

From: LaRock, Jeffrey <JLaRock@trcsolutions.com>
Sent: Friday, February 09, 2018 4:12 PM
To: Spellman, John (DEC)
Cc: Workman, Greg
Subject: Former Chromalloy Site- West Nyack, NY- Construction Completion Report- OU-II Soil Excavation
Attachments: Former Chromalloy Site, West Nyack, NY.Construction Completion Report for OU-II Soil Excavation, NYSDEC Site #344039-02.08.18.pdf

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John- Please see the attached Construction Completion Report for the Former Chromalloy Site in West Nyack, New York.

Please let me know if you have any questions or comments.

Thanks and have a nice weekend.

Jeff

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CONSTRUCTION COMPLETION REPORT

OPERABLE UNIT II SOIL EXCAVATION

**FORMER CHROMALLOY FACILITY
10 PINEVIEW ROAD
WEST NYACK, NEW YORK
10994**

TRC PROJECT NO.: 190273.2015.0000

FEBRUARY 2018

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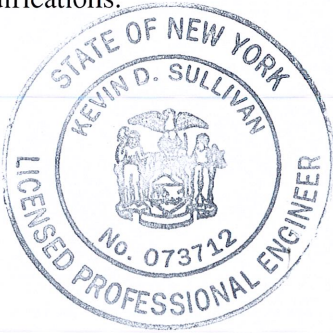
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ENGINEERING CERTIFICATION

I, Kevin D. Sullivan, certify that I am currently a New York State-registered professional engineer and that this Construction Completion Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the New York State Department of Environmental Conservation's Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved Work Plan and any DER-approved modifications.



NYS Professional Engineer No. 073712

2/3/2018
Date

Kevin D. Sullivan
Signature

1.0 INTRODUCTION

1.1 Purpose

On behalf of the Sequa Corporation (Sequa), TRC Engineers, Inc. (TRC) has prepared this Construction Completion Report (CCR) for soil removal activities conducted at the Former Chromalloy Facility located at 10 Pineview Road, West Nyack, New York (Site). The Site location is illustrated on **Figure 1**. This CCR presents the results of soil excavation activities performed in areas designated as SS-4 Investigation Area (west side of the Site building) and SS-8 Investigation Area (south side of the Site building), both of Operable Unit II, in accordance with the Soil Excavation Work Plan (Work Plan) submitted by TRC on April 7, 2017 and subsequently approved by the New York State Department of Environmental Conservation (NYSDEC) on May 30, 2017.

The CCR is arranged as follows:

- Section 1.0 Introduction – describes the purpose of the CCR, discusses the Site and surrounding property land uses
- Section 2.0 Extent of Impacted Soil – discusses the extent of impacts at the Site and presents the basis for selection of soil cleanup objectives (SCOs) used in the soil removal.
- Section 3.0 Pre-Construction Activities – discusses the pre-mobilization activities conducted in support of the remediation project.
- Section 4.0 Remediation Activities – discusses the Site preparation, soil removal, waste management, confirmation soil sampling, and Site restoration activities.
- Section 5.0 Summary – Discusses the results of soil removal activities and path forward.

1.2 Site and Surrounding Area Land Use

Based on a review of the Site location within the Rockland County Geographical Information System (GIS) Portal, the Site is situated in an area of widely-varying mixed uses. The property occupied by the Site is currently zoned as “Heavy Industrial”.

The Site is located on the south side of Pineview Road in the hamlet of West Nyack, Clarkstown, Rockland County, New York. The immediately contiguous parcel to the south is zoned as “Heavy Industrial”; the property immediately to the east is zoned as “Light Industrial”; a railroad right-of-way

borders the west side of the Site with a “Light Industrial” property further to the west; and the north side of the Site is bordered by “One Family Residential” lots and a mixed use “Residential/Commercial” property. It should be noted that Area SS-4 (west side of the Site building) and Area SS-8 (south side of the Site building) border industrial use properties.

The Site location and its past, current, and future planned uses, presented in “Rockland Tomorrow: Rockland County Comprehensive Plan” (RCCP) including Figure 5.1 of the RCCP, all consistently consider this area (including the Site) to be heavily industrial. This zoning classification is normally reserved to accommodate the essential heavy industrial uses which involve more objectionable influences and hazards, and which, therefore, cannot reasonably be expected to conform to those performance standards which are appropriate for most other types of industrial development. In general, it would be very unusual for areas zoned as heavy industrial to be converted/developed for future use as residential or community facilities. Nevertheless, comparisons to soil cleanup objectives (SCOs) considering conservative future Site uses of commercial and mixed use (commercial/residential mix) were presented in the Work Plan, assuming that the Site might eventually be converted to one of these uses.

2.0 EXTENT OF IMPACTED SOIL

This section briefly summarizes the investigation activities conducted, and the nature and extent of contamination in Operable Unit II at the Site, and discusses the rationale for selection of the SCOs that were used during soil removal activities.

2.1 Investigation and Delineation Activities

As part of a Remedial Investigation/Feasibility Study (RI/FS) Work Plan Modification (letter dated September 14, 2011), additional delineation work was performed to identify the extent of contamination on the South and West sides of the Site building. The delineation work was completed between November 2004 and February 2008 (6 sampling events over a period of 39 months) and involved:

- advancing approximately 26 soil borings within, and collecting and analyzing approximately 92 samples from, Area SS-4, and
- advancing approximately 33 soil borings within, and collecting and analyzing approximately 122 samples from, Area SS-8.

As indicated in the September 14, 2011 summary letter, most of the soil sampling events were conducted following the placement of backfill/fill materials by the property owner. A limited number of backfill/fill samples were collected to characterize the fill material. In general, Site related contaminants were not identified in the fill material. All of the subsequent investigation samples reported in the September 14, 2011 letter were obtained from the native material beneath the fill. The sample depths were recorded as depth below the existing ground surface

2.2 Nature and Extent of Impacts

In discussing the nature and extent of contamination and the areas/volumes that required remediation, the use-based SCO for chromium that would be most appropriate for the Site would be the Industrial Use SCO (IU-SCO), identified in 6 NYCRR Part 375-6.8 on Table 375-6.8(b). Comparing the data contained in the September 14, 2011 letter to the IU-SCO for chromium (6,800 mg/kg), reveals that none of the concentrations of chromium detected on-Site exceeded this IU-SCO.

As a conservative approach, considering the potential for the industrial property to be converted or upgraded to light industrial or commercial/office future uses, the data set was further compared against the Commercial Use SCO (CU-SCO) for chromium (1,500 mg/kg) identified in Table 375-6.8(b). In

summary, there was only one location/boring in Area SS-4 and one location/boring in Area SS-8 that had elevated levels of chromium (above the CU-SCO) as follows:

- SS-4F (0.08 – 0.25 ft): 1,960 mg/kg (resample: 3,690 mg/kg), and
- SS-8N (5.00 – 5.17 ft): 1,690 mg/kg

These isolated locations were adequately delineated/surrounded both horizontally and vertically, by samples with concentrations below the CU-SCO.

Further, making a very conservative comparison to the Restricted Residential Use SCO (RR-SCO) for chromium (180 mg/kg), conservatively assuming that the Site might eventually be converted to a mixed use (commercial/residential) or multi-family residential (i.e., senior housing) use, indicates the following:

- 8 locations/borings in Area SS-4 exceeded the RR-SCO (including SS-4F listed above), and
- 13 locations/borings in Area SS-8 exceeded the RR-SCO (including SS-8N listed above).

These locations were adequately delineated/surrounded horizontally by samples with concentrations below the RR-SCO. Two of the locations in Area SS-8 (SS-8AA and SS-8Y) were not delineated vertically by samples that were below the RR-SCO concentration; however, remediation of subsurface soils above the RR-SCO was considered unnecessarily conservative for this industrial parcel, and further investigation or delineation at these two locations does not appear to be justified or worthwhile. It should be noted that all of the samples collected from Area SS-4 that exceeded the RR-SCO were bounded vertically by deeper sample that were below the RR-SCO.

2.3 Extent of Impacted Soil

Based on the discussion presented above, a hybrid approach was recommended to remediate areas SS-4 and SS-8. Specifically, the hybrid approach involved removal and disposal of all soils above the CU-SCO, allowing for future development of the Site as a commercial property (relative to OU-II). In addition, to mitigate any concerns over the proximity of the two areas to the residential area to the north, the hybrid approach also involved removal and disposal of surface soils (0 – 2 feet below ground surface [bgs]) above the RR-SCO.

