Brown and Caldwell Associates
2 Park Way, Suite 2A
Upper Saddle River, New Jersey 07458

T: 201.574.4700
F: 201.236.1607

January 5, 2018

John Spellman, P.E.
NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 11th Floor
Albany, New York 12233-7014

146094.410

Subject: Interim Remedial Measures Construction Completion Report for
Surface Tar Removal
Troy (Water Street) Site – Area 3
Troy, New York

Dear Mr. Spellman:

On behalf of Niagara Mohawk Power Corporation, doing business as (d/b/a) National Grid, enclosed please find the Interim Remedial Measures Construction Completion Report for Surface Tar Removal; Troy (Water Street) Site – Area 3; Troy, New York (CCR). The CCR documents the Interim Remedial Measures (IRMs) implemented to remove surface tar at a portion of Area 3 of the Troy (Water Street) Site located in the City of Troy, Rensselaer County, New York.

Please contact me at (518) 560-5911 or Mr. Garry Cummins (National Grid) at (315) 428-6073 if you have any questions or require additional information.

Very truly yours,

Brown and Caldwell

Adam R. Sherman

Adam R. Sherman, P.E.
Managing Engineer

cc: Mark Sergott, NYSDOH
Garry Cummins, National Grid

Enclosure

Interim Remedial Measures Construction Completion Report for Surface Tar Removal

Troy (Water Street) Site – Area 3

Troy, New York

Prepared for

Niagara Mohawk Power Corporation d/b/a
National Grid, Syracuse, New York

January 4, 2018

Interim Remedial Measures Construction Completion Report for Surface Tar Removal
Troy (Water Street) Site – Area 3
Troy, New York

Prepared for
Niagara Mohawk Power Corporation d/b/a National Grid
300 Erie Boulevard West
Syracuse, New York 13202

January 4, 2018

Project Number: 146094.410

New York State Professional Engineer Certification:

I, Adam R. Sherman, certify that I am currently a NYS registered professional engineer, I had primary direct responsibility for the implementation of the subject construction program, and I certify that the Interim Remedial Measures Work Plan was implemented and that all construction activities were completed in substantial conformance with the DER-approved Interim Remedial Measures Work Plan.

Adam R. Sherman, P.E.
Managing Engineer
New York State P.E. License #087306

Warning: It is a violation of the New York State Education Law Article 145, Section 7209(2) for any person, unless he/she is acting under the direction of a licensed professional engineer, to alter this item in any way. If this item, bearing the seal of an engineer, is altered, the altering engineer shall affix to the item his/her seal and the notation "altered by" followed by his/her signature and the date of such alteration, and a specific description of the alteration.

Brown and Caldwell Associates
3 Marcus Boulevard, Suite 106
Albany, New York 12205
2 Park Way, Suite 2A
Upper Saddle River, New Jersey 07458

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Appendices

List of Figures

List of Abbreviations

BC	Brown and Caldwell Associates
bgs	below ground surface
CAMP	Community Air Monitoring Plan
CCR	Construction Completion Report
d/b/a	doing business as
DEC	New York State Department of Environmental Conservation
HASP	Health and Safety Plan
HVC&PC	Hudson Valley Coke and Products Corporation
HVFC	Hudson Valley Fuel Corporation
IRM	Interim Remedial Measure
IRMWP	Interim Remedial Measures Work Plan
MGP	Manufactured Gas Plant
NGVD	National Geodetic Vertical Datum (as in NGVD 1929)
NMPC	Niagara Mohawk Power Corporation
NYSDOT	New York State Department of Transportation
PHA	Process Hazard Analysis
RI	Remedial Investigation
RIWP	Remedial Investigation Work Plan

Section 1

Introduction and Background

This Construction Completion Report (CCR) has been prepared by Brown and Caldwell Associates (BC) on behalf of Niagara Mohawk Power Corporation (NMPC), doing business as (d/b/a) National Grid (herein referred to as National Grid) to document the interim remedial measures (IRMs) implemented at a portion of Area 3 of the Troy (Water Street) Site located in the City of Troy, Rensselaer County, New York (hereafter referred to as the "Site"). The New York State Department of Environmental Conservation (DEC) approved the settlement agreement between Chevron USA, Inc. and National Grid, which assigns to National Grid responsibility for the portion of Area 3 lying north of the centerline of the New York State Route 378 bridge (also known as the "Troy-Menands Bridge").

National Grid performed Remedial Investigation (RI) activities in accordance with the DEC-approved "Remedial Investigation Work Plan, Troy (Water St.) Site – Area 3, Troy, New York" (BC November 2014, Revised February 2015) (herein referred to as "RIWP") to assess the nature and extent of potential Manufactured Gas Plant (MGP)-related impacts underlying this portion of the property. The RI findings were presented to the DEC in the "Data Summary Report, Remedial Investigation, Troy (Water Street) Site – Area 3, Troy, New York" (BC, March 2016, Revised June 2016) (herein referred to as the "RI Data Summary Report"). In a letter dated June 30, 2016, the DEC requested that an Interim Remedial Measures Work Plan (IRMWP) be prepared to address the tar contained in Former Tank T-41. An IRMWP (BC, October 2016) was prepared by BC to address the tar contained in Former Tank T-41 as well as surface tar observed at other locations of the Site. The IRMWP was approved by the DEC in a letter dated October 31, 2016.

In summary, this CCR provides a Site description (setting and historical operations), summary of the IRM objectives, and documentation of the IRM implementation.

1.1 Site Setting

The Site is located in Troy, Rensselaer County, New York. Latitude and longitude coordinates for the property are approximately 42°42'06.1" north latitude and 73°42'02.2" west longitude. A Site location map is provided as Figure 1.

The Site is abutted to the north by Area 2 of the Troy (Water Street) Site, to the east by Water Street (also known as River Road) and a railroad spur, to the south by the remaining portion of Area 3 (which is being remediated by Chevron USA, Inc.), and to the west by the Hudson River. South of Area 3 is Area 4, which was previously remediated by National Grid. The area surrounding the Site is primarily used for industrial and commercial purposes. The topography of the Site is generally flat, with a steep bank located directly adjacent to the Hudson River to the west. The elevation of the flat portion of the property is approximately 25 to 28 feet based on National Geodetic Vertical Datum (NGVD) of 1929. The Site is currently vacant and the only prominent surface feature is the Troy-Menands Bridge and its support foundations (the only other significant surface feature on the northern portion of Area 3 was the base of the Former Tank T-41, which was removed as part of this IRM). Fencing surrounds the eastern, northern, and western sides of the upland portion of the Site. There is no fencing separating the northern portion of Area 3 with the remaining portion of Area 3 (i.e., the portion being remediated by Chevron USA, Inc. A Site plan depicting existing conditions is provided as Figure 2.

Based on the 1980 National Flood Insurance Program, Flood Insurance Rate Map the majority of the Site is designated as Zone B. Zone B indicates that the area falls between the 100-year and 500-year flood stage for the Hudson River. Directly adjacent to the river, the area is designated as Zone A12 (located within the 100-year flood stage). The 100-year flood elevation at the Site is approximately 24.5 feet, NGVD 1929.

1.2 Historical Site Operations

The history of the Site as a whole, including the portion of Area 3 that is the focus of the IRM, is presented below. This history is based on several sources including historical maps, figures and documents provided by NMPC and Chevron USA, and additional materials, including historical aerial photographs and maps, obtained by BC. A more detailed discussion of the Site history was previously presented in the RIWP.

Industrial operations at the Site began in the mid-to-late-1800s with several generations of iron and steel making facilities. Manufactured gas production evolved on the Site to support the production of coke for the iron and steel industry. In 1859, portions of the Troy (Water St.) Site were granted by the State of New York to the Troy Iron and Nail Factory. By 1885 the Troy Steel and Iron Company had been incorporated and had operations occurring in the vicinity of the Site, with no record of activities directly occurring in Area 3. It is believed at this time that Area 3 was owned by the Burden Iron Company. Iron making at this time consisted of heating and melting iron ore with coal, coke or charcoal. In 1890, the Troy Steel and Iron Company had swapped the land associated with Area 3 with the Troy and Greenbush Railroad Association to be used as area for railroad tracks. Railroad easements remained on the Site during much of its history.

In 1924, the Hudson Valley Coke and Products Corporation (HVC&PC) was formed, and a brick shed, presumably used for storage, was constructed on the Site. By 1938, HVC&PC had sold the facility to the Hudson Valley Fuel Corporation (HVFC), which merged into New York Power and Light, which in turn was consolidated into NMPC in 1951. The brick shed, previously mentioned, was demolished and the HVFC constructed two Tarvia tanks of unknown capacity. Tarvia is a coal tar byproduct used for road surfacing and dust abatement. Three tar products structures and a flux oil tank (10,000 gallons) were also constructed by the HVFC. The approximate positions of the structures mentioned above are shown on Figure 2.

In 1955 Republic Steel Corporation sold the property to American Bitumuls & Asphalt Company, which was acquired by the Chevron Asphalt Company in 1965. The Chevron Asphalt Company constructed the asphalt plant on the land known as Area 3. In 1965, two aboveground, vertical storage tanks (Tank T-27 and Tank T-41) were constructed. Storage Tank T-27 was a 2.1 million-gallon asphalt storage tank, and Tank T-41 was a 210,000-gallon asphalt storage tank. Chevron ceased operations at the Site as an asphalt terminal around 1998. The plant structures were razed in 2006, with the exception of the base of Tank T-41, which, during demolition activities, was observed to contain tar at the base of the structure.

1.3 IRM Objectives

As identified in the IRMWP, the main objective of the IRM was to safely remove surface tar from upland areas of the Site (i.e., does not include riverbank areas), including the contents of Former Tank T-41 and surface tar observed at other locations of the Site, to mitigate potential future human or ecological exposure to the surface tar material. Another objective of the IRM was to remove the remaining portions (i.e., base) of Former Tank T-41.

Section 2

Description of Work Completed

Field activities associated with the implementation of the IRM commenced September 18, 2017 and were completed on October 17, 2017. Land Remediation, Inc. (Waterford, New York) was the contractor selected to implement the IRM construction activities. Synapse Engineering, PLLC (Central Square, New York) was retained as the construction manager. BC performed field engineering support, construction observation, quality assurance reviews, and documentation services associated with the IRM.

IRM implementation included the following activities, which are described in the following sections:

- Pre-mobilization activities;
- Mobilization and Site preparation, including implementation of temporary facilities and controls;
- Air monitoring and controls;
- Excavation to remove tar observed at the surface of the Site;
- Removal of the Former Tank T-41 contents and removal of the remaining portion of the Former Tank T-41 structure;
- Waste management;
- Backfill and fill material importing; and
- Restoration and Demobilization.

Record drawings/surveys for the IRM and a photographic log of the IRM activities are referenced in the following sections and are included as Appendix A and Appendix B, respectively.

2.1 Pre-Mobilization Activities

Pre-mobilization activities included:

- **Pre-Mobilization Site Inspection:** A Site inspection was conducted immediately prior to mobilization to document the conditions of the Site prior to mobilization and IRM implementation.
- **Pre-Construction Meeting:** A pre-construction meeting was held on September 6, 2017, prior to the initiation of IRM activities. The meeting was attended by representatives from National Grid, LAND Remediation, Inc., Synapse Engineering, PLLC BC, and DEC.
- **Pre-Mobilization Waste Characterization:** Prior to conducting intrusive activities, waste characterization sampling and testing of tar-impacted surface soil was conducted. Waste characterization results are further discussed in Section 2.6.
- **Utility Mark-out and Protection:** Prior to conducting intrusive activities, the locations of subsurface utilities were marked in the field and a utility stakeout request was made to Dig Safely New York. In addition, Chevron USA, Inc. was requested to identify and locate known on-Site private utilities in areas where surface tar removal activities were proposed. The most notable utility located at the Site is a high-pressure gas main (refer to Figure 2). As part of investigation activities and prior to IRM activities, National Grid confirmed the location and depth of the gas main, delineated the alignment of the gas main with orange construction fencing, and constructed a crane mat bridge (referred to as an “air bridge”) to provide a means for crossing

over the gas main with vehicles and construction equipment. Photograph #1 in Appendix B shows the air bridge installed over the gas main. In addition, the contractor was required to complete National Grid's Process Hazard Analysis (PHA) process to identify hazard scenarios, safeguards, and other requirements for conducting work in the vicinity of the gas main.

- **Permits:** The contractor obtained local building permits as required by the City of Troy.

2.2 Mobilization and Site Preparation

Mobilization activities included mobilization of equipment, materials, and personnel required for construction activities associated with the implementation of the IRM. In addition, Site preparation activities included work zone delineation and installation of temporary facilities and controls. A work area perimeter was established that encompassed the IRM remediation areas, staging areas, and temporary facilities and controls. The work area perimeter was marked with physical barriers including temporary fencing, signage, and traffic barrels to discourage unauthorized access to the area during construction. Temporary facilities were installed including storage containers, sanitary facilities, eye- and hand-wash station, and waste staging areas. Set-up for temporary controls was also completed, including installation of erosion control measures (silt fencing, stabilized construction entrance), installation of geophones for vibration monitoring during excavation/ demolition activities in the vicinity of the gas main, and installation of monitoring equipment for dust, odor, and vapor monitoring in order to implement the DEC-approved Community Air Monitoring Plan (CAMP). The CAMP implementation and results are discussed in Section 2.3. Work zone air monitoring for dust, odor and vapor was also implemented in accordance with the Health and Safety Plan (HASP). Photograph #2 in Appendix B shows the perimeter air monitoring stations and temporary barricades, and Photograph #3 in Appendix B shows the temporary storage container. Photographs #4 and #5 in Appendix B show the erosion control measures and waste staging area, respectively.

2.3 Community Air Monitoring and Controls

Throughout the duration of ground-intrusive and waste management activities, the Contractor implemented the DEC-approved CAMP using a dedicated third-party subcontractor (Colden Corporation). The monitoring program included monitoring of weather conditions and dust, vapors, and odors. The monitoring system included three air monitoring stations positioned around the perimeter of the Site (one upwind and two downwind). The CAMP air monitoring reports and results are included in Appendix C. In summary, there were no exceedances of the CAMP action levels for dust or vapors throughout the duration of IRM implementation activities. Odors were intermittently detected during tar removal activities, in particular during the removal and loadout of the Former Tank T-41 contents, and odor suppressing foams were immediately deployed to suppress odors.

Air emission controls were implemented pro-actively and in response to the results from air monitoring. Air emission control measures included:

- The use of odor/vapor suppressing foam (i.e., Rusmar foam) at waste stockpile areas and within tar removal areas.
- Wetting equipment and exposed soil during excavation and loading/unloading activities.
- Spraying water on un-paved access roads.
- Covering stockpiles when active loading or unloading was not being performed.

2.4 Surface Tar Excavations

Prior to intrusive activities, the Contractor marked out the location of the surface tar removal areas as proposed in the IRMWP. BC inspected the areas and based on field observations, several of the areas were expanded. Based on the observations, 12 surface tar excavation areas were identified (Areas A-1, A-2, A-3, A-4, A-5, A-6, A-7, A-8/9/10, A-11, A-12, B-1, and B-2). The limits of each surface tar excavation area, including the original proposed excavation limits and expanded excavation limits, are depicted in Figure 3.

For each of the 12 surface tar excavation areas, surface tar and tar-impacted soils were excavated to an initial depth of 6 inches below ground surface (bgs). Following removal of the top 6 inches, the excavation areas were visually inspected for potential remaining tar impacts. In areas where additional tar impacts were observed on the excavation bottom, further excavation was performed to a depth of 1 foot bgs, which is the maximum depth established in the IRMWP. If tar impacts were observed on the sidewalls of the excavation area, the horizontal excavation limits were expanded as necessary. Photographs #6, #7, and #8 in Appendix B depict typical surface tar excavation operations.

Where excavations were performed in close proximity the gas main (i.e., Areas A-1, A-2, A-3, A-4, A-5, and A-12), vibration monitoring was performed and hand digging was employed to excavate within 20 feet of the gas main. Vibration monitoring results are included in Appendix G.

At areas where tar-impacted concrete was encountered, tar impacts were removed by scraping the concrete with a flat-edged excavator bucket or manual scraper. The material was then collected and co-mingled with the tar/soil from the excavation areas.

Waste materials from the surface tar excavations were staged in a waste staging area or direct-loaded into waste haulers. Waste management activities are further described in Section 2.6. Photograph #9 in Appendix B depicts the typical loading of a waste hauler.

During excavation activities, no groundwater was encountered and dewatering of the excavation was not required.

After excavation of each area was completed, a post-excavation inspection was performed to record and document remaining tar impacts at the base of the excavation, which will be addressed by future Site remediation activities. Below is a summary of the post-excavation inspection of each excavation areas:

- At Areas A-3, A-6, and A-12, no tar impacts were observed upon completion of the excavation.
- At Area A-1, tar impacts were observed to remain at the excavation bottom below 1 foot bgs.
- At Area A-2, tar impacts were observed to remain along the western sidewall below the existing asphalt berm adjacent to the riverbank.
- At Area A-4, tar impacts were observed to remain at the excavation bottom below 1 foot bgs.
- At Area A-5, tar impacts were observed to remain at the excavation bottom and along the western and northern sidewalls below 1 foot bgs.
- At Area A-7, tar impacts were observed to remain at the excavation bottom and along the northern sidewall below 1 foot bgs.
- At Area A-8-9-10, tar impacts were observed to remain at the excavation bottom and southeast sidewall below 1 foot bgs, and along the northern sidewall beneath the existing asphalt berm adjacent to the Troy Area 2 boundary.
- At Area 11, tar impacts were observed to remain at the excavation bottom below 1 foot bgs.

- At Area B-1, tar impacts were observed to remain at the excavation bottom below 1 foot bgs.
- At Area B-2, tar impacts were observed to remain at the excavation bottom below 1 foot bgs.

Following excavation and post-excavation inspection, each area was surveyed to document the excavation limits. The final horizontal and vertical limits of the surface tar excavation areas are depicted on the "Excavation Survey" in Appendix A.

Upon completion of post-excavation surveying, each excavation area was backfilled with imported fill materials to match surrounding grades. Imported backfill and fill materials are discussed in Section 2.7. Photographs #10 and #11 in Appendix B depict typical backfilled surface tar excavation areas.

2.5 Former Tank T-41 Contents and Structure Removal

The base of Former Tank T-41 was observed to contain tar material adhered to a concrete surface. The Contractor first removed the tar material by scraping the surface of the concrete with a flat-edged excavator bucket. The tar material was staged in a separate waste staging area designated for the Former Tank T-41 contents. The concrete was then demolished using a hydraulic hammer attachment for the excavator. During the concrete demolition, it was discovered that the concrete did not extend to the bottom of the tank. Rather the concrete consisted of an approximate 4-inch layer of reinforced concrete overlying approximately 2 feet of tar-impacted fill/debris that extended to the bottom of the steel tank. Photographs #12 and #13 in Appendix B depict the scraping of tar material adhered to the concrete and the concrete demolition. Photograph #14 in Appendix B shows the tar-impacted fill/debris beneath the concrete.

Following waste characterization and acceptance at a disposal facility, the contents of the Former Tank T-41 (including scraped off tar material, demolished concrete, and tar-impacted soil/debris) were excavated from the tank and direct-loaded into waste haulers for off-Site treatment/disposal. Refer to Section 2.6 for additional details on waste management activities. The bottom and sidewalls of the tank were scraped with manual scrapers or the flat-edged excavator bucket to removed tar materials. Heat was applied to the outside of the tank to assist with removing the tar from the tank sidewalls. Waste conditioning was not required prior to off-Site transportation of the tank contents.

Following removal of the Former Tank T-41 contents, the steel structure (walls and base) was cut/crushed into manageable-sized pieces and placed into designated roll-off containers for transportation to an off-Site recycling facility. Photographs #15 and #16 in Appendix B depict the demolition of the tank walls and base, respectively. Refer to Section 2.6 for additional details on waste management activities.

Upon completion of removal of the Former Tank T-41 structure, approximately 4 to 6 inches of tar-impacted soil was observed below the tank, overlying a concrete pad. The tar-impacted soil was excavated down to the top of the underlying concrete pad and tar impacts on the concrete pad were scraped off using a flat-edged excavator bucket. The material was directly loaded into a waste hauler for off-Site treatment/disposal. Refer to Section 2.6 for additional details on waste management activities. Photograph #17 in Appendix B depicts the excavation of the tar-impacted soil below the tank, and Photograph #18 in Appendix B shows the underlying concrete pad after completion of the excavation.

Additionally, decontamination of equipment was performed within the area of Former Tank T-41 using mechanical means and BioSolve®. Waste materials generated from decontamination activities were collected and directly loaded into a waste hauler for off-Site treatment/disposal.

After completing the removal of the Former Tank T-41 contents, structure, and underlying soils, the limits of the former tank footprint were surveyed to document the excavation limits. The final horizontal and vertical limits are depicted on the "Excavation Survey" in Appendix A.

Upon completion of the surveying, the Former Tank T-41 area was backfilled with a minimum of 8 inches imported fill material over the concrete pad. Imported backfill and fill materials are discussed in Section 2.6. Photograph #19 in Appendix B depicts the Former Tank T-41 area after backfilling was completed.

2.6 Waste Management

Waste materials generated during IRM activities were characterized, manifested, transported, and treated/disposed at off-Site facilities in accordance with applicable federal and state regulations and guidelines. The remediation waste streams generated from the IRM implementation included the following:

- Tar-Impacted Soil
- Tank T-41 Contents
- Steel Debris

Waste characterization results for tar-impacted soil, which consist of the material generated as a result of the surface tar excavations discussed in Section 2.4, are included in Appendix D (refer to results for samples "WC TROYIRMA" and "WC TROYIRMB"). Based on the results, the tar-impacted soil was characterized as non-hazardous waste and was accepted for disposal at Ontario County Landfill, 3555 Post Farm Road, Stanley, NY (NYS Facility ID# 8324400004000010). Longhorn Trucking Company (NYS Part 364 Permit #4A-485) was contracted by LAND as the waste transporter. A total of 191.68 tons of tar-impacted soil was transported to and disposed at Ontario County Landfill. Non-hazardous waste manifests and weight tickets for the tar-impacted soil are included in Appendix E.

Waste characterization results for the tank T-41 contents (tar-impacted soil and debris), which consists of the material generated as a result of the Tank T-41 cleanout discussed in Section 2.5, are included in Appendix D (refer to results for samples "WC-TROYIRM-C" and "WC-TROYIRM-D"). Based on the results, the Former Tank T-41 contents did not exhibit hazardous characteristics, with the exception of exhibiting the toxicity characteristic for benzene. As such, the material was deemed eligible for treatment as a non-hazardous waste at a thermal treatment facility permitted to receive non-hazardous contaminated soil or sediment under the provisions of NYSDEC Document DER-4 entitled "Management of Coal Tar Waste and Coal Tar Contaminated Soils and Sediment from Former Manufactured Gas Plants ("MGP"s)" dated January 11, 2002. The Former Tank T-41 contents were accepted for treatment/disposal at ESMI of New York, 304 Towpath Road, Fort Edward, NY (NYS Facility ID# 5-5330-00038/00019). Real Bark Mulch, LLC (NYS Part 364 Permit #5-735) was contracted by LAND as the waste transporter. A total of 166.23 tons of tar-impacted soil/debris from cleanout of the Former Tank T-41, including the material within the former tank structure and immediately below the tank, was transported to ESMI of New York. Certificate of Treatment and Recycling, non-hazardous waste manifests and weight tickets for the Former Tank T-41 waste materials are included in Appendix E.

Steel debris generated from the removal of the Former Tank T-41 structure (12.28 tons) was staged in a dedicated roll-off container and transported to NH Kelman Inc. Scrap Recycling (Cohoes, New York) for off-Site recycling. Prior to shipment off-Site, tar-impacted soil was removed from the steel and the steel was cut/folded into manageable sized pieces, to meet the recycling facility's acceptance criteria.

2.7 Backfill and Fill Materials Management

Imported backfill and fill materials meeting the quality requirements identified in DER-10 and used during IRM implementation included a sand and gravel material, Type 2 Subbase (i.e., crusher run), and crushed stone (NYSDOT No. 3 Stone). The sand and gravel material was used as backfill/fill material for excavation areas and in the Former Tank T-41 footprint. Crusher run was used for construction and maintenance of construction access routes. The NYSDOT No. 3 Stone was used for construction of the stabilized construction entrance.

Sand and gravel material was obtained from Constantine Construction and Farms, Inc., 55 Button Road, Waterford, New York. Crusher run and NYSDOT No. 3 Stone were obtained from Callanan Industries, Inc., 3 Palitsch Road, Cropseyville, New York. Source information and quality documentation for the fill materials are included in Appendix F. The source information and quality documentation were provided to the DEC and DEC approved the use of the materials during IRM implementation via a September 22, 2017 e-mail (included in Appendix F). Fill import tickets for each load of material are also included in Appendix F. In total, the following quantities of backfill/fill materials were used during IRM implementation:

- Sand and Gravel Material: 380.34 tons;
- Type 2 Subbase (Crusher Run): 20.89 tons; and
- NYSDOT No. 3 Stone: 40.97 tons.

2.8 Site Restoration and Demobilization

Following excavation of the surface tar excavation areas and removal of Former Tank T-41 and its contents, the areas were restored through backfilling/filling using imported materials, as discussed in Sections 2.4, 2.5, and 2.7. A sand and gravel material was used to backfill the excavation areas and provide a minimum 8 inches of cover over the Former Tank T-41 pad. Refer to Section 2.6 for a description of the imported fill and backfill materials. The sand and gravel material is consistent with the nature of existing surface soils at the Site. Although the Site is largely devoid of vegetation, a grass seed was spread over the restoration areas to provide some vegetation to limit potential dust generation. Erosion is not an issue at the Site due to the general flatness of the Site and the presence of perimeter berms. The post-construction conditions, following backfilling and grading, are depicted on the "Post-Construction Survey" in Appendix A.

At the completion of remediation activities, construction equipment and temporary facilities were removed from the Site. The crane mat air bridge crossing over the gas main and orange construction fencing demarcating the high-pressure gas line remain at the Site. Photograph #20 in Appendix B shows the Site after completion of Site restoration activities (and prior to seeding).

Section 3

Description of Work Plan Changes/Modifications

This section provides a description of changes and modifications to the IRM compared to the description provided in the IRMWP.

3.1 Expanded Surface Tar Excavation Areas

As discussed in Section 2.4, based on field observations made prior to intrusive activities and during surface tar excavations, several of the surface tar excavation areas were expanded horizontally compared to the limits identified in the IRMWP. The limits of each surface tar excavation area, including the original proposed excavation limits and expanded excavation limits, are depicted in Figure 3.

3.2 Former Tank T-41 Configuration and Contents

As discussed in Section 2.5, the configuration and contents of Former Tank T-41 were found to differ from the description in the IRMWP. The steel remnant base of Former Tank T-41 was found to contain, in descending order from the surface: a thin coating of tar, an approximate 4-inch layer of reinforced concrete, approximately 2 feet of tar-impacted fill/debris, steel bottom of the tank, 4 to 6 inches of tar-impacted soil, and a concrete pad. The difference in the configuration and contents of the tank impacted means and methods of removal and waste management, however, it did not affect the ability to achieve the objective of removing the tank contents and remaining portion (i.e., base) of the tank.

Section 4

Conclusion

The IRM was implemented at Troy Area 3 to remove tar-impacted materials contained in Former Tank T-41 and surface tar observed at other locations of the Site. The IRM successfully achieved the objectives established in the DEC-approved IRMWP. Remaining tar impacts, following the surface excavations were documented and will be addressed by future Site remediation activities. The areas affected by the IRM implementation were restored to approximately match pre-existing conditions using imported fill materials that meet the quality requirements established in DER-10.

