25	64.1	60.9	60.9	2.1	J			Y	
BS-SMY-33	08/17/2016	SMY-25	63.6	60.9	60.9	0.7	J			Y	
BS-SMY-34	08/17/2016	SMY-25	64.2	60.9	60.9	1.3				Y	
SW-SMY-09	08/18/2016	SMY-27	67.9	62.0	61.0	0.3	J			Y	
SW-SMY-10	08/18/2016	SMY-27	65.5	62.0	61.0	0.9				Y	
SW-SMY-11	08/18/2016	SMY-27	65.1	62.0	61.0	0.4	J			Y	
BS-SMY-09	08/18/2016	SMY-7	64.4	60.0	60.0	0.3	U			Y	
BS-SMY-40A-DEP	08/18/2016	SMY-7	66.8	59.8	59.8	2.0		3.16		N	Sent to offsite lab for testing by TechLaw, see notes 6 and 7
BS-SMY-15	08/18/2016	SMY-24	72.4	60.0	60.0	0.3	U			Y	
BS-SMY-30	08/23/2016	SMY-15	63.7	60.0	60.0	1.2	J			Y	See note 7

Table 4-3A - Confirmation Sample Summary Table - Original Samples
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Location ID	Date Collected	Area	Original Ground Surface El. (ft) (2)	Start Elevation (ft) (3)	End Elevation (ft) (3)	DMA Result (mg/kg) (4)	DMA Qual (5)	TechLaw Result (ug/g)	TechLaw Qual	Passing (Y/N)	Comments
BS-SMY-31	08/23/2016	SMY-15	63.5	60.3	60.3	1.3	U			Y	See note 7
BS-SMY-41A-DEP	08/23/2016	SMY-15	63.4	60.6	60.6	1.3	U	0.4		Y	Sent to offsite lab for testing by TechLaw, see note 8
BS-SMY-37	08/24/2016	SMY-21	75.4	65.9	65.9	0.3	U			Y	
BS-SMY-18	08/24/2016	SMY-21	74.4	65.1	65.1	0.4	J			Y	
BS-SMY-42A-DEP	08/24/2016	SMY-21	73.8	64.6	64.6	0.3	J	0.324		Y	Sent to offsite lab for testing by TechLaw
SW-SMY-05A	08/24/2016	SMY-21	74.7	65.5	64.5	0.3	U			Y	
SW-SMY-06A	08/24/2016	SMY-21	74.0	66.5	65.5	0.3	U			Y	
SW-SMY-03	08/29/2016	SMY-19	78.0	73.0	72.0	0.3	U			Y	
BS-SMY-13A	08/29/2016	SMY-20	72.1	61.6	61.6	0.5	J	0.422		Y	Sent to offsite lab for testing by TechLaw
BS-SMY-39	08/29/2016	SMY-19	73.3	61.6	61.6	0.3	U			Y	
BS-SMY-38	08/29/2016	SMY-20	74.8	61.3	61.3	0.3	U			Y	
SW-SMY-04A	08/29/2016	SMY-20	75.8	64.0	63.0	0.3	U			Y	
SW-SMY-03A	08/29/2016	SMY-19	73.4	64.0	63.0	0.3	U			Y	
BS-SMY-22	08/31/2016	SMY-16/17	70.7	57.0	57.0	0.3	U			Y	
BS-SMY-11	08/31/2016	SMY-16/17	71.5	57.1	57.1	0.3	U			Y	
BS-SMY-43A-DEP	08/31/2016	SMY-16/17	70.3	57.0	57.0	0.3	U	0.04	U	Y	Sent to offsite lab for testing by TechLaw
BS-SMY-10	09/06/2016	SMY-14	71.5	59.5	59.5	0.4	U			Y	See note 7
BS-SMY-44A-DEP	09/06/2016	SMY-14	70.3	59.8	59.8	0.7	J	0.85		Y	Sent to offsite lab for testing by TechLaw, see note 7
BS-SMY-06	09/07/2016	SMY-7	69.4	59.2	59.2	0.5	U			Y	See note 7
BS-SMY-45A-DEP	09/07/2016	SMY-7	70.3	59.6	59.6	1.3	J	0.718		Y	Sent to offsite lab for testing by TechLaw, see note 7
BS-SMY-02	09/14/2016	SMY-3	66.8	59.7	59.7	0.3	U			Y	
BS-SMY-46A-DEP	09/14/2016	SMY-3	66.3	59.6	59.6	0.5	U	0.088		Y	Sent to offsite lab for testing by TechLaw, see note 7
BS-SMY-47A-DEP	09/14/2016	SMY-3	68.0	59.9	59.9	0.3	U	0.044		Y	Sent to offsite lab for testing by TechLaw
BS-SMY-12	09/20/2016	SMY-13	71.3	62.8	62.8	0.3	U			Y	
BS-SMY-48A-DEP	09/20/2016	SMY-13	70.8	62.3	62.3	16.4				N	See note 7
BS-SMY-23	09/22/2016	SMY-12	71.0	69.5	69.5	0.3	U			Y	
BS-SMY-08	09/26/2016	SMY-08	70.0	59.1	59.1	0.3	U			Y	
SW-SMY-02A	09/27/2016	SMY-11	71.0	70.0	69.0	0.3	U	0.04	U	Y	Sent to offsite lab for testing by TechLaw
SW-SMY-02	09/28/2016	SMY-11	70.9	61.0	60.0	0.3	U			Y	
SW-SMY-01A	10/04/2016	SMY-9	70.1	64.0	63.0	9.7				N	

Table 4-3A - Confirmation Sample Summary Table - Original Samples
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Location ID	Date Collected	Area	Original Ground Surface El. (ft) (2)	Start Elevation (ft) (3)	End Elevation (ft) (3)	DMA Result (mg/kg) (4)	DMA Qual (5)	TechLaw Result (ug/g)	TechLaw Qual	Passing (Y/N)	Comments
BS-SMY-07	10/04/2016	SMY-9	69.4	58.9	58.9	0.9	J			Y	See note 7
BS-SMY-49A-DEP	10/04/2016	SMY-9	68.9	60.4	60.4	7.2				N	See note 7
BS-SMY-29	10/04/2016	SMY-4	67.4	64.4	64.4	0.5	J	0.086	U	Y	
BS-SMY-50A-DEP	10/04/2016	SMY-4	67.0	64.4	64.4	2.3		2.08		N	Sent to offsite lab for testing by TechLaw
BS-SMY-51A-DEP	10/04/2016	SMY-8	66.4	58.9	58.9	0.6	U	0.086	U	Y	Sent to offsite lab for testing by TechLaw, see note 7

Notes:

1. Data provided in the above table is based on the daily confirmation sample results issued from the project database.
2. "Original Ground Surface El. is not applicable to bottom samples. For sidewall samples, original ground surface represents the elevation used to calculate the "Start Elevation" and "End Elevation" sampling intervals.
3. "Start Elevation" and "End Elevation" represent bottom of excavation elevations for Post-excavation Bottom Samples (e.g., samples beginning with "BS"). For sidewall samples (e.g., samples beginning with "SW") those entries represent the Start and End elevations for which the sample was taken. Start and End elevations for sidewall samples are chosen based on the maximum Hg concentration of near-by pre-excavation confirmation samples.
4. DMA Result represents the final dry weight corrected DMA result as reported by the On-site Laboratory.
5. DMA qualifiers: U = concentration is non-detect; J =concentration estimated; refer to onsite lab reports for more details.
6. BS-SMY-DEP-01 was renamed BS-SMY-40A-DEP on 08/23/2016 at the request of the client.

Table 4-3B - Confirmation Sample Summary Table - Additional Samples
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Location ID	Date Collected	Area	Original Ground Surface El. (ft) (2)	Start Elevation (ft) (3)	End Elevation (ft) (3)	DMA Result (mg/kg) (4)	DMA Qual (5)	TechLaw Result (ug/g)	TechLaw Qual	Passing (Y/N)	Comments
BS-SMY-25A	08/11/2016	SMY-1	67.2	60.5	60.5	0.3	U			Y	
SW-SMY-16A	08/11/2016	SMY-1	70.2	63.5	62.5	0.3	U			Y	
SW-SMY-17A	08/11/2016	SMY-1	63.6	63.5	62.5	0.3	U	0.042	U	Y	Sent to offsite lab for testing by TechLaw
BS-SMY-24A	08/18/2016	SMY-6	67.6	59.7	59.7	2.1				Y	
BS-SMY-40C-DEP	08/18/2016	SMY-7	66.8	59.8	59.8	3.1				N	See note 7
BS-SMY-40D-DEP	08/24/2016	SMY-7	66.8	53.5	53.5	0.4	U			Y	
BS-SMY-48D-DEP	09/21/2016	SMY-13	70.9	60.8	60.8	0.3	U	0.04	U	Y	Sent to offsite lab for testing by TechLaw
SW-SMY-01D	10/06/2016	SMY-9	70.4	64.1	63.1	0.3	J	0.306		Y	Sent to offsite lab for testing by TechLaw
BS-SMY-49D-DEP	10/06/2016	SMY-9	69.0	58.3	58.3	0.7	U	0.1	U	Y	Sent to offsite lab for testing by TechLaw, see note 6
BS-SMY-50D-DEP	10/06/2016	SMY-4	67.0	62.6	62.6	1.2		1.14		Y	Sent to offsite lab for testing by TechLaw

Notes:

1. Data provided in the above table is based on the daily confirmation sample results issued from the project database.
2. "Original Ground Surface El. is not applicable to bottom samples. For sidewall samples, original ground surface represents the elevation used to calculate the "Start Elevation" and "End Elevation" sampling intervals.
3. "Start Elevation" and "End Elevation" represent bottom of excavation elevations for Post-excavation Bottom Samples (e.g., samples beginning with "BS").
   For sidewall samples (e.g., samples beginning with "SW") those entries represent the Start and End elevations for which the sample was taken.
   Start and End elevations for sidewall samples are chosen based on the maximum Hg concentration of near-by pre-excavation confirmation samples.
4. DMA Result represents the final dry weight corrected DMA result as reported by the On-site Laboratory.
5. DMA qualifiers: U = concentration is non-detect; J =concentration estimated; refer to onsite lab reports for more details.
6. Bottom sample located on top of organic material layer, sample obtained from top 2 inches of layer.
7. Bottom sample located on top of organic material layer, sample obtained from top 2 inches of layer.

Table 4-4 - Backfill Notification Log
Scrap Metal Yard
Orrington Remediation Site
Orrington, ME

Area	Notification Submitted	Notes
SMY-1	8/12/2016	Original email subject line incorrectly referenced SMY-2 and SMY-5
SMY-2	8/12/2016	
SMY-3	9/16/2016	
SMY-4	10/11/2016	
SMY-5	8/12/2016	
SMY-6	8/22/2016	
SMY-7	8/26/2016 9/12/2016	
SMY-8	9/28/2016 10/6/2016	
SMY-9	10/11/2016	
SMY-10	10/3/2016	
SMY-11	10/3/2016	
SMY-12	9/27/2016	
SMY-13	9/27/2016	
SMY-14	9/9/2016 9/22/2016	
SMY-15	8/26/2016	
SMY-16/17	9/2/2016	
SMY-18	8/31/2016	
SMY-19	8/31/2016	
SMY-20	8/31/2016	
SMY-21	8/31/2016	
SMY-22	8/26/2016	
SMY-23	8/26/2016	
SMY-24	8/22/2016	
SMY-25	8/19/2016	
SMY-26	8/26/2016	
SMY-27	8/22/2016	
SMY-28	8/4/2016	Confirmation sampling results were discussed with TechLaw and the Maine DEP on August 4, 2016. Approval to Backfill SMY-28 was received on 8/8/2016.
SMY-29	8/22/2016	
SMY-30	8/10/2016	

Notes:

1. Backfill notifications were discussed with the Maine DEP's onsite representive prior to being submitted.
2. Backfill notifications were submitted to the Maine DEP upon receiving confirmation sample results with concentrations less than the MPS.
3. Validated confirmation sample results were obtained from the On-site Laboratory and were submitted to the Maine DEP within two weeks of of the backfill notification being sent.
4. Backfill notifications were submitted to the Maine DEP via email correspondence on the date listed above.

Table 4-5A - Reuse Stockpile Mercury Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	DMA Result (mg/kg)	DMA Qualifier	Passing (Y/N)
RSP-11-SMY-160727-01	7/27/2016	SMY-28	0.710		Y
RSP-11-SMY-160727-02	7/27/2016	SMY-28	0.566		Y
RSP-11-SMY-160727-03	7/27/2016	SMY-28	0.892	J	Y
RSP-09-SMY-160803-01	8/3/2016	SMY-26	0.732		Y
RSP-09-SMY-160803-02	8/3/2016	SMY-26	1.781		Y
RSP-09-SMY-160803-03	8/3/2016	SMY-26	1.173		Y
RSP-10A-SMY-160809-01	8/9/2016	SMY-27	0.265	U	Y
RSP-10A-SMY-160809-02	8/9/2016	SMY-27	0.692		Y
RSP-10A-SMY-160809-03	8/9/2016	SMY-27	0.272	J	Y
RSP-10B-SMY-160811-01	8/11/2016	SMY-27	3.254		N
RSP-10B-SMY-160811-02	8/11/2016	SMY-27	1.530		Y
RSP-10B-SMY-160811-03	8/11/2016	SMY-27	2.311	J	N
RSP-08-SMY-160817-01	8/17/2016	SMY-24/ SMY-25	1.841		Y
RSP-08-SMY-160817-02	8/17/2016	SMY-24/ SMY-25	1.628		Y
RSP-08-SMY-160817-03	8/17/2016	SMY-24/ SMY-25	1.373		Y
RSP-07A-SMY-160818-01	8/18/2016	SMY-22	0.504	J	Y
RSP-07A-SMY-160818-02	8/18/2016	SMY-22	0.266	U	Y
RSP-07A-SMY-160818-03	8/18/2016	SMY-22	0.267	U	Y
RSP-06-SMY-160822-01	8/22/2016	SMY-21	0.484	J	Y
RSP-06-SMY-160822-02	8/22/2016	SMY-21	0.743		Y
RSP-06-SMY-160822-03	8/22/2016	SMY-21	0.583		Y
RSP-07B-SMY-160823-01	8/23/2016	SMY-22	1.244		Y
RSP-07B-SMY-160823-02	8/23/2016	SMY-22	1.062		Y
RSP-07B-SMY-160823-03	8/23/2016	SMY-22	1.363		Y
RSP-02A-SMY-160823-01	8/23/2016	SMY-13/ SMY-23	0.292	J	Y
RSP-02A-SMY-160823-02	8/23/2016	SMY-13/ SMY-23	0.513	J	Y

Table 4-5A - Reuse Stockpile Mercury Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	DMA Result (mg/kg)	DMA Qualifier	Passing (Y/N)
RSP-02A-SMY-160823-03	8/23/2016	SMY-13/ SMY-23	0.379	J	Y
RSP-05-SMY-160825-01	8/25/2016	SMY-20	0.273	U	Y
RSP-05-SMY-160825-02	8/25/2016	SMY-20	0.274	U	Y
RSP-05-SMY-160825-03	8/25/2016	SMY-20	0.271	U	Y
RSP-03-SMY-160825-01	8/25/2016	SMY-19	0.280	U	Y
RSP-03-SMY-160825-02	8/25/2016	SMY-19	0.514	J	Y
RSP-03-SMY-160825-03	8/25/2016	SMY-19	0.275	U	Y
RSP-02B-SMY-160919-01	9/19/2016	SMY-13/ SMY-23	0.341	J	Y
RSP-02B-SMY-160919-02	9/19/2016	SMY-13/ SMY-23	0.278	U	Y
RSP-02B-SMY-160919-03	9/19/2016	SMY-13/ SMY-23	0.276	U	Y
RSP-01-SMY-160928-01	9/28/2016	SMY-9/ SMY-10/ SMY-11	0.717	J	Y
RSP-01-SMY-160928-02	9/28/2016	SMY-9/ SMY-10/ SMY-11	0.430	J	Y
RSP-01-SMY-160928-03	9/28/2016	SMY-9/ SMY-10/ SMY-11	0.391	J	Y
RSP-01A-SMY-161003-01	10/3/2016	SMY-9/ SMY-10/ SMY-11	0.423	J	Y
RSP-01A-SMY-161003-02	10/3/2016	SMY-9/ SMY-10/ SMY-11	0.473	J	Y
RSP-01A-SMY-161003-03	10/3/2016	SMY-9/ SMY-10/ SMY-11	0.487	J	Y

Notes:
1. Data provided in the above table is based on the daily sample results issued from the project database.
2. DMA Result represents the final dry weight corrected DMA result as reported by the On-site Laboratory.
3. DMA qualifiers: U = concentration is non-detect; J =concentration estimated; refer to onsite lab reports for more details.