Area SS-4

In Area SS-4 the concentrations of chromium above the CU-SCO and the RR-SCO are largely limited to the top 1- to 2 feet of soil. In two locations (SS-4Q and SS-4V) chromium was detected at concentrations

of 266 mg/kg and 559 mg/kg, respectively, slightly above the RR-SCO, but at depths of at least 2.5 feet below the ground surface (bgs).

The recommended approach for this area was to target only the upper two feet of soil, leaving subsurface soils above the RR-SCO in place. Concentrations of chromium above the RR-SCO lying beneath concrete and paved surfaces would also remain undisturbed.

Area SS-8

In Area SS-8 the soil concentration of chromium above the CU-SCO was limited to a single sample from boring SS-8N (depth interval of 5.0 – 5.17 feet bgs). The concentrations of chromium above the RR-SCO in this area ranged from 3 – 8.5 feet bgs. It should be noted that at several locations, sampling stopped at 6 feet bgs (SS-8AA, SS-8BB, and SS-8Y) and the last sample collected exceeded the RR-SCO (lower limit not defined). However, since the recommended approach does not involve remediating soils to this depth to achieve the RR-SCO, there was no need to conduct additional investigation in these areas.

The recommended approach for Area SS-8 (similar to Area SS-4) was to address all soil above the CU-SCO (single hot-spot at SS-8N, from 4.0 to 5.5 ft bgs), as well as all soil exceeding the RR-SCO in the upper two feet. However, due to the fill placement discussed previously, there were no RR-SCO exceedances for chromium in the top two feet of soil. Soils below the fill (at depths greater than 2 feet) and with chromium exceeding the very conservative RR-SCO would be left in place.

3.0 PRE-CONSTRUCTION ACTIVITIES

Pre-construction activities performed in support of the remediation project consisted primarily of: preparation of a Health and Safety Plan (HASP); and preparation of a Community Air Monitoring Plan (CAMP). These pre-construction activities are discussed in the following subsections.

3.1 Health and Safety Plan

A Site-specific HASP was prepared for the work in compliance with 29 CFR 1910.120, the Hazardous Waste Operations and Emergency Response regulations. All subcontractors utilized on the project were also required to prepare and adhere to their own HASP that is commensurate with the work and activities.

A copy of the Site-specific HASP was made available at the Site during the conduct of all activities to which it is applicable.

3.2 Community Air Monitoring Plan

A Site-specific CAMP, was prepared and utilized during all ground intrusive activities. The CAMP identified measures and/or actions to ensure that the public living and working near the Site as well as employees or visitors to any facility located on the Site were protected from exposure to Site contaminants during intrusive activities. All data collected during implementation of the CAMP are included in Appendix A

4.0 REMEDIAL ACTIVITIES

The remedial activities including Site preparation, soil excavation, confirmation soil sampling, waste management, and Site restoration are described in the following sections.

4.1 Site Preparation

Site preparation and pre-excavation activities are described below and included:

- Public and private utility location and protection; and
- Installation of silt fencing as a best management practice.

4.1.1 Public and Private Utility Location

New York's one-call system was contacted before starting work to mark all public utilities at the Site. A private utility locator was also subcontracted to locate and mark all utilities within the anticipated work area.

Underground lines including electric and gas, are known to cross the work areas. To the extent practical, soil was removed from around these lines, as needed, and the lines will be supported in place until completion of backfill. Backfill soil was compacted and bedding materials replaced in-kind, to ensure that no future subsidence occurs that may cause damage to the utilities.

4.1.2 Erosion and Sedimentation Controls

Because the area to be disturbed at the Site was less than one acre, a Storm Water Pollution Prevention Plan was not required for the excavation activities. Best Management Practices (BMPs) were implemented, however, to limit the amount of erosion and sedimentation in surface water runoff. BMPs were planned using the NYSDEC Division of Water - New York State Standards and Specifications for Erosion and Sediment Control, dated August 2005, as a guide.

The primary BMP incorporated into the construction was silt fencing. Silt fence was installed at the perimeter of the area of soil disturbance, as needed. Silt fencing was removed once the areas were backfilled.

4.2 Soil Excavation

On October 30, 2017, TRC and subcontractor Miller Environmental Group, Inc. (Miller) mobilized to the Site to commence soil removal activities at planned excavation locations identified above. Soil removal activities in each of the investigation areas are discussed in the following sections.

4.2.1 SS-4 Excavation Activities

Miller began excavation activities at location SS-4 on October 30, 2017. Soil in area SS-4 was excavated to a depth of two-feet below ground surface. Horizontal extents of excavation area SS-4 were based on the pre-determined delineated extents as described in the Work Plan; however, underground electrical utilities were identified to run from north to south directly through the proposed excavation area, preventing excavation in the area directly surrounding the utility. As a result, a buffer around each utility was maintained (soil left in place) to avoid undermining of and damage to the lines. Additionally, excavation work was limited to hand tool removal in the immediate vicinity of the building foundation and pad-mounted transformer to prevent undermining of the transformer slab and causing structural damage to either. A two-foot buffer zone around the building was maintained.

The excavated soils were removed via track-mounted excavator and loaded directly into roll-off containers for transportation off-Site to the Clean Earth of Carteret facility in Carteret, New Jersey (Clean Earth) for disposal. The approximate extents of excavation area SS-4 are shown on **Figure 2**. A total of approximately 58.39 tons of soil were removed from SS-4. All waste disposal manifests and weight tickets are included as **Appendix B**.

4.2.2 SS-8 Excavation Activities

Miller began excavation activities at location SS-8 on October 31, 2017. Due to previously collected soil sample results, soil from the surface to 4 ft bgs was deemed acceptable to be used as backfill, and was removed, and staged for reuse. Impacted soil in area SS-8 was then excavated from 4 to 5.5 feet below ground surface, loaded directly into roll-off containers, and transported off-Site to Clean Earth for disposal. Underground gas, water, and electric utilities were identified along the southeastern edge of the planned soil removal area. Similar to the SS-4 excavation, a buffer around each utility was maintained (soil left in place) to avoid undermining of and damage to the lines.

The approximate limits of excavation area SS-8 are shown on **Figure 3**. A total of approximately 12.25 tons of soil were removed from SS-8. All waste disposal manifests and weight tickets are included as **Appendix B**.

4.3 Confirmation Sampling

Confirmation soil sample locations were selected, and soil samples were collected in accordance with the Work Plan. In general, confirmation samples were collected from:

- Excavation sidewalls at a frequency of one sample for every 30 linear feet of sidewall (not including the sidewall adjacent to the building), and
- Excavation base at a frequency of one sample for every 900 square feet of bottom.

Confirmation sample collection is described in the following sections.

4.3.1 SS-4 Confirmation Sampling

Following completion of excavation activities at SS-4, a set of 4 confirmation soil samples were collected (consisting of three sidewall samples and one bottom sample). Soil samples were collected in accordance with the Work Plan, containerized in laboratory supplied jars, labeled, sealed, and placed in chilled coolers for shipment to Alpha Analytical in Westborough, Massachusetts. All confirmation soil samples were shipped under standard chain-of-custody procedures and were analyzed for total chromium using USEPA SW846 Method 6010C.

Based on the analytical results summarized in **Table 1** below, none of the confirmation soil samples from excavation area SS-4 exceeded the applicable RR-SCO for chromium. A copy of the confirmation soil sampling analytical report is included as **Appendix C**.

Table 1				
Summary of Confirmation Soil Sample Results for Total Chromium at SS-4 (October 2017)				
<i>Sample Location</i>	<i>Restricted Residential Use SCO⁽¹⁾</i>	<i>Commercial Use SCO⁽¹⁾</i>	<i>Industrial Use SCO⁽¹⁾</i>	<i>Total Chromium Concentration</i>
SS-4-SW-1	180 ⁽²⁾	1,500 ⁽²⁾	6,800 ⁽²⁾	11.5
SS-4-SW-2				23.2
SS-4-SW-3				19.4
SS-4-BS-1				15.4
Notes: All concentrations are in milligrams per kilogram (mg/kg). (1) – New York State Department of Environmental Conservation Soil Cleanup Objectives, December 14, 2006. (2) – Criteria for trivalent chromium used.				

4.3.2 SS-8 Confirmation Sampling

Following completion of excavation activities at SS-8, a set of 3 confirmation soil samples were collected (consisting of two sidewall samples and one bottom sample). Soil samples were collected in accordance with the Work Plan, containerized in laboratory supplied jars, labeled, sealed, and placed in chilled coolers for shipment to Alpha Analytical in Westborough, Massachusetts. Confirmation soil samples were shipped under standard chain-of-custody procedures and were analyzed for total chromium using USEPA SW846 Method 6010C.