Section 5

References

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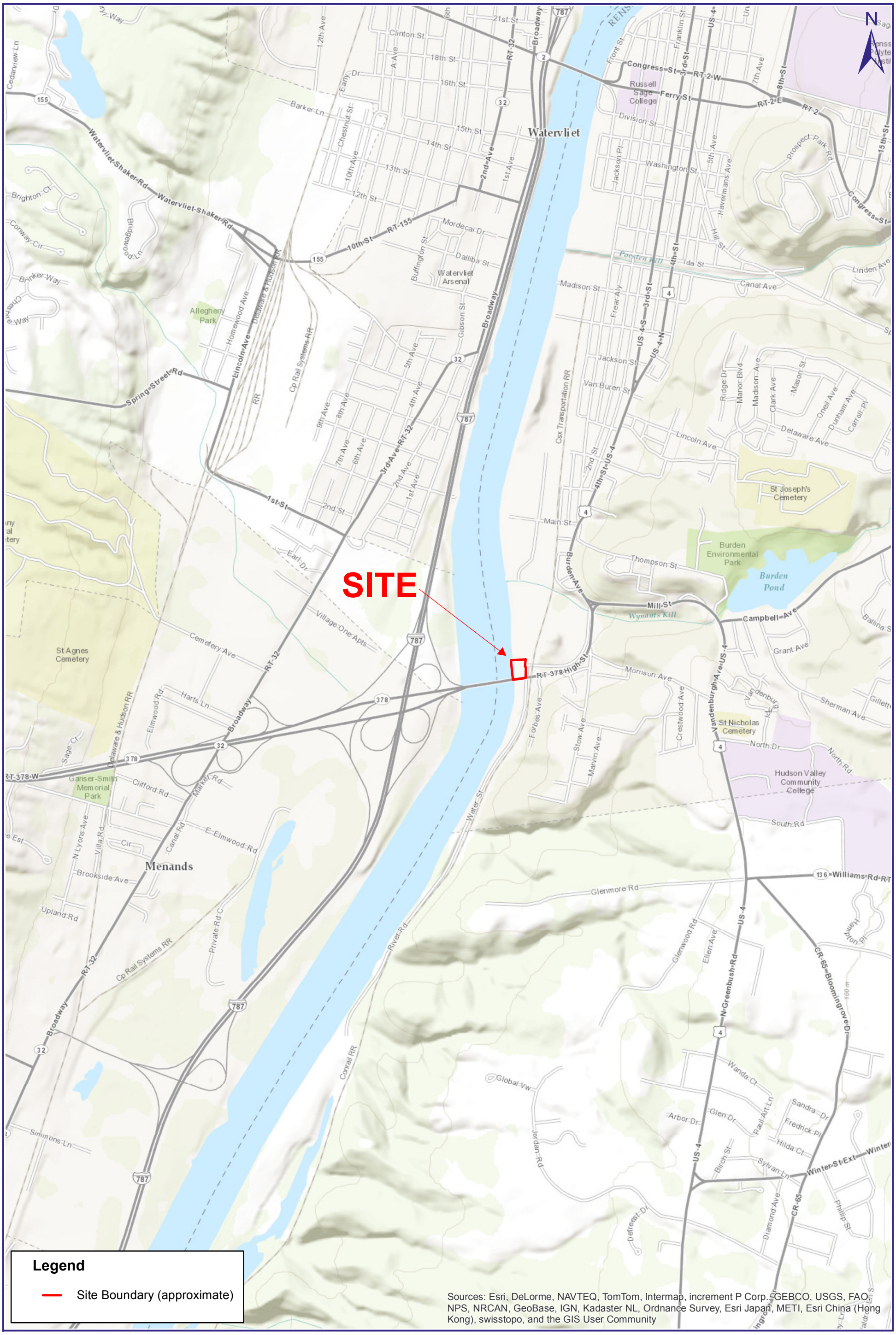
Figures

6/16/2014



Author: JMarolda Path: P:\GIS\National_Grid\Troy\Troy_Area_3\Troy_Area_3_Site_Location.mxd

Brown AND Caldwell
BROWN AND CALDWELL ASSOCIATES

FIGURE 1
SITE LOCATION MAP
NATIONAL GRID
TROY (WATER ST.) SITE - AREA 3, TROY, NEW YORK

0 1,000 2,000
Feet

TROY (WATER STREET) SITE - AREA 2
N/F TROY LOCAL DEVELOPMENT CORPORATION
TAX MAP ID NO. 111.75-1-1

RENSSELAER COUNTY SEWER DISTRICT NO. 1
TAX MAP ID NO. 111.75-1-2

TROY (WATER STREET) SITE - AREA 3
N/F CHEVRON USA, INC.
TAX MAP ID NO. 111.83-1-1

N/F CHEVRON USA, INC.
TAX MAP ID NO. 111.83-1-1

HUDSON RIVER

WATER STREET (A.K.A., RIVER ROAD)

6' HIGH CHAIN LINK FENCE W/GATE
6' HIGH CHAIN LINK FENCE
48"CMP INV. OUT=3.66
CHAIN LINK FENCE ALONG BERM
CONCRETE PAD
FORMER TARVIA TANK
FORMER TAR PRODUCTS
48" CMP
FORMER FLUX OIL TANK (10,000 GALS.)
CRUSHED STONE
FORMER SANITARY LIFT STATION VAULT
VAULT
FORMER BRICK SHED
FORMER TANK T-41
GATE
20'
GP
20' WIDE SANITARY SEWER EASEMENT
SITE ENTRANCE/EXIT
APPROXIMATE LOCATION OF 42" SANITARY FORCE MAIN
22' WIDE INGRESS-EGRESS EASEMENT
DMH
TF=26.99
(SE)12"INV IN=22.19
(W)48"INV OUT=13.19
CBS
TF=25.71
(NW)12"INV OUT=21.71
12" CMP
42" W. CMP
WV
UTILITY POLE
FORMER TANK T-27
CRANE MAT AIR BRIDGE (APPROXIMATE LOCATION)
GAS LINE (16" STEEL, 225 PSI)
CONCRETE BRIDGE PIER
U.S. PIERHEAD AND BULKHEAD LINE
EDGE OF NYS 378 TROY-MENANDS-BRIDGE
DIVISION LINE
REMEDIATION DIVISION LINE (NATIONAL GRID RESPONSIBLE TO THE NORTH, CHEVRON U.S.A., INC. RESPONSIBLE TO THE SOUTH)
BOL
POST

MW-1, MW-1S, MW-1S REP, MW-1D, MW-2D, MW-2S, MW-3D, MW-3R, MW-3S, MW-4D, MW-4S, MW-5, MW-5S, MW-6D, MW-6S, MW-7D, MW-7S, MW-8D, MW-8S, MW-9, MW-10
SB-1, SB-2, SB-3, SB-4, SB-5, SB-6, SB-7, SB-8, SB-9, SB-10, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16
SS-1, SS-2, SS-3, SS-4, SS-5, SS-6, SS-7, SS-8, SS-9, SS-10, SS-11, SS-12
SV-1, SV-2, SV-3, SV-4, SV-5, SV-6
TP-1, TP-1A, TP-1B, TP-2, TP-3, TP-4, TP-5, TP-6

LEGEND:

- PROPERTY LINE
- CHAINLINK FENCE
- HISTORIC CHEVRON USA, INC. ABOVEGROUND PIPE, PARTIALLY OR FULLY DEMOLISHED IN 2006. LOCATIONS AND DIMENSIONS ARE APPROXIMATE BASED ON FIGURE 2 FROM REPORT ENTITLED "FACILITY CLOSURE SITE INVESTIGATION REPORT" (TRC 2005).
- GROUND SURFACE CONTOUR (FT. NGVD) CONTOUR INTERVAL = 1 FT.
- UNDERGROUND GAS LINE
- UNDERGROUND STORM SEWER
- UNDERGROUND SANITARY SEWER
- SUSPECTED UTILITY
- MONITORING WELL
- SOIL BORING
- SURFACE SOIL SAMPLE
- SOIL VAPOR SAMPLE
- TEST PIT
- WV WATER VALVE
- FORMER CHEVRON TANK
- HISTORIC STRUCTURES. LOCATIONS BASED ON DRAWING: MAP OF PLANT, HUDSON VALLEY COKE & PRODUCTS CORP. TROY, N.Y. (DATE UNKNOWN).
- HISTORIC STRUCTURES. LOCATIONS BASED ON DRAWING: NEW YORK POWER & LIGHT, HUDSON VALLEY FUEL PLANT, TROY, N.Y. (1946)

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

0 40 80
SCALE IN FEET

FIGURE 2
EXISTING CONDITIONS PLAN

TROY (WATER ST.) SITE - AREA 3
TROY, NEW YORK

DATE	PROJECT NUMBER
12/17	146094

BROWN AND CALDWELL ASSOCIATES
UPPER SADDLE RIVER, NEW JERSEY

P:\National_Grid\Nimo_Troy_Area_3\146094_Troy_Area3_RI_CAD\2-SHEETS\C-CIVIL\CCR\146094-FIG-2(CCR).dwg

TROY (WATER STREET) SITE - AREA 2
N/F TROY LOCAL DEVELOPMENT CORPORATION
TAX MAP ID NO. 111.75-1-1

RENSSELAER COUNTY SEWER DISTRICT NO. 1
TAX MAP ID NO. 111.75-1-2

TROY (WATER STREET) SITE - AREA 3
N/F CHEVRON USA, INC.
TAX MAP ID NO. 111.83-1-1

N/F CHEVRON USA, INC.
TAX MAP ID NO. 111.83-1-1

HUDSON RIVER

WATER STREET (A.K.A., RIVER ROAD)

6' HIGH CHAIN LINK FENCE W/GATE
6' HIGH CHAIN LINK FENCE
48"CMP INV. OUT=8.66
CHAIN LINK FENCE ALONG BERM
POST
MW-7D
MW-7S
MW-8D
MW-8S
MW-2S
MW-2D
48" CMP
MW-4
MW-1S
MW-1D
MW-1S REP
MW-6D
MW-6S
MW-1
MW-3D
MW-3S
MW-3R
MW-5S
MW-5
MW-9
MW-4S
MW-4D
MW-10
A-1
A-2
A-3
A-4
A-5
A-6
A-7
A-8/9/10
A-11
A-12
B-1
B-2
T-41
FORMER TARVIA TANK
CONCRETE PAD
FORMER TAR PRODUCTS
FORMER FLUX OIL TANK (10,000 GALS.)
FORMER SANITARY HR STATION VAULT
CRUSHED STONE
FORMER BRICK SHED
VAULT
FORMER TANK T-41
FORMER TANK T-27
UTILITY POLE
GATE
20'
WV
GP
DMH
TF=26.99
(SE)12"INV IN=22.19
(W)48"INV OUT=13.19
CBS
TF=25.71
(NW)12"INV OUT=21.71
20' WIDE SANITARY SEWER EASEMENT
SITE ENTRANCE/EXIT
42" SAN. FM.
APPROXIMATE LOCATION OF 42" SANITARY FORCE MAIN
22' WIDE INGRESS-EGRESS EASEMENT
U.S. PIERHEAD AND BULKHEAD LINE
CRANE MAT AIR BRIDGE (APPROXIMATE LOCATION)
GAS LINE (16" STEEL, 225 PSI)
CONCRETE BRIDGE PIER
EDGE OF NYS 378 TROY-MENANDS-BRIDGE
BOL
DIVISION LINE
REMEDIATION DIVISION LINE (NATIONAL GRID RESPONSIBLE TO THE NORTH, CHEVRON U.S.A., INC. RESPONSIBLE TO THE SOUTH)

LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (FIGURE 2).

- SURFACE TAR REMOVAL AREA (BASED ON IRM WORK PLAN)
- EXPANDED/ADDITIONAL SURFACE TAR REMOVAL AREAS BASED ON FIELD OBSERVATIONS
- STRUCTURE REMOVED
- **A-1** SURFACE TAR REMOVAL AREA I.D.

0 40 80
SCALE IN FEET

NOTES:
1. REFER TO RECORD DRAWINGS FOR ADDITIONAL INFORMATION ON EXTENTS OF SURFACE TAR REMOVAL AREAS AND DEPTHS.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. FINAL EXCAVATION LIMITS BASED ON DRAWING PREPARED BY NMB LAND SURVEYING P.L.L.C., TITLED "EXCAVATION SURVEY" AND DATED DECEMBER 6, 2017.
3. FINAL GRADES IN THE VICINITY OF EXCAVATION AREAS IS BASED ON DRAWING PREPARED BY NMB LAND SURVEYING P.L.L.C., TITLED "POST CONSTRUCTION SURVEY" AND DATED DECEMBER 6, 2017.
4. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

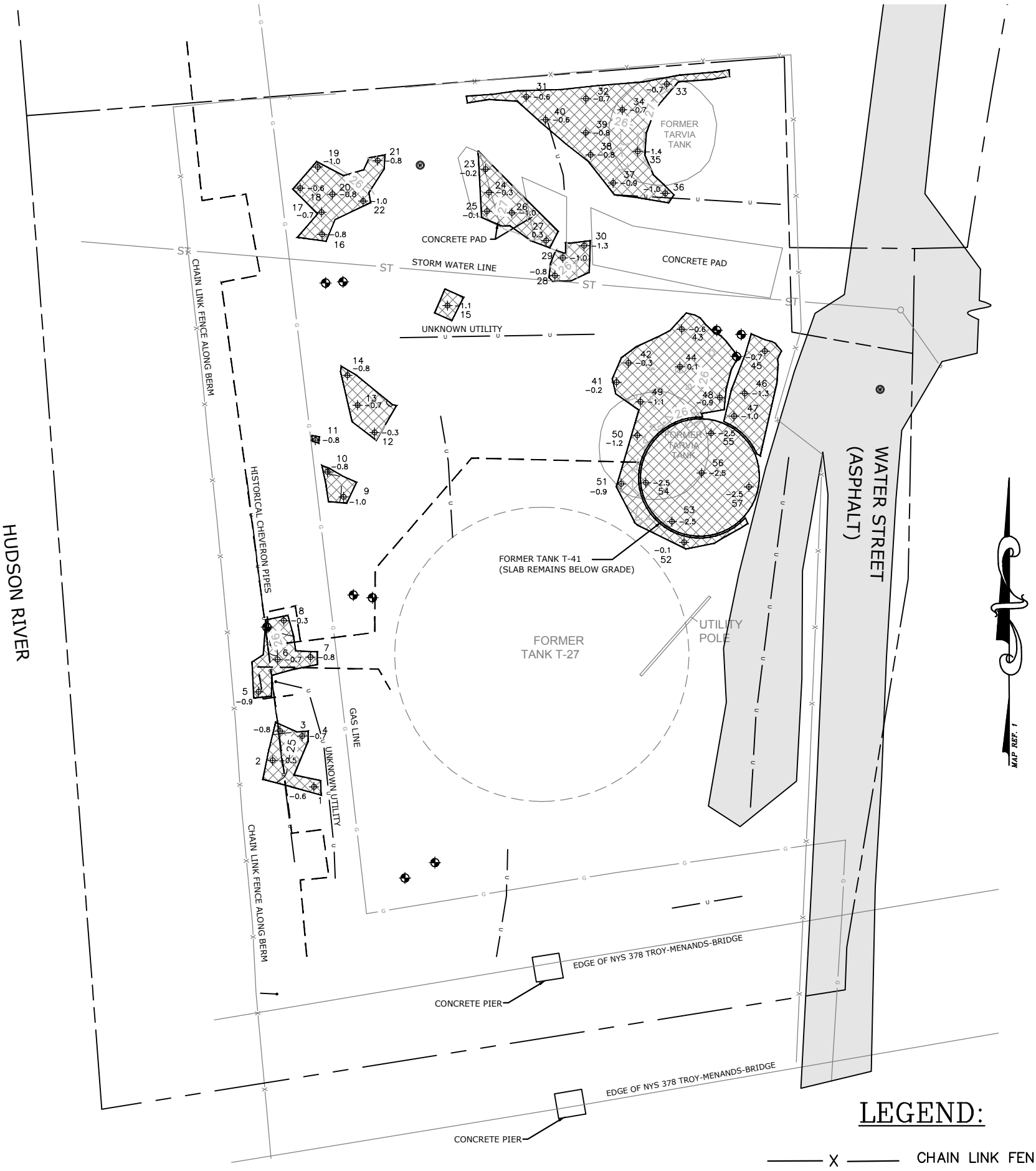
FIGURE 3
SURFACE TAR REMOVAL IRM

	DATE	PROJECT NUMBER
TROY (WATER ST.) SITE - AREA 3 TROY, NEW YORK	12/17	146094

Brown and Caldwell
BROWN AND CALDWELL ASSOCIATES
UPPER SADDLE RIVER, NEW JERSEY

\\bcusrfp01\projects\National_Grid\Nimo_Troy_Area_3\146094_Troy_Area3_R_CAD\2-SHEETS\C-CIVIL\CCR\146094-FIG-3(CCR).dwg

Appendix A: Record Drawings/Surveys



LEGEND:

- X — CHAIN LINK FENCE
- U — UNKNOWN UTILITY
- G — GAS LINE
- ST — STORM/SEWER LINE
- EXCAVATION LIMITS
- EXCAVATION
- ASPHALT
- HISTORIC CHEVRON PIPES
- 25 — MAJOR CONTOURS
- 26 — MINOR CONTOURS
- −0.7 — EXCAVATION DEPTHS
- MONITORING WELLS
- W — WELL

0 40 80 Feet

NOTES:

1. THE DATUM FOR THIS MAP IS PER MAP REFERENCE 1.
2. THIS MAP IS A GRAPHICAL REPRESENTATION OF DATA PROVIDED BY LAND REMEDIATION INC. NMB LAND SURVEYING PLLC PERFORMED NO FIELD VERIFICATIONS.
3. ALL FEATURES SHOWN EXCLUDING EXCAVATION LIMITS AND EXCAVATION DEPTHS ARE FROM MAP REFERENCE 1.
4. CONTOURS SHOWN ARE FROM THE BOTTOM OF EXCAVATION.

MAP REFERENCES

1. MAP ENTITLED "FIGURE 1 EXISTING CONDITIONS PLAN TROY(WATER ST.) SITE AREA 3 TROY, NEW YORK", DATED AUGUST 2016 AND PREPARED BY BROWN AND CALDWELL.

REVISIONS: EXCAVATION CONTOURS, AJK, 12/6/17

NMB LAND SURVEYING PLLC
20 TROY AVE. WYNANTSKILL NY, 12198
518-376-4630

STATE OF NEW YORK NATHAN M. BURROWS 050724 LICENSED LAND SURVEYOR

NATHAN M. BURROWS L.S.
NEW YORK LIC. No. 50,724

EXCAVATION SURVEY

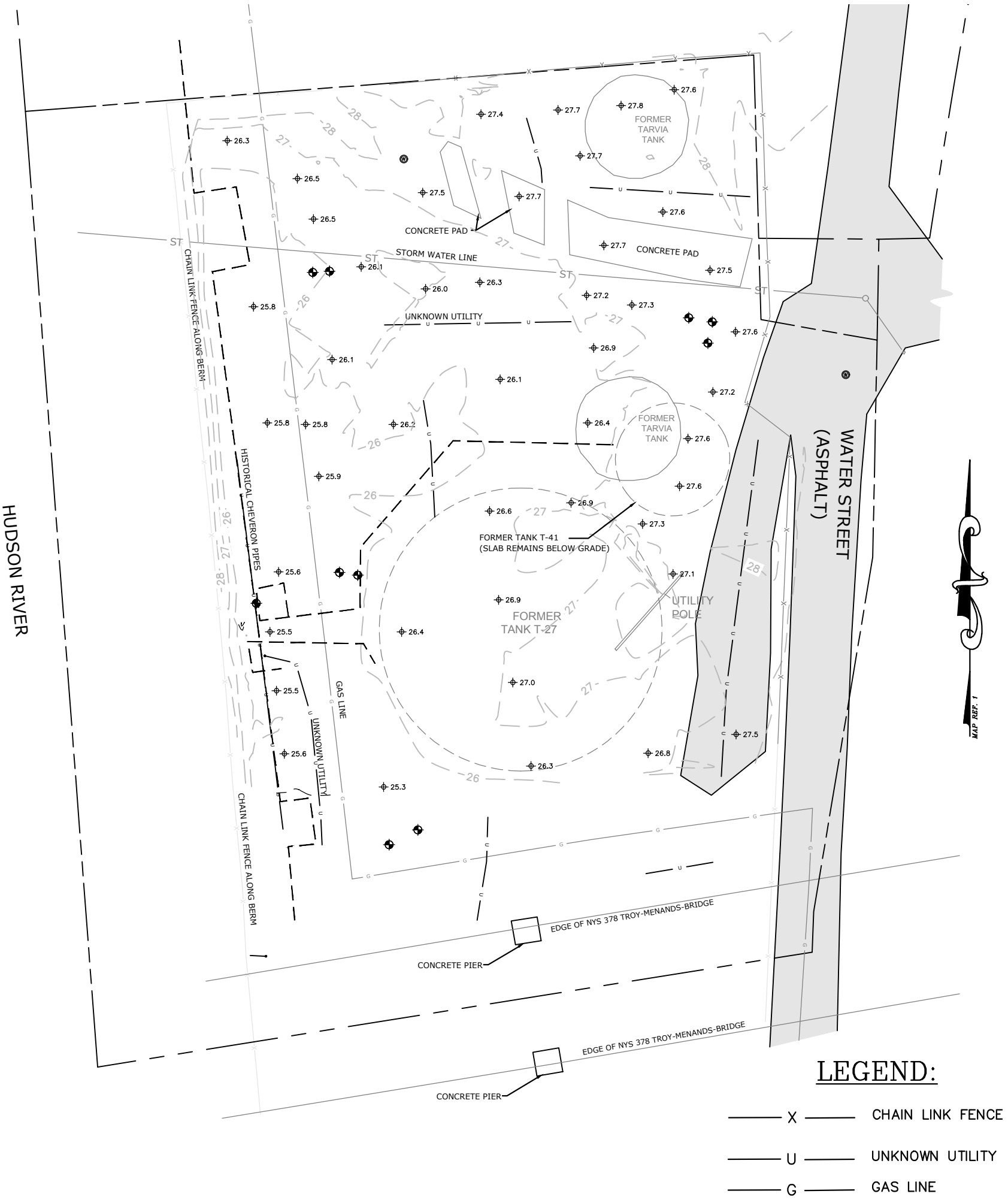
NATIONAL GRID TROY (WATER ST.) SITE

AREA 3

CITY OF TROY
COUNTY OF RENSSELAER STATE OF NEW YORK

SURVEYED BY: LRI	CHECKED BY: NMB	DATE: 12-6-2017
DRAWN BY: AJK	JOB No. 2042	DWG No. EXCAVATION
SCALE: 1"=40'	SHEET 1 OF 1	

Station	Northing	Easting	Original Grade	Post Excavation
1	1410152.693	706835.8472	25.4	24.7
2	1410161.588	706822.0046	25.7	25.2
3	1410171.451	706824.5026	25.7	24.9
4	1410169.692	706831.8922	25.6	24.9
5	1410184.505	706817.284	25.7	24.8
6	1410195.302	706823.6779	25.4	24.7
7	1410196.109	706834.7277	25.5	24.7
8	1410208.333	706825.7886	25.6	25.2
9	1410249.689	706845.7692	25.9	25.0
10	1410258.057	706840.357	25.9	25.1
11	1410268.697	706836.2962	25.9	25.1
12	1410271.21	706856.0719	25.9	25.6
13	1410280.356	706850.4597	26.0	25.3
14	1410290.369	706847.0413	26.1	25.3
15	1410313.678	706880.4713	26.0	24.9
16	1410337.5	706838.5548	26.0	25.2
17	1410344.891	706838.3519	26.0	25.4
18	1410352.959	706831.2275	26.2	25.6
19	1410360.01	706837.0627	26.7	25.7
20	1410350.906	706841.9908	26.4	25.6
21	1410362.14	706857.1355	27.8	27.0
22	1410348.62	706852.2615	26.6	25.7
23	1410359.298	706893.2531	27.7	27.5
24	1410351.513	706894.3364	27.8	27.5
25	1410345.201	706893.7191	27.7	27.6
26	1410344.727	706902.0205	27.7	26.7
27	1410335.413	706913.5131	27.6	27.8
28	1410323.728	706916.4341	26.7	25.9
29	1410329.609	706919.11	27.1	26.1
30	1410333.708	706926.1646	27.4	26.1
31	1410383.481	706906.7944	27.4	26.8
32	1410382.871	706926.7657	27.5	26.8
33	1410387.789	706953.8399	27.6	26.9
34	1410379.134	706938.959	27.5	26.8
35	1410365.209	706944.0925	27.7	26.3
36	1410351.225	706953.2824	27.8	26.8
37	1410354.71	706935.9149	27.7	26.8
38	1410364.117	706928.3517	27.5	26.7
39	1410371.468	706926.7657	27.4	26.7
40	1410375.834	706913.2956	27.4	26.8
41	1410288.01	706937.0116	26.8	26.5
42	1410294.516	706940.9621	26.9	26.6
43	1410305.746	706958.7862	27.1	26.5
44	1410293.215	706958.2462	27.3	27.0
45	1410298.429	706986.6144	27.4	26.8
46	1410284.315	706979.8934	27.4	26.1
47	1410276.699	706976.3107	27.3	26.3
48	1410282.916	706971.5407	27.3	26.4
49	1410281.49	706945.0062	26.8	25.8
50	1410270.299	706943.9186	26.7	25.5
51	1410254.021	706938.5358	26.7	25.8
52	1410234.489	706959.6205	26.7	26.5
53	1410241.451	706955.5169	29.0	26.5
54	1410254.425	706946.7997	29.1	26.6
55	1410270.958	706968.6011	29.1	26.6
56	1410257.694	706965.4976	29.2	26.7
57	1410253.047	706981.2921	29.2	26.7



LEGEND:

- X — CHAIN LINK FENCE
- U — UNKNOWN UTILITY
- G — GAS LINE
- ST — STORM/SEWER LINE
- HISTORIC CHEVRON PIPES
- 25 — MAJOR CONTOURS
- 26 — MINOR CONTOURS
- ASPHALT
- 25.1 — SPOT GRADE
- MONITORING WELLS
- WELL

0 40 80 Feet

NOTES:

1. THE DATUM FOR THIS MAP IS PER MAP REFERENCE 1.
2. THIS MAP IS A GRAPHICAL REPRESENTATION OF DATA PROVIDED BY LAND REMEDIATION INC. NMB LAND SURVEYING PLLC PERFORMED NO FIELD VERIFICATIONS.
3. ALL FEATURES SHOWN EXCLUDING CONTOURS ARE FROM MAP REFERENCE 1.

MAP REFERENCES

1. MAP ENTITLED "FIGURE 1 EXISTING CONDITIONS PLAN TROY(WATER ST.) SITE AREA 3 TROY, NEW YORK", DATED AUGUST 2016 AND PREPARED BY BROWN AND CALDWELL.

NMB LAND SURVEYING PLLC
20 TROY AVE. WYNANTSKILL NY, 12198
518-376-4630

STATE OF NEW YORK NATHAN M BURROWS 050724 LICENSED LAND SURVEYOR

NATHAN M. BURROWS L.S.
NEW YORK LIC. No. 50,724

POST CONSTRUCTION SURVEY

NATIONAL GRID TROY (WATER ST.) SITE

AREA 3

CITY OF TROY
COUNTY OF RENSSELAER STATE OF NEW YORK

SURVEYED BY: LRI	CHECKED BY: NMB	DATE: 12-6-2017
DRAWN BY: AJK	JOB No. 2042	DWG No. POST CONSTRUCTION
SCALE: 1"=40'	SHEET 1 OF 1	

Appendix B: Photographic Log

Appendix B
Photograph Log
Construction Completion Report
Troy (Water Street) Site – Area 3

Date: 09/19/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #1: Air bridge installed over existing gas main. Photograph taken facing Northeast.

Date: 09/19/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #2: Installed perimeter air monitoring station (center) and temporary barricades (left). Photograph taken facing West.

Date: 09/22/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #3: Temporary storage container. Photograph taken facing West.

Date: 09/20/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #4: Erosion control measures (hay bales and silt fence). Photograph taken facing North.

Date: 09/19/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #5: Waste staging area. Photograph taken facing East.

Date: 09/19/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #6: Excavation operations at Area A-6. Photograph taken facing East.

Date: 09/20/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #7: Excavation operations at Area A-2. Photograph taken facing Southwest.

Date: 09/25/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #8: Excavation operations at Area B-1. Photograph taken facing Northeast.

Date: 10/04/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #9: Loading of a waste hauler with excavated waste materials staged in the waste staging area. Photograph taken facing Northeast.

Date: 09/25/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #10: Area A-1 backfilled with imported sand and gravel material. Photograph taken facing North.

Date: 09/25/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #11: Area A-5 backfilled with imported sand and gravel material. Photograph taken facing North.

Date: 09/21/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #12: Tar material scraped off concrete within Former Tank T-41. Photograph taken facing South.

Date: 09/21/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #13: Demolition of concrete within Former Tank T-41. Photograph taken facing South.

Date: 09/22/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #14: Tar-impacted fill/debris found beneath concrete within Former Tank T-41.

Date: 10/13/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #15: Cutting and removal of Former Tank T-41 walls. Photograph taken facing Northeast.

Date: 10/16/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #16: Removal of Former Tank T-41 bottom. Photograph taken facing Northwest.

Date: 10/16/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #17: Excavation of tar-impacted soils below the Former Tank T-41 steel structure.

Date: 10/16/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #18: Concrete pad beneath Former Tank T-41 after completion of excavation of overlying soils. Photograph taken facing Northwest.

Date: 10/17/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #19: Former Tank T-41 area after backfilling with a minimum of eight (8) inches of imported sand and gravel material. Photograph taken facing Southwest.

Date: 10/17/2017 Site Name: Troy (Water Street) Site - Area 3 Photographer's Initials: JAJ
Description: Photograph #20: Troy (Water Street) Site – Area 3 after completion of Site restoration activities. Photograph taken facing Northwest.