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,1,1,2-Tetrachloroethane	0.15	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,1,1-Trichloroethane	0.05	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,1,2,2-Tetrachloroethane	0.05	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,1,2-Trichloroethane	0.15	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,1-Dichloroethane	0.04	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,1-Dichloroethene	0.13	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,1-Dichloropropene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2,3-Trichlorobenzene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2,3-Trichloropropane	0.08	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2,4-Trichlorobenzene	0.09	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2,4-Trimethylbenzene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2-Dibromo-3-chloropropane	0.19	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2-Dichlorobenzene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2-Dichloroethane	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2-Dichloroethene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2-Dichloroethene, cis-	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2-Dichloroethene, trans-	0.1	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,2-Dichloropropane	0.11	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,3,5-Trimethylbenzene (Mesitylene)	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,3-Dichlorobenzene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,3-Dichloropropane	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,3-Dichloropropene	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,3-Dichloropropene, cis-	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,3-Dichloropropene, trans-	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,4-Dichloro-2-butene, trans-	0.19	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	1,4-Dichlorobenzene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	2,2-Dichloropropane	0.11	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	2-Chlorotoluene	0.08	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	2-Hexanone (Methyl butyl ketone)	0.32	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	4-Chlorotoluene	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.12	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Acetone	1	J	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Acrolein	3.9	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Acrylonitrile	0.25	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Benzene	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Bromobenzene	0.1	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Bromochloromethane	0.13	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Bromodichloromethane	0.08	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Bromoform (Tribromomethane)	0.11	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Bromomethane (Methyl bromide)	0.16	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Carbon disulfide	0.53	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Carbon tetrachloride (Tetrachloromethane)	0.1	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Chlorobenzene	0.17	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Chloroethane	0.15	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Chloroform	0.18	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Chloromethane	0.14	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Cymene, p- (4-Isopropyltoluene)	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Dibromochloromethane	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Dibromomethane	0.08	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Dichlorodifluoromethane	0.09	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Dichloromethane (Methylene chloride)	0.53	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Ethylene dibromide (1,2-Dibromoethane)	0.08	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	0.11	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Isopropylbenzene (Cumene)	0.05	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
RSP-06-SMY-160822-02	8/22/2016	SMY-21	m,p-Xylene	0.1	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Methyl ethyl ketone (2-Butanone)	0.13	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Methyl tert-butyl ether (MTBE)	0.04	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Naphthalene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	n-Butylbenzene	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	n-Propylbenzene	0.05	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	o-Xylene	0.08	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	sec-Butylbenzene	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Styrene	0.19	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	tert-Butylbenzene	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Tetrachloroethene (PCE)	0.07	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Tetrahydrofuran	0.48	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Toluene	0.22	J	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Trichloroethene (TCE)	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Trichlorofluoromethane (Fluorotrichloromethane)	0.19	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Vinyl acetate	0.06	U	ug/kg
RSP-06-SMY-160822-02	8/22/2016	SMY-21	Vinyl chloride	0.06	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,1,1,2-Tetrachloroethane	0.29	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,1,1-Trichloroethane	0.1	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,1,2,2-Tetrachloroethane	0.09	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,1,2-Trichloroethane	0.27	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,1-Dichloroethane	0.08	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,1-Dichloroethene	0.24	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,1-Dichloropropene	0.13	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2,3-Trichlorobenzene	0.13	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2,3-Trichloropropane	0.15	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2,4-Trichlorobenzene	0.16	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2,4-Trimethylbenzene	0.13	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2-Dibromo-3-chloropropane	0.36	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2-Dichlorobenzene	0.14	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2-Dichloroethane	0.1	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2-Dichloroethene	0.13	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2-Dichloroethene, cis-	0.13	UJ	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2-Dichloroethene, trans-	0.19	UJ	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,2-Dichloropropane	0.2	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,3,5-Trimethylbenzene (Mesitylene)	0.13	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,3-Dichlorobenzene	0.12	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,3-Dichloropropane	0.13	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,3-Dichloropropene	0.11	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,3-Dichloropropene, cis-	0.11	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,3-Dichloropropene, trans-	0.11	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,4-Dichloro-2-butene, trans-	0.35	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	1,4-Dichlorobenzene	0.12		ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	2,2-Dichloropropane	0.2	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	2-Chlorotoluene	0.14		ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	2-Hexanone (Methyl butyl ketone)	0.6		ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	4-Chlorotoluene	0.12	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.22	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Acetone	0.93	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Acrolein	7.3	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Acrylonitrile	0.46	UJ	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Benzene	0.11	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Bromobenzene	0.19	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Bromochloromethane	0.25	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Bromodichloromethane	0.16	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Bromoform (Tribromomethane)	0.21	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Bromomethane (Methyl bromide)	0.3	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Carbon disulfide	0.99	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Carbon tetrachloride (Tetrachloromethane)	0.19	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Chlorobenzene	0.31	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Chloroethane	0.28	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Chloroform	0.33	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Chloromethane	0.26	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Cymene, p- (4-Isopropyltoluene)	0.11	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Dibromochloromethane	0.14	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Dibromomethane	0.15	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Dichlorodifluoromethane	0.17	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Dichloromethane (Methylene chloride)	1	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Ethylene dibromide (1,2-Dibromoethane)	0.16	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	0.2	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Isopropylbenzene (Cumene)	0.09	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	m,p-Xylene	0.18	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Methyl ethyl ketone (2-Butanone)	0.24	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Methyl tert-butyl ether (MTBE)	0.08	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Naphthalene	0.12	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	n-Butylbenzene	0.1	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	n-Propylbenzene	0.1	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	o-Xylene	0.15	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	sec-Butylbenzene	0.11	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Styrene	0.36	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	tert-Butylbenzene	0.12	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Tetrachloroethene (PCE)	0.13	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Tetrahydrofuran	0.9	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Toluene	0.18	U	ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Trichloroethene (TCE)	0.11		ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Trichlorofluoromethane (Fluorotrichloromethane)	0.35		ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Vinyl acetate	0.12		ug/kg
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	Vinyl chloride	0.1	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,1,1,2-Tetrachloroethane	0.31	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,1,1-Trichloroethane	0.11	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,1,2,2-Tetrachloroethane	0.1	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,1,2-Trichloroethane	0.29	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,1-Dichloroethane	0.08	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,1-Dichloroethene	0.25	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,1-Dichloropropene	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2,3-Trichlorobenzene	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2,3-Trichloropropane	0.16	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2,4-Trichlorobenzene	0.18	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2,4-Trimethylbenzene	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2-Dibromo-3-chloropropane	0.38	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2-Dichlorobenzene	0.15	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2-Dichloroethane	0.11	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2-Dichloroethene	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2-Dichloroethene, cis-	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2-Dichloroethene, trans-	0.2	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,2-Dichloropropane	0.22	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,3,5-Trimethylbenzene (Mesitylene)	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,3-Dichlorobenzene	0.13	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,3-Dichloropropane	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,3-Dichloropropene	0.11	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,3-Dichloropropene, cis-	0.11	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,3-Dichloropropene, trans-	0.12	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,4-Dichloro-2-butene, trans-	0.38	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	1,4-Dichlorobenzene	0.13	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	2,2-Dichloropropane	0.22	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	2-Chlorotoluene	0.16	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	2-Hexanone (Methyl butyl ketone)	0.65	UJ	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	4-Chlorotoluene	0.13	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.24	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Acetone	1	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Acrolein	7.8	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Acrylonitrile	0.5	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Benzene	0.11	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Bromobenzene	0.2	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Bromochloromethane	0.27	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Bromodichloromethane	0.17	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Bromoform (Tribromomethane)	0.23	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Bromomethane (Methyl bromide)	0.33	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Carbon disulfide	1.1	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Carbon tetrachloride (Tetrachloromethane)	0.2	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Chlorobenzene	0.34	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Chloroethane	0.31	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Chloroform	0.36	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Chloromethane	0.28	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Cymene, p- (4-Isopropyltoluene)	0.12	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Dibromochloromethane	0.15	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Dibromomethane	0.16	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Dichlorodifluoromethane	0.18	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Dichloromethane (Methylene chloride)	1.1	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Ethylene dibromide (1,2-Dibromoethane)	0.17	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	0.22	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Isopropylbenzene (Cumene)	0.1	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	m,p-Xylene	0.19	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Methyl ethyl ketone (2-Butanone)	0.26	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Methyl tert-butyl ether (MTBE)	0.08	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Naphthalene	0.13	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	n-Butylbenzene	0.11	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	n-Propylbenzene	0.1	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	o-Xylene	0.17	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	sec-Butylbenzene	0.12	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Styrene	0.39	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	tert-Butylbenzene	0.13	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Tetrachloroethene (PCE)	0.14	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Tetrahydrofuran	0.97	UJ	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Toluene	0.35	J	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Trichloroethene (TCE)	0.12	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Trichlorofluoromethane (Fluorotrichloromethane)	0.38	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Vinyl acetate	0.13	U	ug/kg
SB-SMY-13A-150812-1-2	8/12/2016	SMY-11	Vinyl chloride	0.11	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,1,1,2-Tetrachloroethane	0.33	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,1,1-Trichloroethane	0.11	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,1,2,2-Tetrachloroethane	0.1	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,1,2-Trichloroethane	0.31	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,1-Dichloroethane	0.09	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,1-Dichloroethene	0.27	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,1-Dichloropropene	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2,3-Trichlorobenzene	0.15	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2,3-Trichloropropane	0.17	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2,4-Trichlorobenzene	0.19	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2,4-Trimethylbenzene	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2-Dibromo-3-chloropropane	0.41	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2-Dichlorobenzene	0.16	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2-Dichloroethane	0.12	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2-Dichloroethene	0.15	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2-Dichloroethene, cis-	0.15	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2-Dichloroethene, trans-	0.22	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,2-Dichloropropane	0.23	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,3,5-Trimethylbenzene (Mesitylene)	0.15	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,3-Dichlorobenzene	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,3-Dichloropropane	0.15	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,3-Dichloropropene	0.12	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,3-Dichloropropene, cis-	0.12	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,3-Dichloropropene, trans-	0.12	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,4-Dichloro-2-butene, trans-	0.4	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	1,4-Dichlorobenzene	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	2,2-Dichloropropane	0.23	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	2-Chlorotoluene	0.16	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	2-Hexanone (Methyl butyl ketone)	0.68	UJ	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	4-Chlorotoluene	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.25	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Acetone	1.1	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Acrolein	8.3	UJ	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Acrylonitrile	0.53	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Benzene	0.12	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Bromobenzene	0.21	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Bromochloromethane	0.28	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Bromodichloromethane	0.18	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Bromoform (Tribromomethane)	0.24	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Bromomethane (Methyl bromide)	0.35	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Carbon disulfide	1.1	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Carbon tetrachloride (Tetrachloromethane)	0.22	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Chlorobenzene	0.36	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Chloroethane	0.32	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Chloroform	0.38	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Chloromethane	0.3	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Cymene, p- (4-Isopropyltoluene)	0.13	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Dibromochloromethane	0.16	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Dibromomethane	0.17	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Dichlorodifluoromethane	0.2	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Dichloromethane (Methylene chloride)	1.1	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Ethylene dibromide (1,2-Dibromoethane)	0.18	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	0.23	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Isopropylbenzene (Cumene)	0.11	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	m,p-Xylene	0.2	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Methyl ethyl ketone (2-Butanone)	0.28	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Methyl tert-butyl ether (MTBE)	0.09	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Naphthalene	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	n-Butylbenzene	0.12	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	n-Propylbenzene	0.11	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	o-Xylene	0.18	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	sec-Butylbenzene	0.12	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Styrene	0.41	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	tert-Butylbenzene	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Tetrachloroethene (PCE)	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Tetrahydrofuran	1	UJ	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Toluene	0.2	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Trichloroethene (TCE)	0.13	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Trichlorofluoromethane (Fluorotrichloromethane)	0.4	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Vinyl acetate	0.14	U	ug/kg
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	Vinyl chloride	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,1,1,2-Tetrachloroethane	0.26	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,1,1-Trichloroethane	0.09	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,1,2,2-Tetrachloroethane	0.08	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,1,2-Trichloroethane	0.25	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,1-Dichloroethane	0.07	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,1-Dichloroethene	0.22	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,1-Dichloropropene	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2,3-Trichlorobenzene	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2,3-Trichloropropane	0.14	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2,4-Trichlorobenzene	0.15	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2,4-Trimethylbenzene	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2-Dibromo-3-chloropropane	0.33	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2-Dichlorobenzene	0.13	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2-Dichloroethane	0.09	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2-Dichloroethene	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2-Dichloroethene, cis-	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2-Dichloroethene, trans-	0.18	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,2-Dichloropropane	0.19	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,3,5-Trimethylbenzene (Mesitylene)	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,3-Dichlorobenzene	0.11	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,3-Dichloropropane	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,3-Dichloropropene	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,3-Dichloropropene, cis-	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,3-Dichloropropene, trans-	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,4-Dichloro-2-butene, trans-	0.32	UJ	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	1,4-Dichlorobenzene	0.11	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	2,2-Dichloropropane	0.19	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	2-Chlorotoluene	0.13	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	2-Hexanone (Methyl butyl ketone)	0.55	UJ	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	4-Chlorotoluene	0.11	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.2	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Acetone	10	J	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Acrolein	6.7	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Acrylonitrile	0.43	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Benzene	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Bromobenzene	0.17	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Bromochloromethane	0.23	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Bromodichloromethane	0.14	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Bromoform (Tribromomethane)	0.2	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Bromomethane (Methyl bromide)	0.28	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Carbon disulfide	0.92	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Carbon tetrachloride (Tetrachloromethane)	0.17	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Chlorobenzene	0.29	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Chloroethane	0.26	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Chloroform	0.31	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Chloromethane	0.24	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Cymene, p- (4-Isopropyltoluene)	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Dibromochloromethane	0.13	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Dibromomethane	0.14	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Dichlorodifluoromethane	0.16	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Dichloromethane (Methylene chloride)	0.92	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Ethylene dibromide (1,2-Dibromoethane)	0.14	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	0.19	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Isopropylbenzene (Cumene)	0.09	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	m,p-Xylene	0.16	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Methyl ethyl ketone (2-Butanone)	0.22	UJ	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Methyl tert-butyl ether (MTBE)	0.07	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Naphthalene	0.11	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	n-Butylbenzene	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	n-Propylbenzene	0.09	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	o-Xylene	0.14	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	sec-Butylbenzene	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Styrene	0.33	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	tert-Butylbenzene	0.11	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Tetrachloroethene (PCE)	0.12	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Tetrahydrofuran	0.83	UJ	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Toluene	0.16	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Trichloroethene (TCE)	0.1	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Trichlorofluoromethane (Fluorotrichloromethane)	0.32	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Vinyl acetate	0.11	U	ug/kg
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	Vinyl chloride	0.1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,1,1,2-Tetrachloroethane	0.29	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,1,1-Trichloroethane	0.1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,1,2,2-Tetrachloroethane	0.09	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,1,2-Trichloroethane	0.28	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,1-Dichloroethane	0.08	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,1-Dichloroethene	0.24	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,1-Dichloropropene	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2,3-Trichlorobenzene	0.14	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2,3-Trichloropropane	0.15	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2,4-Trichlorobenzene	0.17	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2,4-Trimethylbenzene	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2-Dibromo-3-chloropropane	0.36	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2-Dichlorobenzene	0.14	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2-Dichloroethane	0.1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2-Dichloroethene	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2-Dichloroethene, cis-	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2-Dichloroethene, trans-	0.2	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,2-Dichloropropane	0.21	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,3,5-Trimethylbenzene (Mesitylene)	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,3-Dichlorobenzene	0.12	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,3-Dichloropropane	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,3-Dichloropropene	0.11	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,3-Dichloropropene, cis-	0.11	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,3-Dichloropropene, trans-	0.11	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,4-Dichloro-2-butene, trans-	0.36	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	1,4-Dichlorobenzene	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	2,2-Dichloropropane	0.21	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	2-Chlorotoluene	0.15	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	2-Hexanone (Methyl butyl ketone)	0.61	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	4-Chlorotoluene	0.12	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.22	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Acetone	3.1	J	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Acrolein	7.4	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Acrylonitrile	0.47	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Benzene	0.11	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Bromobenzene	0.19	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Bromochloromethane	0.25	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Bromodichloromethane	0.16	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Bromoform (Tribromomethane)	0.22	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Bromomethane (Methyl bromide)	0.31	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Carbon disulfide	1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Carbon tetrachloride (Tetrachloromethane)	0.19	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Chlorobenzene	0.32	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Chloroethane	0.29	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Chloroform	0.34	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Chloromethane	0.27	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Cymene, p- (4-Isopropyltoluene)	0.12	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Dibromochloromethane	0.14	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Dibromomethane	0.15	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Dichlorodifluoromethane	0.18	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Dichloromethane (Methylene chloride)	1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Ethylene dibromide (1,2-Dibromoethane)	0.16	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	0.21	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Isopropylbenzene (Cumene)	0.1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	m,p-Xylene	0.18	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Methyl ethyl ketone (2-Butanone)	0.25	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Methyl tert-butyl ether (MTBE)	0.08	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Naphthalene	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	n-Butylbenzene	0.1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	n-Propylbenzene	0.1	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	o-Xylene	0.16	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	sec-Butylbenzene	0.11	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Styrene	0.37	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	tert-Butylbenzene	0.12	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Tetrachloroethene (PCE)	0.13	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Tetrahydrofuran	0.92	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Toluene	0.18	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Trichloroethene (TCE)	0.12	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Trichlorofluoromethane (Fluorotrichloromethane)	0.36	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Vinyl acetate	0.12	U	ug/kg
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	Vinyl chloride	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,1,1,2-Tetrachloroethane	0.29	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,1,1-Trichloroethane	0.1	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,1,2,2-Tetrachloroethane	0.09	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,1,2-Trichloroethane	0.28	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,1-Dichloroethane	0.08	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,1-Dichloroethene	0.24	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,1-Dichloropropene	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2,3-Trichlorobenzene	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2,3-Trichloropropane	0.15	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2,4-Trichlorobenzene	0.16	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2,4-Trimethylbenzene	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2-Dibromo-3-chloropropane	0.36	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2-Dichlorobenzene	0.14	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2-Dichloroethane	0.1	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2-Dichloroethene	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2-Dichloroethene, cis-	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2-Dichloroethene, trans-	0.19	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,2-Dichloropropane	0.21	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,3,5-Trimethylbenzene (Mesitylene)	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,3-Dichlorobenzene	0.12	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,3-Dichloropropane	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,3-Dichloropropene	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,3-Dichloropropene, cis-	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,3-Dichloropropene, trans-	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,4-Dichloro-2-butene, trans-	0.36	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	1,4-Dichlorobenzene	0.12	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	2,2-Dichloropropane	0.2	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	2-Chlorotoluene	0.14	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	2-Hexanone (Methyl butyl ketone)	0.6	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	4-Chlorotoluene	0.12	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	4-Methyl-2-pentanone (Methyl isobutyl ketone)	0.22	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Acetone	4.2	J	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Acrolein	7.3	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Acrylonitrile	0.46	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Benzene	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Bromobenzene	0.19	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Bromochloromethane	0.25	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Bromodichloromethane	0.16	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Bromoform (Tribromomethane)	0.21	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Bromomethane (Methyl bromide)	0.31	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Carbon disulfide	1	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Carbon tetrachloride (Tetrachloromethane)	0.19	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Chlorobenzene	0.32	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Chloroethane	0.29	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Chloroform	0.34	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Chloromethane	0.27	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Cymene, p- (4-Isopropyltoluene)	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Dibromochloromethane	0.14	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Dibromomethane	0.15	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Dichlorodifluoromethane	0.17	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Dichloromethane (Methylene chloride)	1	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Ethylene dibromide (1,2-Dibromoethane)	0.16	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Hexachlorobutadiene (Hexachloro-1,3-butadiene)	0.21	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Isopropylbenzene (Cumene)	0.09	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	m,p-Xylene	0.18	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Methyl ethyl ketone (2-Butanone)	0.25	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Methyl tert-butyl ether (MTBE)	0.08	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Naphthalene	0.12	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	n-Butylbenzene	0.1	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	n-Propylbenzene	0.1	U	ug/kg

Table 4-5B - Reuse Stockpile VOC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Chemical Name	Result	Qualifier	Units
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	o-Xylene	0.16	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	sec-Butylbenzene	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Styrene	0.36	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	tert-Butylbenzene	0.12	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Tetrachloroethene (PCE)	0.13	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Tetrahydrofuran	0.9	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Toluene	0.18	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Trichloroethene (TCE)	0.11	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Trichlorofluoromethane (Fluorotrichloromethane)	0.35	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Vinyl acetate	0.12	U	ug/kg
SB-SMY-30A-150914-7-8	9/14/2015	SMY-19	Vinyl chloride	0.11	U	ug/kg

Notes:
1. Qualifiers: U = concentration is non-detect; J = concentration estimated, UJ = concentration is estimated at the limit of quantitation.