Based on analytical results summarized in **Table 2** below, none of the confirmation samples from excavation area SS-4 exceeded the applicable RR-SCO for Chromium. A copy of the confirmation soil sampling analytical report is included as **Appendix C**.

Table 2				
Summary of Confirmation Soil Sample Results for Total Chromium at SS-8 (October 2017)				
<i>Sample Location</i>	<i>Restricted Residential Use SCO⁽¹⁾</i>	<i>Commercial Use SCO⁽¹⁾</i>	<i>Industrial Use SCO⁽¹⁾</i>	<i>Total Chromium Concentration</i>
SS-8-SW-1	180 ⁽²⁾	1,500 ⁽²⁾	6,800 ⁽²⁾	4.97
SS-8-SW-2				5.18
SS-8-BS-1				5.86
Notes: All concentrations are in milligrams per kilogram (mg/kg). (1) – New York State Department of Environmental Conservation Soil Cleanup Objectives, December 14, 2006. (2) – Criteria for trivalent chromium used.				

4.4 Backfilling and Site Restoration

Once excavations were deemed complete, backfilling and restoration commenced.

Upon receipt of confirmation sample results at location SS-4, the open excavation was backfilled with imported crushed stone to 6-inches bgs and compacted with a remote-controlled vibrating compaction roller completing a minimum of four passes. Crushed stone was imported from Callahan and Nannini Quarry Products of Salisbury Mills (Callahan and Nannini), which is a NYSDEC approved/permitted stone quarry and therefore exempt from imported fill testing per DER-10. Imported topsoil was then placed to finish backfilling to match existing grade from the Callahan and Nannini. Copies of the certificates for the backfill are included in **Appendix D**. The backfilled excavation was then seeded and mulched to complete restoration.

Upon receipt of confirmation sample results at location SS-8, the open excavation was first backfilled with excavated/stockpiled soils, which were placed in 2-ft lifts, and compacted with a remote-controlled

CONSTRUCTION COMPLETION REPORT
FORMER CHROMALLOY FACILITY
WEST NYACK, NEW YORK

vibrating compaction roller completing a minimum of four passes. The excavation was then finished to match existing grade with imported Type 2 Sub base. Area SS-8 was not completed with topsoil, seed, and mulch since the existing/surrounding ground surface consisted of crushed stone and asphalt.

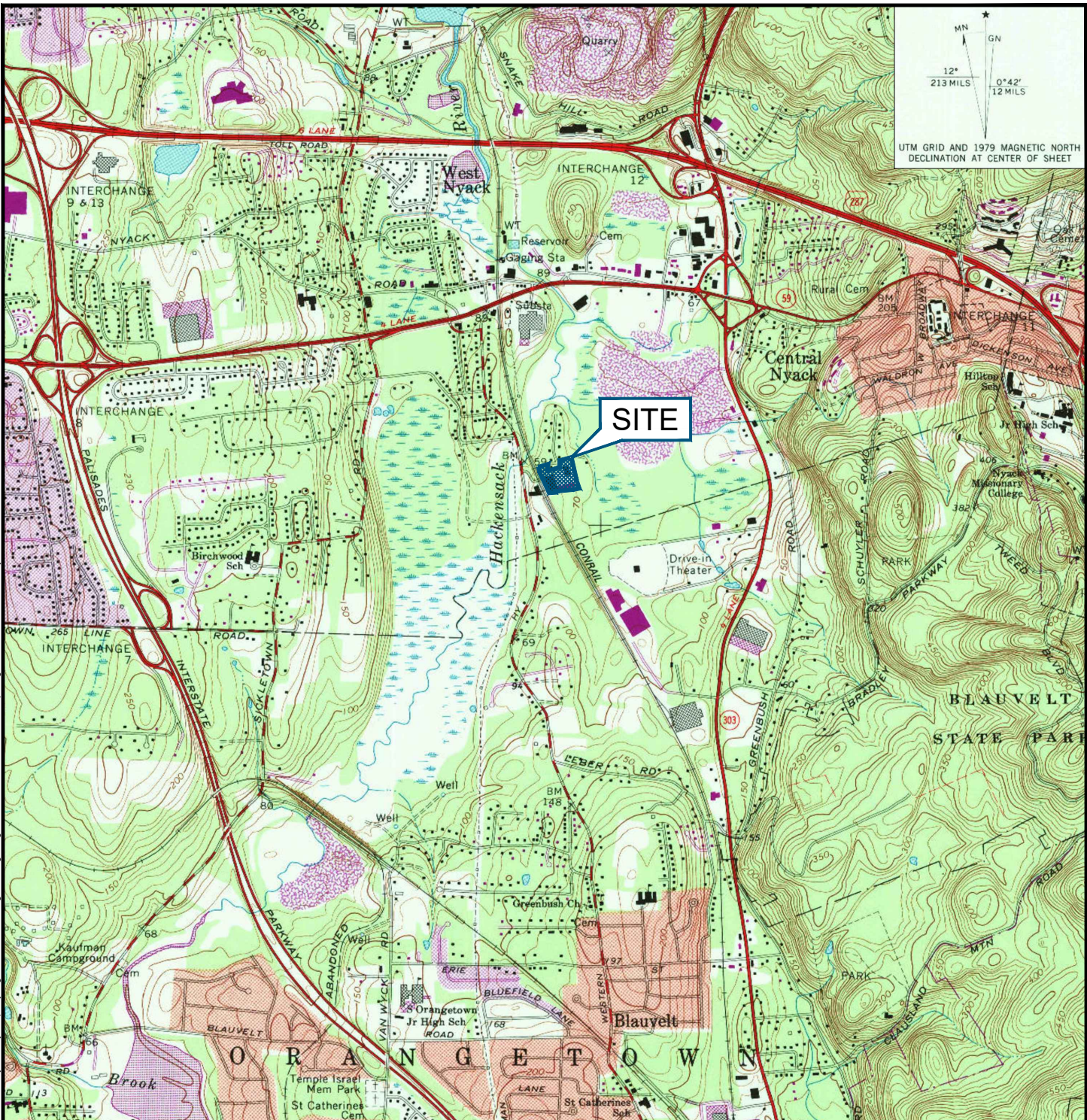
Silt fence was subsequently removed upon completion of the backfill placement and compaction.

5.0 SUMMARY

Based on the findings summarized in this CCR, the laboratory analytical results for the confirmatory sampling all meet to the Restricted Residential Use SCO for chromium. The Site is currently zoned as “Heavy Industrial”. In summary, the conservative remediation approach objective identified in the Soil Excavation Work Plan dated April 7, 2017 of reaching Restricted Residential SCOs has been successfully achieved. As such, TRC on behalf of Sequa is respectfully requesting closure of Operable Unit II from the NYSDEC at this time.

FIGURES

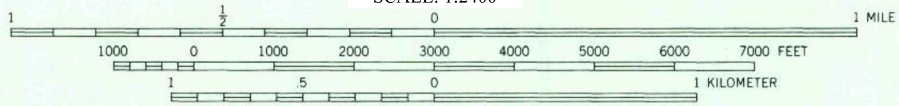
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MN
 GN
 12° 213 MILS
 0°42' 12 MILS
 UTM GRID AND 1979 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SITE

SCALE: 1:2400



CONTOUR INTERVAL 10 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929
 DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER



MAP INCLUDES INFORMATION FROM THE FOLLOWING MAP SHEET(S):
 TP, NYACK, NY-NJ, 7.5-MINUTE, DATED 1967, PHOTOREVISED 1979

Mapped, edited and published by the Geological Survey
 Formed by USGS, INDIANAPOLIS, and New Jersey Geologic Survey
 Topography by photogrammetric methods from aerial photographs
 taken 1964 and 1965. Field checked 1967
 Supersedes map dated 1927



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PROJECT:
**FORMER CHROMALLOY FACILITY PROPERTY
 WEST NYACK, NEW YORK**