Appendix C: Air Monitoring Reports and Data (CD-ROM)

COLDEN CORPORATION
Occupational Health, Safety & Environmental Consultants

Community Air Monitoring Summary
Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/18/2017	Mobilize Equipment, No CAMP		Total VOCs (ppm)				N/A	
							N/A	
		.					N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

COLDEN CORPORATION
Occupational Health, Safety & Environmental Consultants

Community Air Monitoring Summary
Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/19/2017	Surface removal of tar impacted areas northwest corner of site and stockpile soils.	Upwind/ SN: NO PID	Total VOCs (ppm)	0.0	N/A	N/A	N/A	Wind was coming from the NW
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	26	21	8	N/A	
		Downwind No. 1/ SN: 8530131603			21	11	N/A	
		Downwind No. 2/ SN: 8530132434			20	9	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

COLDEN CORPORATION
Occupational Health, Safety & Environmental Consultants

Community Air Monitoring Summary
Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/20/2017	Excavate Surface Tar Areas (A1, A2, A3, A4, A5, A6) and stockpile soils.	Upwind/ SN: 900279	Total VOCs (ppm)	0.0	0.0	0.0	N/A	Wind was coming from the North
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind SN: 8530131504	PM_{10} ($\mu g/m^3$)	14	12	12	N/A	
		Downwind No. 1/ SN: 8530131603			12	12	N/A	
		Downwind No. 2/ SN: 8530132434.			49	49	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

COLDEN CORPORATION
Occupational Health, Safety & Environmental Consultants

Community Air Monitoring Summary
Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/21/2017	Excavate surface tar areas and stockpile. Begin hammering concrete in tank	Upwind/ SN: 900279	Total VOCs (ppm)	0.0	0.0	0.0	0813	The wind was coming from the North
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	49	31	31	N/A	
		Downwind No. 1/ SN: 8530131603			40	42	N/A	
		Downwind No. 2/ SN: 8530132434			44	46	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

COLDEN CORPORATION
Occupational Health, Safety & Environmental Consultants

Community Air Monitoring Summary
Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/22/2017	Excavate, spray tank with foam Munch cement slabs & railroad ties Delivery gravel	Upwind/ SN: 900279	Total VOCs (ppm)	0.0	0.0	0.0	N/A	Wind was coming from the North
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 85313504	PM_{10} ($\mu g/m^3$)	27	22	20	N/A	
		Downwind No. 1/ SN: 8530131603			27	24	N/A	
		Downwind No. 2/ SN: 8530132434			35	33	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

COLDEN CORPORATION
Occupational Health, Safety & Environmental Consultants

Community Air Monitoring Summary
Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/25/2017	Accept deliveries, place backfill	Upwind/ SN: 900279	Total VOCs (ppm)	0.0	0.0	0.0	N/A	New dusttrak at DW2 to 8530113305 after calibration function error
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	39	36	32	N/A	
		Downwind No. 1/ SN: 8530131603			37	32	N/A	
		Downwind No. 2/ SN: 8530132434 SN: 8530113305			32	7	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Community Air Monitoring Summary
Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/26/2017	Install DECON pad and tracking pad. Place backfill	Upwind/ SN: 900279	Total VOCs (ppm)	0.0	N/A	N/A	N/A	N winds
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	36	55	14	N/A	
		Downwind No. 1/ SN: 8530131603			4	1	N/A	
		Downwind No. 2/ SN: 853013305			49	14	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/27/2017	No work activities Weekly Progress Meeting No CAMP Safety Meeting		Total VOCs (ppm)				N/A	
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/28/2017	No work activities No CAMP		Total VOCs (ppm)					
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
9/29/2017	No work activities No CAMP		Total VOCs (ppm)				N/A	
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Land Remediation, Inc.
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Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/2/2017	No work activities No CAMP		Total VOCs (ppm)				N/A	
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/3/2017	Load out soils from stockpile	Upwind/ SN:900279	Total VOCs (ppm)	0.0	0.0	0.0	N/A	SSE Winds
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	20	11	4	N/A	
		Downwind No. 1/ SN: 8530131603			6	2	N/A	
		Downwind No. 2/ SN: 8530132434			16	6	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/4/2017	Load out soils from stockpile	Upwind/ SN: 900279	Total VOCs (ppm)	0.0	N/A	N/A	N/A	SE winds
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	22	12	12	N/A	
		Downwind No. 1/ SN: 8530131603			28	28	N/A	
		Downwind No. 2/ SN: 853013305			17	17	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Community Air Monitoring Summary
Land Remediation, Inc.
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Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/5/2017	No work activities No CAMP		Total VOCs (ppm)				N/A	
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Land Remediation, Inc.
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Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/6/2017	No work activities No CAMP		Total VOCs (ppm)					
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/9/2017	No work activities No CAMP		Total VOCs (ppm)				N/A	
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Land Remediation, Inc.
NG- Troy (Water Street) – Area 3 Surface Tar Removal
Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/10/2017	Site prep, clean work No CAMP		Total VOCs (ppm)				N/A	
							N/A	
		.					N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/11/2017	Load out contents from tank Cut tank with torch Load out scrap metals For recycling.	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0	N/A	N winds
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	3	2	23	N/A	
		Downwind No. 1/ SN: 8530131603			2	22	N/A	
		Downwind No. 2/ SN: 853013305			26	29	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Troy, New York

Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/12/2017	Scrape tar on tank walls and surface Hot work – cut tank with torch Load out contents of tank	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0	N/A	
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	8	9	9	N/A	
		Downwind No. 1/ SN: 8530131603			7	7	N/A	
		Downwind No. 2/ SN: 853013305			8	8	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/13/2017	Hot work – cut tank using torch De-mob materials offsite Spread gravel	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0		SE Winds
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	21	1	9	N/A	
		Downwind No. 1/ SN: 8530131603			5	4	N/A	
		Downwind No. 2/ SN: 853013305			17	16	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/16/2017	Hot work – cut tank using torch Load scrap metals into roll-off Scrap surface on concrete slab under tank area Demobilization from the site.	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0	N/A	SW winds
		Downwind No. 1 SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	2	2	1	N/A	
		Downwind No. 1/ SN: 8530131603			2	2	N/A	
		Downwind No. 2/ SN: 853013305			1	1	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/9/2017	No work activities No CAMP		Total VOCs (ppm)				N/A	
							N/A	
							N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/10/2017	Site prep, clean work No CAMP		Total VOCs (ppm)				N/A	
							N/A	
		.					N/A	
			PM_{10} ($\mu g/m^3$)				N/A	
							N/A	
							N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/11/2017	Load out contents from tank Cut tank with torch Load out scrap metals For recycling.	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0	N/A	N winds
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	3	2	23	N/A	
		Downwind No. 1/ SN: 8530131603			2	22	N/A	
		Downwind No. 2/ SN: 853013305			26	29	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/12/2017	Scrape tar on tank walls and surface Hot work – cut tank with torch Load out contents of tank	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0	N/A	
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	8	9	9	N/A	
		Downwind No. 1/ SN: 8530131603			7	7	N/A	
		Downwind No. 2/ SN: 853013305			8	8	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/13/2017	Hot work – cut tank using torch De-mob materials offsite Spread gravel	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0		SE Winds
		Downwind No. 1/ SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	21	1	9	N/A	
		Downwind No. 1/ SN: 8530131603			5	4	N/A	
		Downwind No. 2/ SN: 853013305			17	16	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

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Date	Description of Work & Environmental Conditions	Air Monitoring Location & Serial No.	Parameter	Background Level	Daily Average	Max 15 Min. Avg.	Time of Exceedance	Comments
10/16/2017	Hot work – cut tank using torch Load scrap metals into roll-off Scrap surface on concrete slab under tank area Demobilization from the site.	Upwind/ SN: 900283	Total VOCs (ppm)	0.0	0.0	0.0	N/A	SW winds
		Downwind No. 1 SN: 900359			0.0	0.0	N/A	
		Downwind No. 2/ SN: 900296			0.0	0.0	N/A	
		Upwind/ SN: 8530131504	PM_{10} ($\mu g/m^3$)	2	2	1	N/A	
		Downwind No. 1/ SN: 8530131603			2	2	N/A	
		Downwind No. 2/ SN: 853013305			1	1	N/A	

State Reporting Level for total volatile organic compounds (VOCs) is 5 parts per million (ppm) above background (upwind location) for a 15-minute average.

State Reporting Level for particulate matter less than 10 microns in diameter (PM_{10}) is 150 micrograms per cubic meter ($\mu g/m^3$) above background (upwind location) for a 15-minute average, **or** if airborne dust is visually observed leaving the work area

NA = Not Applicable

Weekly Health & Safety Summary
Land Remediation Inc.
NG – S. Troy, Water St.

Monday 9/18/17 – Mobilize, Site Prep

Tuesday 9/19/17
Land Remediation Work Description: site prep, add walkways to fence, prep staging area, excavate soils
Daily Safety Meeting Topic: potential site hazards, bugs, weather, trips/slips/falls, communication, needle found
Daily Safety Observation: visibility around piers under bridge
Work Zone Action Level: VOC – none, Dust - none
CAMP note: spikes in readings from traffic on road and gravel parking, none from excavation
Level D PPE

Wednesday 9/20/17
Land Remediation Work Description: excavate A1, A2, A3, A4, stage soils
Daily Safety Meeting Topic: booties in contaminate areas, visibility around piers
Daily Safety Observation: access points along fence for personnel entrance, check-in at conex, signage around site, speak up – take action
Work Zone Action Level: VOC – none, dust - none
CAMP note: spikes from road and gravel parking, no exceedance for TWA
Level D PPE

Thursday 9/21/17
Land Remediation Work Description: delivery roll-offs, finish A6 excavation, hammer concrete in tank, spray biosolve
Daily Safety Meeting Topic: debris from breaking concrete, PPE, hearing protection, backing up in personal vehicles – signal with horn, DECON – boot wash, hand wash station
Daily Safety Observation: hearing protection usage when hammering concrete, eye contact with operators, securing stockpile, odors, dust around site from vehicle movement
Work Zone Action Level: VOC – none, dust - none
CAMP note: spikes from dust around site, biosolve on HAZMAT, no exceedance
Level D PPE

Friday 9/22/17
Land Remediation Work Description: dig tank, spray, collect waste samples, delivery, munch RR ties and concrete
Daily Safety Meeting Topic: projectile debris from concrete in tank, PPE collecting samples and inside tank
Daily Safety Observation: non HAZMAT dust high in afternoon, take intervals to settle dust and spray
Work Zone Action Level: VOC – none, dust - none
CAMP note: dust spikes from sandy site conditions and winds, lay stone gravel on sand, work in intervals allow dust to settle and spray
Level D PPE

Weekly Health & Safety Summary
Land Remediation Inc.
NG – S. Troy, Water St.

Monday 9/25/17
Land Remediation Work Description: deliveries, install backfill, finish decon pad
Daily Safety Meeting Topic: uncover pile, watch steps/footing, wearing booties in tank, backup spotter for truck
Daily Safety Observation: delivery trucks follow Land truck rules, give briefing on new drivers
Work Zone Action Level: VOC – none, Dust - none
CAMP note: logistics coming off the weekend, ensure equipment monitors are fully functional, no exceedance after DW2 station changed to new monitoring device
Level D PPE

Tuesday 9/26/17
Land Remediation Work Description: install gravel/backfill
Daily Safety Meeting Topic: smaller crew, light work – don't get complacent
Daily Safety Observation: working in tight spaces (around tank and stockpile), keep clean multi-use PPE (ex. Gloves) or discard
Work Zone Action Level: VOC – none, dust - none
CAMP note: no exceedence
Level D PPE

Wednesday 9/27/17 – No work at Site, No CAMP

Thursday 9/28/17 – No work at Site, No CAMP

Friday 9/29/17 – No work at Site, No CAMP

Saturday 9/30/17 – No work at Site, No CAMP

October 10/1/17 – No work at Site, No CAMP

Weekly Health & Safety Summary
Land Remediation Inc.
NG – S. Troy, Water St.

Monday 10/2/17 - No work at Site, No CAMP

Tuesday 10/3/17
Land Remediation Work Description: install gravel/backfill
Daily Safety Meeting Topic: smaller crew, pinch points around machinery
Daily Safety Observation: communication with ground and operator, extend decon pad
Work Zone Action Level: VOC – none, dust - none
CAMP note: no exceedence
Level D PPE

Wednesday 10/4/17 – Land Remediation Work Description: install gravel/backfill
Daily Safety Meeting Topic: trucks pulling in and out of site, decon pad
Daily Safety Observation: truck routes, be mindful when leaving site
Work Zone Action Level: VOC – none, dust - none
CAMP note: no exceedence
Level D PPE

Thursday 10/5/17 – No work at Site, No CAMP

Friday 10/6/17 – No work at Site, No CAMP

Saturday 10/7/17 – No work at Site, No CAMP

October 10/8/17 – No work at Site, No CAMP

Weekly Health & Safety Summary
Land Remediation Inc.
NG – S. Troy, Water St.

Monday 10/9/17 – Clean work at site, No CAMP

Tuesday 10/10/17
Land Remediation Work Description: pull steel wall out of ground
Daily Safety Meeting Topic: unsure how wall will come out, be cautious
Daily Safety Observation: communication good between operators and ground workers
Work Zone Action Level: VOC – none, dust - none
CAMP note: No CAMP
Level D PPE

Wednesday 10/11/17
Land Remediation Work Description: break concrete in tank, biosolve, cut tank with torch, offload HAZ materials
Daily Safety Meeting Topic: Hot Work – fire watch/safety, PPE while working in tank
Daily Safety Observation: smoke emitting from torch cuts, proper PPE, traffic control
Work Zone Action Level: VOC – none, dust - none
CAMP note: no exceedence
Level D PPE

Thursday 10/12/17
Land Remediation Work Description: scrap tar off tank surface, load out HAZMAT in tank
Daily Safety Meeting Topic: exposure to HAZMAT while working in tank, PPE required
Daily Safety Observation: scraping tar, be mindful of surroundings, other workers
Work Zone Action Level: VOC – none, dust - none
CAMP note: no exceedence
Level D PPE

Friday 10/13/17
Land Remediation Work Description: hot work cut tank, demob equipment, install backfill/gravel
Daily Safety Meeting Topic: Hot work, PPE and techniques be safe
Daily Safety Observation: smoke emitting from torching of tank
Work Zone Action Level: VOC – none, dust - none
CAMP note: no exceedence
Level D PPE

Saturday 10/14/17 – No work at Site, No CAMP

Sunday 10/15/17 – No work at Site, No CAMP

Monday 10/16/17
Land Remediation Work Description: cut tank (hot work), install gravel/backfill, demob
Daily Safety Meeting Topic: hot work, fire safety
Daily Safety Observation: delivery truck flat tire, need servicing onsite.

Work Zone Action Level: VOC – none, dust - none
CAMP note: no exceedence
Level D PPE

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brian Taylor		9/14/17	0750		BC
BRAD VALIK		9/14/17	0750		LRI
Joe Myer		9.14.17	0750		LRI
MINDA MURRAY		9-14-17	0750		LRI
Ethan Brandt		9-14-17	1:45		LRI
Adam Stevens					

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: N.G. Normans Kill **Date:** 9-19-17 **Time:** 07:45

Briefing Conducted By:	Signature:	Company Name:
B. Holmes / Joe Myer / Minda Murray	BC HC	LRI

Work Tasks to be Performed: Sample excavation sites A-B for pre-characterization of waste, layout excavation areas, document work for day.

- 911 -
7 Water St. / King St. Troy, NY

TOPICS COVERED:

☑	General PPE Usage	☐	Site/Facility-specific Guidelines	☑	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☑	Exposure Guidelines WZ Monitoring	☐	Severe Weather	☑	Other: _____

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Brett Taylor		BC
Joe Myer		LRI
Brandon Holmes		LRI
MINDA MURRAY		LRI
Ethan Bright		LRI

SafetyToolboxTopics

www.SafetyToolboxTopics.com

Common Sense

Print

Most accidents are caused by the failure to use common sense.

Here are some common sense safety rules:

- Treat safety as an important part of your job
- Keep your full attention on what you are doing
- Know and follow the company safety rules
- Use the required protective equipment
- Remind your coworkers about safety procedures and equipment
- Pay attention during safety training programs and meetings
- Know what to do in case of an emergency
- Ask questions when you don't understand
- Don't fool around or show off on the job
- Don't let anger; frustration or personal problems interfere with your work
- Don't ignore a safety hazard
- Don't become overconfident with jobs you've done many times
- Don't use equipment in ways they were not intended
- Don't get pressured by others into ignoring safety procedures
- Don't take shortcuts on the job
- Don't assume safety is someone else's job

This toolbox topic was reviewed by

_____ on

_____ with the following employees:

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Hobert		9-18-17	08:00	4:00	LRI
John May		9-18-17	8:00	4:00	LRI
GREG KOGLS		9/18/17	8:00	4:00	LRI
Ethan Bruce		9-18-17	7:30	11:30	LRI
DON SCHULZ		9/18/17	730	11:00	USIC
Jarrod Jones		9/18/17	800	4:00	BC
MINDA MURRAY		9-18-17	0800	4:00	LRI

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY DRM 7 Water **Date:** 9-18-17 **Time:** 08:00

Briefing Conducted By:	Signature:	Company Name:
Minda Murray / Brandon Holmes	BLH	LRI

Work Tasks to be Performed: Site mobilization - bring in 228 Ex, Hydrema, skid steer, Connex box Install silt fence, begin building soil bin, pick up Hay bales

"911"
7 Water St. Troy. NY

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☒	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:

Potential Health and Safety Hazards and Mitigation Measures: Mobilization: truck traffic - new traffic patterns flaggers may be neccssary in Rd, new site - get familiar with hazards on site

Applicable H&S Documents Referenced: SOP: Mobilization - JSAs - Excavation & Sediment Control JSAs Trenches.

Daily Safety Observation (DSO): Lifting - Holes in crane Mats for Air Bridge. Ankle Breakers - Pinch Points -

Printed Name	Signature	Company Name
John Mpl		LRI
Greg Rogers		LRI
Ethan Bradt		LRI
Brandon Holmes	BLH	LRI
David Jeggy		BC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
GREG Rogers		9/19/17	6:30	3:30	LRI
John Mayo		9-19-17	6:30	4:00	LRI
Brandon Holmes		9/19/17	6:40	4:30	LRI
MINDA MURRAY		9-19-17	6:50	"	LRI
Ethan Brodt		9-19-17	7:10		LRI
Sean Klein		9/19/17	0645	3:30	Golder
Bobbie Lucy		9-19-17	8:00	3:30	LRI
Adam Sherman		9-19-17	8:05	9:00	BHC
Jared Jegen		9/19/17	8:00	3:30	BC
DON SCHULZ		9/19/17	1000	11:00	USIC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER ST **Date:** 9/19/17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes / M. Murray		LRI

Work Tasks to be Performed: Install silt fence, finish building soil bin, make sand bags, begin excavating in soil areas, Dig AB,

"911"
7 Water St. Troy NY.

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☑	Emergency Procedures
☒	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Exposure to Tar - Keep it off your skin. Becomes soft when hot. Booties/Covers. - Silt Fence - >15' off GAS MAIN - Equipement Inspections. HAND TOOLS Inspections. Lifting - Ergonomics - Biological Hazards Slips, Trips, Falls.

Applicable H&S Documents Referenced:

~ HASP
JSA - Erosion Control - JSA - General Labor.

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Greg Rogers		LRI
John Moy		LRI
Brandon Holmes		LRI
Ethan Bradt		LRI
Jason Klein		Golden Corp.
Bob Hellwig		LRI
Jarel Jegaray		BC
DON SCHULZ		USIC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
GREG ROGERS		9/20/17	6:15	5:30	LRI
Brandon Holmes		9/20/17	06:45	5:30	LRI
LINDA MURRAY		9/20/17	06:50	4:00	LRI
DONALD SCHUG		9/20/17	700	3:00	USIC
John Mroz		9-20-17	6:35	2:30	LRI
Ethan Pruitt		9-20-17	6:45	5:30	LRI
Bob Hellwig		9-20-17	6145	5:30	LRI
Jared Jeffrey		9/20/17	700	5:30	BC
Jesse Hoyt		9/20/17	7:15	5:30	Colden
DAVID HERMAN		9/20/17	9:51	12:30	NYSDEC
GERALD CUMMINGS		9/20/17	10:00	1:45	NGrid
PAUL FISHER		9/20/17	10:00	1:45	SE
BRAD VALLIE		9/20/17	7:00	2:30	LRI
Adam Sherman		9/20/17	10:30	1:00	BTC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER **Date:** 9-20-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BC AL	LRI

Work Tasks to be Performed: Begin excavation of Tar Impacted soil areas - stockpile material work around in clockwise progression around site

"911"
7 WATER St. TROY, NY

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☑	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☑	Personal Hygiene	☐	Heat/Cold Stress	☑	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☑	Other: Severe Allergies < Bees Diabetic

Potential Health and Safety Hazards and Mitigation Measures: Keep tar off of skin.
- PPE. HARD HAT, High Vis Vest, Gloves, Safety Glasses, - Equipement. BACKING UP. ? 360° walk around
- No eating, drinking, smoking in Work Area. - Project Meeting - Additional personel on-site.

Applicable H&S Documents Referenced:
HASP. JSA - Excavation - JSA - General Labor

Daily Safety Observation (DSO): ~ Ladder on ground in swing/turning Radius of Equipement. Laborer stopped operator to move Ladder.
~ Radios Communication + Verbal communication Confirm receive response

Printed Name	Signature	Company Name
GREG ROGERS		LRI
Brandon Holmes	BC AL	LRI
BRAD VALIK	BC Valik	LRI
MINDA MURRAY		LRI
DON SCHULZ	Donald A Schulz	USIC
John May	John May	LRI
Ethan Beck		LRI
Bob Hellwig	Bob Hellwig	LRI
Jared Jeffery		BC
GERALD CUMMINGS		NGrid
PAUL FISHER		SE

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Bob Hellwig		9-21-17	6:45		LRI
John May		9-21-17	6:40		LRI
Brandon Holmes		9-21-17	6:45		LRI
Greg Rogers		9/21/17	6:00		LRI
Myra Mulcahy		9-21-17	6:45	12:00	LRI
Ethan Bright		9-21-17	6:40		CAT
Sara Klein		9/21	6:48		Golder
Jacob Jeans		9/21/17	700		BC
~~Anonymous~~					

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER ST **Date:** 9-21-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes / Minda Murray		LAND Remediation

Work Tasks to be Performed: Complete excavations - stockpile material, go pick up Hammer/muncher for 228, remove debris from Tank 41, begin scraping tar inside tank 41
Waste dumpster - General Refuse "911"

TOPICS COVERED: 7 Water St. TROY NY

☑	General PPE Usage (Inside TANK Duct Boots)	☑	Site/Facility-specific Guidelines	☑	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☒	Heat/Cold Stress - (WATER GATOR Aid)	☑	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☑	Hearing Conservation - (Ear plugs Scraping Concrete)
☒	Exposure Guidelines	☐	Severe Weather	☑	Other: Plexi Glass (CAB Windows)

Potential Health and Safety Hazards and Mitigation Measures: Open Excavations - Barricade, Fence through site - make man door pathways. Dust - Control - Concrete Processing
Site Housekeeping

Applicable H&S Documents Referenced: - Equipement - Walk Around 360°
HASP - - Blind Spots - Good communication Ladder Safety
JSA - Housekeeping JSA - Fence Barricade

Daily Safety Observation (DSO): - Dropped soils - clean up Keep clean
- Situational Awareness - See Something Say Something

Printed Name	Signature	Company Name
Bob Hellwig	Bob Hellwig	LRI
John Mott	John Mott	LRI
Brandon Holmes		LRI
GREG Rogers		LRI
Minda Murray	Minda Murray	LRI
Jason Klein		Golden Corp.
Ethan Bradt		LRI
Jared Jegaray		BC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-22-17	6:50		LRI
Bob Hellwig		9-22-17	6:45		LRI
Greg Kopecky		9/22/17	6:15		LRI
John May		9-22-17	6:15		LRI
Jarrod Jones		9 22 17	700		RC
Sean Klein		9/22/17	680		Colebrook
BRAD VALLIE		9/22/17	7:30		LRI

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM - 7 WATER ST **Date:** 9-22-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes		LRI

Work Tasks to be Performed: excavate for samples, stockpile material on 1 side of tank for future load out, build DECON PAD/TRACKING PAD, change filters on skid steer, spray foam to cover pile, Receive ~~foam~~ stone to build pad.

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Truck Traffic - Spotters,

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Bob Hellwig		LRI
Greg Rogers		LRI
Jason Klein		Globe
Jared Jegarey		BC
John Mory		LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
GREG Rogers		9/19/17	6:30	3:30	LRI
John Mistry		9-19-17	6:30	4:00	LRI
Brandon Helms		9/19/17	6:40	4:30	LRI
MINDA MURRAY		9-19-17	6:50	"	LRI
Ethan Brady		9-19-17	7:10		LRI
Jason Klein		9/19/17	0645	3:30	Golder
Bob Hellwig		9-19-17	8:00	3:30	LRI
Adam Sherman		9-19-17	8:05	9:00	BHC
Jared Jegen		9/19/17	8:00	3:30	BC
DON SCHULZ		9/19/17	1000	11:00	USIC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER ST **Date:** 9/19/17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes / M. Murray		LRI

Work Tasks to be Performed: Install silt fence, finish building soil bin, make sand bags, begin excavating in soil areas, Dig AB,

"911"
7 Water St. Troy NY.

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☑	Emergency Procedures
☒	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:

Potential Health and Safety Hazards and Mitigation Measures: Exposure to Tar - Keep it off your skin. Becomes soft when hot. Booties/Covers. - Silt Fence - >15' off GAS MAIN - Equipement Inspections. HAND TOOLS Inspections. Lifting - Ergonomics - Biological Hazards Slips, Trips, Falls.

Applicable H&S Documents Referenced:

~ HASP.
JSA - Erosion Control - JSA - General Labor.

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Greg Rogers		LRI
John Moy		LRI
Brandon Holmes		LRI
Ethan Bradt		LRI
Jason Klein		Golden Corp.
Bob Hellwig		LRI
Jarod Jagodzinski		BC
Don Schulz		USIC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Greg Rogers		9/20/17	6:15	5:30	LRI
Brandon Holmes		9/20/17	06:45	5:30	LRI
Linda Murray		9/20/17	06:50	1:00	LRI
Donald Schlegel		9/20/17	700	3:00	USIC
Debra Mroz		9-20-17	6:35	2:30	LRI
Ethan Bridt		9-20-17	6:45	5:30	LRI
Bob Hellwig		9-20-17	6145	5:30	LRI
Jared Jeffrey		9/20/17	700	5:30	BC
Jesse Flint		9/20/17	7:15	5:30	Colden
David Herman		9/20/17	9:51	12:30	NYSDEC
Gerald Cummings		9/20/17	10:00	1:45	NGrid
Paul Fisher		9/20/17	10:00	1:15	SE
Brad Vallie		9/20/17	7:00	2:30	LRI
Adam Sherman		9/20/17	10:30	1:00	B+C

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER **Date:** 9-20-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BC AC	LRI

Work Tasks to be Performed: Begin excavation of Tar Impacted soil area's - stockpile material work around in clockwise progression around site

"911"
7 WATER St. TROY, NY

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☑	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☑	Personal Hygiene	☐	Heat/Cold Stress	☑	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☑	Other: Severe Allergies & Bees Diabetic

Potential Health and Safety Hazards and Mitigation Measures: Keep tar off of skin.
- PPE, HARD HAT, High Vis Vest, Gloves, Safety Glasses, - Equipement - BACKing Up. 360° walk around
- No eating, drinking, smoking in work Area. - Project Meeting - Additional personel on-site.

Applicable H&S Documents Referenced:
HASP, JSA - Excavation - JSA - General Labor

Daily Safety Observation (DSO): ~ Ladder on ground in swing/turning Radius of Equipement. Laborer stopped operator to move Ladder.
~ Radios communication + Verbal

Printed Name	Signature	Company Name
GREG ROGERS		LRI
Brandon Holmes	BC AC	LRI
BRAD VALK	BC Valk	LRI
MINDA MURRAY		LRI
DON SCHULZ	Donald A Schulz	USIC
John May	John May	LRI
Ethan Bedt	Ethan Bedt	LRI
Bob Hellwig	Bob Hellwig	LRI
Jared Jeffery		BC
GERALD CUMMINGS		NGrid
PAUL FISHER		SE

Communication
Confirm Receive
Response

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Bob Hellwig		9-21-17	6:45		LRI
John May		9-21-17	6:40		LRI
Brandon Holmes		9-21-17	6:45		LRI
Greg Rogers		9/21/17	6:00		LRI
Myles Mulcahy		9-21-17	6:45	12:00	LRI
Ethan Bright		9-21-17	6:40		CAT
Sara Klein		9/21	6:45		Calder
Jared Jegg		9/21/17	700		BC
~~Adrian M.~~					

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER ST **Date:** 9-21-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes / Minda Murray		LAND Remediation

Work Tasks to be Performed: Complete excavations - stockpile material, go pick up Hammer/muncher for 228, remove debris from Tank 41, begin scraping tar inside tank 41
Waste dumpster - General Refuse

"911" 7 Water St. TROY NY

TOPICS COVERED:

☑	General PPE Usage (Inside TANK over Boots)	☑	Site/Facility-specific Guidelines	☑	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☒	Heat/Cold Stress - (WATER GATOR Aid)	☑	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☑	Hearing Conservation - (EAR plugs Scraping Concrete)
☒	Exposure Guidelines	☐	Severe Weather	☑	Other: Plexi Glass CAB Windows

Potential Health and Safety Hazards and Mitigation Measures: Open Excavations - Barricade, Fence through site - make man door pathways. Dust - Control - Concrete Processing
Site HouseKeeping

Applicable H&S Documents Referenced: - Equipement - Walk Around 360°
HASP - - Blind Spots - Good communicating Ladder Safety
JSA - HouseKeeping JSA - Fence Barricade

Daily Safety Observation (DSO): - Dropped soils - clean up. Keep clean
- Situational Awarness - See Something SAy Something

Printed Name	Signature	Company Name
Bob Hellwig	Bob Hellwig	LRI
John May	John May	LRI
Brandon Holmes		LRI
GREG Rogers		LRI
MINDA MURRAY	Minda Murray	LRI
Jason Klein		Golden Corp.
Ethan Bradt		LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-22-17	6:50		LRI
Bob Hellwig		9-22-17	6:45		LRI
Greg Rogers		9/22/17	6:15		LRI
John May		9-22-17	6:15		LRI
Jarrod Jeyes		9 22 17	700		BC
Susan Klein		9/22/17	680		Colabs
BRAD VALLIC	BC Vallic	9/22/17	7:30		LRI

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM - 7 WATER ST **Date:** 9-22-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BC AC	LRI

Work Tasks to be Performed: excavate for samples, stockpile material on 1 side of tank for future load out, build DECON PAD/TRACKING PAD, change filters on skid steer, spray foam to cover pile, Receive ~~foam~~ stone to build pad.