Table 4-5C - Reuse Stockpile Other COC Results
Scrap Metal Yard Area
Orrington Remediation Site
Orrington, ME

Sample ID	Date Collected	Area(s)	Cadmium (mg/kg)	Cadmium Qualifier	Chloropicrin (mg/kg)	Chloropicrin Qualifier	Ethylbenzene (mg/kg)	Ethylbenzene Qualalifier	Total Xylenes (mg/kg)	Total Xylenes Qual
RSP-10A-SMY-160809-01	8/9/2016	SMY-27	0.08	J	--	--	--	--	--	--
RSP-06-SMY-160822-02	8/22/2016	SMY-21	--	--	0.0002	U	0.0001	U	0.0001	U
SB-SMY-05A-150813-0-1	8/13/2015	SMY-9	0.03	UJ	0.004	U	0.0001	U	0.0002	U
SB-SMY-13A-150812-1-2	8/12/2015	SMY-11	0.39	J	0.004	U	0.0001	U	0.0002	U
SB-SMY-19A-150806-2-3	8/6/2015	SMY-13	0.20	J	0.004	U	0.0001	U	0.0002	U
SB-SMY-24B-150812-5-7	8/12/2015	SMY-15	0.42	J	0.003	U	0.0001	U	0.0001	U
SB-SMY-27A-150914-5-7	9/14/2015	SMY-10	0.03	U	0.004	U	0.0001	U	0.0002	U
SB-SMY-30A-150914-7-8	9/14/2016	SMY-19	0.03	U	0.004	U	0.0001	U	0.0002	U

Notes:

1. Qualifiers: U = concentration is non-detect; J = concentration estimated, UJ = concentration is estimated at the limit of quantitation.

Table 4-6B - Common Fill Type 1 Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Material Name: Common Fill Type 1 (CF1)					**Specifications and Test Information:**	
Test Date	**Proctor Sample ID**	**Optimum Moisture**	**Maximum Dry Density**	**Source**	**Gauge Type/ID:**	Troxler 3430/Serial No. 27418 Troxler 3440/Serial No.
					Max Lift Thickness:	12 inchs
7/14/2016	CF1-001	9.5	122.0	Thornton Pit	**Minimum Compaction Percent:**	95
7/25/2016	CF1-002	9.2	127.8	Thornton Pit	**Moisture Content Range:**	+/- 2%
8/18/2016	CF1-003	7.7	129.3	Thornton Pit	**Moisture Correction Factor:**	
8/30/2016	CF1-004	9.5	127.3	Thornton Pit		
9/12/2016	CF1-005	7.6	131.7	Thornton Pit		
9/14/2106	CF1-006	9.7	128.9	Thornton Pit		
9/21/2016	CF1-007	10.4	124.9	Thornton Pit		
9/21/2016	CF1-008	7.2	133.7	Thornton Pit		
9/21/2016	CF1-009	9.8	128.4	Thornton Pit		
9/22/2016	CF1-010	9.9	124.0	Thornton Pit		
9/30/2016	CF1-011	9.8	128.7	Thornton Pit		
9/30/2016	CF1-012	11.3	122.8	Thornton Pit		
10/5/2016	CF1-013	11.0	119.1	Thornton Pit		
10/5/2016	CF1-014	10.5	126.4	Thornton Pit		
10/5/2016	CF1-015	9.3	125.0	Thornton Pit		
10/11/2016	CF1-016	9.6	126.4	Thornton Pit		
10/17/2016	CF1-017	9.2	128.9	Thornton Pit		
10/18/2016	CF1-018	10.0	125.7	Thornton Pit		
10/21/2016	CF1-019	8.8	123.9	Thornton Pit		

Date	**FDT Test No.**	**Test Location**	**Probe Depth/Lift No.**	**Field Density Test Results**			**Pass**	**Fail**	**Retest**	**Proctor Sample ID**	**Target 95% Density**
				Field Moisture Content	**Dry Unit Weight**	**Percent Compaction**					
(-)	**(-)**	**(ref grid)**	**(inch)/(Lift)**	**(%)**	**(lb/ft^3)**	**(%)**					**(lb/ft^3)**
8/16/2016	CF1-001	SMY-2	6/1	7.3	126.7	99%	X			CF1-002	121.4
8/16/2016	CF1-002	SMY-5 west	6/1	5.2	124.9	98%		X	CF1-003	CF1-002	121.4
8/18/2016	CF1-003	SMY-5 west	6/1	8.5	126.2	99%	X			CF1-002	121.4
8/18/2016	CF1-004	SMY-5 center	6/1	8.1	131.7	100%	X			CF1-002	121.4
8/18/2016	CF1-005	SMY-5 east	6/1	8.4	129.2	100%	X			CF1-002	121.4
8/30/2016	CF1-006	SMY-2	6/1	6.7	134.5	100%	X			CF1-003	122.8
8/30/2016	CF1-007	SMY-5 east	6/1	6.5	128.4	99%	X			CF1-003	122.8
8/31/2016	CF1-008	SMY-7	6/1	6.9	126.6	98%	X			CF1-003	122.8
8/31/2016	CF1-009	SMY-6	6/1	6.3	129.5	100%	X			CF1-003	122.8
8/31/2016	CF1-010	SMY-7	6/1	6.4	124.7	96%	X			CF1-003	122.8
9/1/2016	CF1-011	SMY-21	6/1	7.3	129.3	100%	X			CF1-003	122.8
9/1/2016	CF1-012	SMY-26	6/2	6.3	127.3	98%	X			CF1-003	122.8

Table 4-6B - Common Fill Type 1 Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Date	FDT Test No.	Test Location	Probe Depth/Lift No.	Field Density Test Results			Pass	Fail	Retest	Proctor Sample ID	Target 95% Density
				Field Moisture Content	Dry Unit Weight	Percent Compaction					
(-)	(-)	(ref grid)	(inch)/(Lift)	(%)	(lb/ft^3)	(%)					(lb/ft^3)
9/1/2016	CF1-013	SMY-21	6/2	5.0	124.7	96%		X	CF1-014	CF1-003	122.8
9/1/2016	CF1-014	SMY-21	6/2	5.8	121.5	94%		X	CF1-015	CF1-003	122.8
9/1/2016	CF1-015	SMY-21	6/2	6.3	117.7	91%		X	CF1-016	CF1-003	122.8
9/1/2016	CF1-016	SMY-21	6/2	5.8	127.2	98%	X			CF1-003	122.8
9/1/2016	CF1-017	SMY-18	6/1	7.1	126.0	97%	X			CF1-003	122.8
9/6/2016	CF1-018	SMY-16/17	6/1	6.7	129.8	100%	X			CF1-003	122.8
9/6/2016	CF1-019	SMY-18	6/2	4.8	124.3	96%		X	CF1-020	CF1-003	122.8
9/6/2016	CF1-020	SMY-18	6/2	8.7	128.5	99%	X			CF1-003	122.8
9/6/2016	CF1-021	SMY-16/17	6/2	8.0	124.5	96%	X			CF1-003	122.8
9/6/2016	CF1-022	SMY-16/17	6/3	5.9	126.9	98%	X			CF1-003	122.8
9/6/2016	CF1-023	SMY-16/17/25	6/4	6.3	126.8	98%	X			CF1-003	122.8
9/6/2016	CF1-024	SMY-18	6/3	6.0	126.5	98%	X			CF1-003	122.8
9/6/2016	CF1-025	SMY-21	6/3	9.6	129.4	100%	X			CF1-004	120.9
9/7/2016	CF1-026	SMY-30	6/1	4.9	127.7	100%		X	CF1-027	CF1-004	120.9
9/7/2016	CF1-027	SMY-30	6/1	8.5	124.8	98%	X			CF1-004	120.9
9/7/2016	CF1-028	SMY-16/17/25	6/5	9.2	131.9	100%	X			CF1-004	120.9
9/7/2016	CF1-029	SMY-19/20	6/1	8.7	130.9	100%	X			CF1-004	120.9
9/7/2016	CF1-030	SMY-16/17/25	6/6	8.0	130.4	100%	X			CF1-004	120.9
9/7/2016	CF1-031	SMY-18/19/20	6/2	7.7	128.1	100%	X			CF1-004	120.9
9/12/2016	CF1-032	SMY-14	6/1	7.8	125.5	99%	X			CF1-004	120.9
9/12/2016	CF1-033	SMY-16/17	6/7	7.8	132.6	100%	X			CF1-004	120.9
9/12/2016	CF1-034	SMY-18/19/20	6/3	7.9	121.2	95%	X			CF1-004	120.9
9/12/2016	CF1-035	SMY-21/26/27/29/30	6/2	8.2	134.0	100%	X			CF1-004	120.9
9/13/2016	CF1-036	SMY-7	6/1	7.9	129.8	100%	X			CF1-004	120.9
9/13/2016	CF1-037	SMY-16/17/18/19/20	6/8	7.7	128.0	100%	X			CF1-004	120.9
9/13/2016	CF1-038	SMY-21/26/27/29/30	6/3	7.8	123.9	97%	X			CF1-004	120.9
9/13/2016	CF1-039	SMY-7/14	6/2	7.9	125.5	99%	X			CF1-004	120.9
9/13/2016	CF1-040	SMY-7/14/15	6/3	8.1	129.1	100%	X			CF1-004	120.9
9/14/2016	CF1-041	SMY-7/14/15	6/4	8.0	123.5	97%	X			CF1-004	120.9
9/14/2016	CF1-042	SMY-16/17/18/19/20/25	6/9	6.3	125.0	98%		X	CF1-043	CF1-004	120.9
9/14/2016	CF1-043	SMY-16/17/18/19/20/25	6/9	8.8	125.6	99%	X			CF1-004	120.9
9/14/2016	CF1-044	SMY-7/14/15	6/5	8.5	125.3	98%	X			CF1-004	120.9

Table 4-6B - Common Fill Type 1 Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Date	FDT Test No.	Test Location	Probe Depth/Lift No.	Field Density Test Results			Pass	Fail	Retest	Proctor Sample ID	Target 95% Density
				Field Moisture Content	Dry Unit Weight	Percent Compaction					
(-)	(-)	(ref grid)	(inch)/(Lift)	(%)	(lb/ft^3)	(%)					(lb/ft^3)
9/15/2016	CF1-045	SMY-16/17/18/19/20/25	6/10	6.1	128.8	98%	X			CF1-005	125.1
9/15/2016	CF1-046	SMY-7/14/15	6/6	6.1	124.5	95%	X			CF1-005	125.1
9/15/2016	CF1-047	SMY-16/17/18/19/20/25	6/11	5.4	122.1	93%		X	CF1-48	CF1-005	125.1
9/15/2016	CF1-048	SMY-16/17/18/19/20/25	6/11	5.6	125.6	95%	X			CF1-005	125.1
9/19/2016	CF1-049	SMY-16/17/18/19/20/25	6/12	5.7	126.3	96%	X			CF1-005	125.1
9/19/2016	CF1-050	SMY-3	6/1	4.9	119.2	91%		X	CF1-051	CF1-005	125.1
9/19/2016	CF1-051	SMY-3	6/1	7.0	126.7	96%	X			CF1-005	125.1
9/20/2016	CF1-052	SMY-3	6/2	4.8	121.8	92%		X	CF1-053	CF1-005	125.1
9/20/2016	CF1-053	SMY-3	6/2	8.5	126.5	96%	X			CF1-005	125.1
9/20/2016	CF1-054	SMY-3	6/3	8.1	121.7	92%		X	CF1-055	CF1-005	125.1
9/20/2016	CF1-055	SMY-3	6/3	7.1	124.5	95%	X			CF1-005	125.1
9/20/2016	CF1-056	SMY-3	6/4	6.6	128.1	97%	X			CF1-005	125.1
9/21/2016	CF1-057	SMY-3	6/5	6.5	124.0	94%		X	CF1-059	CF1-005	125.1
9/21/2016	CF1-058	SMY-16/17/18/19/20/25	6/13	4.0	123.9	94%		X	CF1-060	CF1-005	125.1
9/21/2016	CF1-059	SMY-3	6/5	6.5	128.8	98%	X			CF1-005	125.1
9/21/2016	CF1-060	SMY-16/17/18/19/20/25	6/13	6.0	126.3	96%	X			CF1-005	125.1
9/21/2016	CF1-061	SMY-3	6/6	7.0	127.9	97%	X			CF1-005	125.1
9/21/2016	CF1-062	SMY-3	6/7	5.2	121.7	92%		X	CF1-062	CF1-005	125.1
9/21/2016	CF1-063	SMY-3	6/7	5.7	126.0	96%	X			CF1-005	125.1
9/21/2016	CF1-064	SMY-7	6/7	6.7	126.5	96%	X			CF1-005	125.1
9/22/2016	CF1-065	SMY-3	6/8	4.4	127.0	96%		X	CF1-67	CF1-005	125.1
9/22/2016	CF1-066	SMY-7/14/15	6/8	5.7	130.5	99%	X			CF1-005	125.1
9/22/2016	CF1-067	SMY-3	6/8	6.2	126.7	96%	X			CF1-005	125.1
9/22/2016	CF1-068	SMY-18/19/20/21	6/4	6.6	127.0	96%	X			CF1-005	125.1
9/22/2016	CF1-069	SMY-21/26/29/30	6/5	6.6	129.5	98%	X			CF1-005	125.1
9/22/2016	CF1-070	SMY-18/19/20/21	6/5	5.2	120.9	92%		X	CF1-071	CF1-005	125.1
9/22/2016	CF1-071	SMY-18/19/20/21	6/5	8.3	126.2	96%	X			CF1-005	125.1
9/26/2016	CF1-072	SMY-18/19/20/21/22/27/29/30	6/6	4.2	124.6	97%		X	CF1-073	CF1-009	122.0

Table 4-6B - Common Fill Type 1 Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Date	FDT Test No.	Test Location	Probe Depth/Lift No.	Field Density Test Results			Pass	Fail	Retest	Proctor Sample ID	Target 95% Density
				Field Moisture Content	Dry Unit Weight	Percent Compaction					
(-)	(-)	(ref grid)	(inch)/(Lift)	(%)	(lb/ft^3)	(%)					(lb/ft^3)
9/26/2016	CF1-073	SMY-18/19/20/21/22/27/29/30	6/6	8.0	128.1	100%	X			CF1-009	122.0
9/26/2016	CF1-074	SMY-14	6/1	8.3	127.1	99%	X			CF1-009	122.0
9/26/2016	CF1-075	SMY-18/19/20/21/22/27/29/30	6/7	8.5	124.2	97%	X			CF1-009	122.0
9/26/2016	CF1-076	SMY-14	6/2	5.8	122.8	96%		X	CF1-077	CF1-009	122.0
9/26/2016	CF1-077	SMY-14	6/2	8.5	127.9	100%	X			CF1-009	122.0
9/26/2016	CF1-078	SMY-14	6/3	9.1	125.3	98%	X			CF1-009	122.0
9/26/2016	CF1-079	SMY-18/19/20/21	6/8	8.3	123.9	96%	X			CF1-009	122.0
9/26/2016	CF1-080	SMY-14	6/4	9.0	119.3	93%		X	CF1-081	CF1-009	122.0
9/26/2016	CF1-081	SMY-14	6/4	8.4	123.3	96%	X			CF1-009	122.0
9/26/2016	CF1-082	SMY-14	6/5	7.9	124.0	97%	X			CF1-009	122.0
9/27/2016	CF1-083	SMY-14	6/6	8.0	123.2	96%	X			CF1-009	122.0
9/27/2016	CF1-084	SMY-13	6/1	9.3	122.9	96%	X			CF1-009	122.0
9/27/2016	CF1-085	SMY-13	6/2	8.2	125.6	98%	X			CF1-009	122.0
9/27/2016	CF1-086	SMY-13/14	6/4	8.4	123.3	96%	X			CF1-009	122.0
9/28/2016	CF1-087	SMY-8	6/1	5.4	119.0	93%		X	CF1-088	CF1-009	122.0
9/28/2016	CF1-088	SMY-8	6/2	8.4	123.0	96%	X			CF1-009	122.0
9/28/2016	CF1-089	SMY-12/13/14	6/5	8.7	122.2	95%	X			CF1-009	122.0
9/28/2016	CF1-090	SMY-8	6/3	7.8	123.1	96%	X			CF1-009	122.0
9/28/2016	CF1-091	SMY-8	6/4	6.7	125.3	98%		X	CF1-092	CF1-009	122.0
9/28/2016	CF1-092	SMY-8	6/4	9.2	125.1	97%	X			CF1-009	122.0
9/29/2016	CF1-093	SMY-8	6/5	7.9	123.1	99%	X			CF1-010	117.8
9/29/2016	CF1-094	SMY-8	6/6	11.0	118.1	95%	X			CF1-010	117.8
9/29/2016	CF1-095	SMY-12/13/14	6/6	8.0	124.0	100%	X			CF1-010	117.8
9/29/2016	CF1-096	SMY-22/26/27/29/30	6/6	8.3	120.5	97%	X			CF1-010	117.8
9/29/2016	CF1-097	SMY-8	6/7	8.5	123.5	100%	X			CF1-010	117.8
10/3/2016	CF1-098	SMY-8	6/8	8.1	124.1	100%	X			CF1-010	117.8
10/3/2016	CF1-099	SMY-12/13/14	6/7	9.0	122.1	98%	X			CF1-010	117.8
10/3/2016	CF1-100	SMY-8	6/9	7.0	125.1	100%	X			CF1-010	117.8
10/3/2016	CF1-101	SMY-8	6/10	8.3	121.6	98%	X			CF1-010	117.8
10/3/2016	CF1-102	SMY-10/11	6/1	5.4	123.2	99%		X	CF1-103	CF1-010	117.8
10/3/2016	CF1-103	SMY-10/11	6/1	10.0	122.0	98%	X			CF1-010	117.8
10/3/2016	CF1-104	SMY-10/11	6/2	8.7	123.4	100%	X			CF1-010	117.8
10/3/2016	CF1-105	SMY-10/11	6/3	8.9	126.1	100%	X			CF1-010	117.8
10/3/2016	CF1-106	SMY-10/11	6/4	9.6	124.2	100%	X			CF1-010	117.8