TITLE:
SITE LOCATION MAP

DRAWN BY: H. DELGADO

CHECKED BY: R. JORREY

APPROVED BY: J. LAROCK

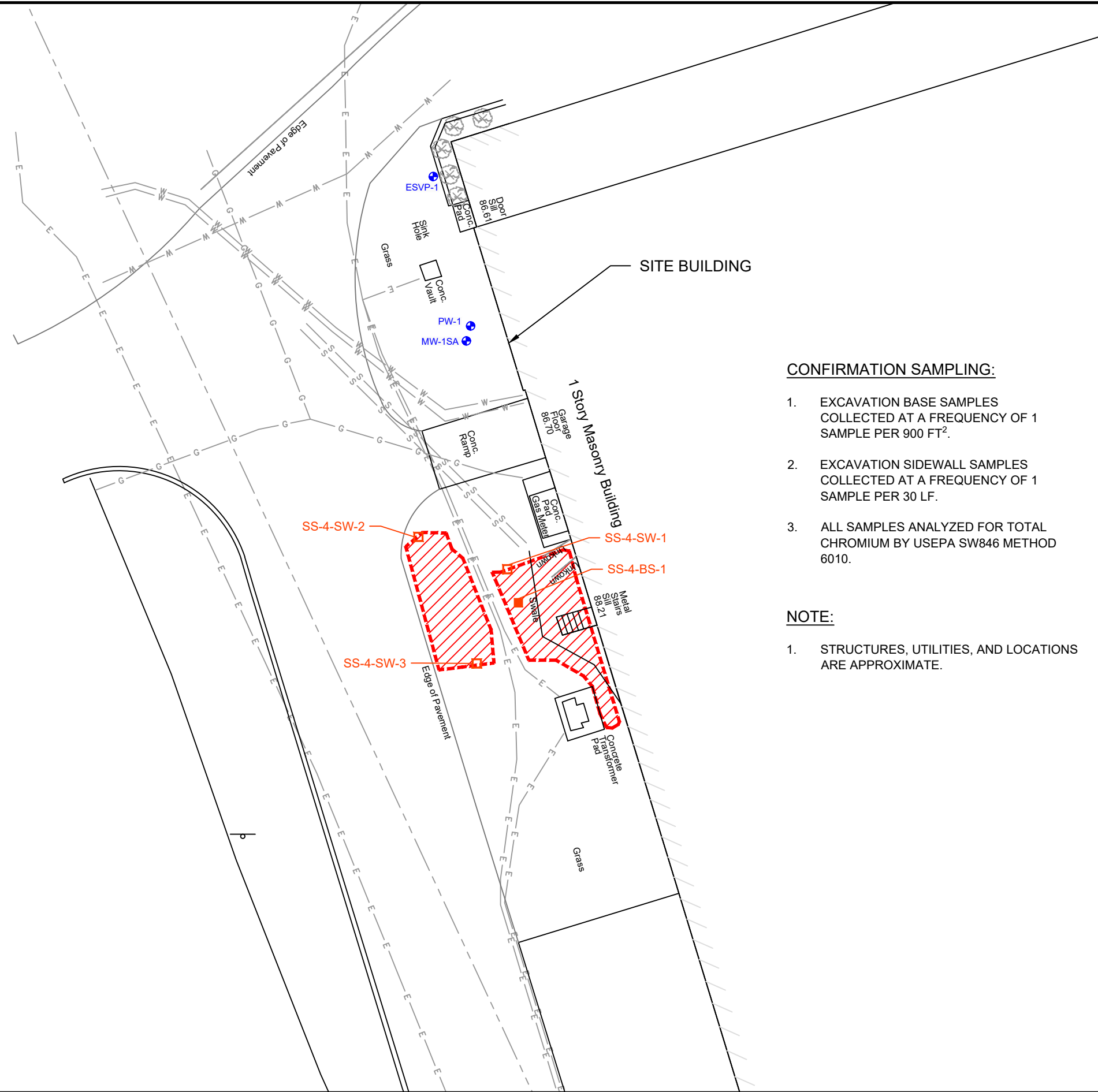
DATE: JANUARY 2018

PROJ. NO.: 190723.2015.0000

FILE: Figure 1 - FCFP Site Location Map.dwg

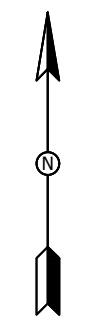
FIGURE 1

11x17 - ATTACHED XREFS: WESTNYACK - ATTACHED IMAGES: Former Chromalloy Site West Nyack NY Chromium in Soil Ex. and Confirm. Soil Samp. Plan.dwg -- PLOT DATE: February 08, 2018 - 4:42PM -- LAYOUT: 11X17L
 DRAWING NAME: I:\HDelgado\Kevin Sullivan\190723.2015.0000 - Former Chromalloy Facility Property\Figures\TRC Working Drawings\Figure 2 - FCFP SS-4 Ex. and Confirm. Soil Samp. Plan.dwg



LEGEND (SYMBOLS NOT TO SCALE):

- SITE BOUNDARY
- E ELECTRIC LINE
- G GAS LINE
- S STORM SEWER LINE
- W WATER LINE
- UNKNOWN UNDERGROUND UTILITIES / STRUCTURES
- SHRUB
- MONITORING WELL LOCATION
- APPROXIMATE EXTENT OF EXCAVATION
- EXCAVATION BASE CONFIRMATION SOIL SAMPLE LOCATIONS
- EXCAVATION SIDEWALL CONFIRMATION SOIL SAMPLE LOCATIONS

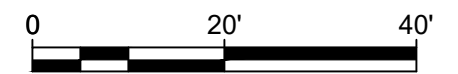


CONFIRMATION SAMPLING:

1. EXCAVATION BASE SAMPLES COLLECTED AT A FREQUENCY OF 1 SAMPLE PER 900 FT².
2. EXCAVATION SIDEWALL SAMPLES COLLECTED AT A FREQUENCY OF 1 SAMPLE PER 30 LF.
3. ALL SAMPLES ANALYZED FOR TOTAL CHROMIUM BY USEPA SW846 METHOD 6010.

NOTE:

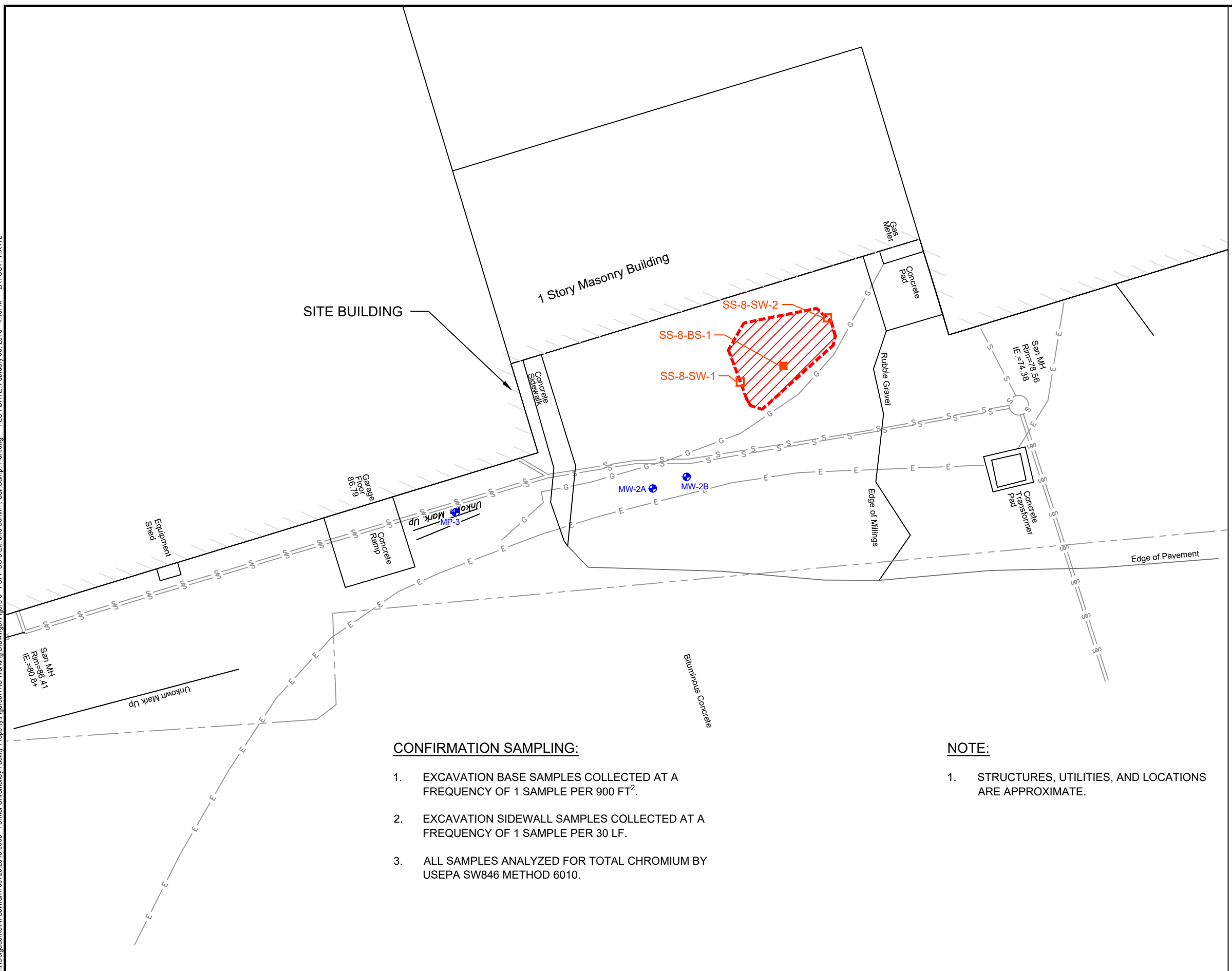
1. STRUCTURES, UTILITIES, AND LOCATIONS ARE APPROXIMATE.