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Truck Traffic - Spotters,

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Bob Hellwig	Bob Hellwig	LRI
GREG KAPPS		LRI
Jason Klein		Golder
Jared Jeyaraj		BC
John May		LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-25-17	07:00	5:30	LRI
John Mark		9-25-17	6:45	5:30	LRI
Greg Roberts		9/25/17	6:30	5:30	LRI
Jared Jeyes		9/25/17	0700	5:30	LRI
Jason Klein		9/25/17	0645	5:30	LRI
John Spellman		9-25-17	1040	1120	NYSDEC

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 9-25-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes		LRI

Work Tasks to be Performed: backfill excavations, build tracking pad, move Timber into soil pile, switch skid steer from job w/ skid from yard

TOPICS COVERED:

☑	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:

Potential Health and Safety Hazards and Mitigation Measures: Uncovering Pile - careful steps/watch footing, Backfill - control truck traffic backup spotter for truck, Blindspots - back around bridge piers stay out of way.

Applicable H&S Documents Referenced: Backfilling: JSA
Equipment Operation: JSA

Daily Safety Observation (DSO): Speak with drivers about LRI truck rules. Driver last week wanted to drive away w/ box on air. John had to grab him and explain we don't do that on our sites.

Printed Name	Signature	Company Name
John Moy	John Moy	LRI
Brandon Holmes		LRI
Cody Rogers		LRI
Jared Tegan		BC
Jason Keith		Golden

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-26-17	07:00		LRI
Bob Hellwig		9-26-17	7:00		LRI
Landon Wild		9/26/17	0700		
[illegible]		9-26-17	7:55	9:42	Anderson
DAVID HERMAN		9.26.17	9:45	1045	NYSDEC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 Water St **Date:** 9-26-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BH AL	LRI

Work Tasks to be Performed: continue backfilling "B" excavation between piles, continue excavating between around Tank 41

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: smaller crew - stay focused don't get lax on procedure's. Excavation of impacted material - Keep clean - wear gloves + PPE, Backfill - tight space

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Brandon Holmes	BH HL	LRI
Bob Hellwig	Bob Hellwig	LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Mike Hussey		9-27-17	10:00	12:15	LRI
Jared Tegoni		9 27 17	1000	12:15	BC
Brandon Holmes		9-27-17	10:00	12:15	LRI
Will Lindheimer		9-27-17	10:00	12:15	
GERALD CUMMINS		9-27-17	10:00	12:15	NGrid
PAUL FISHER		9/27/17	10:00	12:15	SE
Adam Sherman		9/27/17	10:00	12:15	BC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: No. Water St Trail Team **Date:** 9.27.17 **Time:** 10:00

Briefing Conducted By:	Signature:	Company Name:

Work Tasks to be Performed: Site Meeting. No site work.

TOPICS COVERED:

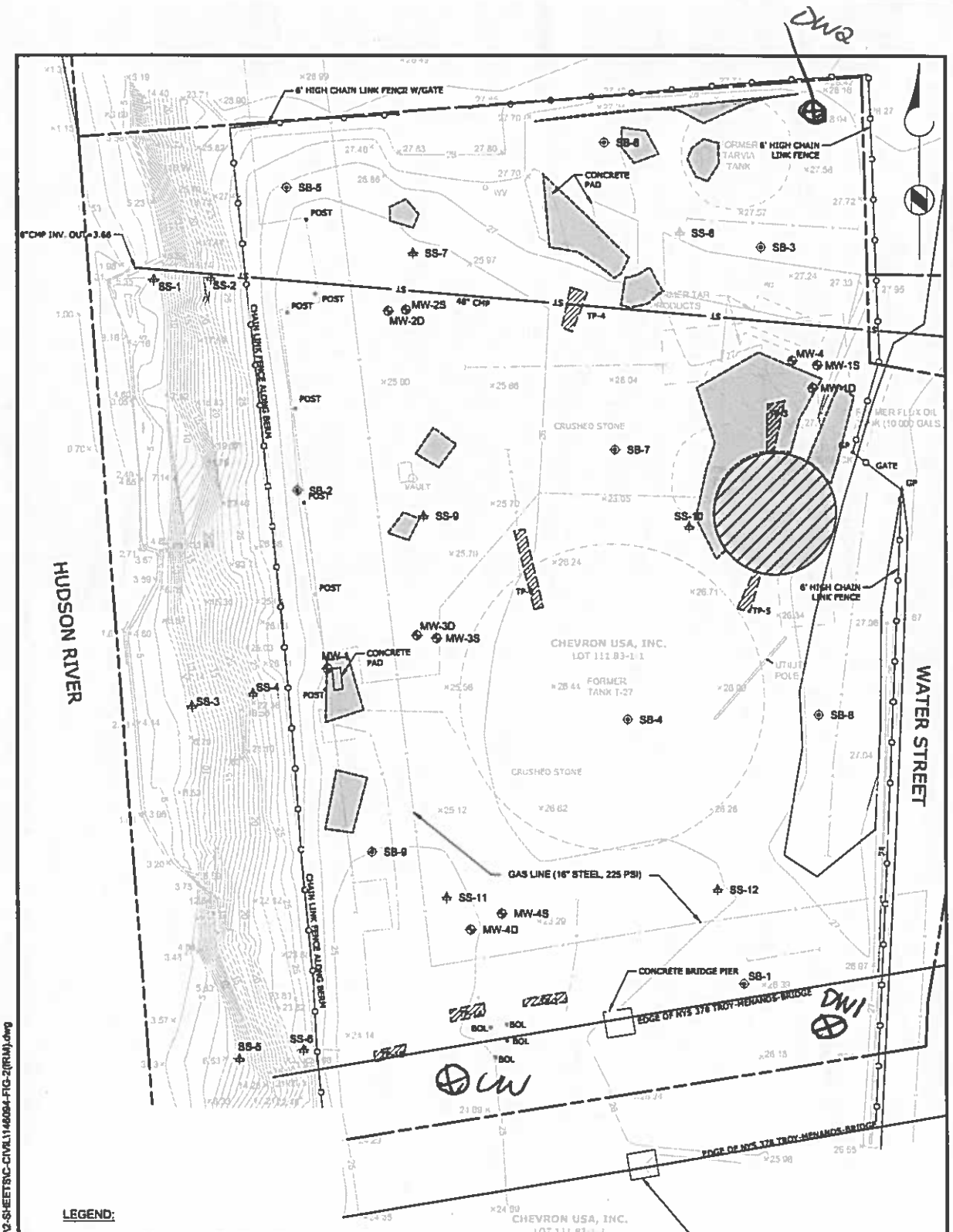
☐	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/19/17

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3 TROY, NEW YORK	DATE 08/16	PROJECT NUMBER 146094
	Brown and Caldwell UPPER SADDLE RIVER, NEW JERSEY	

P:\National_Grid\Nimo_Troy_Area_3\146094_Troy_Area3_RI_CAD\2-SHEETS\C-CIVIL\146094-FIG-2(RIM).dwg

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S Troy

Project Number: 17783

Date: 9/19 ~~/2014~~ 2017

Surveyor: Sean Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530131504	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak	1	8530132434	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	9003.59	9003.59	DW1	✓	✓	100		
PID	7	296	DW2	✓	✓	100		
PID						100		
PID						100		
PDR1000	7793	7793	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid- S Troy
Date: 9/19/17
Page 1 of 1

Project Number: 17783
Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust mg (ug/m3)	Operations and Comments
NW corner	1315	0.0	0.023	surface scrap NW corner
West Central	1423	—	0.002	no activity onsite, getting water

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid - S. Troy
Project Number: 17783

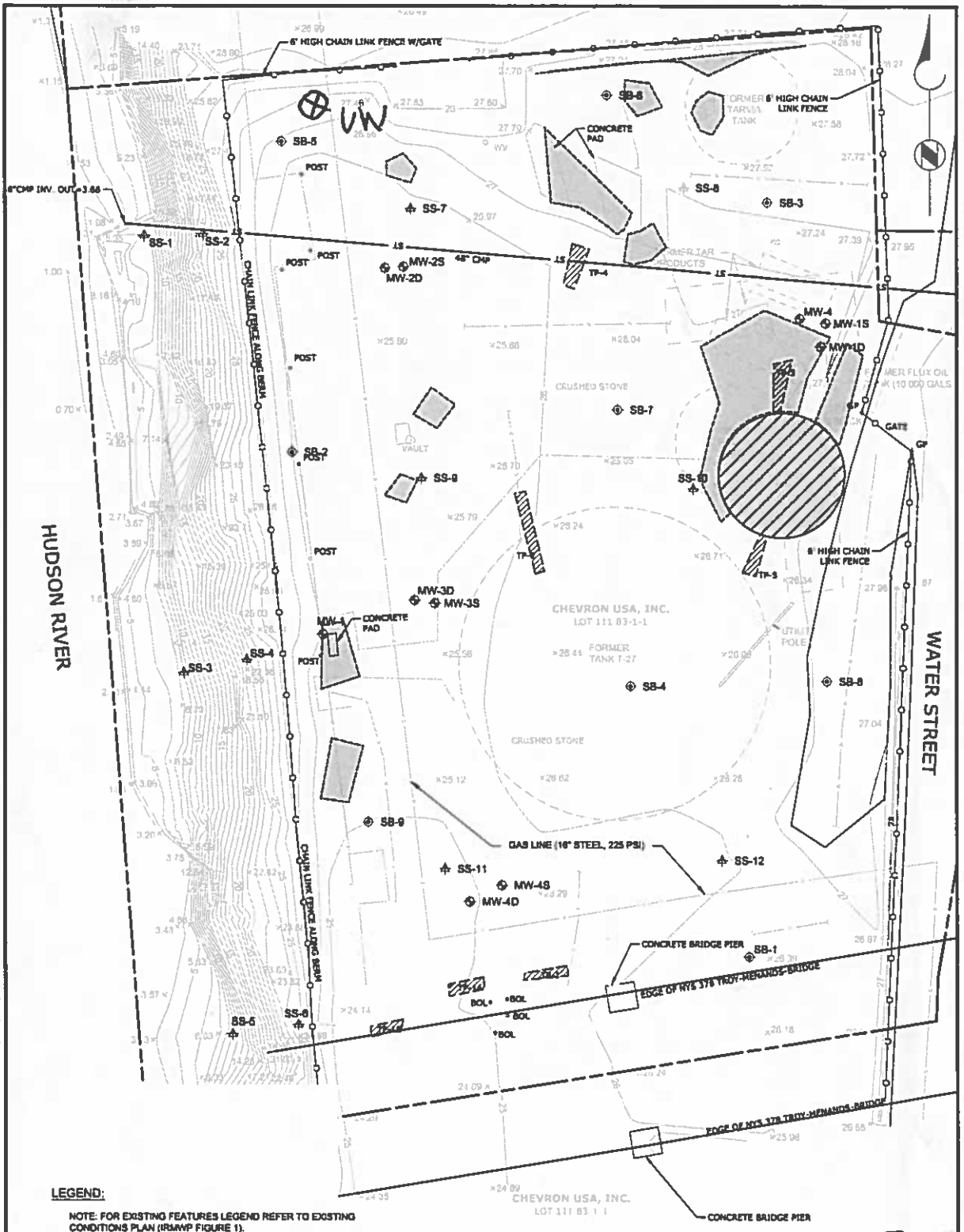
Date: 9/19/17
Surveyor: Jason Klein

Background: PM_{10} 26 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 126 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 176 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1315		0.026	no PID @ UW
DW 1	1315	0.0	0.021	
DW 2	1328	0.0	0.023	frequent traffic, no recent spikes
DW 3				
UW	1423		0.017	
DW 1	1423	0.0	0.018	
DW 2	1425	0.0	0.024	traffic spikes
DW 3				
UW	1525	0.0	0.011	
DW 1	1527	0.0	0.010	
DW 2	1528	0.0	0.029	traffic spikes
DW 3				



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/21/17

NOTES:

1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:

1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3 TROY, NEW YORK	DATE 08/16	PROJECT NUMBER 146094
	Brown and Caldwell UPPER SADDLE RIVER, NEW JERSEY	

P:\National_Grid\Mmo_Troy_Area_3\146094_Troy_Area3_RI_CAD\2-SHEETS\C-CIVIL\146094-FIG-2(IRM).dwg

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S. Troy
Project Number: 17783

Date: 9/21/17
Surveyor: Jason Klein

Background: PM_{10} 49 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 149 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 199 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1430	0.0	26	sunny 74° N winds
DW 1	1430	0.0	33	breaking cement in tank
DW 2	1430	0.0	34	
DW 3				
UW	1530	0.0	22	sunny, N winds 79°
DW 1	1530	0.0	26	breaking concrete in tank
DW 2	1530	0.0	29	biosolve spray
DW 3				
UW	1630	0.0	22	↑
DW 1	1630	0.0	26	no activity
DW 2	1630	0.0	29	↓
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S-Tray
Project Number: 17783

Date: 9/21/17
Surveyor: Joan Klein

Background: PM_{10} 49 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 149 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 199 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1130	0.0	30	
DW 1	1130	0.0	42	
DW 2	1130	0.0	39	
DW 3				
UW	1230	0.0	23	
DW 1	1230	0.0	31	
DW 2	1230	0.0	32	
DW 3				
UW	1330	0.0	26	
DW 1	1330	0.0	34	visible dust from moving equipment & non-contaminated areas
DW 2	1330	0.0	34	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid - S. Troy
Project Number: 17783

Date: 9/21/17
Surveyor: Jason Klein

Background: PM_{10} 49 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 149 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 199 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0824	0.0	49	wind N → SE
DW 1	0831	0.0	65	Overcast 70±
DW 2	0830	0.0	64	
~~DW 3~~				
UW	0930	0.0	40	wind N→SE
DW 1	0930	0.0	56	overcast 70°
DW 2	0930	0.0	51	
DW 3				
UW	1030	0.0	31	
DW 1	1030	0.0	52	
DW 2	1030	0.0	39	
~~DW 3~~				

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid - S. Troy Date: 9/21/17 Page 1 of 1

Project Number: 7165 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
by stockpile	0823	0.0	36	excavation
stockpile	0930	0.0	26	"
stockpile	1030	0.0	20	"
tank/in cab	1130	0.0	6	in cab excavator
in cab	1330	0.0	328	hammer concrete in tank
in cab/around tank	1430	0.0	0	" , using water spray
around tank/cab	1530	0.0	26	" "
stockpile	1630	00	0.0	no activity

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

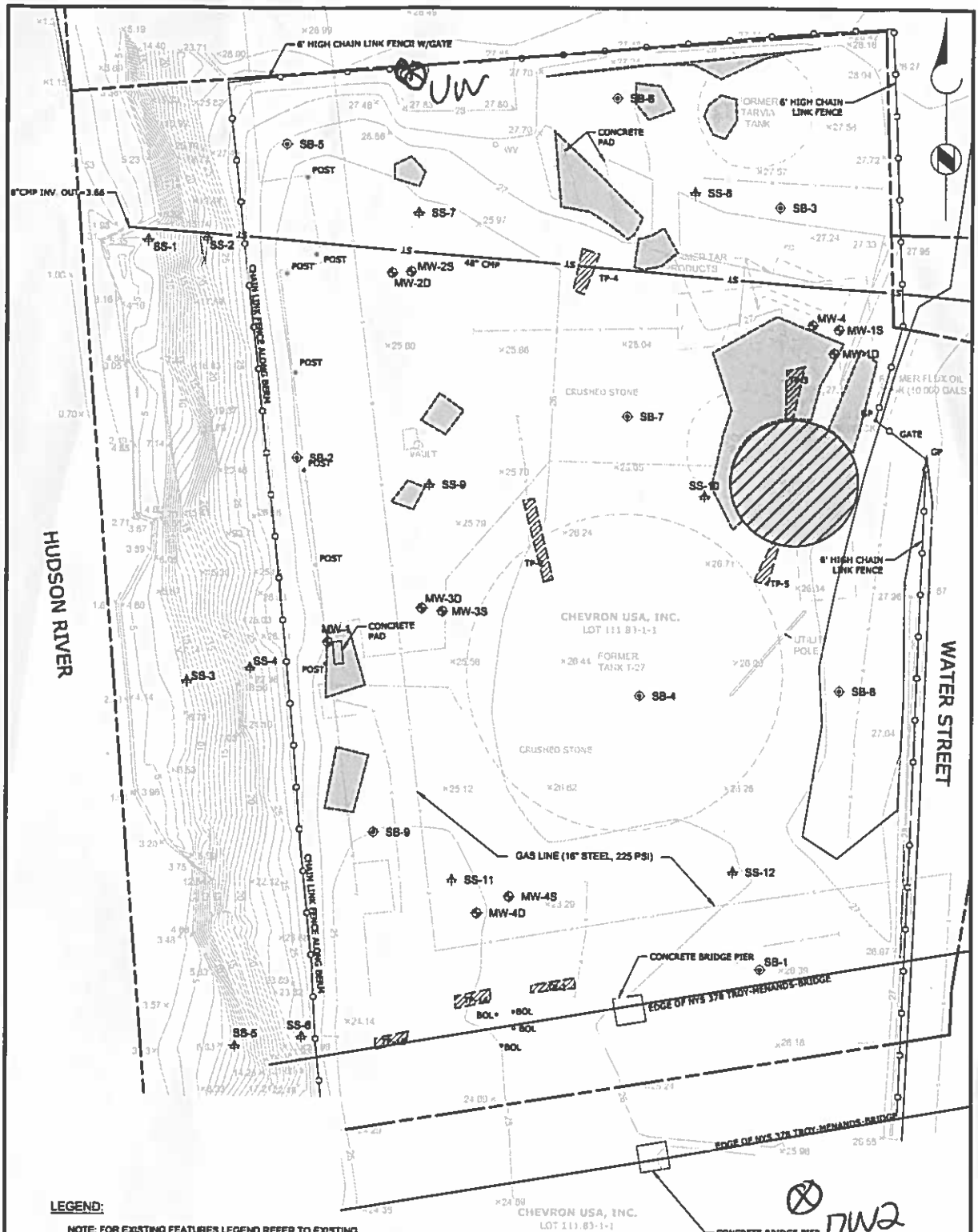
Project Name: National Grid - S. Troy

Project Number: 17783

Date: 9/21/2017

Surveyor: Jason Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530135O4	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak	1	8530132341	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		080900279	UW	✓	✓	100		
PID		9003.59	DW1	✓	✓	100		
PID	1	096	DW2	✓	✓	100		
PID						100		
PDR1000	7793	7793	WZ	✓	✓	NA	NA	
PID		900283	WZ	✓	✓	100		



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/22/17

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3
TROY, NEW YORK

DATE: 08/16

PROJECT NUMBER: 146094

Brown and Caldwell

UPPER SADDLE RIVER, NEW JERSEY

P:\National_Grid\Reimo_Troy_Area_3\146094_Troy_Area3_RI_CADD\2-SHEETS\C-CIVIL\146094-FIG-2(IRM).dwg

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S Troy
Project Number: ~~17763~~

Date: 9/22/17
Surveyor: Joan Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530132434	DW2	✓	✓	NA	NA	partly cloudy
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	N winds
DustTrak	4	8530131504	UW	✓	✓	NA	NA	~~59~~ °
DustTrak						NA	NA	
PID	1	296	DW2	✓	✓	100		
PID	—	9003.59	DW1	✓	✓	100		
PID	—	080-900279	UW	✓	✓	100		
PID						100		
PDR1000	~~7793~~	7793	WZ	✓	✓	NA	NA	
PID	—	900283	WZ	✓	✓ (3x)	100		not zeroing, alarm @ work zone, cal problems

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17763

Date: 9/22/14
Surveyor: Jason Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1200	0.0	22	prep equipment/site
DW 1	1200	0.0	29	Sunny N. winds 10 mph
DW 2	1200	0.0	22	72°
DW 3				
UW	1300	0.0	22	move concrete slabs to tank
DW 1	1300	0.0	48	prep pad decon
DW 2	1300	0.0	34	
DW 3				
UW	1400	0.0	22	Sunny 72°
DW 1	1400	0.0	25	N wind 10 mph
DW 2	1400	0.0	69	blowing a lot of dust (non HAZ)
DW 3				
UW	1500	0.0	18	Spray foam on tank
DW 1	1500	0.0	24	
DW 2	1500	0.0	48	

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17783

Date: 9/22/17
Surveyor: Jason K. Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0815	0.0	27	Excav / spray tank contents
DW 1	0815	0.0	37	"
DW 2	0815	0.0	44	"
DW 3				
UW	1000	0.0	22	"
DW 1	1000	0.0	27	"
DW 2	1000	0.0	35	"
DW 3				
UW	1100	0.0	22	munch stone / RR ties
DW 1	1100	0.0	30	delivery gravel
DW 2	1100	0.0	44	
DW 3				

UW
DW1
DW2

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid STay Date: 9/22/17 Page 1 of 1
Project Number: 17783 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
tank	0830	0.0	7	excav / spray tank
"	1000	0.0	0.0	" "
A6 Munch cement	1100	0.0	0.0	high dust Munch stone / cement took break
tank, middle	1200	0.0		DataRAM battery died, gravel delivery
A6, tank	1300	0.0	34	more concrete to tank broken
gravel pile	1400	0.0	>1000 then down	large spikes, dusty (non HAZMAT)

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-22-17	6:50		LRI
Bob Hellwig		9-22-17	6:45		LRI
Greg Rogers		9/22/17	6:15		LRI
John May		9-22-17	6:15		LRI
Jarrod Jeyes		9 22 17	700		BC
Susan Klein		9/22/17	680		Colabs
BRAD VALLIC	BC Vallic	9/22/17	7:30		LRI

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM - 7 WATER ST **Date:** 9-22-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BC AC	LRI

Work Tasks to be Performed: excavate for samples, stockpile material on 1 side of tank for future load out, build DECON PAD/TRACKING PAD, change filters on skid steer, spray foam to cover pile, Receive ~~foam~~ stone to build pad.

TOPICS COVERED:

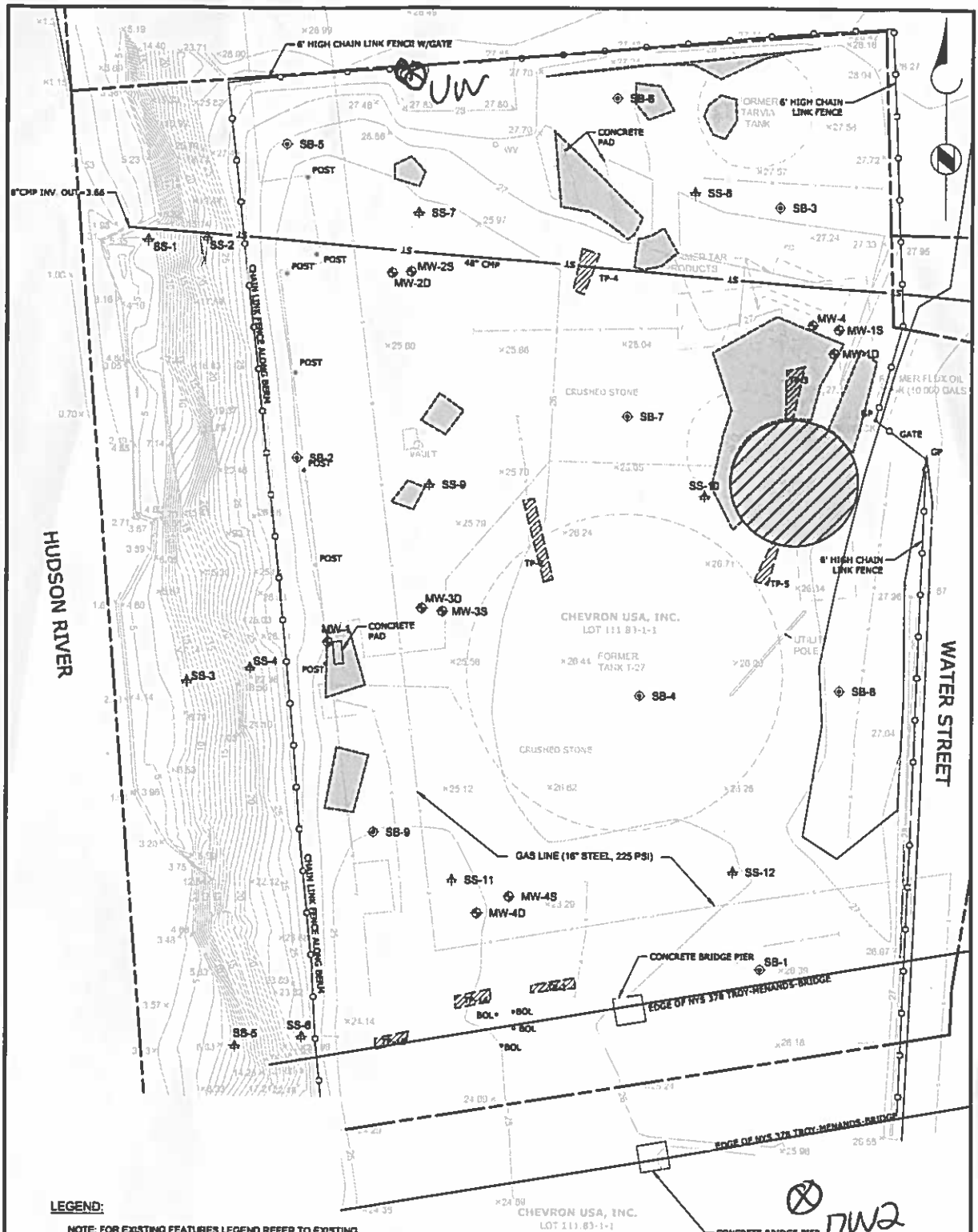
☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Truck Traffic - Spotters,

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Bob Hellwig	Bob Hellwig	LRI
GREG KAPPS		LRI
Jason Klein		Golder
Jared Jeyaraj		BC
John May		LRI



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/22/17

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3
TROY, NEW YORK

DATE: 08/16

PROJECT NUMBER: 146094

Brown and Caldwell

UPPER SADDLE RIVER, NEW JERSEY

P:\National_Grid\Reimo_Troy_Area_3\146094_Troy_Area3_RI_CADD\2-SHEETS\C-CIVIL\146094-FIG-2(IRM).dwg

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S Troy
Project Number: ~~17763~~

Date: 9/22/17
Surveyor: Joan Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530132434	DW2	✓	✓	NA	NA	partly cloudy
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	N winds
DustTrak	4	8530131504	UW	✓	✓	NA	NA	~~59~~ °
DustTrak						NA	NA	
PID	1	296	DW2	✓	✓	100		
PID	—	9003.59	DW1	✓	✓	100		
PID	—	080-900279	UW	✓	✓	100		
PID						100		
PDR1000	~~7793~~	7793	WZ	✓	✓	NA	NA	
PID	—	900283	WZ	✓	✓ (3x)	100		not zeroing, alarm @ work zone, cal problems

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17763

Date: 9/22/14
Surveyor: Jason Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1200	0.0	22	prep equipment/site
DW 1	1200	0.0	29	Sunny N. winds 10 mph
DW 2	1200	0.0	22	72°
DW 3				
UW	1300	0.0	22	move concrete slabs to tank
DW 1	1300	0.0	48	prep pad decon
DW 2	1300	0.0	34	
DW 3				
UW	1400	0.0	22	Sunny 72°
DW 1	1400	0.0	25	N wind 10 mph
DW 2	1400	0.0	69	blowing a lot of dust (non HAZ)
DW 3				
UW	1500	0.0	18	Spray foam on tank
DW 1	1500	0.0	24	
DW 2	1500	0.0	48	

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17783

Date: 9/22/17
Surveyor: Jason K. Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0815	0.0	27	Excav / spray tank contents
DW 1	0815	0.0	37	"
DW 2	0815	0.0	44	"
DW 3				
UW	1000	0.0	22	"
DW 1	1000	0.0	27	"
DW 2	1000	0.0	35	"
DW 3				
UW	1100	0.0	22	munch stone / RR ties
DW 1	1100	0.0	30	delivery gravel
DW 2	1100	0.0	44	
DW 3				