Table 4-6B - Common Fill Type 1 Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Date	FDT Test No.	Test Location	Probe Depth/Lift No.	Field Density Test Results			Pass	Fail	Retest	Proctor Sample ID	Target 95% Density
				Field Moisture Content	Dry Unit Weight	Percent Compaction					
(-)	(-)	(ref grid)	(inch)/(Lift)	(%)	(lb/ft^3)	(%)					(lb/ft^3)
10/3/2016	CF1-107	SMY-8	6/11	6.2	121.9	98%		X	CF1-108	CF1-010	117.8
10/3/2016	CF1-108	SMY-8	6/11	7.5	122.6	99%		X	CF1-109	CF1-010	117.8
10/3/2016	CF1-109	SMY-8	6/11	8.9	125.4	100%	X			CF1-010	117.8
10/3/2016	CF1-110	SMY-10/11	6/5	9.2	121.5	98%	X			CF1-010	117.8
10/3/2016	CF1-111	SMY-10/11	6/6	10.6	124.2	100%	X			CF1-010	117.8
10/4/2016	CF1-112	SMY-8	6/12	4.8	120.1	97%		X	CF1-118	CF1-010	117.8
10/4/2016	CF1-114	SMY-10/11	6/7	6.2	118.7	96%		X	CF1-115	CF1-010	117.8
10/4/2016	CF1-115	SMY-10/11	6/7	5.5	119.8	97%		X	CF1-116	CF1-010	117.8
10/4/2016	CF1-116	SMY-10/11	6/7	6.7	119.7	97%		X	CF1-117	CF1-010	117.8
10/4/2016	CF1-117	SMY-10/11	6/7	8.7	125.5	100%	X			CF1-010	117.8
10/4/2016	CF1-118	SMY-8	6/12	8.1	123.8	100%	X			CF1-010	117.8
10/4/2016	CF1-119	SMY-8/10/11	6/8	8.3	120.4	97%	X			CF1-010	117.8
10/4/2016	CF1-120	SMY-8/10/11	6/9	9.4	124.6	100%	X			CF1-010	117.8
10/5/2016	CFI-121	SMY-20/21/22	6/1	10.3	121.0	98%	X			CF1-010	117.8
10/5/2016	CFI-122	SMY-20/21/22	6/1	9.9	121.9	98%	X			CF1-010	117.8
10/5/2016	CFI-123	SMY-20/21/22	6/9	8.8	121.3	98%	X			CF1-010	117.8
10/6/2016	CF1-124	SMY-20/21/22	6/10	9.1	123.9	100%	X			CF1-013	113.1
10/11/2016	CF1-125	SMY-8	6/1	9.4	122.6	100%	X			CF1-013	113.1
10/11/2016	CF1-126	SMY-8	6/2	5.9	128.9	100%		X	CF1-128	CF1-013	113.1
10/11/2016	CF1-127	SMY-8	6/2	6.6	126.6	100%		X	CF1-129	CF1-013	113.1
10/11/2016	CF1-128	SMY-8	6/2	12.8	114.1	96%	X			CF1-013	113.1
10/11/2016	CF1-129	SMY-8	6/2	10.7	126.4	100%	X			CF1-013	113.1
10/11/2016	CF1-130	SMY-8	6/3	9.3	126.4	100%	X			CF1-013	113.1
10/11/2016	CF1-131	SMY-8	6/3	10.5	122.0	100%	X			CF1-013	113.1
10/11/2016	CF1-132	SMY-8	6/4	9.5	119.5	100%	X			CF1-013	113.1
10/11/2016	CF1-133	SMY-8	6/4	9.3	119.2	100%	X			CF1-013	113.1
10/12/2016	CF1-134	SMY-8	6/5	7.0	124.6	100%		X	CF1-135	CF1-015	118.8
10/12/2016	CF1-135	SMY-8	6/5	8.0	121.6	97%	X			CF1-015	118.8
10/12/2016	CF1-136	SMY-8	6/5	9.3	126.4	100%	X			CF1-015	118.8
10/12/2016	CF1-137	SMY-9	6/3	9.9	128.2	100%	X			CF1-015	118.8
10/12/2016	CF1-138	SMY-9	6/4	10.3	123.4	99%	X			CF1-015	118.8
10/12/2016	CF1-139	SMY-9	6/5	8.6	125.3	100%	X			CF1-015	118.8
10/12/2016	CF1-140	SMY-9	6/6	10.1	120.3	96%	X			CF1-015	118.8
10/12/2016	CF1-141	SMY-8	6/6	8.8	127.3	100%	X			CF1-015	118.8
10/13/2016	CF1-142	SMY-8	6/7	10.4	128.2	100%	X			CF1-015	118.8
10/13/2016	CF1-143	SMY-9	6/7	9.2	124.4	100%	X			CF1-015	118.8
10/17/2016	CF1-144	SMY-4/8/9	6/8	8.0	121.7	96%	X			CF1-016	120.1
10/18/2016	CF1-145	SMY-4/8/9	6/9	8.4	126.5	100%	X			CF1-016	120.1
10/18/2016	CF1-146	SMY-28	6/1	7.7	120.3	99%	X			CF1-001	115.9

Table 4-6B - Common Fill Type 1 Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Date	FDT Test No.	Test Location	Probe Depth/Lift No.	Field Density Test Results			Pass	Fail	Retest	Proctor Sample ID	Target 95% Density
				Field Moisture Content	Dry Unit Weight	Percent Compaction					
(-)	(-)	(ref grid)	(inch)/(Lift)	(%)	(lb/ft^3)	(%)					(lb/ft^3)
10/18/2016	CF1-147	SMY-28	6/2	8.7	128.8	100%	X			CF1-001	115.9
10/18/2016	CF1-148	SMY-28	6/3	7.9	126.0	100%	X			CF1-001	115.9
10/18/2016	CF1-149	SMY-28	6/4	7.7	127.7	100%	X			CF1-001	115.9
10/18/2016	CF1-150	SMY-4/8/9	6/10	8.9	128.0	100%	X			CF1-016	120.1
10/19/2016	CF1-151	SMY-4/8/9	6/11	8.3	125.7	99%	X			CF1-016	120.1
10/20/2016	CF1-152	SMY-4/8/9	6/12	8.9	127.4	99%	X			CF1-017	122.5
10/24/2016	CF1-153	SMY-4/8/10	6/13	9.3	122.5	95%	X			CF1-017	122.5

Table 4-6C - On-site Reuse Soil Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Material Name: On-Site Reused Material (OSM)					Specifications and Test Information:	
Test Date	Proctor Sample ID	Optimum Moisture	Maximum Dry Density	Source	Gauge Type/ID:	Troxler 3430/Serial No. 27418 Troxler 3440/Serial No. 36269
					Max Lift Thickness:	12 inches
8/3/2016	OSM-001	7.9	131.0	On-site	Minimum Compaction Percen	95
8/23/2016	OSM-002	9.3	126.3	On-site	Moisture Content Range:	+/- 2%
					Moisture Correction Factor:	

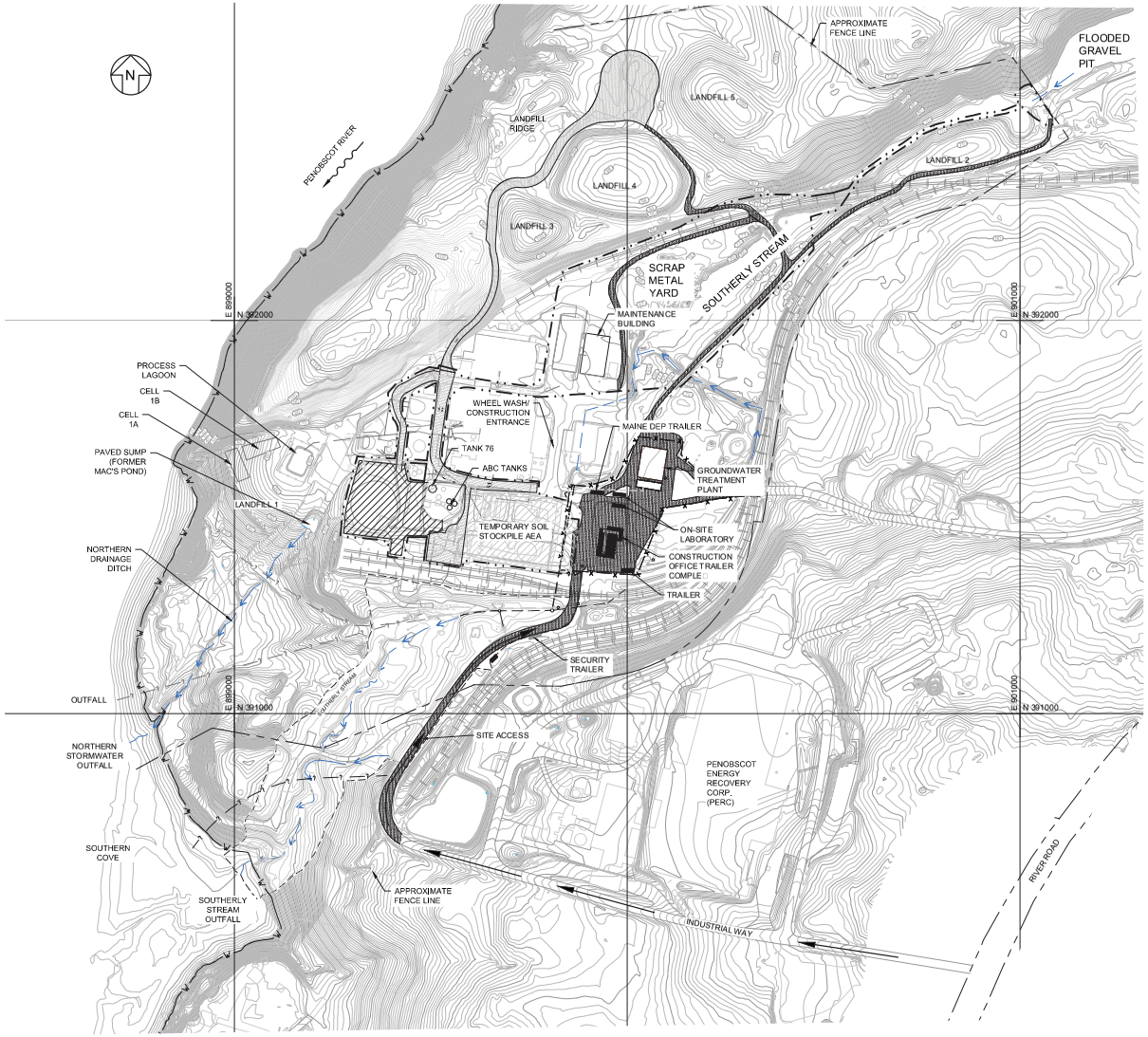
Date	FDT Test No.	Test Location	Probe Depth/Lift No.	Field Density Test Results			Pass	Fail	Retest	Laborator Target 95% Density
				Field Moisture Content	Dry Unit Weight	Percent Compaction				
(-)	(-)	(ref grid)	(inch)/(Lift)	(%)	(lb/ft^3)	(%)				(lb/ft^3)
8/30/2016	OSM-001	SMY-27	6/1	7.8	127.5	100%	X			120.0
8/30/2016	OSM-002	SMY-27	6/2	6.3	121.3	96%		X	OSM-003	120.0
8/30/2016	OSM-003	SMY-27	6/2	8.1	126.4	100%	X			120.0
8/30/2016	OSM-004	SMY-27	6/3	8.6	125.2	99%	X			120.0
8/30/2016	OSM-005	SMY-27	6/4	9.1	128.3	100%	X			120.0
8/30/2016	OSM-006	SMY-27	6/5	8.0	129.4	100%	X			120.0
9/1/2016	OSM-007	SMY-26	6/1	6.3	128.8	100%		X	OSM-008	120.0
9/1/2016	OSM-008	SMY-27	6/6	8.3	127.5	100%	X			120.0
9/27/2016	OSM-009	SMY-14	6/7	8.2	125.2	99%	X			120.0
9/27/2016	OSM-010	SMY-13	6/2	8.1	124.2	98%	X			120.0
10/12/2016	OSM-011	SMY-9	6/1	9.8	120.4	95%	X			120.0
10/12/2016	OSM-012	SMY-9	6/2	11.0	121.2	96%	X			120.0

Table 4-6A- Dense Graded Gravel Field Density Tests
Scrap Metal Yard
Orrington Remeditation Site
Orrington, ME

Material Name: Dense Graded Gravel (DGG)					**Specifications and Test Information:**	
Test Date	**Proctor Sample ID**	**Optimum Moisture**	**Maximum Dry Density**	**Source**	**Gauge Type/ID:**	Troxler 3430/Serial No. 27418 Troxler 3440/Serial No. 36269
					Max Lift Thickness:	12 inches
7/18/2016	DGG-001	5.9	133.9	Thornton Pit	**Minimum Compaction Percent**	95
7/25/2016	DGG-002	4.7	125.3	Thornton Pit	**Moisture Content Range:**	+/- 2%
					Moisture Correction Factor:	

Date	**FDT Test No.**	**Test Location**	**Probe Depth/Lift No.**	**Field Density Test Results**			**Pass**	**Fail**	**Retest**	**Laborator**
				Field Moisture Content	**Dry Unit Weight**	**Percent Compaction**				**Target 95% Density**
(-)	**(-)**	**(ref grid)**	**(inch)/(Lift)**	**(%)**	**(lb/ft^3)**	**(%)**				**(lb/ft^3)**
7/26/2016	DGG-001	Staging Area	6/1	3.3	126.1	94%		X	DGG-002	127.2
7/26/2016	DGG-002	Staging Area	6/1	4.9	127.5	95%	X			127.2
10/18/2016	DGG-003	Access Road	6/1	3.6	123.4	92%		X	DGG-008	127.2
10/18/2016	DGG-004	Access Road	6/1	5.4	120.7	90%		X	DGG-009	127.2
10/18/2016	DGG-005	Access Road	6/1	4.5	125.4	94%		X	DGG-010	127.2
10/18/2016	DGG-006	Access Road	6/1	5.4	123.8	92%		X	DGG-011	127.2
10/18/2016	DGG-007	Access Road	6/1	5.5	123.3	92%		X	DGG-012	127.2
10/19/2016	DGG-008	Access Road	6/1	5.2	127.3	95%	X			127.2
10/19/2016	DGG-009	Access Road	6/1	4.5	127.1	95%	X			127.2
10/19/2016	DGG-010	Access Road	6/1	5.9	127.1	95%	X			127.2
10/19/2016	DGG-011	Access Road	6/1	5.9	128.4	96%	X			127.2
10/19/2016	DGG-012	Access Road	6/1	6.7	127.2	95%	X			127.2

FIGURES



LEGEND

- PROPERTY LINE
- E ISTING GROUND ELEVATION (FT)
- FENCE LINE
- ROADWAY
- RAILROAD
- SOUTHERLY STREAM CULVERT
- SOUTHERLY STREAM / NORTHERN DITCH

0 150' 300'
SCALE IN FEET

NOTES:

1. THE SITE IS LOCATED AT 99 INDUSTRIAL WAY, ORRINGTON MAINE 04474.
2. E ISTING TOPOGRAPHY AND SITE FEATURES ARE BASED ON A SURVEY CONDUCTED BY THE JAMES W. SEWALL COMPANY IN 2003 AND PROVIDED IN CDMSMITH DRAWING "384100_MASTER-SURVEY.DWG" AND ARE UPDATED BY CES, INC. OF BANGOR MAIN. THE HORIZONTAL DATUM IS NAD83 (NORTH AMERICAN DATUM 1983) MAINE STATE PLANE (EAST ZONE) AND THE VERTICAL DATUM IS NAVD 88 (NORTH AMERICAN VERTICAL DATUM 1988).
3. HISTORICAL INVESTIGATION LOCATIONS ARE APPRO IMATE AND HAVE BEEN OBTAINED FROM VARIOUS HISTORICAL DOCUMENTS.
4. STRUCTURES HAVE BEEN DEMOLISHED AND ONLY FOUNDATIONS REMAIN, WITH THE E CEPTION OF IDENTIFIED WHICH REMAIN.