SCALE: 1" = 20'
 SHEET SIZE: 11" BY 17"

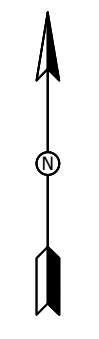
PROJECT:	
FORMER CHROMALLOY FACILITY PROPERTY WEST NYACK, NEW YORK	
TITLE:	
SS-4 EXCAVATION AND CONFIRMATION SOIL SAMPLING PLAN	
DRAWN BY:	H. DELGADO
CHECKED BY:	R. JORREY
APPROVED BY:	J. LAROCK
DATE:	FEBRUARY 2018
PROJ NO.:	190273.2015.0000
FIGURE 2	
10 Maxwell Drive, Suite 200 Clifton Park, NY 12065 Phone: 518.348.1190 www.trcsolutions.com	
FILE NO.:	Figure 2 - FCFP SS-4 Ex. and Confirm. Soil Samp. Plan.dwg

11x17 - ATTACHED XREFS: WESTNYACK - ATTACHED IMAGES: Former Chromalloy Site West Nyack NY Chromium in Soil E/Wok. Page 1: Former Chromalloy Site West Nyack NY Chromium in Soil E/Wok. Page 2: GEPs - 26004 - Former Chromalloy Facility Prop. DRAWING NAME: I:\HDelgado\Kevin Sullivan\190723.2015.0000 - Former Chromalloy Facility Property\Figures\TRC Working Drawings\ Figure 3 - FCFP SS-8 Ex. and Confirm. Soil Samp. Plan.dwg -- PLOT DATE: February 08, 2018 - 4:46PM -- LAYOUT: 11X17L



LEGEND (SYMBOLS NOT TO SCALE):

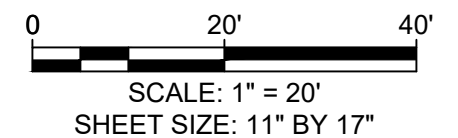
- SITE BOUNDARY
- E — ELECTRIC LINE
- G — GAS LINE
- S — STORM SEWER LINE
- W — WATER LINE
- UNKNOWN UNDERGROUND UTILITIES / STRUCTURES
- SHRUB
- MONITORING WELL LOCATION
- APPROXIMATE EXTENT OF EXCAVATION
- EXCAVATION BASE CONFIRMATION SOIL SAMPLE LOCATIONS
- EXCAVATION SIDEWALL CONFIRMATION SOIL SAMPLE LOCATIONS



- CONFIRMATION SAMPLING:**
1. EXCAVATION BASE SAMPLES COLLECTED AT A FREQUENCY OF 1 SAMPLE PER 900 FT².
 2. EXCAVATION SIDEWALL SAMPLES COLLECTED AT A FREQUENCY OF 1 SAMPLE PER 30 LF.
 3. ALL SAMPLES ANALYZED FOR TOTAL CHROMIUM BY USEPA SW846 METHOD 6010.

NOTE:

1. STRUCTURES, UTILITIES, AND LOCATIONS ARE APPROXIMATE.



PROJECT:	
FORMER CHROMALLOY FACILITY PROPERTY WEST NYACK, NEW YORK	
TITLE:	
SS-8 EXCAVATION AND CONFIRMATION SOIL SAMPLING PLAN	
DRAWN BY:	H. DELGADO
CHECKED BY:	R. JORREY
APPROVED BY:	J. LAROCK
DATE:	FEBRUARY 2018
PROJ NO.:	190273.2015.0000
FIGURE 3	
10 Maxwell Drive, Suite 200 Clifton Park, NY 12065 Phone: 518.348.1190 www.trcsolutions.com	
FILE NO.:	Figure 3 - FCFP SS-8 Ex. and Confirm. Soil Samp. Plan.dwg

APPENDIX A
Community Air Monitoring Results

Miller Environmental Group, Inc.
 CAMP-VOC Monitoring Log

Job Site: TRC Solutions-Former Chromalloy

Job #: H17-0377

Monitor: Ryan LeRoy

Signature: *Ryan*

Date: 10/31/17

Weather Conditions: overcast

Page 1 of 2

Time Start / End	Location	PID Readings (ppm)			Note
		1st Reading	2nd Reading	3rd Reading	
0730 / 0800	Upwind of excavation	0.0	0.0	0.0	
0800 / 0830	Downwind of excavation	0.0	0.0	0.0	Began excavating at 0813
0830 / 0900	Downwind of excavation	0.0	0.0	0.0	
0900 / 0930	Downwind of excavation	0.0	0.0	0.0	
0930 / 1000	Downwind of excavation	0.0	0.0	0.0	
1000 / 1030	Downwind of excavation	0.0	0.0	0.0	
1030 / 1100	Downwind of excavation	0.0	0.0	0.0	
1100 / 1130	Downwind of excavation	0.0	0.0	0.0	
1130 / 1200	Downwind of excavation	0.0	0.0	0.0	
1200 / 1230	Downwind of excavation	0.0	0.0	0.0	
1230 / 1300	Downwind of excavation	0.0	0.0	0.0	
1300 / 1330	Downwind of excavation	0.0	0.0	0.0	
1330 / 1400	Downwind of excavation	0.0	0.0	0.0	
1400 / 1430	Downwind of excavation	0.0	0.0	0.0	
1430 / 1500	Downwind of excavation	0.0	0.0	0.0	
1500 / 1530	Downwind of excavation	0.0	0.0	0.0	

Miller Environmental Group, Inc.
 CAMP-Dust Monitoring Log

Job Site: TRC Solutions-Former Chromalloy

Job #: H17-0377

Monitor: Ryan LeRoy

Signature: 

Page 1 of 2

Date: 10/31/17

Weather Conditions: overcast

Time Start / End	Location	Dust Trek Readings (mg/m ³)			Note
		1st Reading	2nd Reading	3rd Reading	
0730 / 0800	Upwind of excavation	0.003	0.003	0.003	
0800 / 0830	Downwind of excavation	0.002	0.002	0.002	Begin excavating 0813
0830 / 0900	Downwind of excavation	0.002	0.002	0.002	
0900 / 0930	Downwind of excavation	0.002	0.002	0.002	
0930 / 1000	Downwind of excavation	0.003	0.003	0.003	
1000 / 1030	Downwind of excavation	0.003	0.002	0.002	
1030 / 1100	Downwind of excavation	0.003	0.003	0.003	
1100 / 1130	Downwind of excavation	0.003	0.003	0.003	
1130 / 1200	Downwind of excavation	0.002	0.002	0.002	
1200 / 1230	Downwind of excavation	0.003	0.003	0.003	
1230 / 1300	Downwind of excavation	0.003	0.003	0.003	
1300 / 1330	Downwind of excavation	0.004	0.004	0.004	
1330 / 1400	Downwind of excavation	0.004	0.004	0.003	
1400 / 1430	Downwind of excavation	0.004	0.004	0.003	
1430 / 1500	Downwind of excavation	0.003	0.003	0.003	
1500 / 1530	Downwind of excavation	0.003	0.003	0.003	

APPENDIX B

Waste Disposal Manifests & Weight Tickets



Manifest # 863157

GLOBAL JOB NUMBER: M&E JOB 117-0377 ; 147109

FACILITY APPROVAL NUMBER: 173071466

Please Check One:

- Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909
- Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220
- Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633
- Clean Earth of Greater Washington
6250 Dower House Road
Upper Marlboro, MD 20772
Ph: 301-599-0939
- Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520
- Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004
- Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700
- Other: _____

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>Chromalloy Facility - Former</u> <u>169 Western Hwy</u> <u>West Nyack, NY 10994</u>	GROSS WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards	<u>57,640</u>
GENERATOR'S PHONE: <u>201-343-1122</u>	TARE WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards	
	NET WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards	

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

NON PCRA NON DOT SOLIDS - SOIL

GENERATOR'S CERTIFICATION – Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: Asst Agent for Secura: RYAN JOEREY Title: SUPERVISOR - TRC
 Signature: [Signature] Date and Time: 10/21/17 1655

TRANSPORTER

Company: Miller Environmental Group, Inc. Phone Number: 845-561-1200
 Address: 169 Stone Castle Rd Paris, NY 12525 Truck # and License Plate: 708 ; 12946PC
 Driver: _____ SW Haulers Permit #: NADP# 20981 ; Dept SW 19-005156
 (Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 10/21/17 4:30

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: _____
 I hereby certify that the above named material has been accepted at the above referenced facility.
 Authorized Signature: [Signature] Date and Time: 11/2/17

TRANSPORTER

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 70000751355

	Date	Time	Scale
In:	11/2/2017	07:47:57	Manual W
Out:	11/2/2017	07:49:00	P.T.