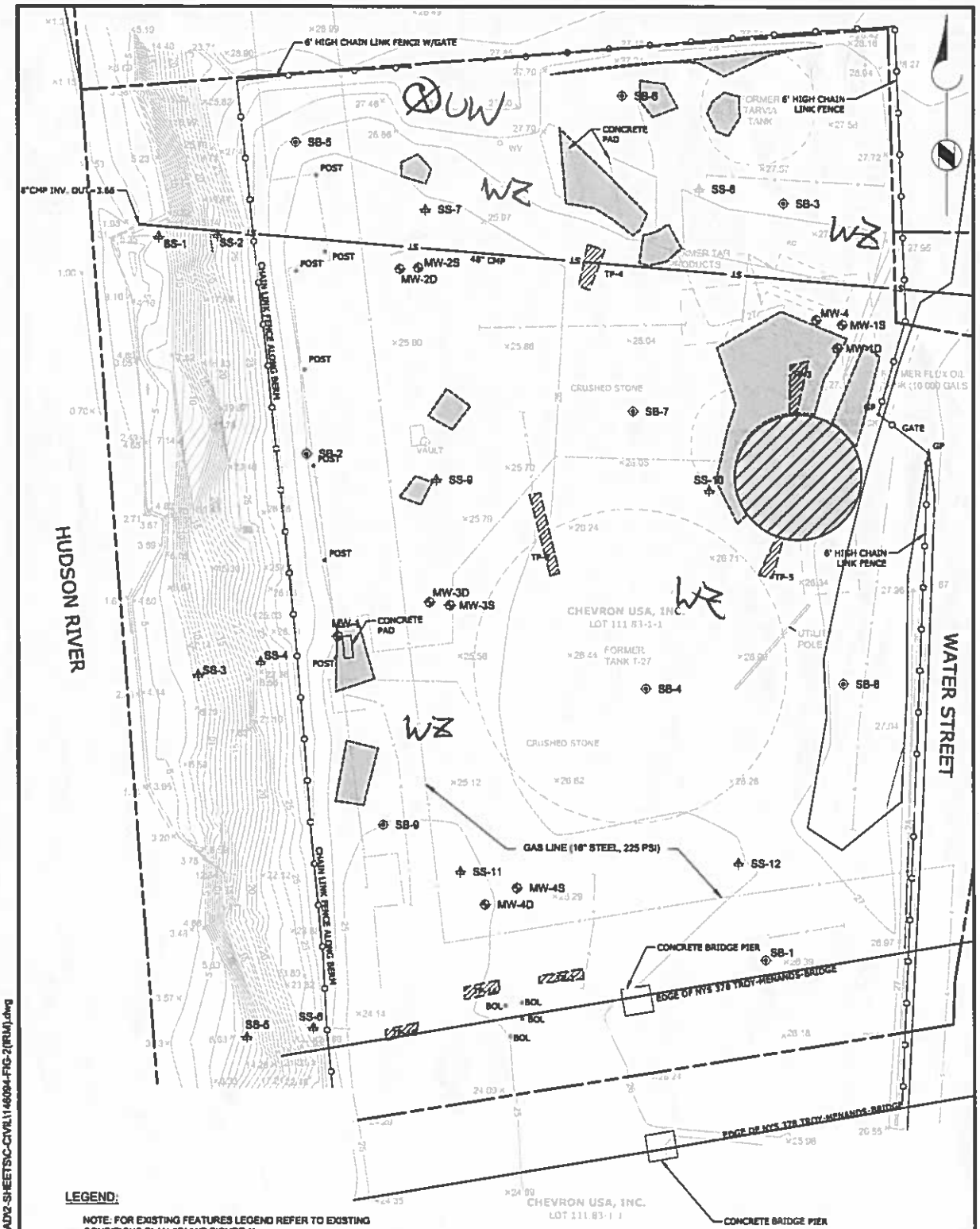
UW
DW1
DW2

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid STay Date: 9/22/17 Page 1 of 1
Project Number: 17783 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
tank	0830	0.0	7	excav / spray tank
"	1000	0.0	0.0	" "
A6 Munch cement	1100	0.0	0.0	high dust Munch stone / cement took break
tank, middle	1200	0.0		DataRAM battery died, gravel delivery
A6, tank	1300	0.0	34	more concrete to tank broken
gravel pile	1400	0.0	>1000 then down	large spikes, dusty (non HAZMAT)



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (RIMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

DW2

0 30 60

SCALE IN FEET

9/25/17

DW1

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3
TROY, NEW YORK

DATE: 08/16
PROJECT NUMBER: 146094

Brown and Caldwell
UPPER SADDLE RIVER, NEW JERSEY

P:\National_Grid\Memo_Troy_Area_3\146094_Troy_Area3_RI_CAD\2-SHEETS\C-CIVIL\146094-FIG-2(RIM).dwg

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S. Troy
Project Number: ~~7783~~ 7793

Date: 9/25/17
Surveyor: Jason Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530132434	DW2	3%	✓	NA	NA	Need to recharge batteries
DustTrak	7	8530131603	DW1	2%	✓	NA	NA	in morning
DustTrak	4	8530131504	UW	3%	✓	NA	NA	↓
DustTrak						NA	NA	
PID	1	296	DW2	✓	✓	100		recharging
PID	—	900359	DW1	✓	✓	100		↓
PID	—	080-900279	UW	✓	✓	100		
PID						100		
PDR1000	~~7793~~	7793	WZ	✓	✓	NA	NA	
PID	—	900283	WZ	✓	✓	100		multiple cals

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid - S. Troy
Project Number: 17783

Date: 9/25/17
Surveyor: Jason Klein

Background: PM_{10} 39 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 139 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 189 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1015	0.0	39	sunny, N winds 5mph, 81°, humid
DW 1	1045	0.0	45	"
DW 2	1045	0.0	59	"
DW 3				
UW	1145	0.0	40	accept delivery, install backfill
DW 1	1145	0.0	41	"
DW 2	1145	0.0	ERROR	cal error - high #s
DW 3				
UW	1245	0.0	38	86°, sunny, 4mph N winds
DW 1	1245	0.0	41	
DW 2	1245	0.0	ERROR	cal error
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Toy
Project Number: 17783

Date: 9/25/17
Surveyor: Jason Klein

Background: PM_{10} 39 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 139 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 189 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1345	0.0	34	86°, sunny, 4mph N winds
DW 1	1348	0.0	34	
DW 2	1348	0.0	ERROR	cal error
DW 3				@ 1545 changed DW2
UW				monitor to SN-8530113305
DW 1				Zero Cal - ✓
DW 2				Battery check - ✓
DW 3				
UW	1545	0.0	31	new dustrak. clean soil &
DW 1	1545	0.0	32	excav.
DW 2	1545	0.0	42	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG S Tom
Project Number: 17783

Date: 9/25/17
Surveyor: Sean Klein

Background: PM_{10} 39 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 139 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 189 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1645	0.0	29	install clean fill
DW 1	1645	0.0	31	excav complete
DW 2	1645	0.0	59	
DW 3				
UW				
DW 1				
DW 2				
DW 3				
UW				
DW 1				
DW 2				
DW 3				

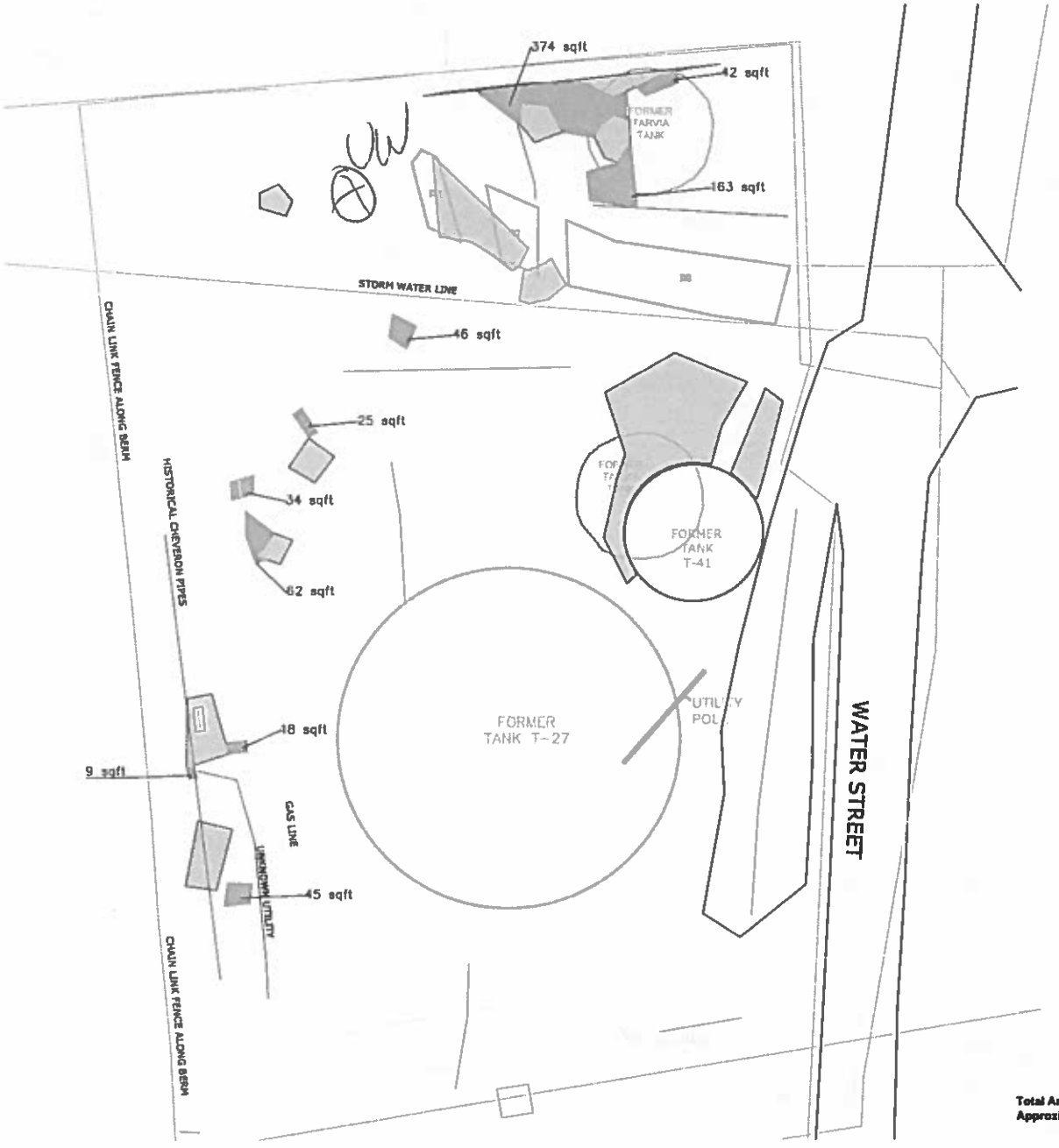
COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid-S. Tray Date: 9/05/17 Page 1 of 1

Project Number: 17783 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
SW of sight	0845	0.0	10	prep equipment
SW behind Conex	0945	—	0.0	recal PID
SW A1 & A2	1045	—	0.0	recal, install clean fill
SW/NE stockpile	1145	0.0	12	install clean fill
SW/NE stockpile	1245	0.0	0.0	"
N of site	1345	0.0	4	clean fill install


374 sqft
42 sqft
FORMER FARVIA TANK
163 sqft
STORM WATER LINE
46 sqft
CHAIN LINK FENCE ALONG BERM
25 sqft
34 sqft
62 sqft
HISTORICAL CHEVRON PIPES
FORMER TANK T-41
FORMER TANK T-27
UTILITY POL
WATER STREET
18 sqft
9 sqft
GAS LINE
UNKNOWN UTILITY
45 sqft
CHAIN LINK FENCE ALONG BERM
Proposed Tar Areas
Additional Tar Areas
Total Area of additional tar removal = 818 SQFT
Approximate additional volume at 12" of removal= 36 cu. yds

9/26/17

DW2

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG - S. Tray

Project Number: _____

Date: 9/26/17

Surveyor: _____

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	7	8530131603	DW1	see note	✓	NA	NA	battery low in morning
DustTrak		8530113305	DW2	✓	✓	NA	NA	
DustTrak		8530131504	UW	see note	✓	NA	NA	low battery in am
DustTrak						NA	NA	
PID	—	9003.59	DW1	✓	✓	100	0.0	
PID	—	296	DW2	✓	✓	100	0.0	
PID		080-900279	UW	✓	✓	100	0.0	
PID						100		
PDR1000		7793	WZ	✓	✓	NA	NA	
PID		900283	WZ	✓	✓	100	0.0	multiple cals to zero

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid-S. Troy Date: 9/26/17 Page 1 of 1

Project Number: 17783 Surveyor: Savannah Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
AG & stockpile	0845	0.0	36	prep site, delivery, backfill
Stockpile, tank	0915	0.0	63	delivery, gravel, backfill
"	0945	0.0	25	"
stockpile, tank	1045	0.0	17	install gravel / backfill

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 9/26/17
Surveyor: ~~Susan~~ Klein

Background: PM_{10} 36 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 136 µg/m3 (100µg/m3 above the background)
VOC 0.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 186 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 0.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW				battery issue w/ UW & DW1
DW 1				only site prep (set up DW2 & W3)
DW 2	0845	0.0	61	Hazy 69° 2mph N winds
DW 3				
UW	0945	0.0	51	install gravel & backfill
DW 1	0945	0.0	39	"
DW 2	0945	0.0	48	"
DW 3				
UW	1045	0.0	40	install gravel & backfill
DW 1	1045	0.0	36	"
DW 2	1045	0.0	43	"
~~DW 3~~				

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Jarod Jessup		10/2/17	1000		BC
Brandon Holmes		10/2/17	10:00		LRI
B. Helbing					
J. May					
G. Rogers					

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10/2/17 **Time:** 9

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BH AC	LRI

Work Tasks to be Performed: deliver bags of LKD to site, use pickup towing trailer to deliver materials to water street from kingston

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☒	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Brandon Holmes	BH AC	LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes	BLHR	10/3/2017	11:00	3:00	LRI

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10/3/17 **Time:** 10:50

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes		LRI

Work Tasks to be Performed: Load NON-HAZ material into Longhorn trucks, cover/un-cover pile, 2 trucks loaded

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Pinch Points: Do not enter between truck & excavator. Suspended Load: do not approach excavator or enter truck zone w/out Eye Contact + signal (NO RADIOS TODAY)

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO): Traffic Control Critical w/ trucks entering side in reverse and heavy traffic intersection. Good drivers very helpful

Printed Name	Signature	Company Name
Brandon Holmes		LRI
Jason Klein		Colden
Jared Jeyes		BC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		10/4/17	0630	3:30	LRI
BRAD Kapke		10/	6:40		LRI
Jason Muir		10/4/17	0630		[illegible]
Jared Jeyaj		10/4/17	0630		BC
Peter Gisheck		10/4/17	10:00	✓	SE
GERALD Cummins		10/4/17	10:20		NGrid
DBISnap		10/4/17	10:40	11:50	LRI
B Hall					
J May					

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROV IRM **Date:** ~~10/3/11~~ 10/4/11 **Time:** 06:30

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BH AC	LRI

Work Tasks to be Performed: load haul trucks-Longhorn, excavate remaining area B, consolidat pile as material loaded out.

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:

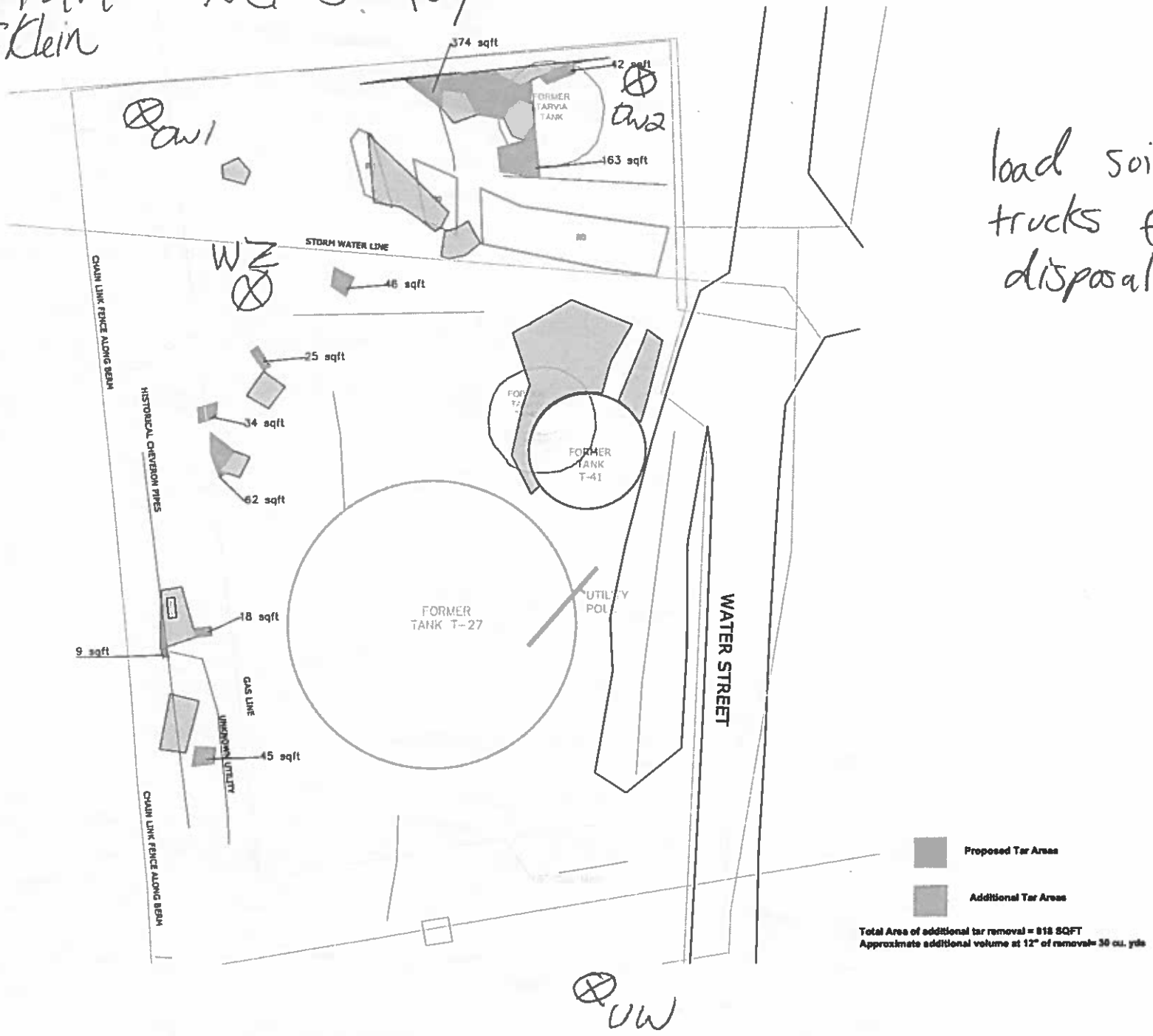
Potential Health and Safety Hazards and Mitigation Measures: Communication: speak w/ driver about preferred route into/out of site. Radio Contact: communicate before checking truck bed Traffic Control: spotter/flagger

Applicable H&S Documents Referenced: SOP: Truck loading. MSDS: LKD - keep off of skin and out of eyes can dry you out

Daily Safety Observation (DSO): Have enough crew to fulfill the task. shorthanded yesterday Brandon lone man could have used help.

Printed Name	Signature	Company Name
Brandon Holmes	BH AC	LRI
Bob Hellwig	Bob Hellwig	LRI
John Mosy	John Mosy	LRI
GREG Rogers		LRI
Brian Allen		C Allen
Jared Jogna	Jared Jogna	BC
Paul Fisher		SE
Gerald Cummins		NGrid
Adam Sherman		BC
Danielle Bishop	Danielle Bishop	LAND

10/3/17 NG. S. Troy
S. Klein



load soils to trucks for disposal

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG- S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: S. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak				✓	✓	NA	NA	
DustTrak	4	8530131502	UW	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		9003.59	DW1	✓	✓	100	0.0	
PID	—	296	DW2	✓	✓	100	0.0	
PID		080-900279	UW	✓	✓	100	0.0	
PID						100		
PDR1000	7795	7793	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy

Date: 10/3/14 Page 1 of 1

Project Number: 14483

Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center site	1200	–	0.0	load stockpile to truck
"	1300	–	0.0	"

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: J. Klein

Background: PM_{10} 11 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

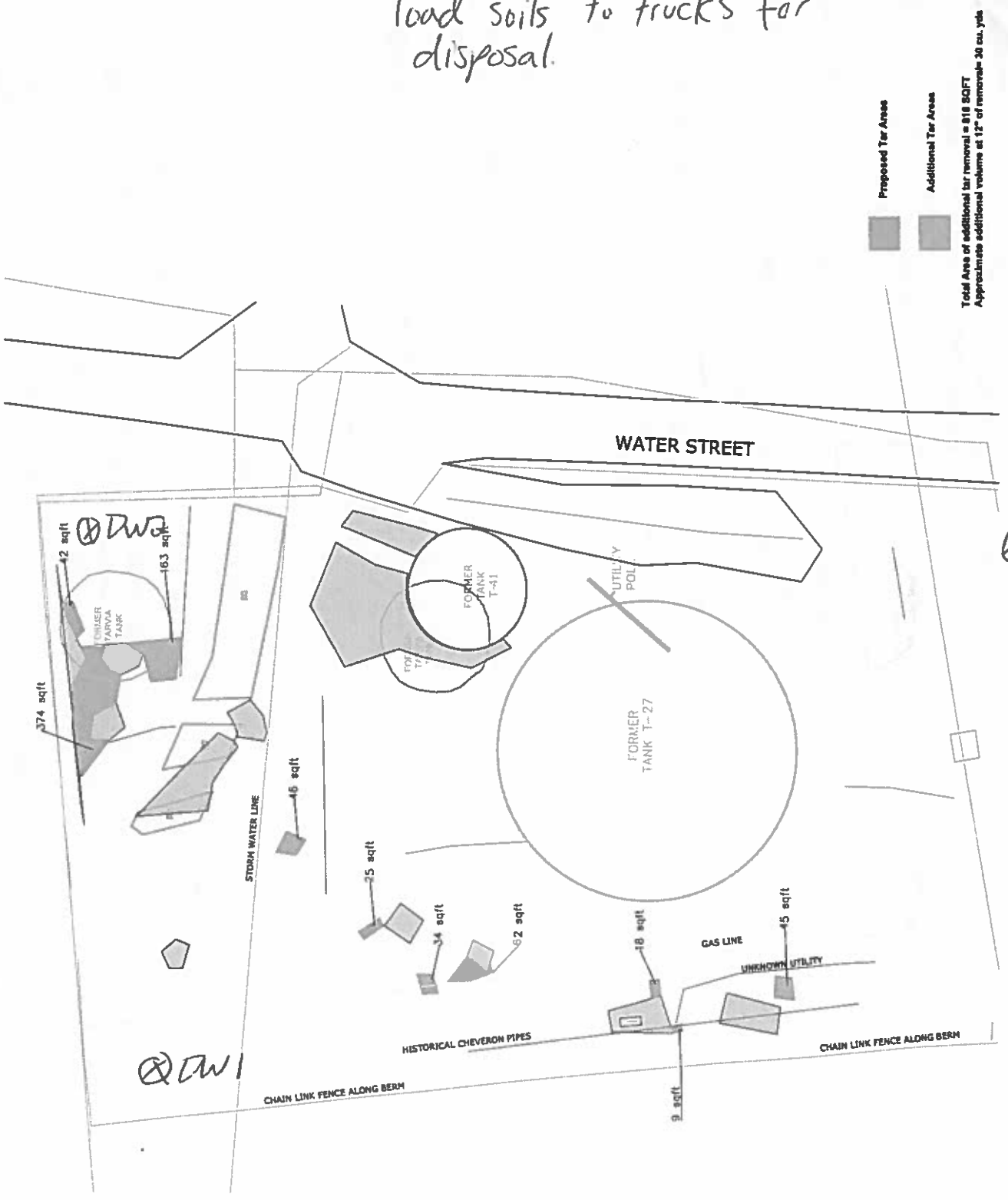
Action Levels: PM_{10} 111 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 161 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1145	0.0	11	Wind 5mph SSE
DW 1	1145	0.0	11	sunny 66°
DW 2	1145	0.0	10	
DW 3				
UW	1245	0.0	11	load stockpile soils in trucks
DW 1	1245	0.0	6	for disposal
DW 2	1245	0.0	31	
DW 3				
UW	1345	0.0	10	"
DW 1	1345	0.0	6	"
DW 2	1345	0.0	16	"
DW 3				

10/4/17

load soils to trucks for disposal.



COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG-S. Troy

Project Number: 17783

Date: 10/4/17

Surveyor: J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530131504	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak		8530113305	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	—	080-900279	UW	✓	—	100	0.0	
PID		9003.59	DW1	✓	✓	100	0.0	
PID		296	DW2	✓	✓	100	0.0	* recal'd @ 0730 high #s
PID						100		
PDR1000		7793	WZ	✓	✓	NA	NA	
PID		900283	WZ			100		Cal issue

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy Date: 10/4/17 Page ____ of ____

Project Number: 17783 Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center of site	0730	—	23	load soils in truck
center of site	0845	—	4	load soils "
"	0945	—	7	load soils "
"	1045	—	6	prep for next haul

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 22 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0715	0.0	21	52° Winds 2mph SE
DW 1	0715	0.0	106	loads soils to truck for disposal
DW 2	0715	0.0	20	
DW 3				
UW	0830	0.0	17	
DW 1	0830	0.0	12	
DW 2	0830	0.0	19	
DW 3				
UW	0945	0.0	17	58° Winds SSE 8mph
DW 1	0945	0.0	11	load soils - 2nd load
DW 2	0945	0.0	22	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17785

Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 82 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1045	0.0	16	56° SSE winds 6mph
DW 1	1045	0.0	17	prep for next haul
DW 2	1045	0.0	13	
DW 3				
UW	1145	0.0	15	65° SE wind 3mph
DW 1	1145	0.0	11	excav B1
DW 2	1145	0.0	42	
DW 3				
UW	1415	0.0	14	Backfill B1
DW 1	1415	0.0	9	73° SE 6 mph winds
DW 2	1415	0.0	44	
DW 3				

LAND Remediation, Inc.
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Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes	BH	10-	08:00		LRI
Mindy Murray	Mindy Murray	10-9-17	08:00	9:45	LRI
Bob Hellwig	Bob Hellwig	10-9-17	7:00		LRI
Pete Hanson		10-9-17	9:15	9:30	ESMI

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-9-17 **Time:** 08:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BL RK	LRI

Work Tasks to be Performed: Uncover pile for ESMI to observe material inside tank, pump water off of TARP, Clean, discharge to ground surface

"911"
7 Water St. Troy NY

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☒	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☒	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☑	~~Severe~~ Weather - RAIN	☐	Other:

Potential Health and Safety Hazards and Mitigation Measures: ~ Due to RAIN wet conditions ensure use of GFCI and inspect extension cords. Ground prong on plug - No Nicks or cuts in cord insulated cover. Set generator away from work area to eliminate need for hearing protection.

Applicable H&S Documents Referenced: HASP,

Daily Safety Observation (DSO):
Clean Windows & Mirrors of equipement. Wipes. Good Visability Stay away from working equipement. Use spotter when necessary

Printed Name	Signature	Company Name
Brandon Holmes	BL RK	LRI
Bob Hellwig	Bob Hellwig	LRI
Minor Murray	Minor Murray	LRI

LAND Remediation, Inc.
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Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
1.					
B. Holmes		10-10-17	6:45		LRI
C. Sutherland		10 10 17	630		LRI
B Holloway		10-10-17	6130		LRI
J. Klein		10.10.17	0645		
M HUGO		10-10-17	630	2:00	LRI
Jarod Tejx		10/10/17	0701		BC

LAND Remediation, Inc.
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Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-10-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BH KR	LRI

Work Tasks to be Performed: warm up equipment, pull steel wall out of ground around tank cut steel wall up and toss in steel dumpster, take former tank up to yard to re-fill. Fix wire harness on compressor

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
C. Sutherland	CE	LRI
B. Helling	Bob Helling	LRI
Jason Allen		Golder
Mitch Holt	Mitch Holt	LRI
Jon Joyce	JM	BC

LAND Remediation, Inc.
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Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Helms		10-11-17	06:40		LRI
MAICK HULCO		10-11-17	700		LRI
Bob Hellwig		10-11-17	7100		LRI
Paul Fisher		10-11-17	1030		SE
John Spellman		10-11-17	1045		NYSDEC
Mark Sergott		10/11/17	10:45		NYSDOH
Steve Cowan		10/11/17	10:41		NYSDOH
Jason Klein		10/11/17	0645		Colden
C. Sutherland		10 11 17	1108		LRI
Adam Sherman		10/11/17	10:45	12:00	BC
Jared Jegay		10/11/17	0700		BC

LAND Remediation, Inc
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Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-11-17 **Time:** 06:40

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BC HL	LRI

Work Tasks to be Performed: load out HAZ WASTE from TANK, uncover pile - 3 guys + 228 mix concrete w/soil, break concrete, foam pile, traffic control for trucks

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Traffic Control in high traffic intersection - flaggers, Exposure to HAZ Waste - do not enter tank + PPE load upon Exposed steel - gloves - watch movements near wall

Applicable H&S Documents Referenced: SOP - Welding/Cutting JSA - truck loading - Haz Waste

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Brandon Holmes	BC HL	LRI
MARK HUGO	Mark Hugo	LRI
Bob Hellwig	Bob Hellwig	LRI
Jason Klein		G Klein
C. Sutherland	CE	LRI
Jarod Teyner	JT	BC

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed with the work).
2. Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE: 10/11/17 | JOB NO.:

LOCATION/BUILDING & FLOOR (Be Specific): NA

DESCRIPTION OF WORK BEING PERFORMED: Cut tank

NAME OF PERSON DOING HOT WORK: Mark Hugo

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Permit Authorizing Individual)

SIGNED: _____
(Person doing Hot Work)

TIME STARTED: 1230 AM/PM

TIME ENDED: 1615 AM/PM

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [ ] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [ ] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [x] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.
- [ ] All wall and floor openings covered. Walkways protected beneath hot work. NA

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES NA

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors.
- [ ] Follow confined space guidelines.

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm. NA
- [ ] Fire watch may be required for opposite side of walls, above, and below floors and ceilings. NA

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed: _____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for 3:45 hour(s) following Hot Work and found fire safe.

Signed: _____

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
MARK HUGG	Mark Hugg	10.12.17	630		LRI
C Sutherland	C Sutherland	10 12 17	630		LRI
S Clair	S Clair	10/12/17	0645		cable
Bob Hellwig	Bob Hellwig	10-12-17	6:45		LRI
Jared Tayne	Jared Tayne	10/12/17	0700		BC
Adam Sherman	Adam Sherman	10/12/17	0900	1145	BC
B. Stiers	B. Stiers	10/12/17	0915		N. Env

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM WATER ST **Date:** 10-12-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes		LRI

Work Tasks to be Performed: scrape tank clean to load out material for last truck load. use weed burner to heat from outside, load out 1 truck,

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Exposed to material in tank while scraping. - Tyvek, Booties, Gloves

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO): TAR takes time to scrape be careful w/ body motions. Don't swing tools w/ people close by.