SITE PLAN

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

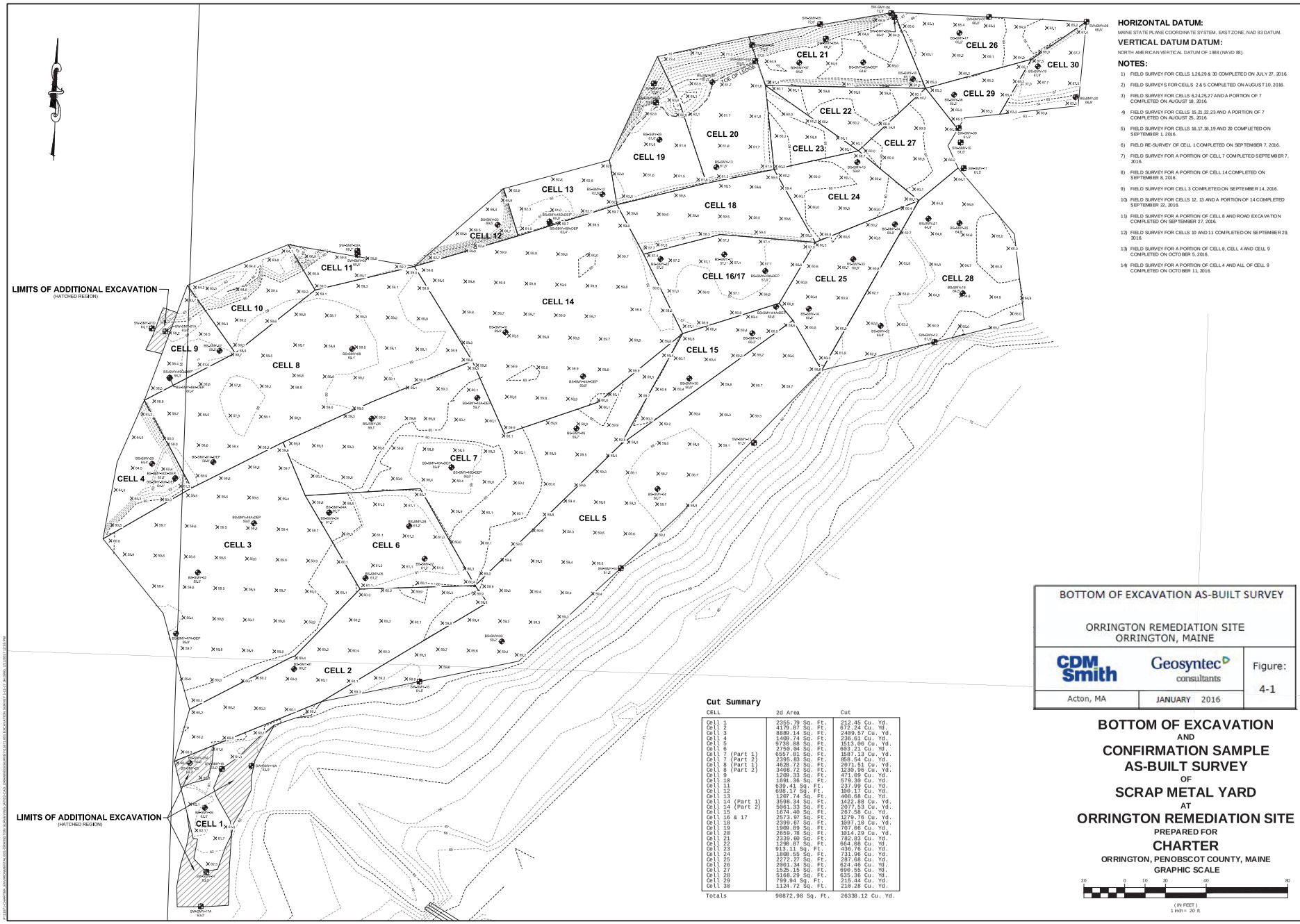
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 1-1

CLOSURE REPORT

T:\PROJECTS_CADD\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\BR0292-SMY_CMI-F01-1



HORIZONTAL DATUM:

MAINE STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83 DATUM.

VERTICAL DATUM DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

NOTES:

1) FIELD SURVEY FOR CELLS 1,26,29 & 30 COMPLETED ON JULY 27, 2016.
2) FIELD SURVEYS FOR CELLS 2 & 5 COMPLETED ON AUGUST 10, 2016.
3) FIELD SURVEY FOR CELLS 6,24,25,27 AND A PORTION OF 7 COMPLETED ON AUGUST 18, 2016.
4) FIELD SURVEY FOR CELLS 15,21,22,23 AND A PORTION OF 7 COMPLETED ON AUGUST 25, 2016.
5) FIELD SURVEY FOR CELLS 16,17,18,19 AND 20 COMPLETED ON SEPTEMBER 1, 2016.
6) FIELD RE-SURVEY OF CELL 1 COMPLETED ON SEPTEMBER 7, 2016.
7) FIELD SURVEY FOR A PORTION OF CELL 7 COMPLETED SEPTEMBER 7, 2016.
8) FIELD SURVEY FOR A PORTION OF CELL 14 COMPLETED ON SEPTEMBER 8, 2016.
9) FIELD SURVEY FOR CELL 3 COMPLETED ON SEPTEMBER 14, 2016.
10) FIELD SURVEY FOR CELLS 12, 13 AND A PORTION OF 14 COMPLETED SEPTEMBER 22, 2016
11) FIELD SURVEY FOR A PORTION OF CELL 8 AND ROAD EXCAVATION COMPLETED ON SEPTEMBER 27, 2016.
12) FIELD SURVEY FOR CELLS 10 AND 11 COMPLETED ON SEPTEMBER 29, 2016.
13) FIELD SURVEY FOR A PORTION OF CELL 8, CELL 4 AND CELL 9 COMPLETED ON OCTOBER 5, 2016.
14) FIELD SURVEY FOR A PORTION OF CELL 4 AND ALL OF CELL 9 COMPLETED ON OCTOBER 11, 2016.

Cut Summary

CELL	2d Area	Cut
Cell 1	2355.79 Sq. Ft.	212.45 Cu. Yd.
Cell 2	4179.87 Sq. Ft.	672.24 Cu. Yd.
Cell 3	8889.14 Sq. Ft.	2409.57 Cu. Yd.
Cell 4	1409.74 Sq. Ft.	236.61 Cu. Yd.
Cell 5	9730.08 Sq. Ft.	1513.06 Cu. Yd.
Cell 6	2750.94 Sq. Ft.	663.21 Cu. Yd.
Cell 7 (Part 1)	6557.81 Sq. Ft.	1587.13 Cu. Yd.
Cell 7 (Part 2)	2395.83 Sq. Ft.	858.54 Cu. Yd.
Cell 8 (Part 1)	4628.72 Sq. Ft.	2071.51 Cu. Yd.
Cell 8 (Part 2)	3408.72 Sq. Ft.	1230.96 Cu. Yd.
Cell 9	1289.33 Sq. Ft.	471.89 Cu. Yd.
Cell 10	1691.36 Sq. Ft.	579.30 Cu. Yd.
Cell 11	639.41 Sq. Ft.	237.99 Cu. Yd.
Cell 12	698.17 Sq. Ft.	100.17 Cu. Yd.
Cell 13	1267.74 Sq. Ft.	408.68 Cu. Yd.
Cell 14 (Part 1)	3598.34 Sq. Ft.	1422.88 Cu. Yd.
Cell 14 (Part 2)	5061.33 Sq. Ft.	2077.53 Cu. Yd.
Cell 15	1674.40 Sq. Ft.	267.58 Cu. Yd.
Cell 16 & 17	2573.97 Sq. Ft.	1279.78 Cu. Yd.
Cell 18	2399.67 Sq. Ft.	1097.10 Cu. Yd.
Cell 19	1909.89 Sq. Ft.	787.06 Cu. Yd.
Cell 20	2659.78 Sq. Ft.	1014.29 Cu. Yd.
Cell 21	2339.80 Sq. Ft.	782.83 Cu. Yd.
Cell 22	1290.87 Sq. Ft.	664.08 Cu. Yd.
Cell 23	913.11 Sq. Ft.	438.76 Cu. Yd.
Cell 24	1808.55 Sq. Ft.	731.96 Cu. Yd.
Cell 25	2272.27 Sq. Ft.	287.68 Cu. Yd.
Cell 26	2001.34 Sq. Ft.	624.46 Cu. Yd.
Cell 27	1525.15 Sq. Ft.	690.55 Cu. Yd.
Cell 28	5168.29 Sq. Ft.	635.36 Cu. Yd.
Cell 29	799.94 Sq. Ft.	215.44 Cu. Yd.
Cell 30	1124.72 Sq. Ft.	219.28 Cu. Yd.
Totals	90872.98 Sq. Ft.	26338.12 Cu. Yd.

BOTTOM OF EXCAVATION AS-BUILT SURVEY

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

CDM Smith | Geosyntec consultants | Figure: 4-1

Acton, MA | JANUARY 2016

BOTTOM OF EXCAVATION
AND
CONFIRMATION SAMPLE
AS-BUILT SURVEY
OF
SCRAP METAL YARD
AT
ORRINGTON REMEDIATION SITE
PREPARED FOR
CHARTER
ORRINGTON, PENOBSCOT COUNTY, MAINE

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

Bangor
Pinnacle Info
Engineering Center
PO Box 639
Bangor, ME 04402-0639
T 207-990-4924
F 207-990-4921

Portland
Pinnacle Info
Engineering Center
PO Box 827
Portland, ME 04104
T 207-754-9412
F 207-754-9414

Bar Harbor
1386 State Hwy 102
Bar Harbor, ME 04609
T 207-288-5057
F 207-288-9008

Waterville
Pinnacle Info
Engineering Center
Suite 204
Waterville, ME 04901
T 207-680-2202
F 207-680-2204

Lewiston
440 Main Street
Lewiston, ME 04240
T 207-795-6019
F 207-795-6128

Machias
61 Outlets Street
Machias, ME 04654
T 207-255-8307
F 207-255-8307

CES INC
Engineers ● Environmental Scientists ● Surveyors

PROJECT TITLE
CHARTER
ORRINGTON REMEDIATION SITE, ORRINGTON, MAINE

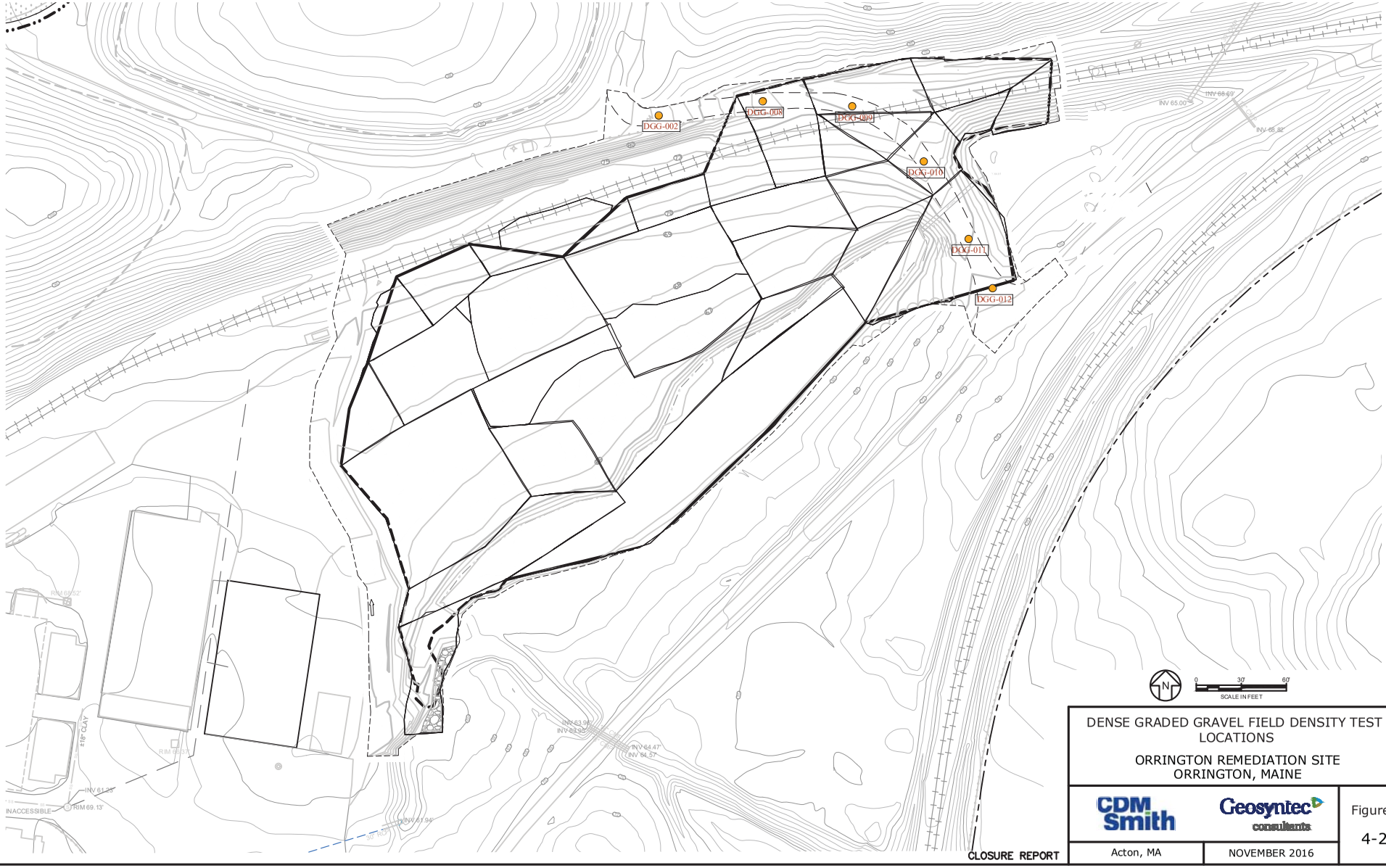
SHEET TITLE
BOTTOM OF EXCAVATION AND
CONFIRMATION SAMPLE
AS-BUILT SURVEY

REV.	DESCRIPTION	DRAWN BY	CHECKED BY	DATE
R7				
R6				
R5				
R4				
R3				
R2				
R1				

ISSUE STATUS

STATE OF MAINE
JERRY W. HAMILTON
LICENSED
PROFESSIONAL
SURVEYOR

SCALE	1" =20
DATE	January 11, 2017
DRAWN BY	JWH
CHECKED BY	
DESIGNED BY	
APPROVED BY	
JOB NUMBER	11671001
DRAWING NUMBER	



DENSE GRADED GRAVEL FIELD DENSITY TEST LOCATIONS

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

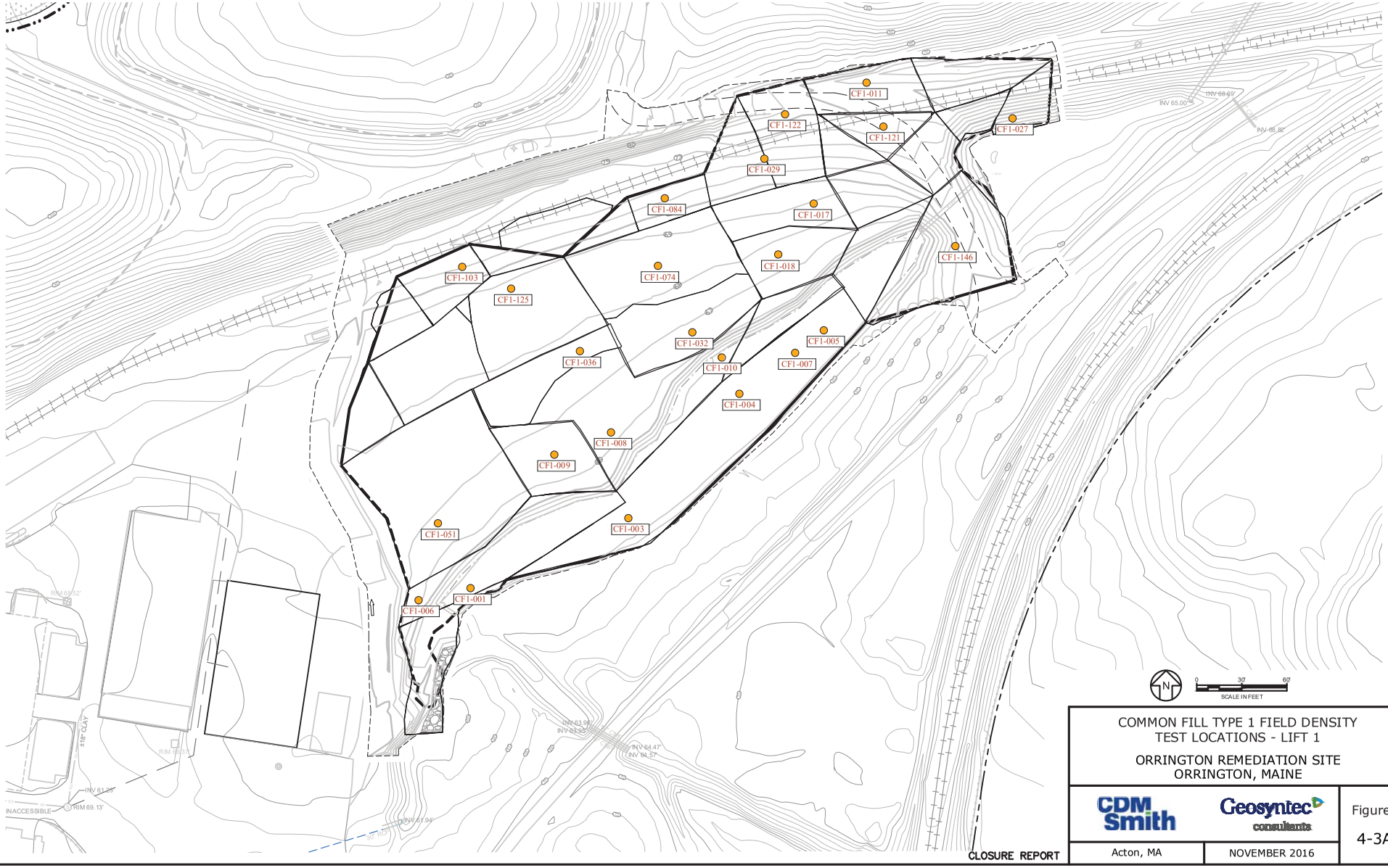
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-2