Manifest: 863157
Vehicle ID: 07MILLER700
Vehicle Permit:
Customer: MILLER ENVIRONMENTAL GROU

	Lbs	Tns
Gross:	57640	28.82
Tare:	33120	16.56
Net:	24520	12.26

Generator: Chromalloy Facility-Former
Gen Address: 169 Western Hwy
West Nyack, NY 10994

Facility Approval#: 173071465
Job Name: Chromalloy Facility-Former
Job Address: 169 Western Hwy
West Nyack, NY 10994

Origin	Materials & Services	Quantity	Unit
Rockland	Soil Treatment Type II	12.26	Tns
Contaminate Type: 2 Oil			
Treatment Type: Bio			
Fac Waste Code: Petroleum Contaminated Soil			
Storage Area: Not Applicable			
Consent:			

Driver: _____

Facility: _____
O'Neil, Naquan

CLEAN EARTH INTERNAL

CAN # 20-23



Manifest # 863158

GLOBAL JOB NUMBER: MEG JOB 117-0377; 117109 FACILITY APPROVAL NUMBER: 15-01-1166

Please Check One:

- Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909
- Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220
- Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633
- Clean Earth of Greater Washington
6250 Dower House Road
Upper Marlboro, MD 20772
Ph: 301-599-0939
- Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520
- Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004
- Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700
- Other _____

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>Chromalloy Facility - Former</u> <u>169 Western Hwy</u> <u>West Nyack, NY 10994</u>	GROSS WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
GENERATOR'S PHONE: <u>201-343-1122</u>	TARE WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
	NET WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

NON-RCRA NON DOT SOLIDS - SOIL Est 10 Tons

GENERATOR'S CERTIFICATION - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: ArA Arana for Sequa River Town Title: Supervisor - TRC
 Signature: [Signature] Date and Time: 11/30/17 0910

TRANSPORTER

Company: Miller Environmental Group, Inc Phone Number: 845-569-1200
 Address: 119 Stone Castle Rd Rock Tavern, NY Truck # and License Plate: 708 ; 12946 PC
 Driver: [Signature] 12575 SW Haulers Permit #: MSDEPA 2017-0001-SCW-19-
(applicable state permit #) 005956

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: _____

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: 10/11/17 9:13 AM

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [Signature] Date and Time: 11/8/17

TRANSPORTER

Clean Earth of Carteret
24 NY 801 Essex Avenue
Carteret, NJ 07808
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 700000754450
Date Time Scale
In: 11/8/2017 06:52:55 Scale 06
Out: 11/8/2017 06:53:12 H. T.

Manifest: 863158
Vehicle ID: 07MILLER708
Vehicle Permit:
Customer: MILLER ENVIRONMENTAL GROUP

	Lbs	Tns
Gross:	57160	28.58
Tare:	33120	16.56
Net:	24040	12.02

Generator: Chromalloy Facility-Forme
Gen Address: 169 Western Hwy
West Nyack, NY 10994

Facility Approval#: 173071466
Job Name: Chromalloy Facility-Forme
Job Address: 169 Western Hwy
West Nyack, NY 10994

Origin: Materials & Services

Quantity Unit

Rockland	Soil Treatment Type II	12.02	Tns
----------	------------------------	-------	-----

Contaminate Type: 2-011
Treatment Type: Bio
Fac Waste Code: Petroleum Contaminated Soil
Storage Area: Not Applicable
Comment:

Driver: _____

Facility: _____
Gibson, Barry

TRANSPORTER



Manifest # 863159

GLOBAL JOB NUMBER: M96J86 417-0377 ; 147109 FACILITY APPROVAL NUMBER: 173071466

Please Check One:

- Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909
- Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220
- Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633
- Clean Earth of Greater Washington
6250 Dower House Road
Upper Marlboro, MD 20772
Ph: 301-599-0939
- Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520
- Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004
- Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700
- Other: _____

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>Chromalloy Facility - former</u> <u>169 Western Hwy</u> <u>West Nyack, NY 10994</u>	GROSS WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
GENERATOR'S PHONE: <u>201-343-1122</u>	TARE WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
	NET WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

NON RCRA NON DOT SOLIDS - SOIL

EST 10 TONS

GENERATOR'S CERTIFICATION - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: AS AN AGENT FOR SENIOR RYAN TORRES Title: SUPERVISOR - TRL
 Signature: [Signature] Date and Time: 10/30/17 14:55

TRANSPORTER

Company: Miller Environmental Group, Inc. Phone Number: 845-564-1700
 Address: 169 Stone Castle Rd Park Township NJ Truck # and License Plate: 708, 17946 PK
 Driver: 12575 SW Haulers Permit #: NJ01P420981 (DOT) 1-SOL 17-005956
 (Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 11/9/17

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: 10/30/17 14:55

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [Signature] Date and Time: 11/9/17

TRANSPORTER

Clean Earth of Carteret,
24 Middlesex Avenue

Phone: (732) 541-8989 Fax: (732) 541-8105

Ticket: 700000755323

Date: 11/9/2017 Time: 8:13:58 AM Scale: CE

Manifest: 863159
Vehicle ID: 07MILLER708
Vehicle Permit:
Customer: MILLER ENVIRONMENTAL GROU

Lbs Tns
Gross: 69400 34.70
Tare: 33120 16.56
Net: 36280 18.14

Generator: Chromalloy Facility-Forme
Gen Address: 169 Western Hwy
West Nyack, NY 10994

Facility Approval#: 173071466
Job Name: Chromalloy Facility-Forme
Job Address: 169 Western Hwy
West Nyack, NY 10994

Origin: Materials & Services

Quantity Unit

Rockland Soil Treatment Type II 18.14 Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: Petroleum Contaminated Soil

Storage Area: Not Applicable
Comment:

Drivers: _____

Facility: _____
Gibson, Barry

TRANSPORTER

CAN # HV20-8



Manifest # 863160

MEB JOB

GLOBAL JOB NUMBER: H17-0377; 147109 FACILITY APPROVAL NUMBER: 173071466

Please Check One:

- Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909
- Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220
- Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633
- Clean Earth of Greater Washington
6250 Dower House Road
Upper Marlboro, MD 20772
Ph: 301-599-0939
- Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520
- Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004
- Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700
- Other _____

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>Chromalloy Facility - Former</u> <u>169 Western Hwy</u> <u>West Nyack, NY 10994</u>	GROSS WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
GENERATOR'S PHONE: <u>201-343-1122</u>	TARE WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
	NET WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION

NON-PCRA NON DOT SOLIDS - SOIL

EST 10 TONS

GENERATOR'S CERTIFICATION - Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: As An Agent For Secura Ryan Jersey Title: Supervisor - TPC
 Signature: [Signature] Date and Time: 10/30/17 12:25

TRANSPORTER

Company: Miller Environmental Group, Inc Phone Number: 845-561-1200
 Address: 169 Stone Castle Rd Rock Tavern NY Truck # and License Plate: 7085 12946 AC
 Driver: Tiffany Belan 12576 SW Haulers Permit #: NJ3060120901; PA 1-5426-17-003956
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 11/8/17

DESTINATION

I hereby certify that the above named material was delivered without incident to the facility noted above.

Driver Signature: [Signature] Date and Time: 10/30/17 12:25

I hereby certify that the above named material has been accepted at the above referenced facility.

Authorized Signature: [Signature] Date and Time: 11/8/17

TRANSPORTER

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 780000754947

Date	Time	Scale
In: 11/8/2017	11:18:07	Scale CE
Out: 11/8/2017	11:18:28	P. T.