Printed Name	Signature	Company Name
Brandon Holmes		LRI
MARK HUBA		LRI
C. Sutherland		LRI
S. Klein		Golder
Bob Hellwig		LRI
B. Stone		N.C.A.
Jon Tuyay		BE

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed with the work).
   Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE 10/12/17 JOB NO.

LOCATION/BUILDING & FLOOR (Be Specific)

na

DESCRIPTION OF WORK BEING PERFORMED

Cut tank

NAME OF PERSON DOING HOT WORK

Clark Sutherland

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED:

(Permit Authorizing Individual)

SIGNED:

(Person doing Hot Work)

TIME STARTED: 1630 AM/PM

TIME ENDED: 1830 AM/PM

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [x] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [ ] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [x] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.
- [ ] All wall and floor openings covered.
  Walkways protected beneath hot work. na

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors. Na
- [ ] Follow confined space guidelines. Na

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- [ ] Fire watch may be required for opposite side of walls, above, and below floors and ceilings. na

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed:

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for 4 hour(s) following Hot Work and found fire safe.

Signed:

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		10-13-17	0640	3:30	LRI
C. Sutherland		10-13-17	6:15	3:30	LRI
Bob Hellwig		10-13-17	6:45	3:30	LRI
Si Klein		10/13/17	0645		Golder
MARK HUGO		10.13.17	645	3:30	LRI
Jason Jessing		10/13/17	0645		BC
Adam Sherman		10/13/17	1445	1500	BC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM WATER ST **Date:** 10-13-17 **Time:** 0800

Briefing Conducted By:	Signature:	Company Name:
B. Holmes		LRI

Work Tasks to be Performed: cut remaining tank 91, ~~dis~~load up materials no longer needed -deliver back to yard

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: HOT WORK- PPE & Techniques must be safe. Final couple days on site- do not become complacent. Loading materials- take time use spotter - check trailer & rigging.

Applicable H&S Documents Referenced:

Hot Work Permit

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
C. Sutherland		LRI
Bob Hellwig		LRI
J. Klein		Colden
MAKIC HUGO		LRI
Josh Yung		Colden
David Young		BC

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed 'th the work).
2. Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE: 10/13/17 | JOB NO:

LOCATION/BUILDING & FLOOR (Be Specific): NA

DESCRIPTION OF WORK BEING PERFORMED: Oil tank

NAME OF PERSON DOING HOT WORK: Clark Sutherland

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Permit Authorizing Individual)

SIGNED: _____
(Person doing Hot Work)

TIME STARTED: 0735 AM/PM

TIME ENDED: 1500 AM/PM

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- [x] Fire watch may be required for opposite side of walls, above, and below floors and ceilings.

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [x] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [x] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [ ] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields. NA
- [ ] All wall and floor openings covered. NA
  Walkways protected beneath hot work.

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors. NA
- [ ] Follow confined space guidelines.

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

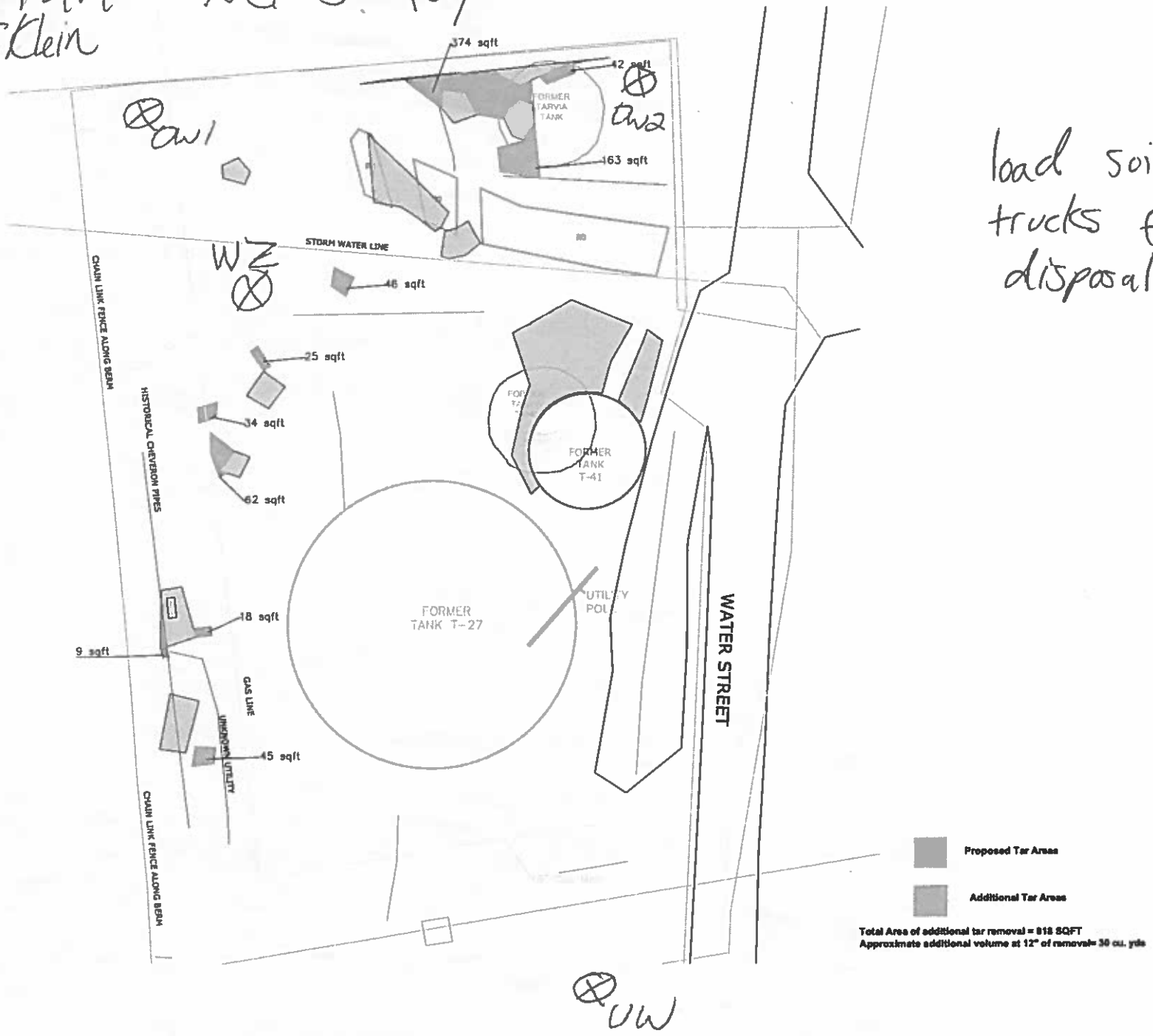
Signed: _____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for 7.5 hour(s) following Hot Work and found fire safe.

Signed: _____

10/3/17 NG. S. Troy
S. Klein



load soils to trucks for disposal

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG- S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: S. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak				✓	✓	NA	NA	
DustTrak	4	8530131502	UW	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		9003.59	DW1	✓	✓	100	0.0	
PID	—	296	DW2	✓	✓	100	0.0	
PID		080-900279	UW	✓	✓	100	0.0	
PID						100		
PDR1000	7795	7793	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy
Project Number: 14483

Date: 10/3/14 Page 1 of 1
Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center site	1200	–	0.0	load stockpile to truck
"	1300	–	0.0	"

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: J. Klein

Background: PM_{10} 11 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

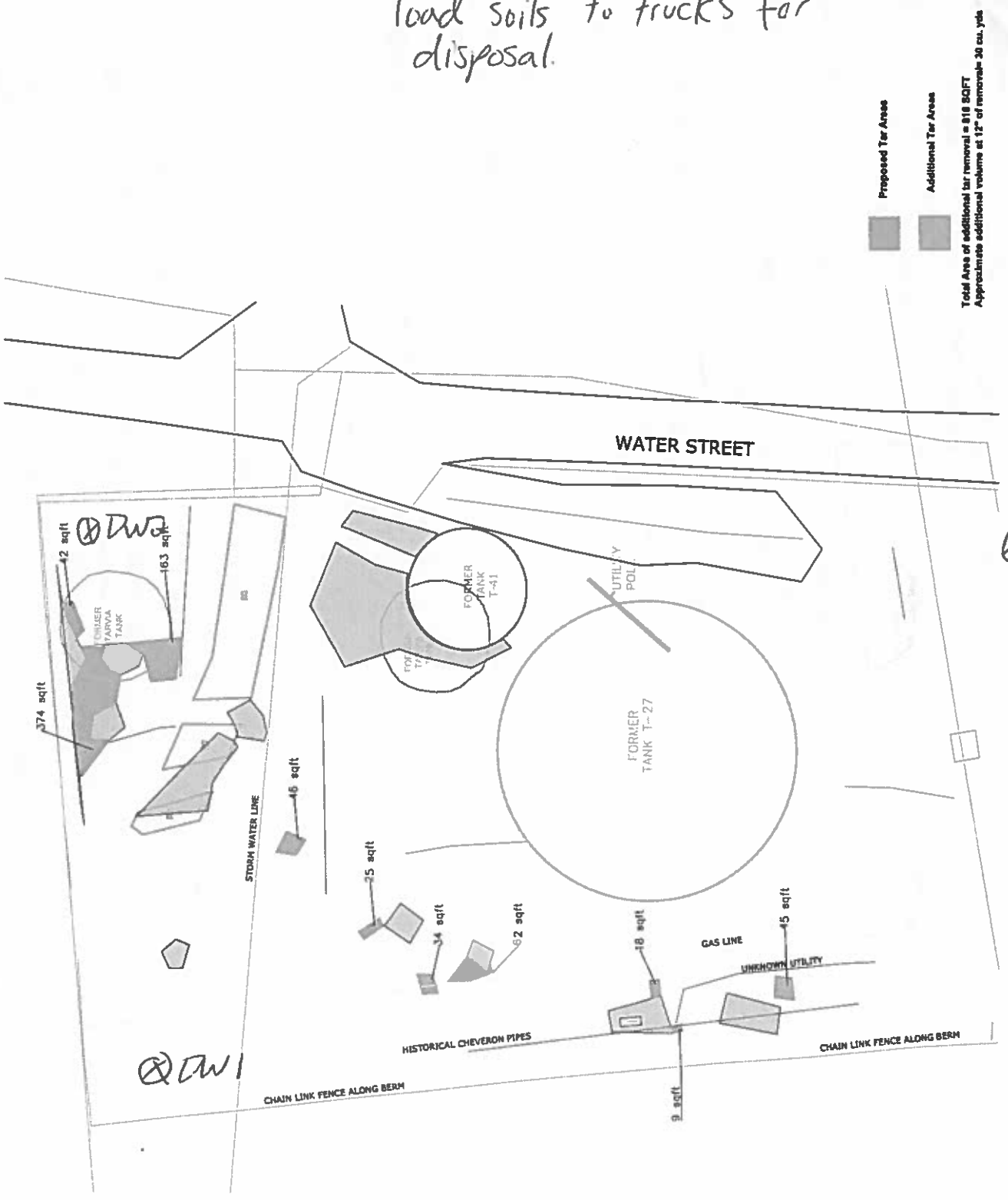
Action Levels: PM_{10} 111 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 161 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1145	0.0	11	Wind 5mph SSE
DW 1	1145	0.0	11	sunny 66°
DW 2	1145	0.0	10	
DW 3				
UW	1245	0.0	11	load stockpile soils in trucks
DW 1	1245	0.0	6	for disposal
DW 2	1245	0.0	31	
DW 3				
UW	1345	0.0	10	"
DW 1	1345	0.0	6	"
DW 2	1345	0.0	16	"
DW 3				

10/4/17

load soils to trucks for disposal.



COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG-S. Troy

Project Number: 17783

Date: 10/4/17

Surveyor: J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530131504	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak		8530113305	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	—	080-900279	UW	✓	—	100	0.0	
PID		9003.59	DW1	✓	✓	100	0.0	
PID		296	DW2	✓	✓	100	0.0	* recal'd @ 0730 high #s
PID						100		
PDR1000		7793	WZ	✓	✓	NA	NA	
PID		900283	WZ			100		Cal issue

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy Date: 10/4/17 Page ____ of ____

Project Number: 17783 Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center of site	0730	—	23	load soils in truck
center of site	0845	—	4	load soils "
"	0945	—	7	load soils "
"	1045	—	6	prep for next haul

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 22 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0715	0.0	21	52° Winds 2mph SE
DW 1	0715	0.0	106	loads soils to truck for disposal
DW 2	0715	0.0	20	
DW 3				
UW	0830	0.0	17	
DW 1	0830	0.0	12	
DW 2	0830	0.0	19	
DW 3				
UW	0945	0.0	17	58° Winds SSE 8mph
DW 1	0945	0.0	11	load soils - 2nd load
DW 2	0945	0.0	22	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17785

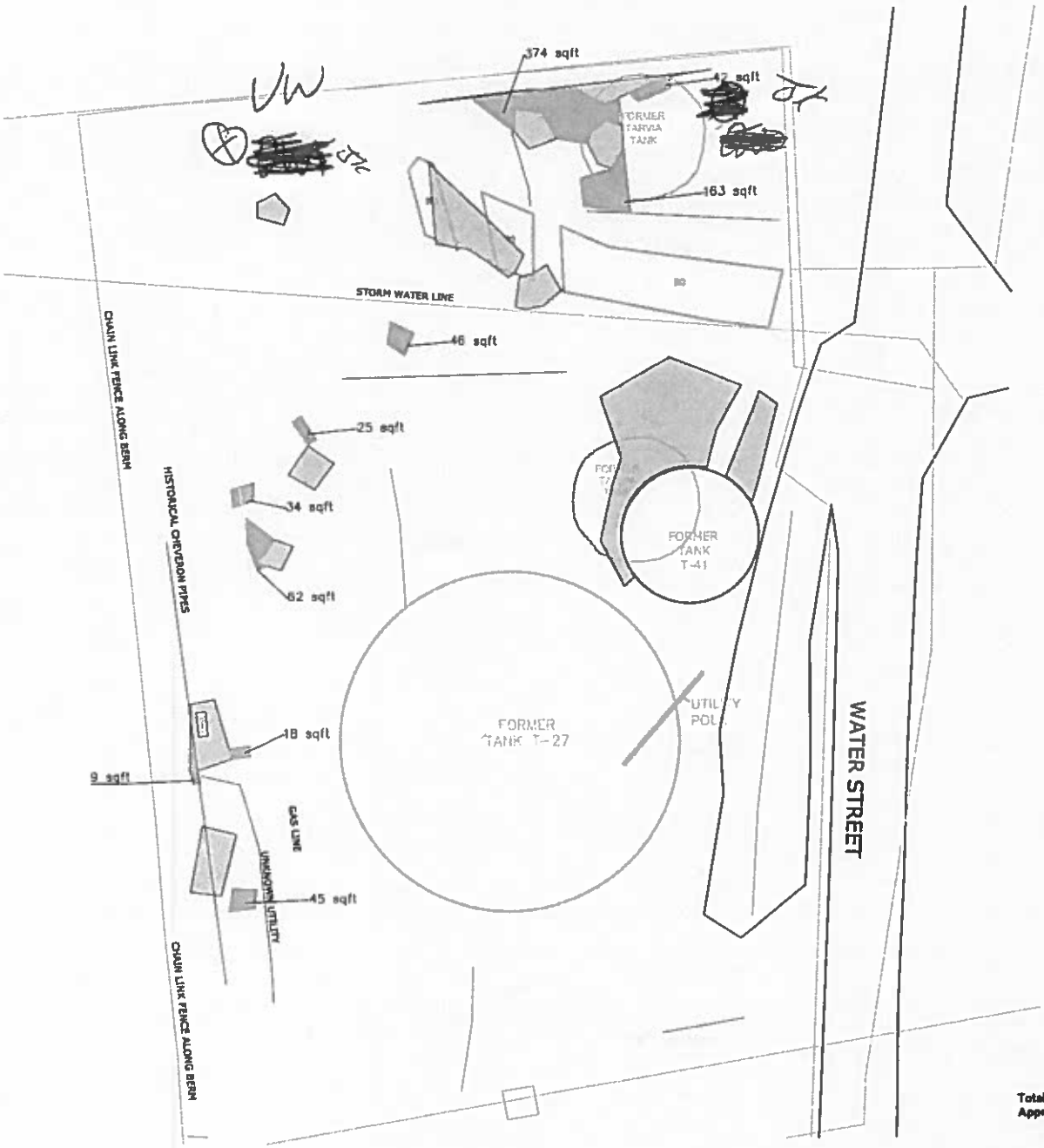
Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 82 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1045	0.0	16	56° SSE winds 6mph
DW 1	1045	0.0	17	prep for next haul
DW 2	1045	0.0	13	
DW 3				
UW	1145	0.0	15	65° SE wind 3mph
DW 1	1145	0.0	11	excav B1
DW 2	1145	0.0	42	
DW 3				
UW	1415	0.0	14	Backfill B1
DW 1	1415	0.0	9	73° SE 6 mph winds
DW 2	1415	0.0	44	
DW 3				



10/11/17
N winds

DW1 DW2

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/11/17
Surveyor: S. Klein

Background: PM_{10} 03 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 103 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 153 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0730	0.1	38	N winds 58° cloudy
DW 1	0730	0.0	46	
DW 2	0736	0.0	62	
~~DW 3~~				
UW	0800	0.0	47	load out soils ~~in tank~~
DW 1	0806	0.0	32	
DW 2	0800	0.0	34	
DW 3				
UW	0900	0.0	31	load out ~~soils / coal tar~~
DW 1	↓	0.0	36	~~in tank~~ soils SD
DW 2	↓	0.0	34	
DW 3	✓			

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/11/17
Surveyor: J. Klein

Background: PM_{10} 3 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 103 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 153 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1015	0.0		prep tank contents for load out,
DW 1	1015	0.0	32	break concrete, DECON pad, prep
DW 2	1015	0.0	34	
DW 3				
UW	1100	0.0	32	biosolve in tank
DW 1	1100	0.0	16	weekly meeting, walkaround
DW 2	1100	0.0	20	
DW 3				
UW	1500	0.0	10	cut tank w/ torch
DW 1	1500	0.0	7	off load scrap metals
DW 2	1500	—	9	in rolloff
DW 3				

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG. S. Troy
Project Number: 17783

Date: 10, 11, 17.
Surveyor: S. Collin

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	—	8530131504	UW	✓	✓	NA	NA	
DustTrak	—	8530131608	DW1	✓	✓	NA	NA	
DustTrak	—	8530113305	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		900283	UW	✓	✓	100	0.0	
PID		900359	DW1	✓	✓	100	0.0	
PID		296	DW2	✓	✓	100	0.0	
PID		~~900283~~				100		
PDR1000			WZ			NA	NA	
PID		900279	WZ	✓	✓	100	0.0	

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy

Date: 10/11/17 Page 1 of 1

Project Number: 17783

Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
W side of tank	0800	0.0	36	load out soils
	0815			* switched WZ & UW PIDs
Around tank	1100	0.0	16	biosolve tank

10/18/17

SW wind

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/12/17
Surveyor: J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	—	8530113305	DW2	✓	✓	NA	NA	
DustTrak	—	8530131603	DW1	✓	✓	NA	NA	
DustTrak		8530131504	UW	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	—	296	DW2	✓	✓	100	0.0	
PID		900359	DW1	✓	✓	100	0.0	
PID		900283	UW			100	0.0	
PID						100		
PDR1000		080-900279	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG. S. Troy
Project Number: 17483

Date: 10/2/17
Surveyor: J. Klein

Background: PM_{10} 8 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 108 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 158 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0800	0.0	~~22~~ 8	Partly cloud 47°
DW 1	0800	0.0	16	uncover tarp over
DW 2	0800	0.0	22	tank
DW 3	0			
UW	0945	0.0	9	scrap tar on tank walls
DW 1	0945	0.0	9	@ 1030 Hotwork begin
DW 2	0945	0.0	8	cut tank walls w/ torch
DW 3				
UW	1245	0.0	9	@ 1230 Hot Work to end
DW 1	1245	0.0	5	1245 load out tank
DW 2	1245	0.0	6	contents
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

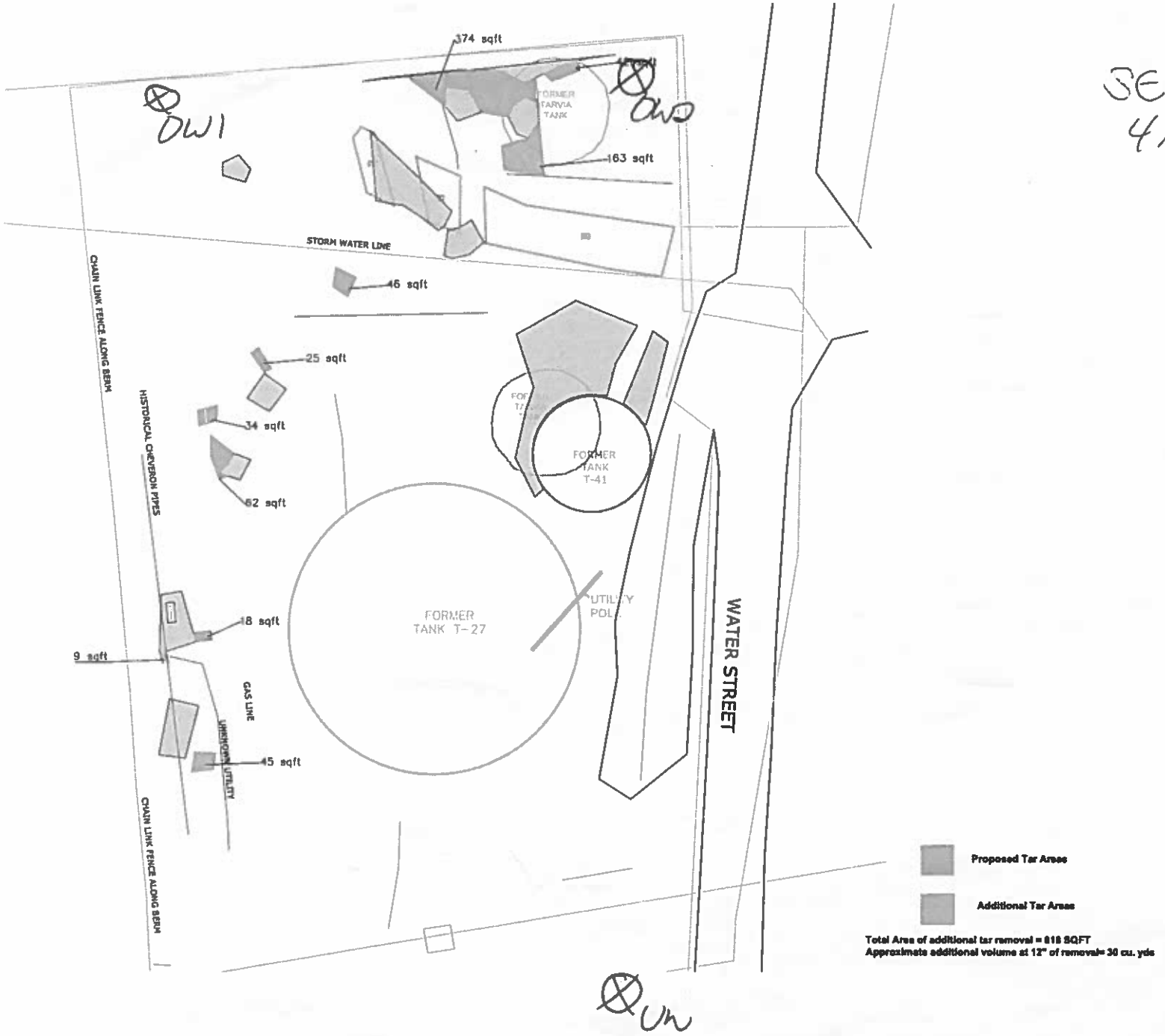
Date: 10/12/17
Surveyor: S. Klein

Background: PM_{10} 8 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 108 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 158 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1445	0.0	7	load out contents
DW 1	1445	0.0	4	of tank
DW 2	1445	0.0	5	
DW 3				
UW				
DW 1				
DW 2				
DW 3				
UW				
DW 1				
DW 2				
DW 3				


10/13/17
SE Wind
4 mph
374 sqft
OW1
OW2
FORMER TARVIA TANK
163 sqft
STORM WATER LINE
46 sqft
CHAIN LINK FENCE ALONG BERM
25 sqft
34 sqft
62 sqft
HISTORICAL CHEVERON PIPES
FORMER TANK T-41
FORMER TANK T-27
UTILITY POL
WATER STREET
18 sqft
9 sqft
GAS LINE
UNKNOWN UTILITY
45 sqft
CHAIN LINK FENCE ALONG BERM
OW
Proposed Tar Areas
Additional Tar Areas
Total Area of additional tar removal = 818 SQFT
Approximate additional volume at 12" of removal= 30 cu. yds

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NGI S-Troy
Project Number: 17755 1

Date: 10/13/17
Surveyor: St Clair

Background: PM_{10} 21 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 121 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 171 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0700	0.0	21	SE Winds 39° Cloudy
DW 1	0800	0.0	11	4 mph - Hot work
DW 2	0800	0.0	13	cut tank
~~DW 3~~				
UW	0900	0.0	9	• Loading up trailer w/materials to go offsite
DW 1	0903	0.0	46	• Cutting Holder up w/Torch
DW 2	0905	0.0	9	
~~DW 3~~				
UW	1041	0.0	4	• Spreading crushed/road
DW 1	1042	0.0	6	• filling up O2 Tank to continue torch cutting
DW 2	1042	0.0	3	
~~DW 3~~				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NB Troy

Project Number: 17783

Date: 10/13/17

Surveyor: Josh. Y

Background: PM_{10} 21 µg/m3 (initial 15-minute upwind STEL)

VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 121 µg/m3 (100µg/m3 above the background)

VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 171 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)

VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1220	0.0	4	
DW 1	1230	0.0	31	Torch cutting holder into pieces
DW 2	1231	0.0	2	
~~DW 3~~				
UW				cutting holder - torch
DW 1	1353	0.0	4	
DW 2	1354	0.0	2	
~~DW 3~~				
UW				
DW 1				
DW 2				
~~DW 3~~				

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: ~~NG COHOES~~ NG - S. Troy

Project Number: ~~17532~~ 11783

Date: 10 / 13 /2017

Surveyor: ~~Joshua Yancy~~ J. Kula

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	~~3004~~ 8530135041	UW	✓	✓	NA	NA	
DustTrak	2	~~3222~~ 8530153003	DW1	✓	✓	NA	NA	
DustTrak	3	~~2431~~ 8531135005	DW2	✓	✓	NA	NA	
DustTrak	(4)Backup	2310	(4)Extra			NA	NA	
PID	1	90022.83 ~~360~~	UW	✓	✓	100		
PID	2	~~361~~ 9003579	DW1	✓	✓	100		
PID	3	296 ~~363~~	DW2	✓	✓	100		
PID	4	~~356~~	Backup			100		
PDR1000			WZ			NA	NA	
PID			WZ			100		

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		10-16-17	6:40		LRI
MIKE HUGO		10-16-17	6:30		LRI
C. Sutherland		10/6/17	6:15		LRI
Bob Hellwig		10-16-17	6:30		LRI
J. Meyer		10.16.17	0630		Colsa
		10-16-17	0645		BC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: ____________ **Date:**__________ **Time:**__________

Briefing Conducted By:	Signature:	Company Name:

Work Tasks to be Performed:

TOPICS COVERED:

☐ General PPE Usage	☐ Site/Facility-specific Guidelines	☐ Emergency Procedures
☐ New Work Procedures	☐ Slips Trips and Falls	☐ Elevated Work Surfaces
☐ Personal Hygiene	☐ Heat/Cold Stress	☐ Construction Safety
☐ HAZCOM Issues	☐ Confined Space Entry	☐ Hearing Conservation
☐ Exposure Guidelines	☐ Severe Weather	☐ Other:__________

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
C. Sutherland	[illegible]	LRI
Bob Hellwig	Bob Hellwig	LRI
Jarod Jegers	[illegible]	BC
[illegible] Jason Klee	[illegible]	[illegible]

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed h the work).
2. Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE: 10/16/17 | JOB NO.:

LOCATION/BUILDING & FLOOR (Be Specific): NA

DESCRIPTION OF WORK BEING PERFORMED: cut tent

NAME OF PERSON DOING HOT WORK: Clark Sutherland

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Permit Authorizing Individual)

SIGNED: _____
(Person doing Hot Work)

TIME STARTED: 0830 AM/PM

TIME ENDED: _____ AM/PM

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- [x] Fire watch may be required for opposite side of walls, above, and below floors and ceilings.

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed: _____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for _____ hour(s) following Hot Work and found fire safe.

Signed: _____

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [x] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [x] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [ ] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields. NA
- [ ] All wall and floor openings covered. Walkways protected beneath hot work. NA

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors. NA
- [ ] Follow confined space guidelines.

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
B Holmes		10-17-17	7:00		LRI
M Hugo		10-17-17	700		LRI
Bob Hellwig		10-17-17	7:00		LRI

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-17-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	[signature]	LRI

Work Tasks to be Performed: assist Finke picking up equipment, finish backfilling over T.41 Concrete Pad, set up Geonex for transport.