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\BK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 1

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

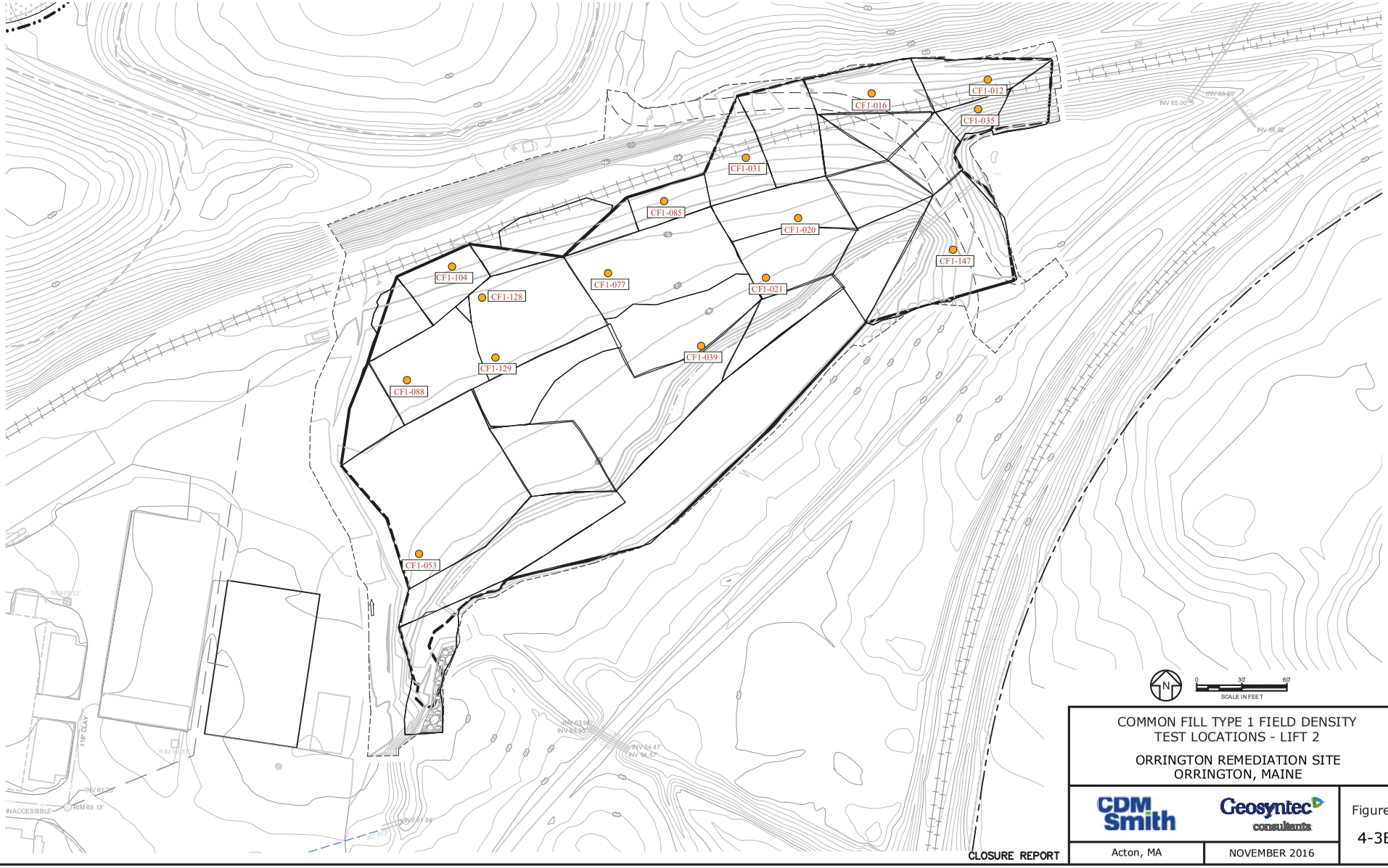
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3A

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 2

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

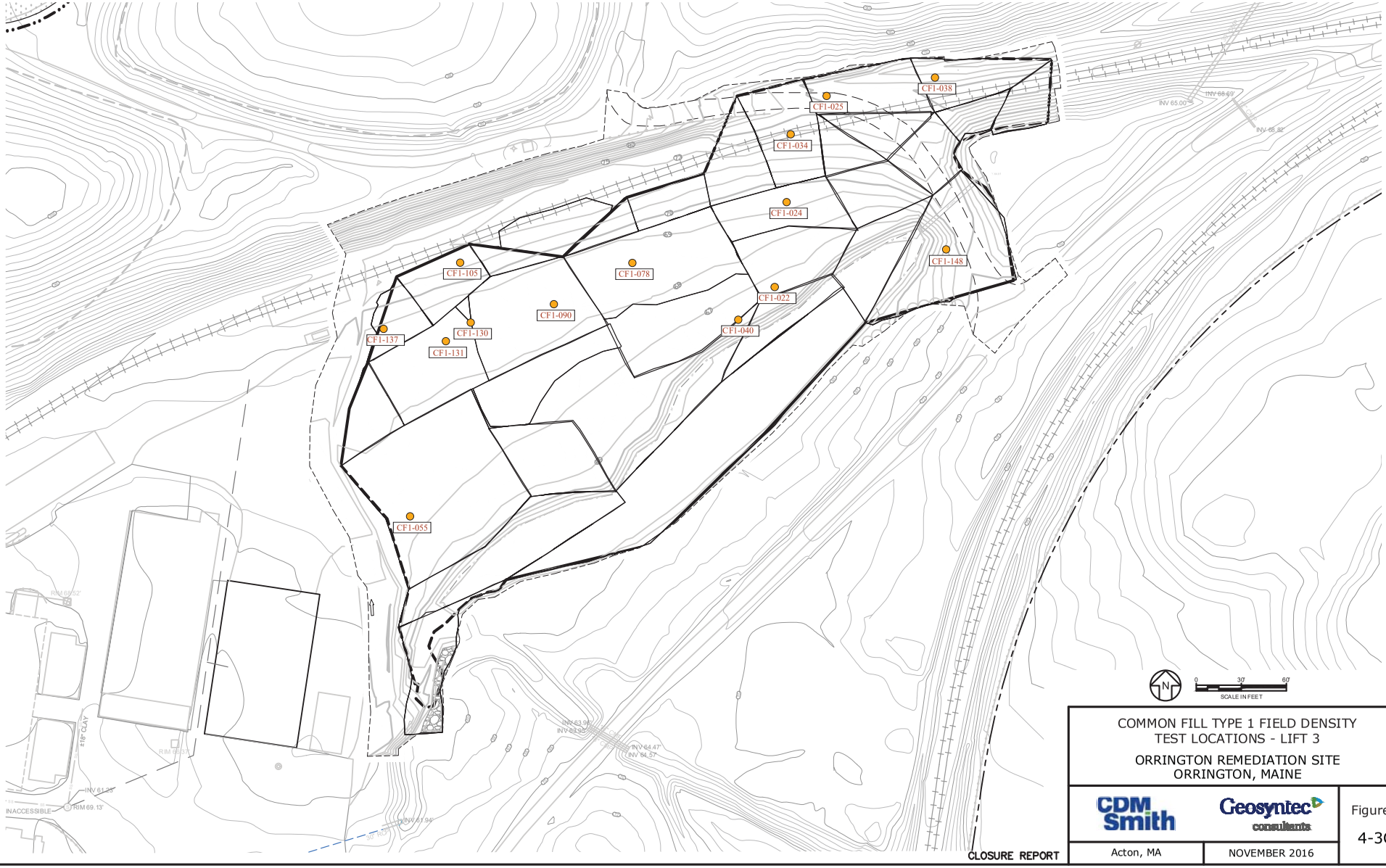
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3B

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 3

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

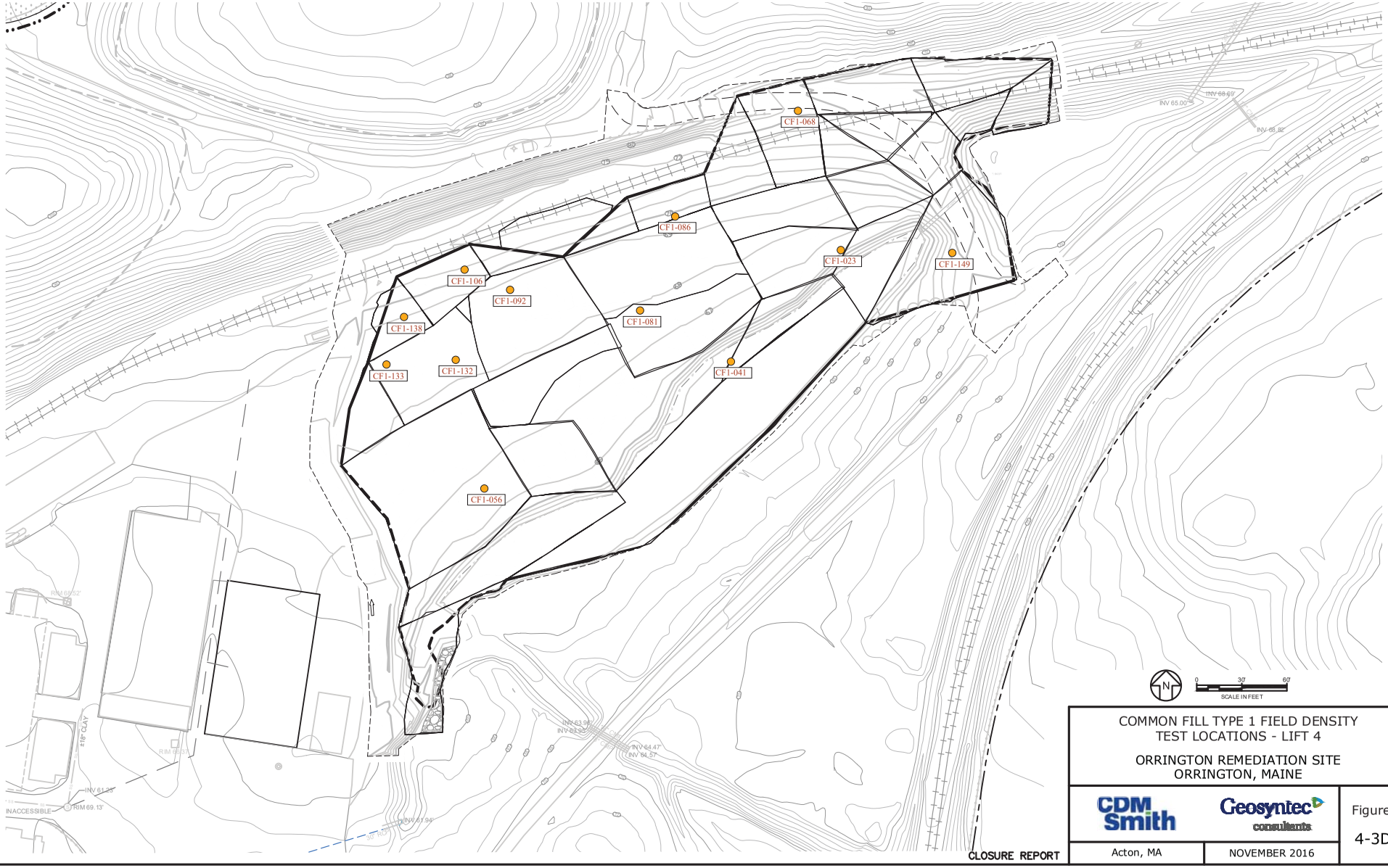
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3C

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 4

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

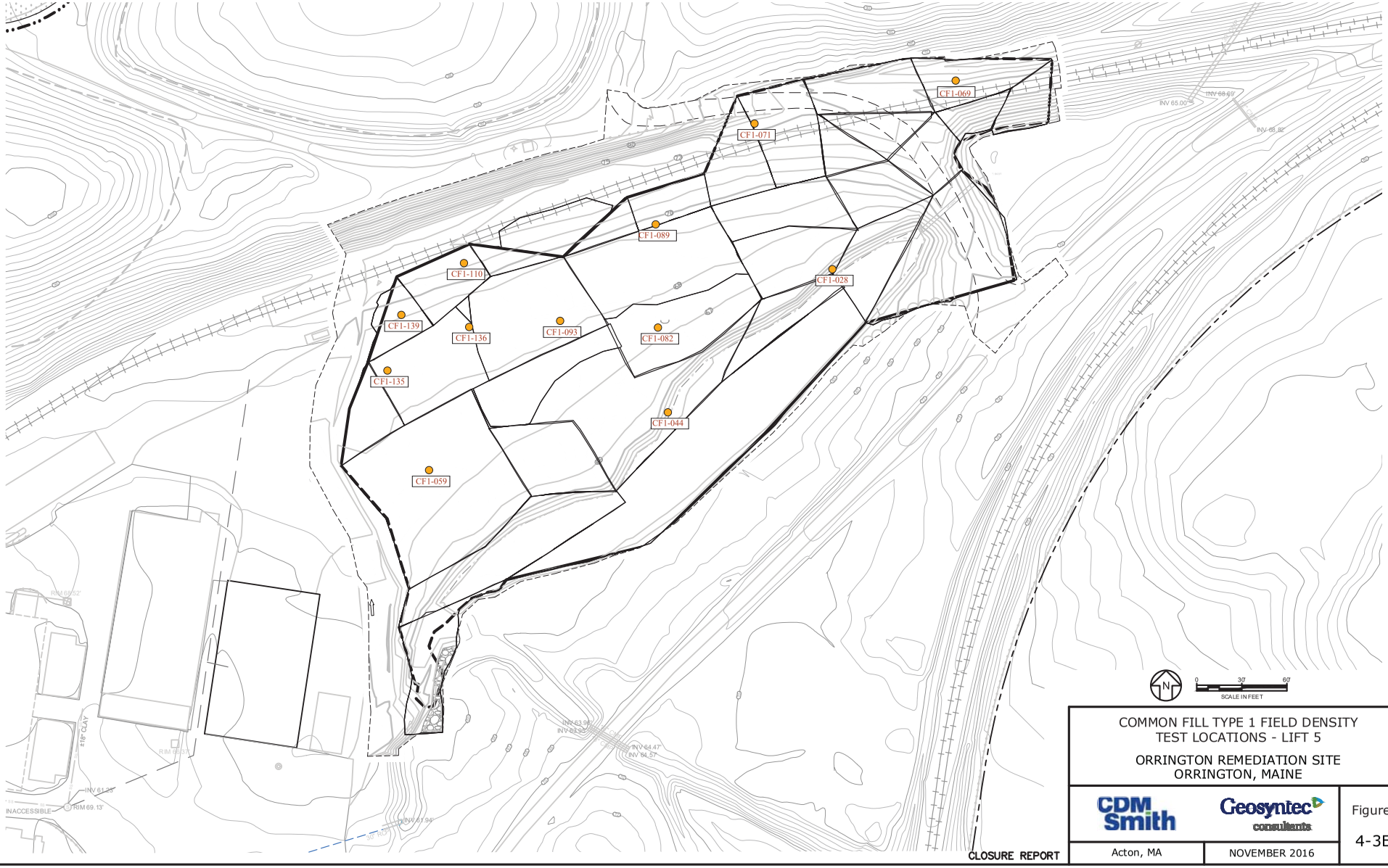
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3D

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 5

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

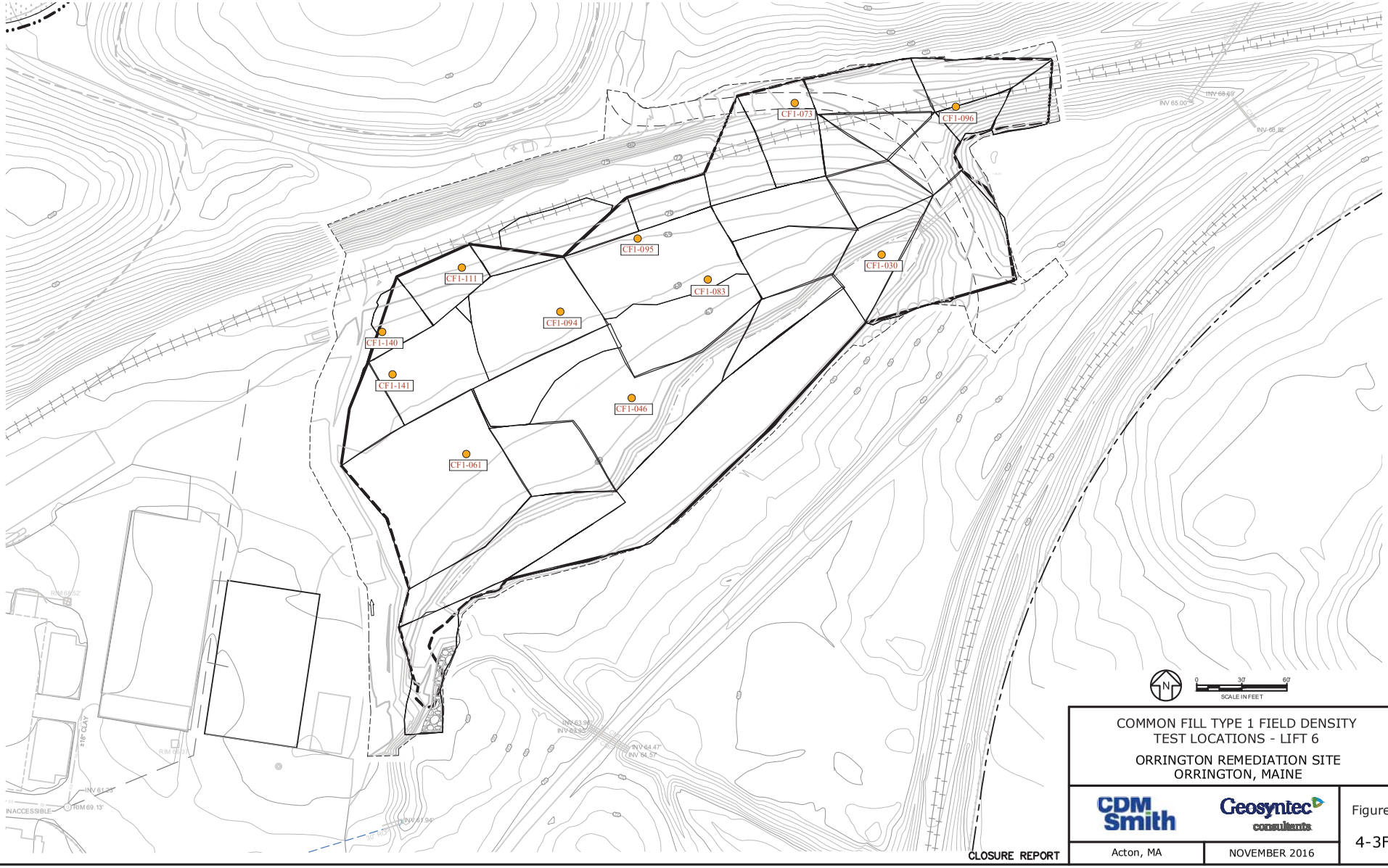
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3E