Manifest: 863160
Vehicle ID: 07MILLER708
Vehicle Permit:
Customer: MILLER ENVIRONMENTAL GROUP

	Lbs	Tns
Gross: 65520		32.76
Tare: 33120		16.56
Net: 32400		15.80

Generator: Chromalloy Facility/Former
Gen Address: 169 Western Hwy
West Nyack, NY 10994

Facility Approval#: 173071466
Job Name: Chromalloy Facility-Former
Job Address: 169 Western Hwy
West Nyack, NY 10994

Origin	Materials & Services	Quantity	Unit
--------	----------------------	----------	------

Rockland	Soil Treatment Type II	15.20	Tns
----------	------------------------	-------	-----

Contaminate Type: 2 Oil

Treatment Type: Bio

Fac Waste Code: Petroleum Contaminated Soil

Storage Area: Not Applicable

Comment:

Driver: _____

Facility: _____
Gibson, Barry

TRANSPORTER

HV20-11



Manifest # 863161

GLOBAL JOB NUMBER: MFG IDB 117-0377-117109 FACILITY APPROVAL NUMBER: 173071466

Please Check One:

- Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: 732-541-8909
- Clean Earth of Maryland
1469 Oak Ridge Place
Hagerstown, MD 21740
Ph: 301-791-6220
- Clean Earth of New Castle
94 Pyles Lane
New Castle, DE 19720
Ph: 302-427-6633
- Clean Earth of Greater Washington
6250 Dower House Road
Upper Marlboro, MD 20772
Ph: 301-599-0939
- Clean Earth of Philadelphia
3201 S. 61st Street
Philadelphia, PA 19153
Ph: 215-724-5520
- Clean Earth of North Jersey
115 Jacobus Avenue
Kearny, NJ 07032
Ph: 973-344-4004
- Clean Earth of Southeast Pennsylvania
7 Steel Road East
Morrisville, PA 19067
Ph: 215-428-1700
- Other _____

Non-Hazardous Material Manifest

(Type or Print Clearly)

GENERATOR'S NAME & SITE ADDRESS: <u>Chromalloy Facility - Former</u> <u>169 Western Hwy</u> <u>West Nyack, NY 10994</u>	GROSS WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
GENERATOR'S PHONE: <u>201-343-1122</u>	TARE WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards
	NET WEIGHT: <input type="checkbox"/> Tons <input type="checkbox"/> Yards

DESCRIPTION OF MATERIAL/SAMPLE ID AND LOCATION EST 10 TONS
NON RCRA NON DOT SOLIDS - SOIL

GENERATOR'S CERTIFICATION -- Incomplete and/or unsigned manifests will cause the load to be delayed and/or rejected.
I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, is not a DOT hazardous substance as defined by 49 CFR Part 172 or any applicable state law, has been fully and accurately described above, classified, packaged and is in proper condition for transportation according to all applicable state and federal regulations.

Name: AGENT FOR SIGNATURE RYAN TORREY Title: SUPERVISOR - TRC
Signature: [Signature] Date and Time: 10/31/17 13:25

TRANSPORTER
Company: Miller Environmental Group, Inc. Phone Number: 845-569-1200
Address: 169 Stone Brook Rd Rock Tavern, NY 12976 Truck # and License Plate: 70X 12946PC
Driver: _____ SW Haulers Permit #: MSDR # 20581 - DOT - SOL - 11-2058106
(Type or Print Clearly) (applicable state permit #)

I hereby certify that the above named material was picked up at the site listed above.

Driver Signature: [Signature] Date and Time: 10/31/17 13:25

DESTINATION
I hereby certify that the above named material was delivered without incident to the facility noted above.
Driver Signature: _____ Date and Time: _____
I hereby certify that the above named material has been accepted at the above referenced facility.
Authorized Signature: [Signature] Date and Time: 11/2/17

TRANSPORTER

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8909 Fax: (732) 541-8105

Ticket: 700000751971

	Date	Time	Scale
In:	11/2/2017	12:59:54	Scale CE
Out:	11/2/2017	13:00:02	P.T.

Manifest: 863161
Vehicle ID: 07MILLER708
Vehicle Permit:
Customer: MILLER ENVIRONMENTAL GROU

	Lbs	Tns
Gross:	57180	28.59
Tare:	33120	16.56
Net:	24060	12.03

Generator: Chromalloy Facility-Forge
Gen Address: 169 Western Hwy
West Nyack, NY 10994

Facility Approval#: 173071466
Job Name: Chromalloy Facility-Forge
Job Address: 169 Western Hwy
West Nyack, NY 10994

Origin: Materials & Services

Quantity Unit

Rockland	Soil Treatment Type II	12.03 Tns
----------	------------------------	-----------

Contaminate Type: 2 Oil

Treatment Type: Bio

Fac Waste Code: Petroleum Contaminated Soil

Storage Area: Not Applicable

Consent:

Driver: _____

Facility: _____
Rendon, Adres

TRANSPORTER

APPENDIX C
Laboratory Analytical Report



ANALYTICAL REPORT

Lab Number:	L1739737
Client:	TRC Solutions 10 Maxwell Drive Suite 200 Clifton Park, NY 12065
ATTN:	Jeffrey LaRock
Phone:	(518) 688-3109
Project Name:	CHROMALLOY
Project Number:	190273.2015.0000
Report Date:	11/01/17

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), NJ NELAP (MA935), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-14-00197).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1739737-01	SS-4-BS-1	SOIL	WEST NYACK, NY	10/31/17 08:30	10/31/17
L1739737-02	SS-4-SW-1	SOIL	WEST NYACK, NY	10/31/17 13:50	10/31/17
L1739737-03	SS-4-SW-2	SOIL	WEST NYACK, NY	10/31/17 13:55	10/31/17
L1739737-04	SS-4-SW-3	SOIL	WEST NYACK, NY	10/31/17 14:00	10/31/17
L1739737-05	SS-8-SW-1	SOIL	WEST NYACK, NY	10/31/17 16:45	10/31/17
L1739737-06	SS-8-SW-2	SOIL	WEST NYACK, NY	10/31/17 16:50	10/31/17
L1739737-07	SS-8-BS-1	SOIL	WEST NYACK, NY	10/31/17 16:55	10/31/17

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

The WG1058305-3 MS recovery, performed on L1739737-01, is outside the acceptance criteria for chromium (68%). A post digestion spike was performed and yielded an unacceptable recovery of 65%. This has been attributed to sample matrix.

The WG1058305-4 Laboratory Duplicate RPD for chromium (23%), performed on L1739737-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 11/01/17

METALS

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-01
 Client ID: SS-4-BS-1
 Sample Location: WEST NYACK, NY
 Matrix: Soil
 Percent Solids: 88%

Date Collected: 10/31/17 08:30
 Date Received: 10/31/17
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	15.4		mg/kg	0.444	0.043	1	11/01/17 06:40	11/01/17 09:59	EPA 3050B	1,6010C	PS



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-02
 Client ID: SS-4-SW-1
 Sample Location: WEST NYACK, NY
 Matrix: Soil
 Percent Solids: 91%

Date Collected: 10/31/17 13:50
 Date Received: 10/31/17
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	11.5		mg/kg	0.427	0.041	1	11/01/17 06:40	11/01/17 10:31	EPA 3050B	1,6010C	PS



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-03
 Client ID: SS-4-SW-2
 Sample Location: WEST NYACK, NY
 Matrix: Soil
 Percent Solids: 93%

Date Collected: 10/31/17 13:55
 Date Received: 10/31/17
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	23.2		mg/kg	0.415	0.040	1	11/01/17 06:40	11/01/17 10:35	EPA 3050B	1,6010C	PS



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-04
 Client ID: SS-4-SW-3
 Sample Location: WEST NYACK, NY
 Matrix: Soil
 Percent Solids: 88%

Date Collected: 10/31/17 14:00
 Date Received: 10/31/17
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	19.4		mg/kg	0.444	0.043	1	11/01/17 06:40	11/01/17 10:40	EPA 3050B	1,6010C	PS



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-05
 Client ID: SS-8-SW-1
 Sample Location: WEST NYACK, NY
 Matrix: Soil
 Percent Solids: 84%

Date Collected: 10/31/17 16:45
 Date Received: 10/31/17
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	4.97		mg/kg	0.450	0.043	1	11/01/17 06:40	11/01/17 10:44	EPA 3050B	1,6010C	PS



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-06
 Client ID: SS-8-SW-2
 Sample Location: WEST NYACK, NY
 Matrix: Soil
 Percent Solids: 82%

Date Collected: 10/31/17 16:50
 Date Received: 10/31/17
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	5.18		mg/kg	0.467	0.045	1	11/01/17 06:40	11/01/17 10:49	EPA 3050B	1,6010C	PS



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-07
 Client ID: SS-8-BS-1
 Sample Location: WEST NYACK, NY
 Matrix: Soil
 Percent Solids: 87%

Date Collected: 10/31/17 16:55
 Date Received: 10/31/17
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	5.86		mg/kg	0.443	0.043	1	11/01/17 06:40	11/01/17 10:54	EPA 3050B	1,6010C	PS