TOPICS COVERED:

☑	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other: _____

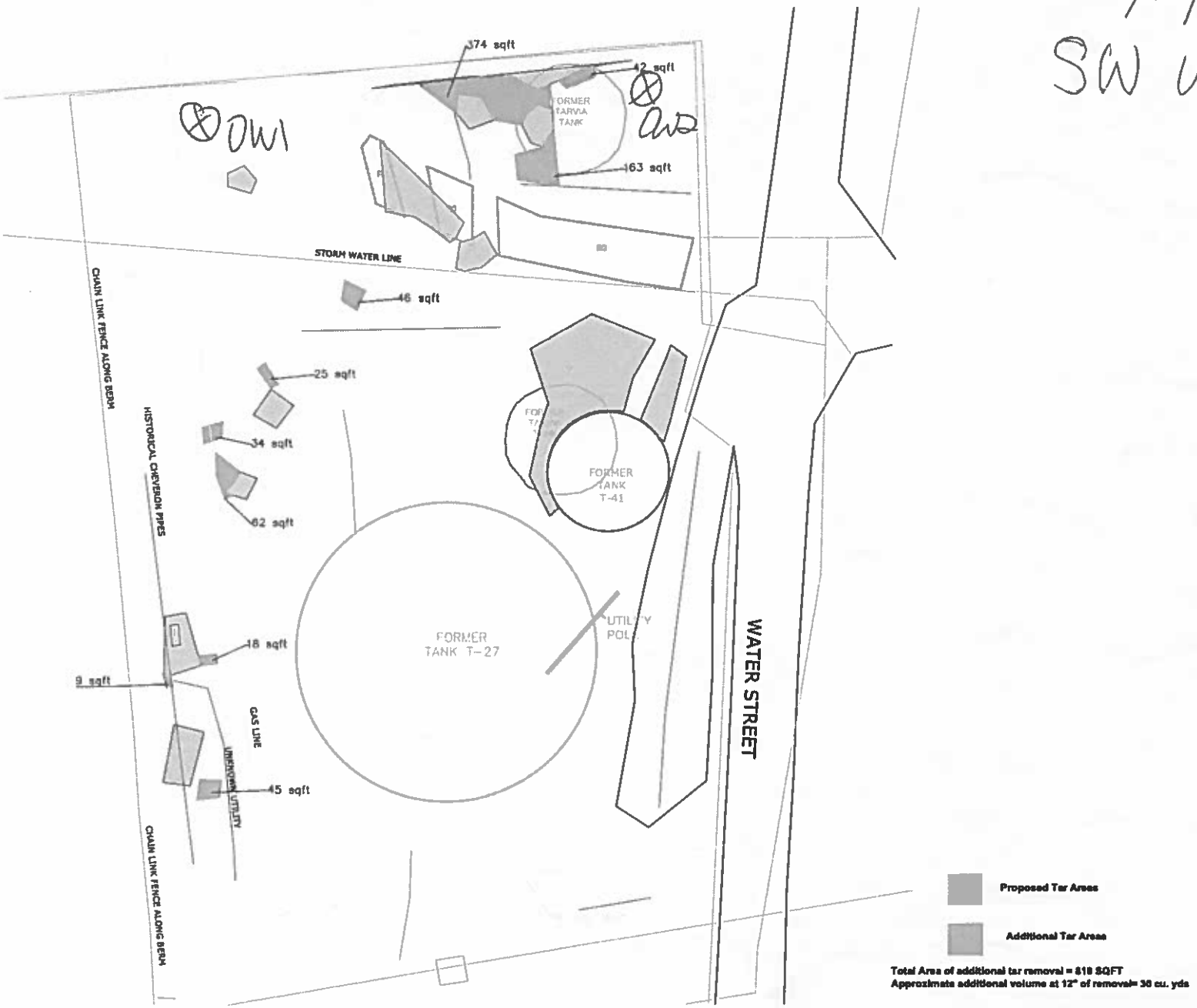
Potential Health and Safety Hazards and Mitigation Measures: Pinch Points- choose where you stand carefully. Traffic control: spotters/flaggers
Truck Rules

Applicable H&S Documents Referenced: Demobilization JSA

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
B. Holmes	[signature]	LRI
M HUGO	[signature]	LRI
Bob Hellwig	[signature]	LRI

10/16/17
SW work



COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: ~~NG COHOES~~ NG. 5 Tray

Project Number: ~~17532~~ 17783

Date: 10/16/2017

Surveyor: ~~Joshua Yancy~~ J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530135011 ~~3004~~	UW	✓	✓	NA	NA	
DustTrak	2	8530135803 ~~3222~~	DW1	✓	✓	NA	NA	
DustTrak	3	8531133305 ~~2431~~	DW2	✓	✓	NA	NA	
DustTrak	(4)Backup	~~2310~~	(4)Extra			NA	NA	
PID	1	~~360~~ 900283	UW	✓	✓	100	0.0	
PID	2	~~361~~ 900359	DW1	✓	✓	100	0.0	
PID	3	~~363~~ 2916	DW2	✓	✓	100	0.0	
PID	4	~~356~~	Backup			100		
PDR1000			WZ			NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17-783

Date: 10/16/17
Surveyor: S. Klein

Background: PM_{10} 2 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 102 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 152 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0830	0.0	2	Hot work SW winds 4 mph
DW 1	0830	0.0	2	cut tank
DW 2	0830	0.0	1	
DW 3				
UW	0930	0.0	1	load tank into roll-off
DW 1	0930	0.0	1	
DW 2	0930	0.0	2	
DW 3				
UW	1100	0.0	1	scrap soil on concrete slab
DW 1	1100	0.0	1	under tank area
DW 2	1100	0.0	2	49°, cloudy SW wind 6 mph
DW 3				

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
GREG Rogers		9/19/17	6:30	3:30	LRI
John Mistry		9-19-17	6:30	4:00	LRI
Brandon Helms		9/19/17	6:40	4:30	LRI
MINDA MURRAY		9-19-17	6:50	"	LRI
Ethan Brady		9-19-17	7:10		LRI
Jason Klein		9/19/17	0645	3:30	Golder
Bob Hellwig		9-19-17	8:00	3:30	LRI
Adam Sherman		9-19-17	8:05	9:00	BHC
Jared Jegen		9/19/17	8:00	3:30	BC
DON SCHULZ		9/19/17	1000	11:00	USIC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER ST **Date:** 9/19/17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes / M. Murray		LRI

Work Tasks to be Performed: Install silt fence, finish building soil bin, make sand bags, begin excavating in soil areas, Dig AB,

"911"
7 Water St. Troy NY.

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☑	Emergency Procedures
☒	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:

Potential Health and Safety Hazards and Mitigation Measures: Exposure to Tar - Keep it off your skin. Becomes soft when hot. Booties/Covers. - Silt Fence - >15' off GAS MAIN - Equipement Inspections. HAND TOOLS Inspections. Lifting - Ergonomics - Biological Hazards Slips, Trips, Falls.

Applicable H&S Documents Referenced:

~ HASP.
JSA - Erosion Control - JSA - General Labor.

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Greg Rogers		LRI
John Moy		LRI
Brandon Holmes		LRI
Ethan Bradt		LRI
Jason Klein		Golden Corp.
Bob Hellwig		LRI
Jarod Jagodzinski		BC
Don Schulz		USIC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Greg Rogers		9/20/17	6:15	5:30	LRI
Brandon Holmes		9/20/17	06:45	5:30	LRI
Linda Murray		9/20/17	06:50	1:00	LRI
Donald Schlegel		9/20/17	700	3:00	USIC
Debra Mroz		9-20-17	6:35	2:30	LRI
Ethan Bridt		9-20-17	6:45	5:30	LRI
Bob Hellwig		9-20-17	6145	5:30	LRI
Jared Jeffrey		9/20/17	700	5:30	BC
Jesse Flint		9/20/17	7:15	5:30	Colden
David Herman		9/20/17	9:51	12:30	NYSDEC
Gerald Cummings		9/20/17	10:00	1:45	NGrid
Paul Fisher		9/20/17	10:00	1:15	SE
Brad Vallie		9/20/17	7:00	2:30	LRI
Adam Sherman		9/20/17	10:30	1:00	B+C

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER **Date:** 9-20-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BC AC	LRI

Work Tasks to be Performed: Begin excavation of Tar Impacted soil area's - stockpile material work around in clockwise progression around site

"911"
7 WATER St. TROY, NY

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☑	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☑	Personal Hygiene	☐	Heat/Cold Stress	☑	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☑	Other: Severe Allergies & Bees Diabetic

Potential Health and Safety Hazards and Mitigation Measures: Keep tar off of skin.
- PPE, HARD HAT, High Vis Vest, Gloves, Safety Glasses, - Equipement - BACKing Up. 360° walk around
- No eating, drinking, smoking in work Area. - Project Meeting - Additional personel on-site.

Applicable H&S Documents Referenced:
HASP, JSA - Excavation - JSA - General Labor

Daily Safety Observation (DSO): ~ Ladder on ground in swing/turning Radius of Equipement. Laborer stopped operator to move Ladder.
~ Radios communication + Verbal

Printed Name	Signature	Company Name
GREG ROGERS		LRI
Brandon Holmes	BC AC	LRI
BRAD VALK	BC Valk	LRI
MINDA MURRAY		LRI
DON SCHULZ	Donald A Schulz	USIC
John May	John May	LRI
Ethan Bedt	Ethan Bedt	LRI
Bob Hellwig	Bob Hellwig	LRI
Jared Jeffery		BC
GERALD CUMMINGS		NGrid
PAUL FISHER		SE

Communication
Confirm Receive
Response

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Bob Hellwig		9-21-17	6:45		LRI
John May		9-21-17	6:40		LRI
Brandon Holmes		9-21-17	6:45		LRI
Greg Rogers		9/21/17	6:00		LRI
Myles Mulcahy		9-21-17	6:45	12:00	LRI
Ethan Bright		9-21-17	6:40		CAT
Sara Klein		9/21	6:45		Calder
Jared Jegg		9/21/17	700		BC
~~Adrian M.~~					

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM 7 WATER ST **Date:** 9-21-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes / Minda Murray		LAND Remediation

Work Tasks to be Performed: Complete excavations - stockpile material, go pick up Hammer/muncher for 228, remove debris from Tank 41, begin scraping tar inside tank 41
Waste dumpster - General Refuse

"911" 7 Water St. TROY NY

TOPICS COVERED:

☑	General PPE Usage (Inside TANK over Boots)	☑	Site/Facility-specific Guidelines	☑	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☒	Heat/Cold Stress - (WATER GATOR Aid)	☑	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☑	Hearing Conservation - (EAR plugs Scraping Concrete)
☒	Exposure Guidelines	☐	Severe Weather	☑	Other: Plexi Glass CAB Windows

Potential Health and Safety Hazards and Mitigation Measures: Open Excavations - Barricade, Fence through site - make man door pathways. Dust - Control - Concrete Processing
Site HouseKeeping

Applicable H&S Documents Referenced: - Equipement - Walk Around 360°
HASP - - Blind Spots - Good communicating Ladder Safety
JSA - HouseKeeping JSA - Fence Barricade

Daily Safety Observation (DSO): - Dropped soils - clean up. Keep clean
- Situational Awarness - See Something SAy Something

Printed Name	Signature	Company Name
Bob Hellwig	Bob Hellwig	LRI
John May	John May	LRI
Brandon Holmes		LRI
GREG Rogers		LRI
MINDA MURRAY	Minda Murray	LRI
Jason Klein		Golden Corp.
Ethan Bradt		LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-22-17	6:50		LRI
Bob Hellwig		9-22-17	6:45		LRI
Greg Rogers		9/22/17	6:15		LRI
John May		9-22-17	6:15		LRI
Jarrod Jeyes		9 22 17	700		BC
Susan Klein		9/22/17	680		Colabs
BRAD VALLIC	BC Vallic	9/22/17	7:30		LRI

LAND Remediation, Inc
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Daily Safety Meeting

Project Name: TROY IRM - 7 WATER ST **Date:** 9-22-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BC AC	LRI

Work Tasks to be Performed: excavate for samples, stockpile material on 1 side of tank for future load out, build DECON PAD/TRACKING PAD, change filters on skid steer, spray foam to cover pile, Receive ~~foam~~ stone to build pad.

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Truck Traffic - Spotters,

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Bob Hellwig	Bob Hellwig	LRI
GREG KAPPS		LRI
Jason Klein		Golder
Jared Jeyaraj		BC
John May		LRI

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an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-25-17	07:00	5:30	LRI
John Mark		9-25-17	6:45	5:30	LRI
Greg Roberts		9/25/17	6:30	5:30	LRI
Jared Jeyes		9/25/17	0700	5:30	LRI
Jason Klein		9/25/17	0645	5:30	LRI
John Spellman		9-25-17	1040	1120	NYSDEC

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Daily Safety Meeting

Project Name: TROY IRM **Date:** 9-25-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes		LRI

Work Tasks to be Performed: backfill excavations, build tracking pad, move Timber into soil pile, switch skid steer from job w/ skid from yard

TOPICS COVERED:

☑	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:

Potential Health and Safety Hazards and Mitigation Measures: Uncovering Pile - careful steps/watch footing, Backfill - control truck traffic backup spotter for truck, Blindspots - back around bridge piers stay out of way.

Applicable H&S Documents Referenced: Backfilling: JSA
Equipment Operation: JSA

Daily Safety Observation (DSO): Speak with drivers about LRI truck rules. Driver last week wanted to drive away w/ box on air. John had to grab him and explain we don't do that on our sites.

Printed Name	Signature	Company Name
John Moy	John Moy	LRI
Brandon Holmes		LRI
Cody Rogers		LRI
Jared Tegan		BC
Jason Keith		Golden

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-26-17	07:00		LRI
Bob Hellwig		9-26-17	7:00		LRI
Landon Wild		9/26/17	0700		
[illegible]		9-26-17	7:55	9:42	Anderson
DAVID HERMAN		9.26.17	9:45	1045	NYSDEC

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Daily Safety Meeting

Project Name: TROY IRM 7 Water St **Date:** 9-26-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BH AL	LRI

Work Tasks to be Performed: continue backfilling "B" excavation between piles, continue excavating between around Tank 41

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: smaller crew - stay focused don't get lax on procedure's. Excavation of impacted material - Keep clean - wear gloves + PPE, Backfill - tight space

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Brandon Holmes	BH HL	LRI
Bob Hellwig	Bob Hellwig	LRI

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Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Mike Hussey		9-27-17	10:00	12:15	LRI
Jared Tegoni		9 27 17	1000	12:15	BC
Brandon Holmes		9-27-17	10:00	12:15	LRI
Will Lindheimer		9-27-17	10:00	12:15	
GERALD CUMMINS		9-27-17	10:00	12:15	NGrid
PAUL FISHER		9/27/17	10:00	12:15	SE
Adam Sherman		9/27/17	10:00	12:15	BC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: No. Water St Trail Team **Date:** 9.27.17 **Time:** 10:00

Briefing Conducted By:	Signature:	Company Name:

Work Tasks to be Performed: Site Meeting. No site work.

TOPICS COVERED:

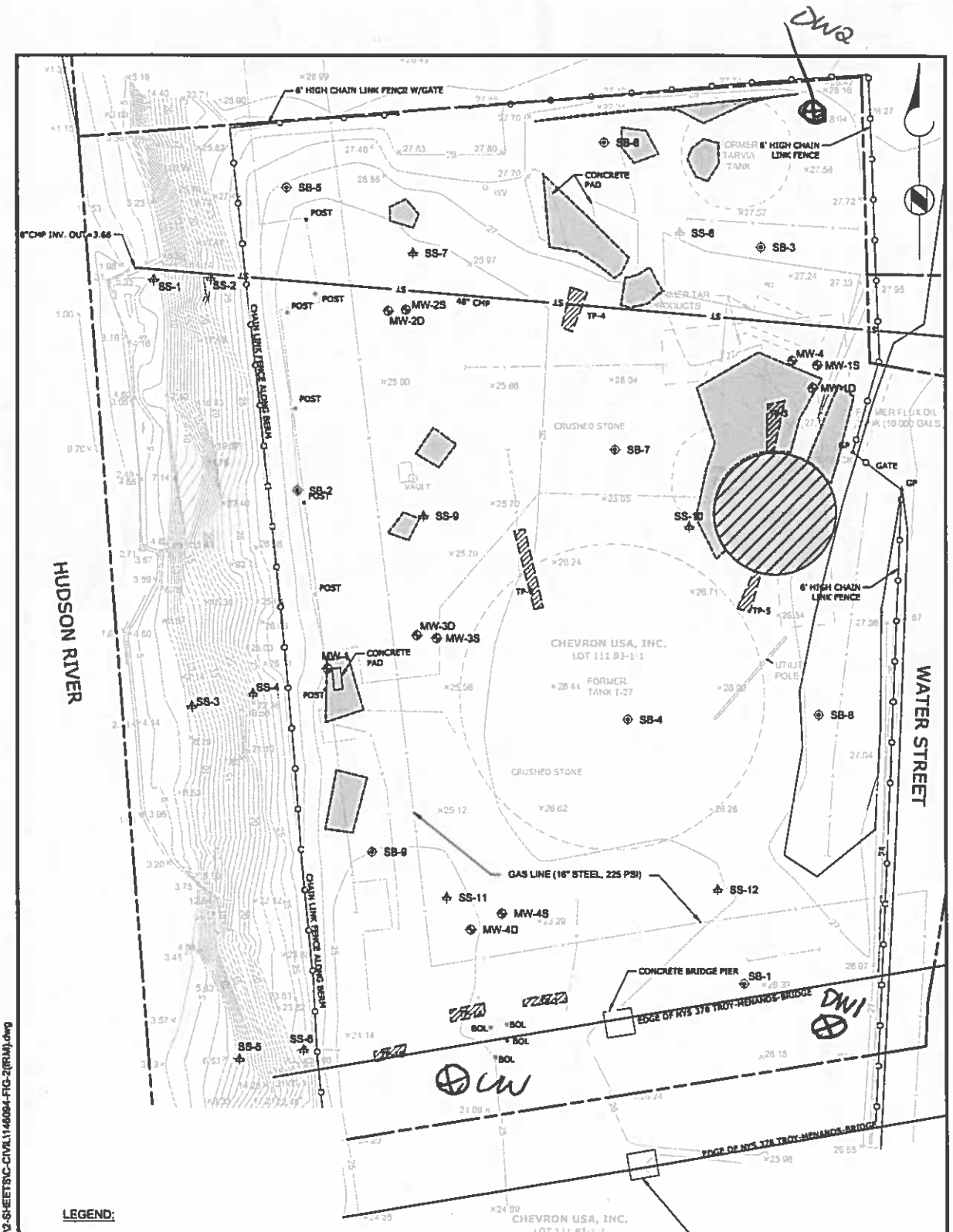
☐	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/19/17

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3 TROY, NEW YORK	DATE 08/16	PROJECT NUMBER 146094
	Brown and Caldwell UPPER SADDLE RIVER, NEW JERSEY	

P:\National_Grid\Nimo_Troy_Area_3\146094_Troy_Area3_RI_CAD\2-SHEETS\C-CIVIL\146094-FIG-2(RIM).dwg

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S Troy

Project Number: 17783

Date: 9/19 ~~/2014~~ 2017

Surveyor: Sean Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530131504	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak	1	8530132434	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	9003.59	9003.59	DW1	✓	✓	100		
PID	7	296	DW2	✓	✓	100		
PID						100		
PID						100		
PDR1000	7793	7793	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid- S Troy
Date: 9/19/17
Page 1 of 1
Project Number: 17783
Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3) mg	Operations and Comments
NW corner	1315	0.0	0.023	surface scrap NW corner
West Central	1423	—	0.002	no activity onsite, getting water

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid - S. Troy
Project Number: 17783

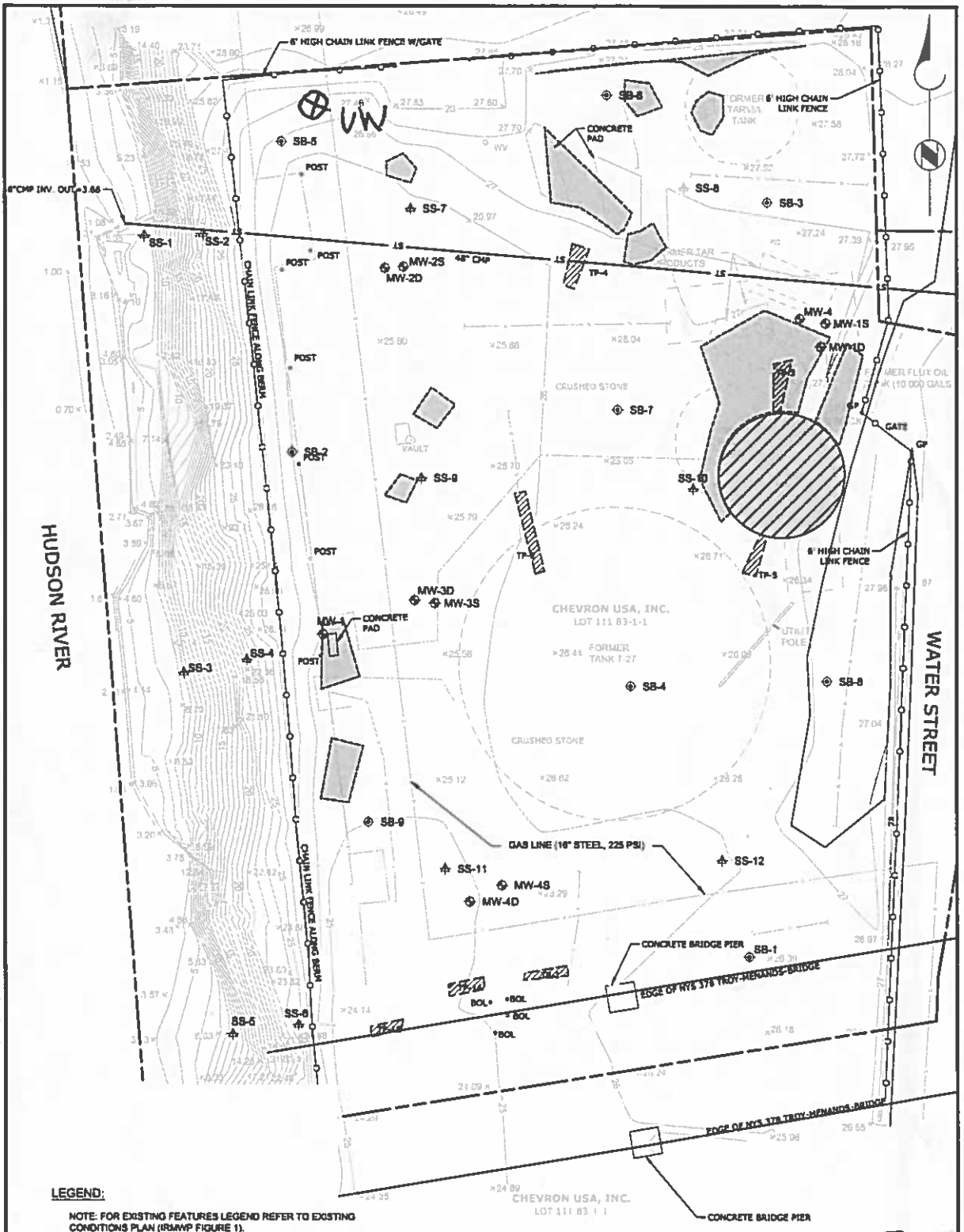
Date: 9/19/17
Surveyor: Jason Klein

Background: PM_{10} 26 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 126 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 176 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1315		0.026	no PID @ UW
DW 1	1315	0.0	0.021	
DW 2	1328	0.0	0.023	frequent traffic, no recent spikes
DW 3				
UW	1423		0.017	
DW 1	1423	0.0	0.018	
DW 2	1425	0.0	0.024	traffic spikes
DW 3				
UW	1525	0.0	0.011	
DW 1	1527	0.0	0.010	
DW 2	1528	0.0	0.029	traffic spikes
DW 3				



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/21/17

NOTES:

1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:

1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3 TROY, NEW YORK	DATE 08/16	PROJECT NUMBER 146094
	Brown and Caldwell UPPER SADDLE RIVER, NEW JERSEY	

P:\National_Grid\Mmo_Troy_Area_3\146094_Troy_Area3_RI_CAD\2-SHEETS\C-CIVIL\146094-FIG-2(IRM).dwg

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S. Troy
Project Number: 17783

Date: 9/21/17
Surveyor: Jason Klein

Background: PM_{10} 49 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 149 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 199 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1430	0.0	26	sunny 74° N winds
DW 1	1430	0.0	33	breaking cement in tank
DW 2	1430	0.0	34	
DW 3				
UW	1530	0.0	22	sunny, N winds 79°
DW 1	1530	0.0	26	breaking concrete in tank
DW 2	1530	0.0	29	biosolve spray
DW 3				
UW	1630	0.0	22	↑
DW 1	1630	0.0	26	no activity
DW 2	1630	0.0	29	↓
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S-Tray
Project Number: 17783

Date: 9/21/17
Surveyor: Joan Klein

Background: PM_{10} 49 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 149 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 199 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1130	0.0	30	
DW 1	1130	0.0	42	
DW 2	1130	0.0	39	
DW 3				
UW	1230	0.0	23	
DW 1	1230	0.0	31	
DW 2	1230	0.0	32	
DW 3				
UW	1330	0.0	26	
DW 1	1330	0.0	34	visible dust from moving equipment & non-contaminated areas
DW 2	1330	0.0	34	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid - S. Troy
Project Number: 17783

Date: 9/21/17
Surveyor: Jason Klein

Background: PM_{10} 49 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 149 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 199 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0824	0.0	49	wind N → SE
DW 1	0831	0.0	65	Overcast 70±
DW 2	0830	0.0	64	
~~DW 3~~				
UW	0930	0.0	40	wind N→SE
DW 1	0930	0.0	56	overcast 70°
DW 2	0930	0.0	51	
DW 3				
UW	1030	0.0	31	
DW 1	1030	0.0	52	
DW 2	1030	0.0	39	
~~DW 3~~				

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid - S. Troy Date: 9/21/17 Page 1 of 1

Project Number: 7165 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
by stockpile	0823	0.0	36	excavation
stockpile	0930	0.0	26	"
stockpile	1030	0.0	20	"
tank/in cab	1130	0.0	6	in cab excavator
in cab	1330	0.0	328	hammer concrete in tank
in cab/around tank	1430	0.0	0	" , using water spray
around tank/cab	1530	0.0	26	" "
stockpile	1630	00	0.0	no activity

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

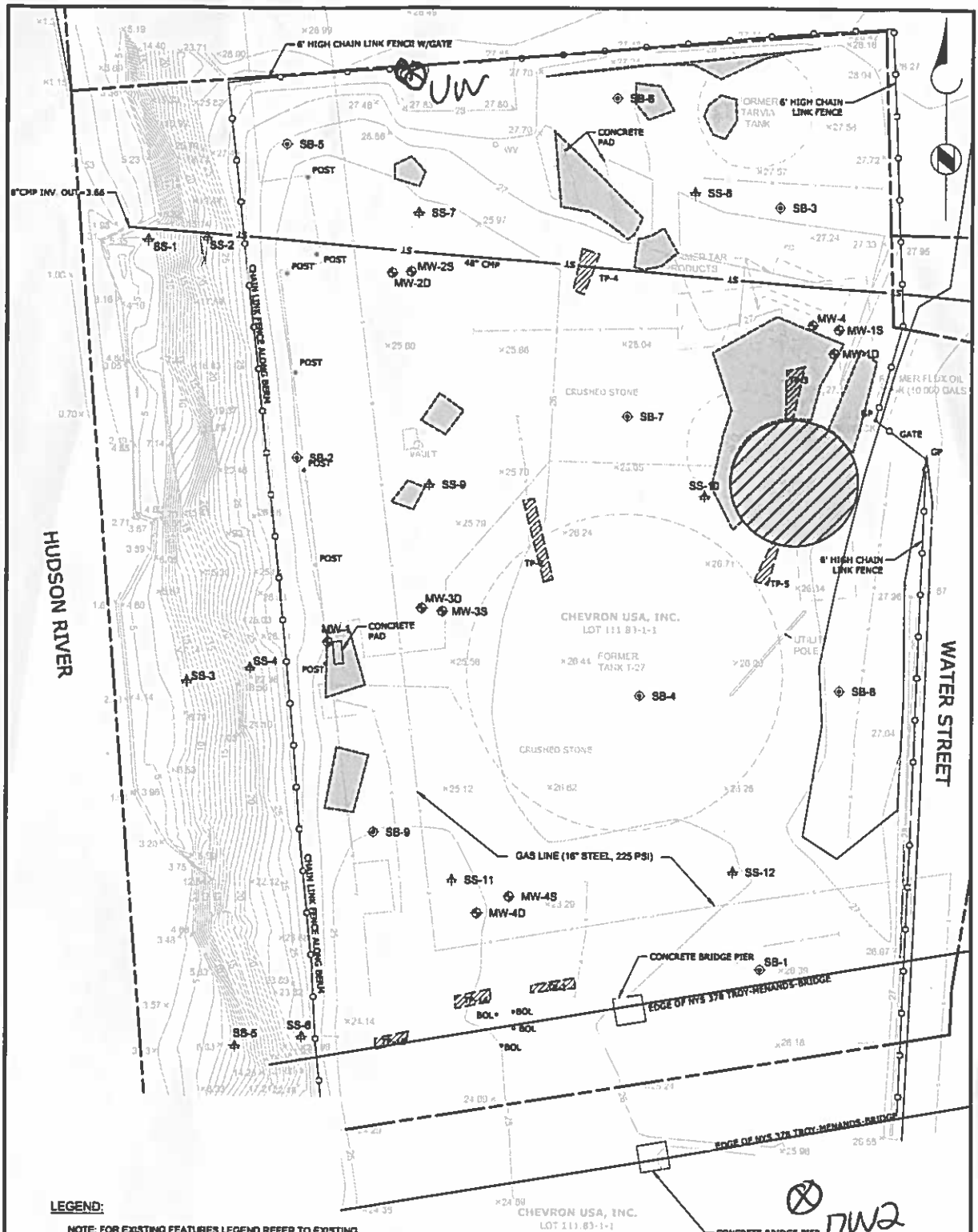
Project Name: National Grid - S. Troy

Project Number: 17783

Date: 9/21/2017

Surveyor: Jason Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530135O4	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak	1	8530132341	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		080900279	UW	✓	✓	100		
PID		9003.59	DW1	✓	✓	100		
PID	1	096	DW2	✓	✓	100		
PID						100		
PDR1000	7793	7793	WZ	✓	✓	NA	NA	
PID		900283	WZ	✓	✓	100		



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/22/17

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3
TROY, NEW YORK

DATE: 08/16

PROJECT NUMBER: 146094

Brown and Caldwell

UPPER SADDLE RIVER, NEW JERSEY

P:\National_Grid\Reimo_Troy_Area_3\146094_Troy_Area3_RI_CADD\2-SHEETS\C-CIVIL\146094-FIG-2(IRM).dwg

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S Troy
Project Number: ~~17763~~

Date: 9/22/17
Surveyor: Joan Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530132434	DW2	✓	✓	NA	NA	partly cloudy
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	N winds
DustTrak	4	8530131504	UW	✓	✓	NA	NA	~~59~~ °
DustTrak						NA	NA	
PID	1	296	DW2	✓	✓	100		
PID	—	9003.59	DW1	✓	✓	100		
PID	—	080-900279	UW	✓	✓	100		
PID						100		
PDR1000	~~7793~~	7793	WZ	✓	✓	NA	NA	
PID	—	900283	WZ	✓	✓ (3x)	100		not zeroing, alarm @ work zone, cal problems

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17763

Date: 9/22/14
Surveyor: Jason Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1200	0.0	22	prep equipment/site
DW 1	1200	0.0	29	Sunny N. winds 10 mph
DW 2	1200	0.0	22	72°
DW 3				
UW	1300	0.0	22	move concrete slabs to tank
DW 1	1300	0.0	48	prep pad decon
DW 2	1300	0.0	34	
DW 3				
UW	1400	0.0	22	Sunny 72°
DW 1	1400	0.0	25	N wind 10 mph
DW 2	1400	0.0	69	blowing a lot of dust (non HAZ)
DW 3				
UW	1500	0.0	18	Spray foam on tank
DW 1	1500	0.0	24	
DW 2	1500	0.0	48	

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17783

Date: 9/22/17
Surveyor: Jason K. Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0815	0.0	27	Excav / spray tank contents
DW 1	0815	0.0	37	"
DW 2	0815	0.0	44	"
DW 3				
UW	1000	0.0	22	"
DW 1	1000	0.0	27	"
DW 2	1000	0.0	35	"
DW 3				
UW	1100	0.0	22	munch stone / RR ties
DW 1	1100	0.0	30	delivery gravel
DW 2	1100	0.0	44	
DW 3				

UW
DW1
DW2

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid STay Date: 9/22/17 Page 1 of 1
Project Number: 17783 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
tank	0830	0.0	7	excav / spray tank
"	1000	0.0	0.0	" "
A6 Munch cement	1100	0.0	0.0	high dust Munch stone / cement took break
tank, middle	1200	0.0		DataRAM battery died, gravel delivery
A6, tank	1300	0.0	34	more concrete to tank broken
gravel pile	1400	0.0	>1000 then down	large spikes, dusty (non HAZMAT)

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		9-22-17	6:50		LRI
Bob Hellwig		9-22-17	6:45		LRI
Greg Rogers		9/22/17	6:15		LRI
John May		9-22-17	6:15		LRI
Jarrod Jeyes		9 22 17	700		BC
Susan Klein		9/22/17	680		Colabs
BRAD VALLIC	BC Vallic	9/22/17	7:30		LRI

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM - 7 WATER ST **Date:** 9-22-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BC AC	LRI

Work Tasks to be Performed: excavate for samples, stockpile material on 1 side of tank for future load out, build DECON PAD/TRACKING PAD, change filters on skid steer, spray foam to cover pile, Receive ~~foam~~ stone to build pad.