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 6

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

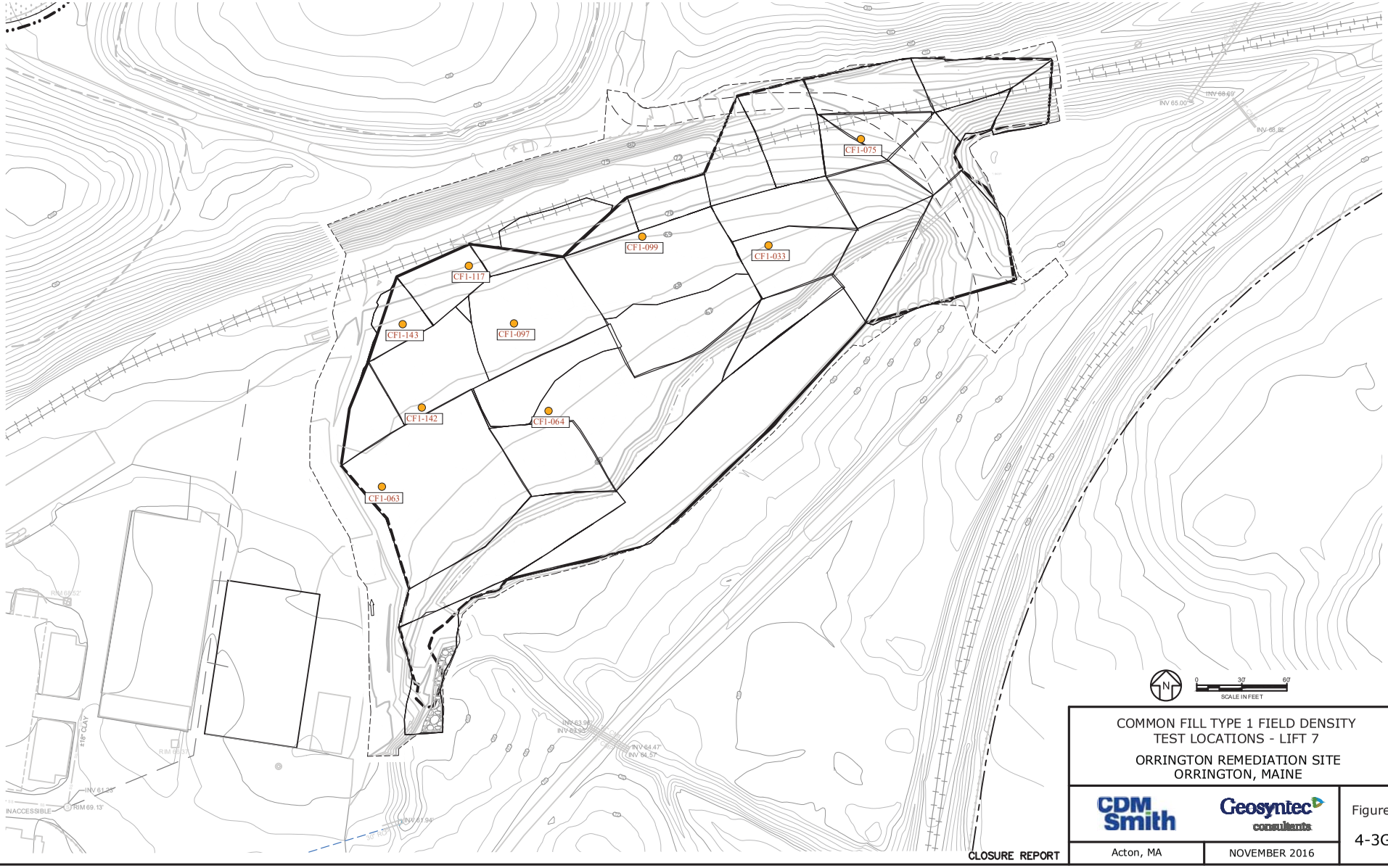
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3F

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 7

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

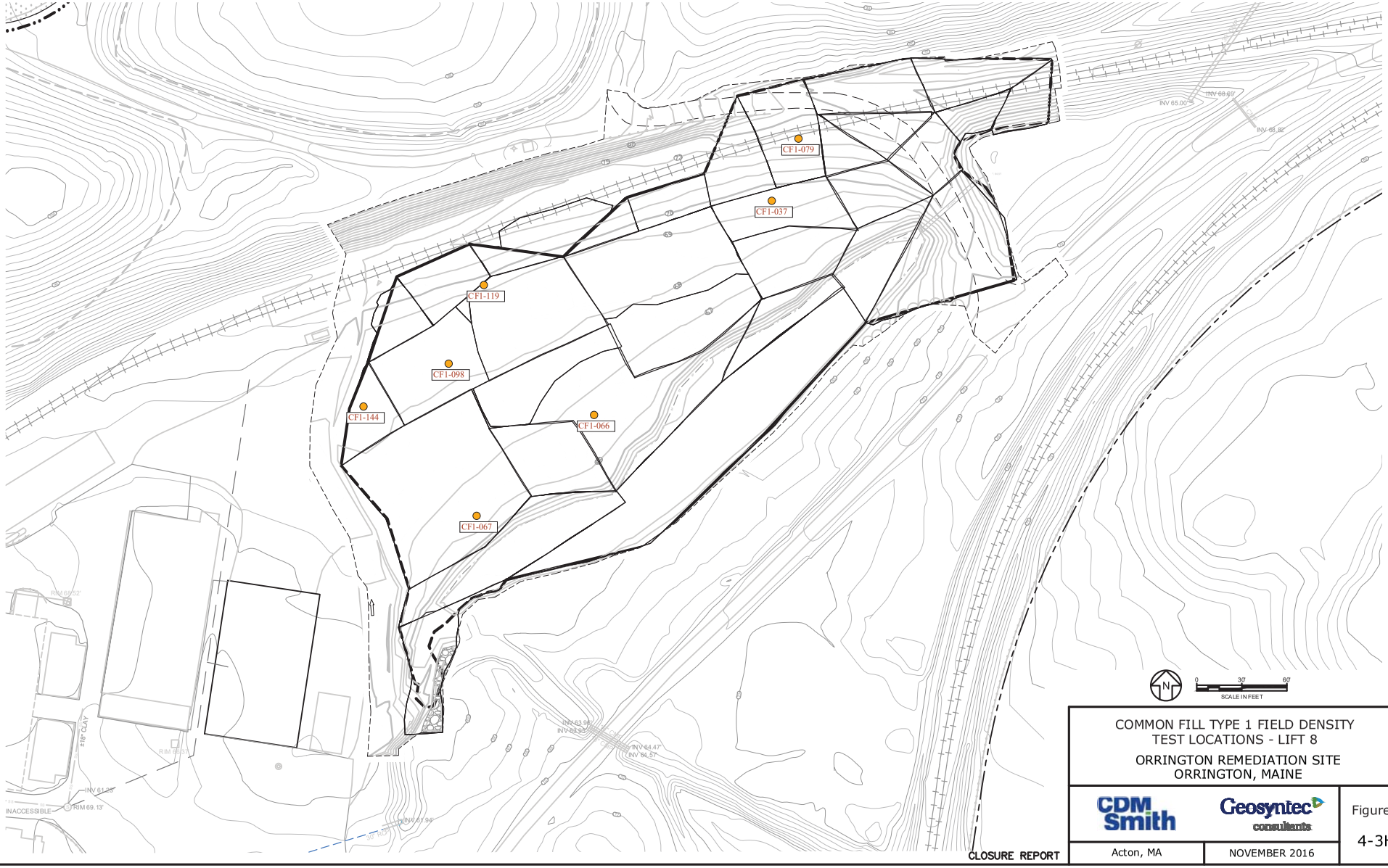
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3G

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 8

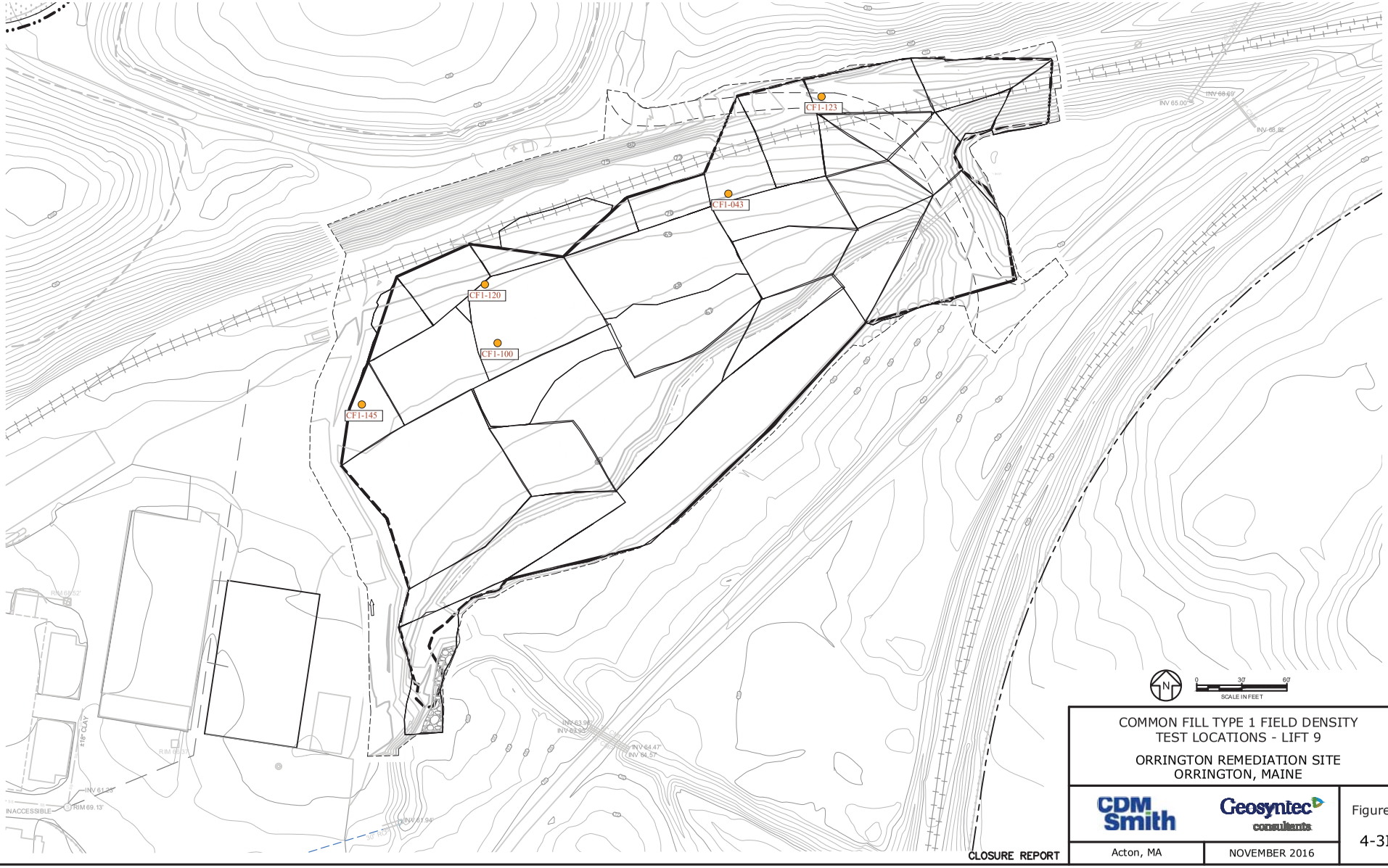
ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

CDM Smith | Geosyntec consultants | Figure: 4-3H

Acton, MA | NOVEMBER 2016

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIGS- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 9

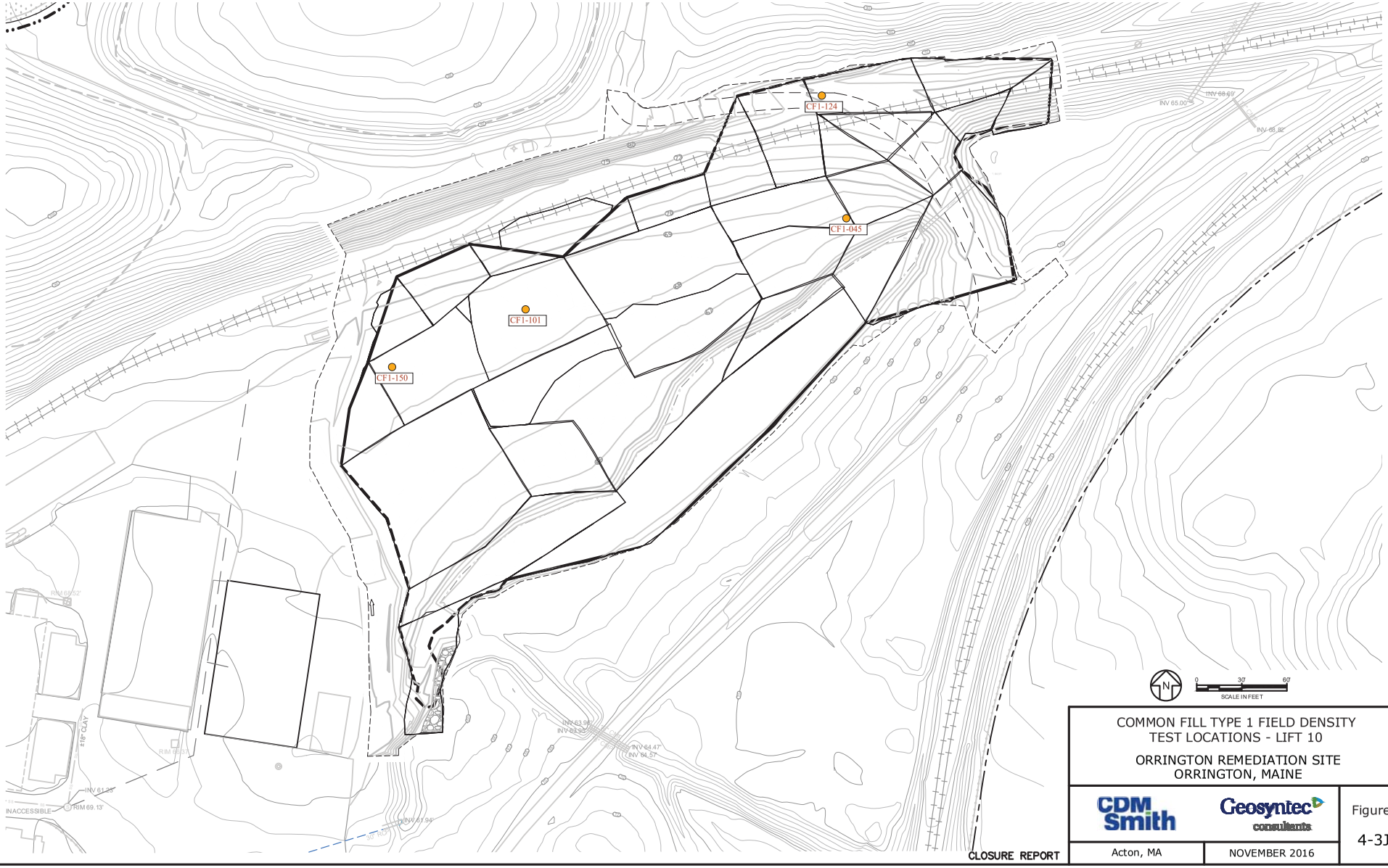
ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