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG1058305-1									
Chromium, Total	ND	mg/kg	0.400	0.038	1	11/01/17 06:40	11/01/17 09:41	1,6010C	PS

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG1058305-2 SRM Lot Number: D098-540								
Chromium, Total	101		-		83-119	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1058305-3 QC Sample: L1739737-01 Client ID: SS-4-BS-1												
Chromium, Total	15.4	17.8	27.6	68	Q	-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1058305-4 QC Sample: L1739737-01 Client ID: SS-4-BS-1						
Chromium, Total	15.4	12.2	mg/kg	23	Q	20

INORGANICS & MISCELLANEOUS

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-01
Client ID: SS-4-BS-1
Sample Location: WEST NYACK, NY
Matrix: Soil

Date Collected: 10/31/17 08:30
Date Received: 10/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.1		%	0.100	NA	1	-	11/01/17 03:55	121,2540G	RM



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-02
Client ID: SS-4-SW-1
Sample Location: WEST NYACK, NY
Matrix: Soil

Date Collected: 10/31/17 13:50
Date Received: 10/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.9		%	0.100	NA	1	-	11/01/17 03:55	121,2540G	RM



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-03
Client ID: SS-4-SW-2
Sample Location: WEST NYACK, NY
Matrix: Soil

Date Collected: 10/31/17 13:55
Date Received: 10/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.3		%	0.100	NA	1	-	11/01/17 03:55	121,2540G	RM



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-04
Client ID: SS-4-SW-3
Sample Location: WEST NYACK, NY
Matrix: Soil

Date Collected: 10/31/17 14:00
Date Received: 10/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.4		%	0.100	NA	1	-	11/01/17 03:55	121,2540G	RM



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-05
Client ID: SS-8-SW-1
Sample Location: WEST NYACK, NY
Matrix: Soil

Date Collected: 10/31/17 16:45
Date Received: 10/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.3		%	0.100	NA	1	-	11/01/17 03:55	121,2540G	RM



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-06
Client ID: SS-8-SW-2
Sample Location: WEST NYACK, NY
Matrix: Soil

Date Collected: 10/31/17 16:50
Date Received: 10/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.6		%	0.100	NA	1	-	11/01/17 03:55	121,2540G	RM



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

SAMPLE RESULTS

Lab ID: L1739737-07
Client ID: SS-8-BS-1
Sample Location: WEST NYACK, NY
Matrix: Soil

Date Collected: 10/31/17 16:55
Date Received: 10/31/17
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.5		%	0.100	NA	1	-	11/01/17 03:55	121,2540G	RM



Lab Duplicate Analysis
Batch Quality Control

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1058293-1 QC Sample: L1739438-01 Client ID: DUP Sample						
Solids, Total	89.0	87.9	%	1		20

Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Serial_No:11011714:37
Lab Number: L1739737
Report Date: 11/01/17

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1739737-01A	Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		CR-TI(180),TS(7)
L1739737-02A	Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		CR-TI(180),TS(7)
L1739737-03A	Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		CR-TI(180),TS(7)
L1739737-04A	Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		CR-TI(180),TS(7)
L1739737-05A	Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		CR-TI(180),TS(7)
L1739737-06A	Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		CR-TI(180),TS(7)
L1739737-07A	Glass 60mL/2oz unpreserved	A	NA		3.7	Y	Absent		CR-TI(180),TS(7)

*Values in parentheses indicate holding time in days



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related

Report Format: DU Report with 'J' Qualifiers



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
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Data Qualifiers

projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: CHROMALLOY
Project Number: 190273.2015.0000

Lab Number: L1739737
Report Date: 11/01/17

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 300: DW: Bromide

EPA 6860: NPW and SCM: Perchlorate

EPA 9010: NPW and SCM: Amenable Cyanide Distillation

EPA 9012B: NPW: Total Cyanide

EPA 9050A: NPW: Specific Conductance

SM3500: NPW: Ferrous Iron

SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO₂, NO₃.

SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility

SM 2540D: TSS

EPA 3005A NPW

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **EPA 351.1, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E.**

Mansfield Facility:

Drinking Water

EPA 200.7: Ba, Be, Cd, Cr, Cu, Ni, Na, Ca. **EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, TL. **EPA 245.1 Hg.**

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	ALPHA Job #	
		1 of 1	10/31/17	L1739737	
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables	Billing Information
Project Name: <u>Chromalloy</u> Project Location: <u>West Nyack, NY</u> Project # <u>190273.2015.0000</u>		(Use Project name as Project #) <input type="checkbox"/>		<input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other	<input type="checkbox"/> Same as Client Info PO #
Client Information		Regulatory Requirement		Disposal Site Information	
Client: <u>TRC</u> Address: <u>10 Maxwell Drive, Suite 200</u> <u>Clifton Park, NY 12045</u> Phone: <u>(518) 288-3109</u> Fax: Email: <u>jlarock@trcsolutions.com</u>		Project Manager: <u>Jeff LaRock</u> ALPHAQuote #: Turn-Around Time Standard <input type="checkbox"/> Due Date: <u>24-HR</u> Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days:		<input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge	
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please specify Metals or TAL.		ANALYSIS		Sample Filtration	
Please specify Metals or TAL. <u>Total Chromium</u>		Total Metals (Total Chromium)		<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
				Sample Specific Comments	
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection	Sample Matrix	Sampler's Initials	Total Chromium
		Date Time			
<u>39737-01</u>	<u>SS-4-BS-1</u>	<u>10/31/17</u> <u>0830</u>	<u>SO</u>	<u>RSJ</u>	<u>X</u>
<u>02</u>	<u>SS-4-SW-1</u>	<u>10/31/17</u> <u>1350</u>	<u>SO</u>	<u>RSJ</u>	<u>X</u>
<u>03</u>	<u>SS-4-SW-2</u>	<u>10/31/17</u> <u>1355</u>	<u>SO</u>	<u>RSJ</u>	<u>X</u>
<u>04</u>	<u>SS-4-SW-3</u>	<u>10/31/17</u> <u>1400</u>	<u>SO</u>	<u>RSJ</u>	<u>X</u>
<u>05</u>	<u>SS-8-SW-1</u>	<u>10/31/17</u> <u>1645</u>	<u>SO</u>	<u>RSJ</u>	<u>X</u>
<u>06</u>	<u>SS-8-SW-2</u>	<u>10/31/17</u> <u>1650</u>	<u>SO</u>	<u>RSJ</u>	<u>X</u>
<u>07</u>	<u>SS-8-BS-1</u>	<u>10/31/17</u> <u>1655</u>	<u>SO</u>	<u>RSJ</u>	<u>X</u>
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015	
		Container Type <u>A</u>			
		Preservative <u>A</u>			
		Relinquished By: <u>Blue Jocks AAL</u> <u>10/31/17 1745</u> <u>Blue Jocks AAL</u> <u>10/31/17 1825</u> <u>MS IPS</u> <u>10/31 223</u>		Received By: <u>Blue Jocks AAL</u> <u>10/31/17 1745</u> <u>ATP</u> <u>10/31 1730</u> <u>UW 2</u> <u>10/31/17 2230</u>	
Form No: 01-25 HC (rev. 30-Sept-2013)					

T O T A L B O T T L E

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

APPENDIX D
BACKFILL CERTIFICATES



10/1/17

MILLER ENVIRONMENTAL GROUP, INC.
HUDSON VALLEY REGIONAL OFFICE
169 STONE CASTLE RD
ROCK TAVERN, NY 12575-5000

Dear

Please accept this letter as certification that all materials distributed at Callahan & Nannini Quarry are virgin materials produced at the stated quarry is Salisbury Mills, New York. All material is free of any contaminants, with no imported material being utilized. The site at which Callahan & Nannini is located, block number 12-1-7.21 has mined since 1954 and supplied material for numerous environmental cleanup projects in the area. For your reference, our mining source number for the New York State Department of Transportation is 8-65RS, RSFM.

Should you have any questions, I can be reached at 845-629-5292.

Sincerely,

A handwritten signature in black ink, appearing to read "Rob Nannini", written over a horizontal line.

Rob Nannini



Dear

Please accept this letter as certification that all materials distributed at Callahan & Nannini Quarry are virgin materials produced at the stated quarry is Salisbury Mills, New York. All material is free of any contaminants, with no imported material being utilized. The site at which Callahan & Nannini is located, block number 12-1-7.21 has mined since 1954 and supplied material for numerous environmental cleanup projects in the area. For your reference, our mining source number for the New York State Department of Transportation is 8-65RS, RSFM.

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Sincerely,

Rob Nannini