CDM Smith | Geosyntec consultants | Figure: 4-3I

Acton, MA | NOVEMBER 2016

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 10

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

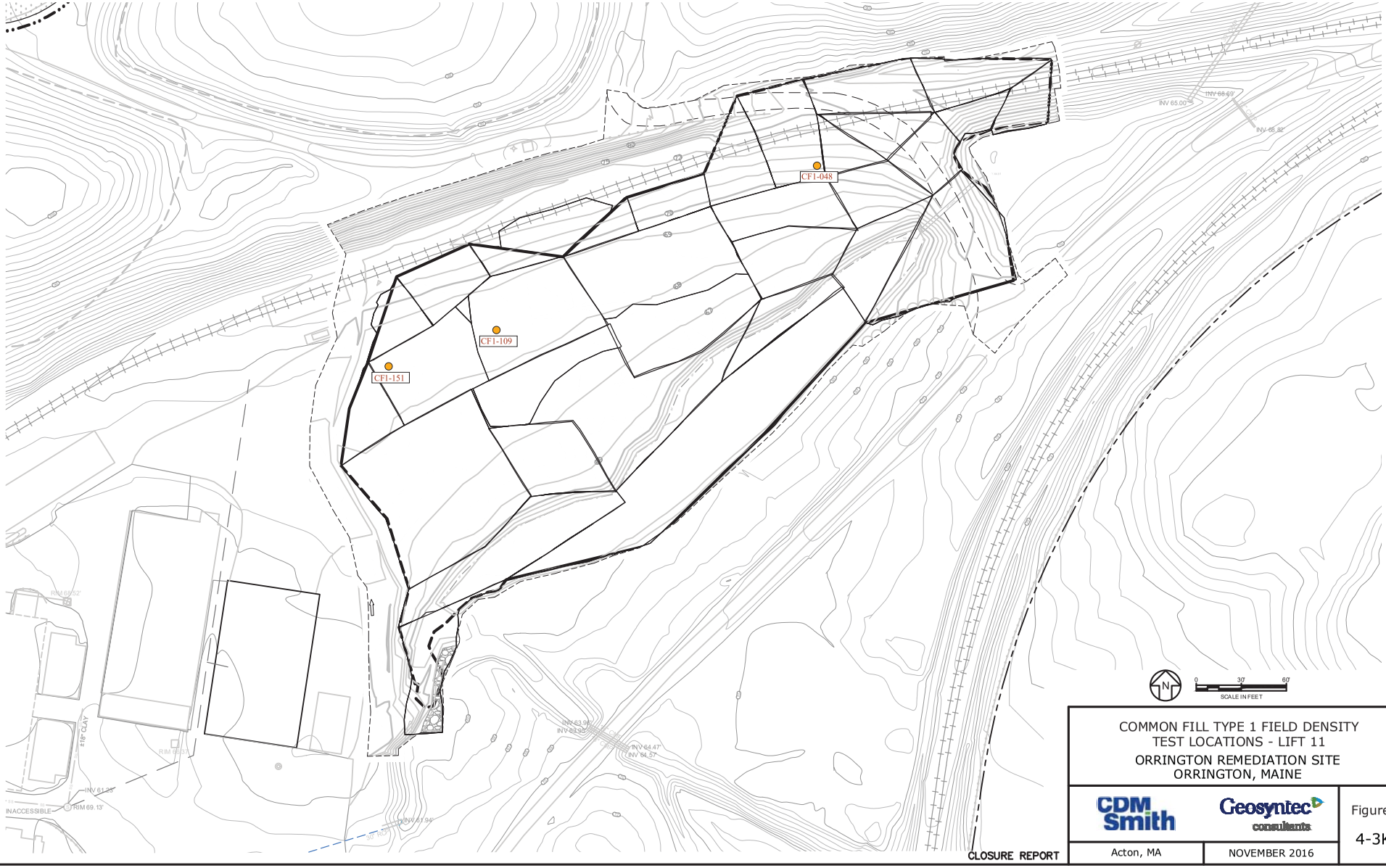
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3J

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 11

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

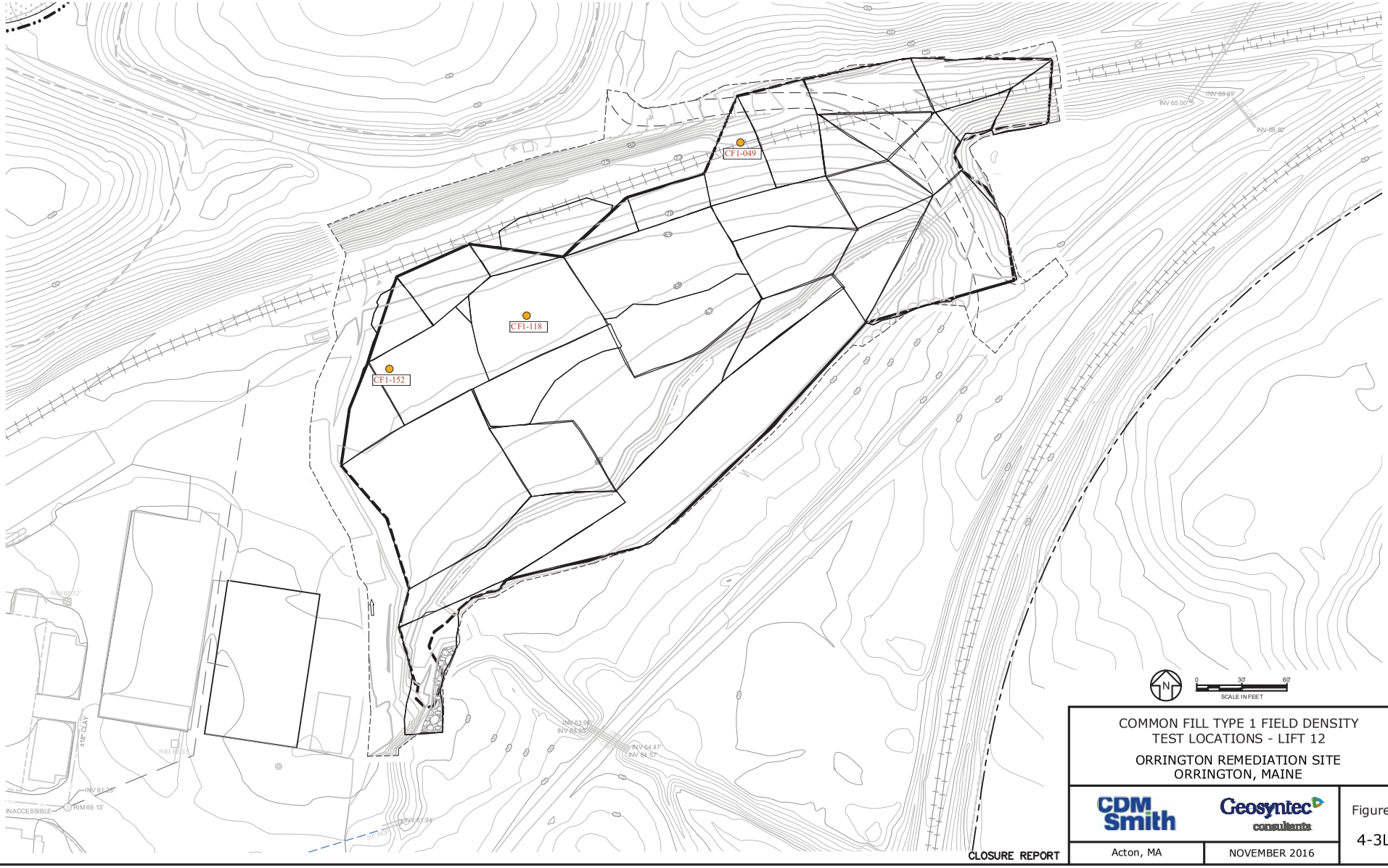
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3K

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 12

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

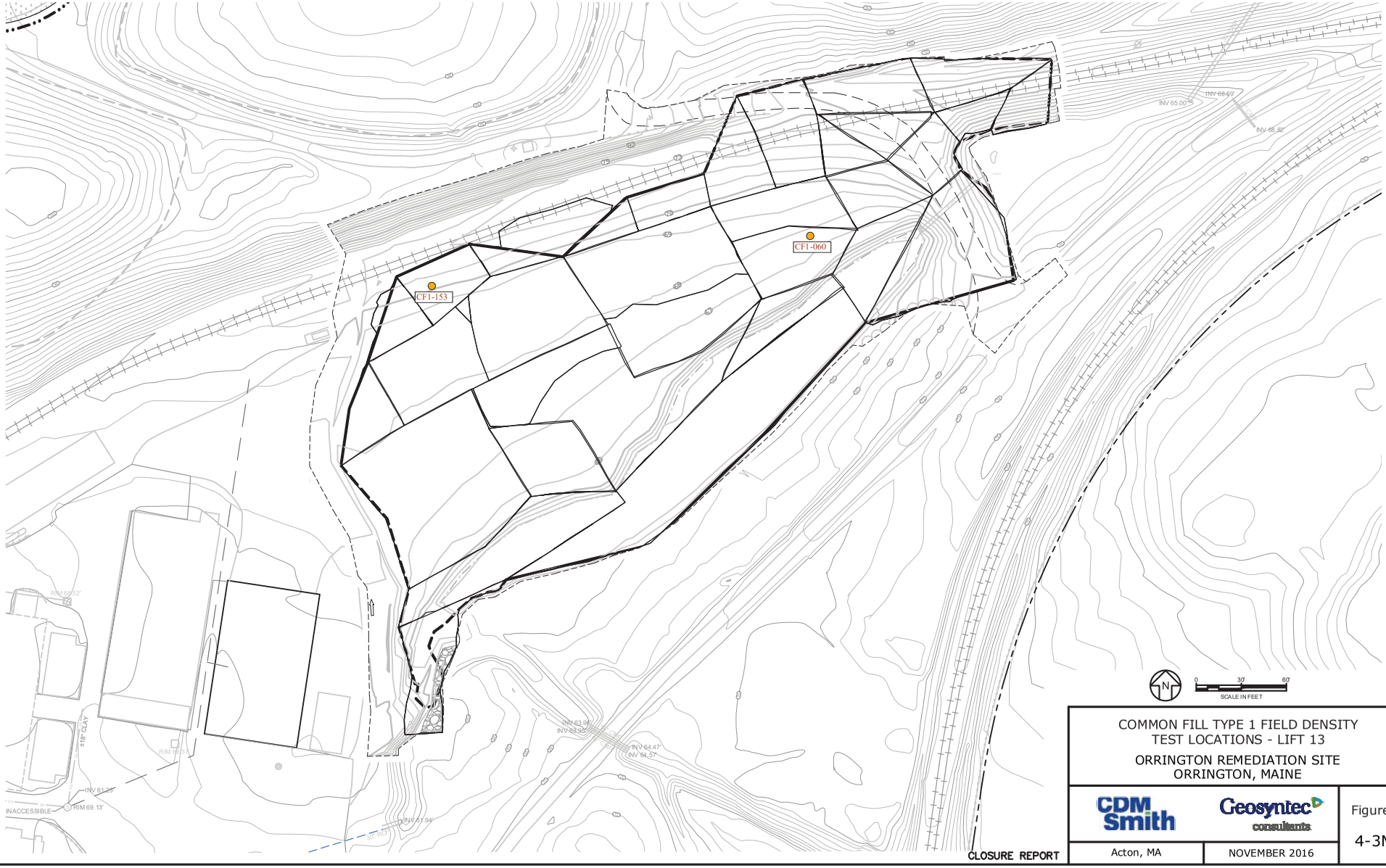
CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-3L

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\8K0292-SMY_CMF-FIG- (FIELD GRID)



COMMON FILL TYPE 1 FIELD DENSITY
TEST LOCATIONS - LIFT 13

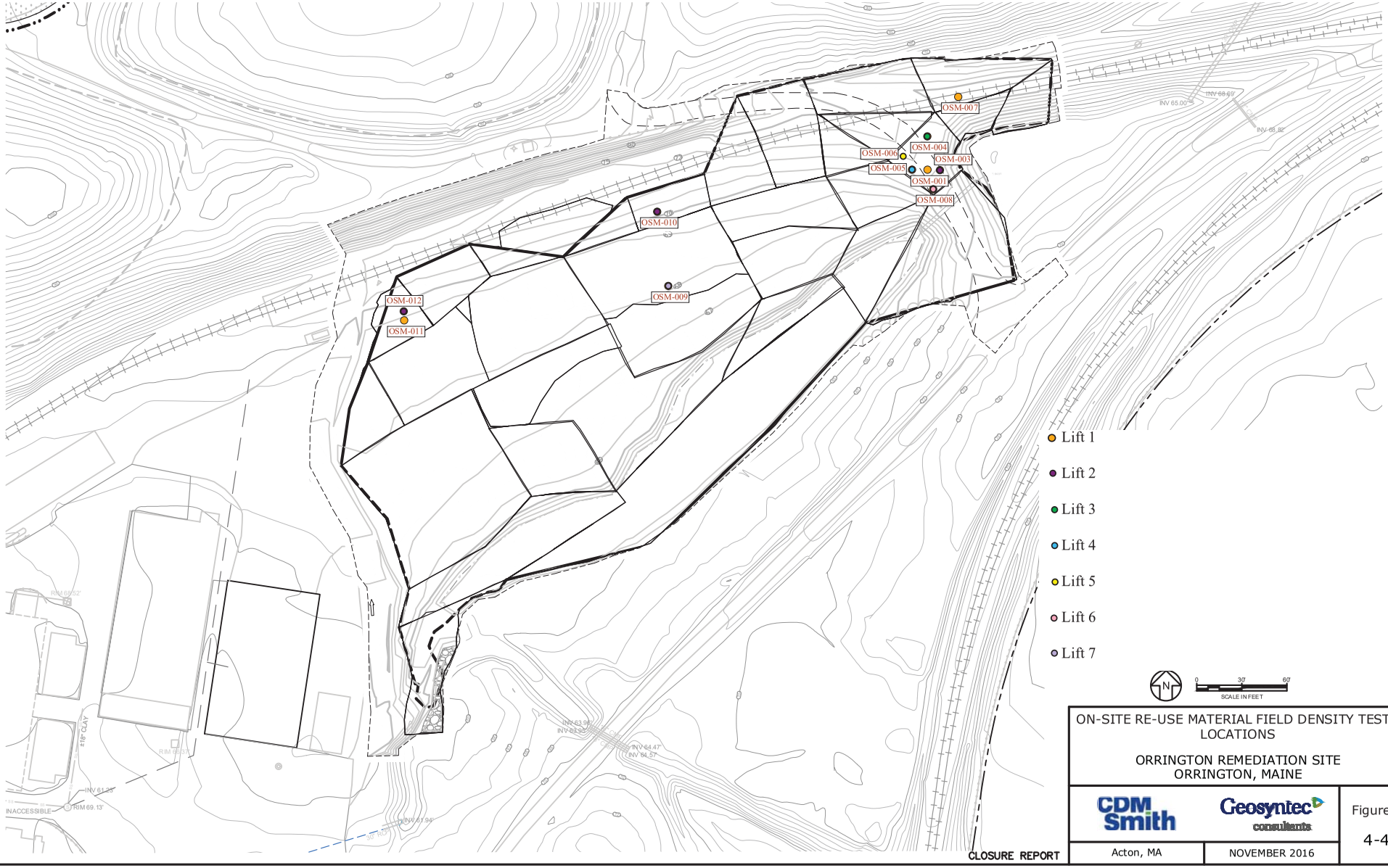
ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

CDM Smith | Geosyntec consultants | Figure: 4-3M

Acton, MA | NOVEMBER 2016

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)



ON-SITE RE-USE MATERIAL FIELD DENSITY TEST LOCATIONS

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

CDM Smith | Geosyntec consultants

Acton, MA | NOVEMBER 2016

Figure: 4-4

CLOSURE REPORT

T:\PROJECTS_CADD\O\ORRINGTON\ORRINGTON ME REMEDIATION II\DESIGN\SCRAP METAL YARD\FIGURES\SMY CLOSURE REPORT FIGS\SK0292-SMY_CMF-FIG- (FIELD GRID)

HORIZONTAL DATUM:

MAINE STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83 DATUM.

VERTICAL DATUM DATUM:

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

NOTES:

1) THIS PLAN DEPICTS CONDITIONS FOUND AND SURVEYED BY CES, INC. ON NOVEMBER 2 AND NOVEMBER 29, 2016.

Fill Summary

Name	2d Area	Fill
Back Fill Under Gravel (1 foot below)	5103.36 Sq. Ft.	1638.26 Cu. Yd.
Back Fill Under Loam (0.5 feet below)	88690.41 Sq. Ft.	20052.47 Cu. Yd.

LEGEND:

- EDGE OF GRAVEL
- SF — SILT FENCE
- GUARD RAIL
- TREELINE
- EROSION CONTROL BLANKET
- RIP RAP
- HAY MULCH AND TACKIFIER LIMITS

FINAL RESTORATION AREA AS-BUILT SURVEY

ORRINGTON REMEDIATION SITE
ORRINGTON, MAINE

CDM Smith | Geosyntec consultants | Figure: 4-5

Acton, MA | JANUARY 2016

POST CONSTRUCTION TOPOGRAPHIC SURVEY AND RESTORED AREAS OF SCRAP METAL YARD AT ORRINGTON REMEDIATION SITE

PREPARED FOR

CHARTER

ORRINGTON, PENOBSCOT COUNTY, MAINE

GRAPHIC SCALE

25 0 12.5 25 50 100

(IN FEET)
1 inch = 25 ft.

CES INC
Engineers ● Environmental Scientists ● Surveyors

Bangor
45 Columbia Main Street
PO Box 639
Bangor, ME
T 207.989.4824
F 207.989.4881

Pleasant Isle
45 Main Street
PO Box 627
Pittsfield, ME
T 207.794-8412
F 207.794-8414

Waterville
93 Main Street
Suite 204
Waterville, ME
T 207.680-2202
F 207.680-2204

Machias
81 Outlook Street
PO Box 67
Machias, ME
T 207.255-3270
F 207-255-8387

Bar Harbor
1386 State Hwy 102
Bar Harbor, ME
T 207.288-9587
F 207.288-9588

Lewiston
840 Main Street
Lewiston, ME
T 207.795-6050
F 207.795-6128

PROJECT TITLE
CHARTER
ORRINGTON REMEDIATION SITE, ORRINGTON, MAINE

SHEET TITLE
POST-CONSTRUCTION TOPOGRAPHIC SURVEY AND RESTORED AREAS

NO.	DESCRIPTION	DATE	DRAWN BY	CHECKED BY
R7				
R6				
R5				
R4				
R3				
R2				
R1				

ISSUE STATUS

STATE OF MAINE
JERRY W. HAMILTON
PROFESSIONAL LAND SURVEYOR

SCALE	1" = 25'
DATE	November 30, 2016
DRAWN BY	JH
CHECKED BY	
DESIGNED BY	
APPROVED BY	
JOB NUMBER	1671.001
DRAWING NUMBER	1 OF 1