TOPICS COVERED:

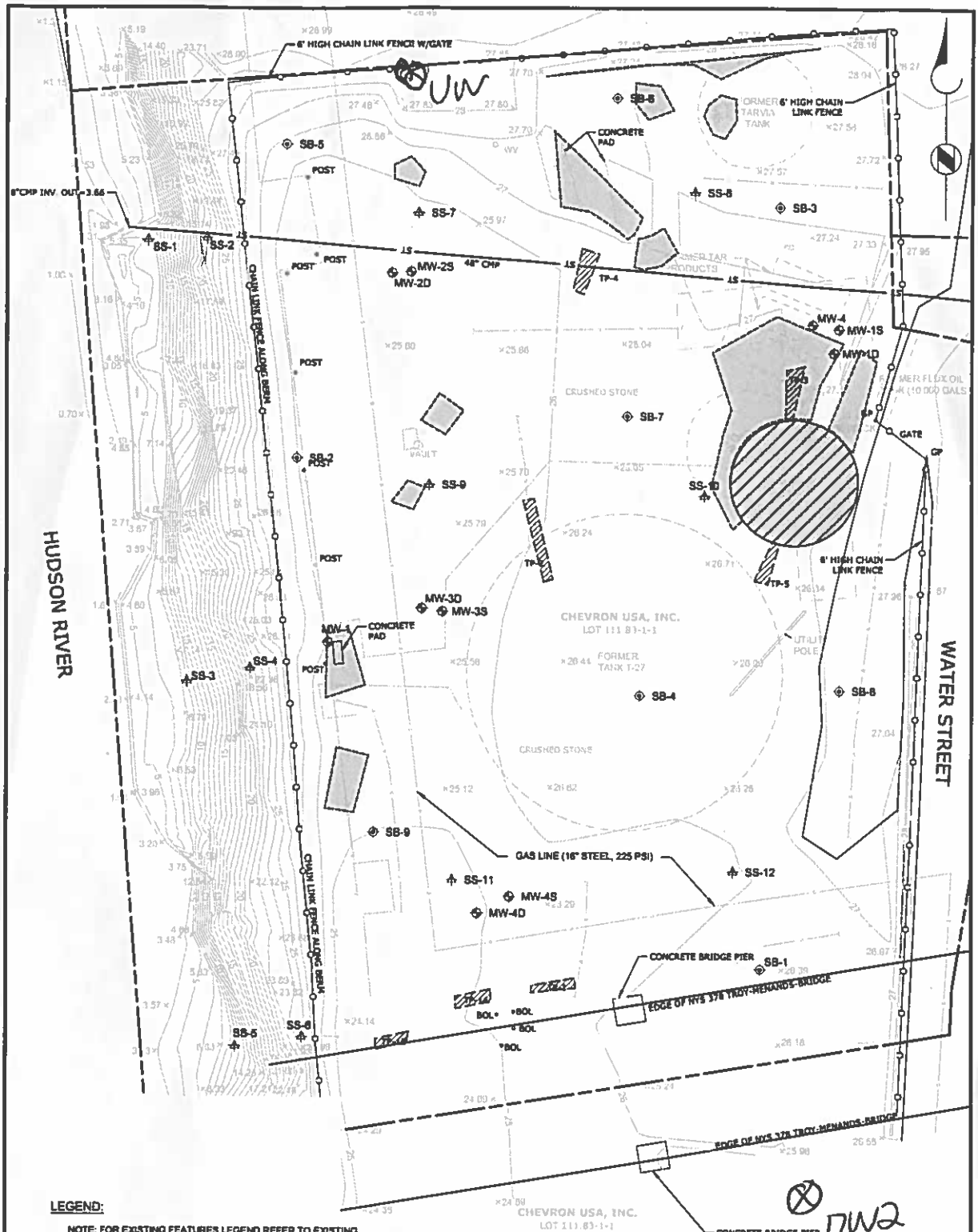
☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Truck Traffic - Spotters,

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Bob Hellwig	Bob Hellwig	LRI
GREG KAPPS		LRI
Jason Klein		Golder
Jared Jeyaraj		BC
John May		LRI



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (IRMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

0 30 60

SCALE IN FEET

9/22/17

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3
TROY, NEW YORK

DATE: 08/16

PROJECT NUMBER: 146094

Brown and Caldwell

UPPER SADDLE RIVER, NEW JERSEY

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COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S Troy
Project Number: ~~17763~~

Date: 9/22/17
Surveyor: Joan Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530132434	DW2	✓	✓	NA	NA	partly cloudy
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	N winds
DustTrak	4	8530131504	UW	✓	✓	NA	NA	~~59~~ °
DustTrak						NA	NA	
PID	1	296	DW2	✓	✓	100		
PID	—	9003.59	DW1	✓	✓	100		
PID	—	080-900279	UW	✓	✓	100		
PID						100		
PDR1000	~~7793~~	7793	WZ	✓	✓	NA	NA	
PID	—	900283	WZ	✓	✓ (3x)	100		not zeroing, alarm @ work zone, cal problems

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17763

Date: 9/22/14
Surveyor: Jason Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1200	0.0	22	prep equipment/site
DW 1	1200	0.0	29	Sunny N. winds 10 mph
DW 2	1200	0.0	22	72°
DW 3				
UW	1300	0.0	22	move concrete slabs to tank
DW 1	1300	0.0	48	prep pad decon
DW 2	1300	0.0	34	
DW 3				
UW	1400	0.0	22	Sunny 72°
DW 1	1400	0.0	25	N wind 10 mph
DW 2	1400	0.0	69	blowing a lot of dust (non HAZ)
DW 3				
UW	1500	0.0	18	Spray foam on tank
DW 1	1500	0.0	24	
DW 2	1500	0.0	48	

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid S Troy
Project Number: 17783

Date: 9/22/17
Surveyor: Jason K. Klein

Background: PM_{10} 27 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 127 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 177 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0815	0.0	27	Excav / spray tank contents
DW 1	0815	0.0	37	"
DW 2	0815	0.0	44	"
DW 3				
UW	1000	0.0	22	"
DW 1	1000	0.0	27	"
DW 2	1000	0.0	35	"
DW 3				
UW	1100	0.0	22	munch stone / RR ties
DW 1	1100	0.0	30	delivery gravel
DW 2	1100	0.0	44	
DW 3				

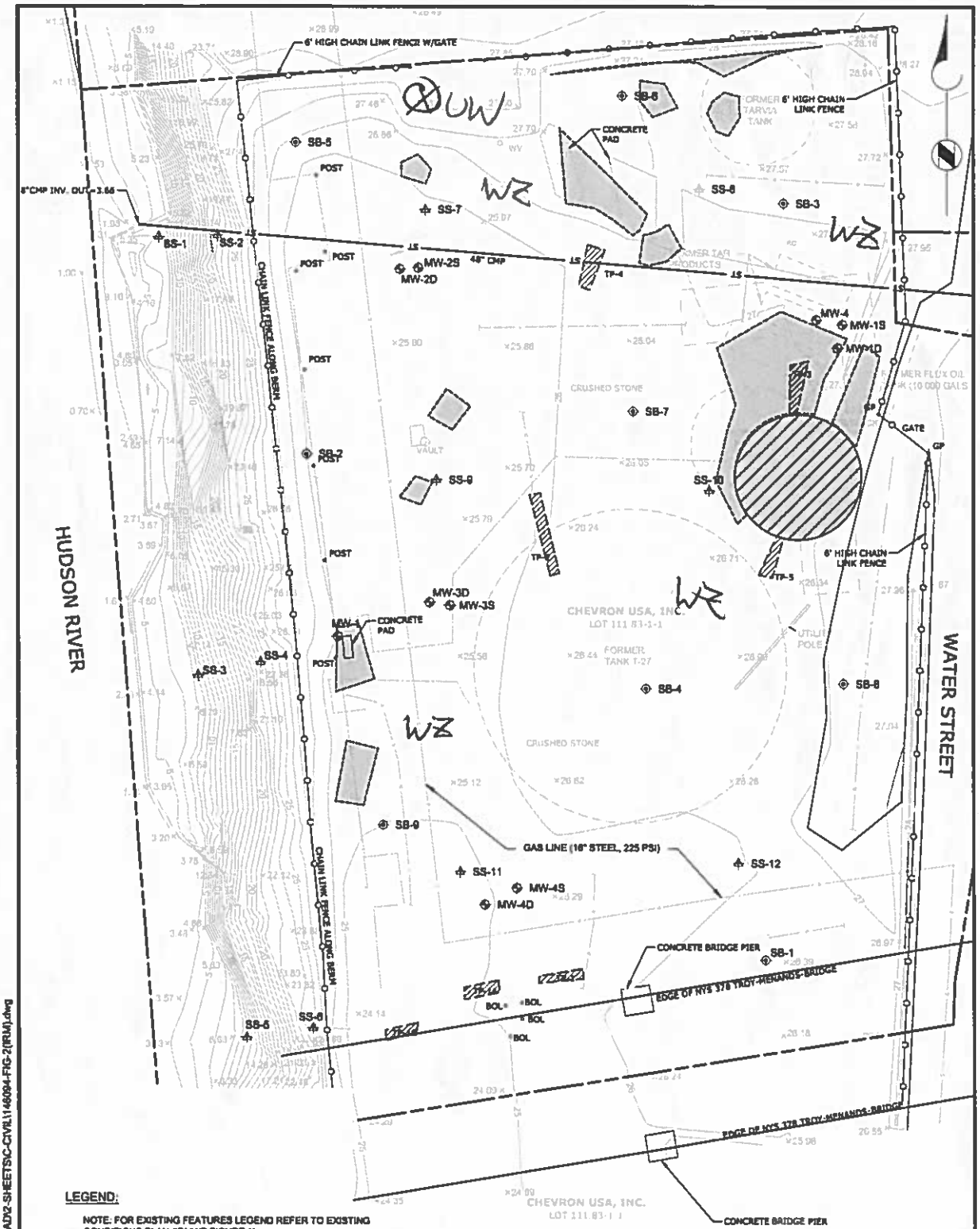
UW
DW1
DW2

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid STay Date: 9/22/17 Page 1 of 1
Project Number: 17783 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
tank	0830	0.0	7	excav / spray tank
"	1000	0.0	0.0	" "
A6 Munch cement	1100	0.0	0.0	high dust Munch stone / cement took break
tank, middle	1200	0.0		DataRAM battery died, gravel delivery
A6, tank	1300	0.0	34	more concrete to tank broken
gravel pile	1400	0.0	>1000 then down	large spikes, dusty (non HAZMAT)



LEGEND:

NOTE: FOR EXISTING FEATURES LEGEND REFER TO EXISTING CONDITIONS PLAN (RIMWP FIGURE 1).

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

DW2

0 30 60

SCALE IN FEET

9/25/17

DW1

NOTES:
1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:
1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2015) AND C.T. MALE ASSOCIATES, P.C. (JUNE 15, 2015).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 2
INTERIM REMEDIAL MEASURES PLAN

TROY (WATER ST.) SITE - AREA 3
TROY, NEW YORK

DATE: 08/16
PROJECT NUMBER: 146094

Brown and Caldwell
UPPER SADDLE RIVER, NEW JERSEY

P:\National_Grid\Memo_Troy_Area_3\146094_Troy_Area3_RI_CAD\2-SHEETS\C-CIVIL\146094-FIG-2(RIM).dwg

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: National Grid - S. Troy
Project Number: ~~7783~~ 7793

Date: 9/25/17
Surveyor: Jason Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530132434	DW2	3%	✓	NA	NA	Need to recharge batteries
DustTrak	7	8530131603	DW1	2%	✓	NA	NA	in morning
DustTrak	4	8530131504	UW	3%	✓	NA	NA	↓
DustTrak						NA	NA	
PID	1	296	DW2	✓	✓	100		recharging
PID	—	900359	DW1	✓	✓	100		↓
PID	—	080-900279	UW	✓	✓	100		
PID						100		
PDR1000	~~7793~~	7793	WZ	✓	✓	NA	NA	
PID	—	900283	WZ	✓	✓	100		multiple cals

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: National Grid - S. Troy
Project Number: 17783

Date: 9/25/17
Surveyor: Jason Klein

Background: PM_{10} 39 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 139 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 189 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1015	0.0	39	sunny, N winds 5mph, 81°, humid
DW 1	1045	0.0	45	"
DW 2	1045	0.0	59	"
DW 3				
UW	1145	0.0	40	accept delivery, install backfill
DW 1	1145	0.0	41	"
DW 2	1145	0.0	ERROR	cal error - high #s
DW 3				
UW	1245	0.0	38	86°, sunny, 4mph N winds
DW 1	1245	0.0	41	
DW 2	1245	0.0	ERROR	cal error
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Toy
Project Number: 17783

Date: 9/25/17
Surveyor: Jason Klein

Background: PM_{10} 39 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 139 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 189 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1345	0.0	34	86°, sunny, 4mph N winds
DW 1	1348	0.0	34	
DW 2	1348	0.0	ERROR	cal error
DW 3				@ 1545 changed DW2
UW				monitor to SN-8530113305
DW 1				Zero Cal - ✓
DW 2				Battery check - ✓
DW 3				
UW	1545	0.0	31	new dustrak. clean soil &
DW 1	1545	0.0	32	excav.
DW 2	1545	0.0	42	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG S Tom
Project Number: 17783

Date: 9/25/17
Surveyor: Sean Klein

Background: PM_{10} 39 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 139 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 189 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1645	0.0	29	install clean fill
DW 1	1645	0.0	31	excav complete
DW 2	1645	0.0	59	
DW 3				
UW				
DW 1				
DW 2				
DW 3				
UW				
DW 1				
DW 2				
DW 3				

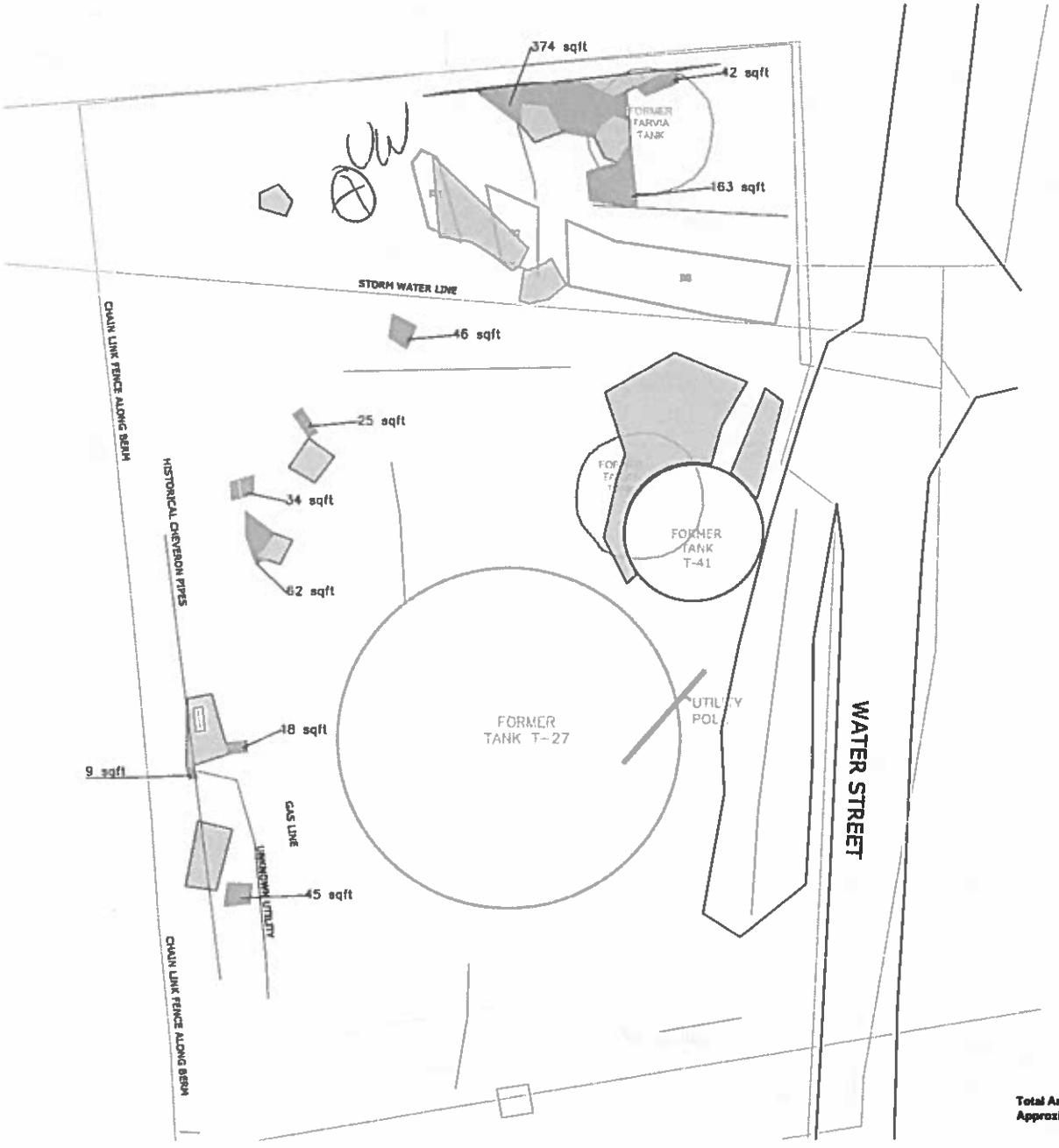
COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid-S. Tray Date: 9/05/17 Page 1 of 1

Project Number: 17783 Surveyor: Jason Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
SW of sight	0845	0.0	10	prep equipment
SW behind Conex	0945	—	0.0	recal PID
SW A1 & A2	1045	—	0.0	recal, install clean fill
SW/NE stockpile	1145	0.0	12	install clean fill
SW/NE stockpile	1245	0.0	0.0	"
N of site	1345	0.0	4	clean fill install


374 sqft
42 sqft
FORMER FARVIA TANK
163 sqft
STORM WATER LINE
46 sqft
CHAIN LINK FENCE ALONG BERM
25 sqft
34 sqft
62 sqft
HISTORICAL CHEVRON PIPES
FORMER TANK T-41
FORMER TANK T-27
UTILITY POL
WATER STREET
18 sqft
9 sqft
GAS LINE
UNKNOWN UTILITY
45 sqft
CHAIN LINK FENCE ALONG BERM
Proposed Tar Areas
Additional Tar Areas
Total Area of additional tar removal = 818 SQFT
Approximate additional volume at 12" of removal= 36 cu. yds

9/26/17

DW2

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG - S. Tray

Project Number: _____

Date: 9/26/17

Surveyor: _____

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	7	8530131603	DW1	see note	✓	NA	NA	battery low in morning
DustTrak		8530113305	DW2	✓	✓	NA	NA	
DustTrak		8530131504	UW	see note	✓	NA	NA	low battery in am
DustTrak						NA	NA	
PID	—	9003.59	DW1	✓	✓	100	0.0	
PID	—	296	DW2	✓	✓	100	0.0	
PID		080-900279	UW	✓	✓	100	0.0	
PID						100		
PDR1000		7793	WZ	✓	✓	NA	NA	
PID		900283	WZ	✓	✓	100	0.0	multiple cals to zero

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: National Grid-S. Troy Date: 9/26/17 Page 1 of 1

Project Number: 17783 Surveyor: Savannah Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
AG & stockpile	0845	0.0	36	prep site, delivery, backfill
Stockpile, tank	0915	0.0	63	delivery, gravel, backfill
"	0945	0.0	25	"
stockpile, tank	1045	0.0	17	install gravel / backfill

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 9/26/17
Surveyor: ~~Susan~~ Klein

Background: PM_{10} 36 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 136 µg/m3 (100µg/m3 above the background)
VOC 0.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 186 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 0.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW				battery issue w/ UW & DW1
DW 1				only site prep (set up DW2 & W3)
DW 2	0845	0.0	61	Hazy 69° 2mph N winds
DW 3				
UW	0945	0.0	51	install gravel & backfill
DW 1	0945	0.0	39	"
DW 2	0945	0.0	48	"
DW 3				
UW	1045	0.0	40	install gravel & backfill
DW 1	1045	0.0	36	"
DW 2	1045	0.0	43	"
~~DW 3~~				

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Jarod Jessup		10/2/17	1000		BC
Brandon Holmes		10/2/17	10:00		LRI
B. Helbing					
J. May					
G. Rogers					

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10/2/17 **Time:** 9

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BH AC	LRI

Work Tasks to be Performed: deliver bags of LKD to site, use pickup towing trailer to deliver materials to water street from kingston

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☒	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Brandon Holmes	BH AC	LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes	BLHR	10/3/2017	11:00	3:00	LRI

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10/3/17 **Time:** 10:50

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes		LRI

Work Tasks to be Performed: Load NON-HAZ material into Longhorn trucks, cover/un-cover pile, 2 trucks loaded

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Pinch Points: Do not enter between truck & excavator. Suspended Load: do not approach excavator or enter truck zone w/out Eye Contact + signal (NO RADIOS TODAY)

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO): Traffic Control Critical w/ trucks entering side in reverse and heavy traffic intersection. Good drivers very helpful

Printed Name	Signature	Company Name
Brandon Holmes		LRI
Jason Klein		Colden
Jared Jeyes		BC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		10/4/17	0630	3:30	LRI
BRAD Kapke		10/	6:40		LRI
Jason Muir		10/4/17	0630		[illegible]
Jared Jeyaj		10/4/17	0630		BC
Peter Gisheck		10/4/17	10:00	✓	SE
GERALD Cummins		10/4/17	10:20		NGrid
DBISnap		10/4/17	10:40	11:50	LRI
B Hall					
J May					

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROV IRM **Date:** ~~10/3/11~~ 10/4/11 **Time:** 06:30

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BH AC	LRI

Work Tasks to be Performed: load haul trucks-Longhorn, excavate remaining area B, consolidat pile as material loaded out.

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:

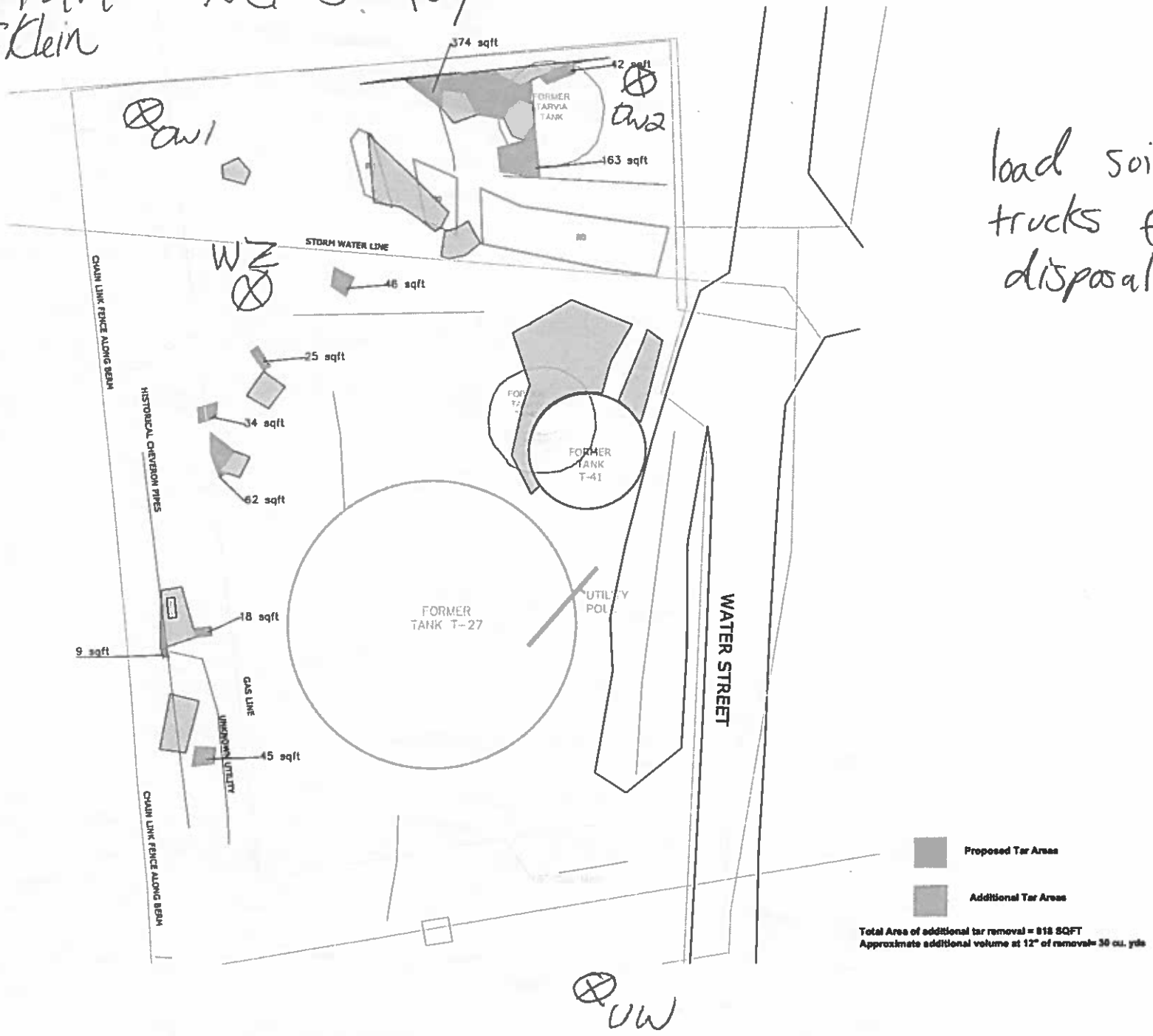
Potential Health and Safety Hazards and Mitigation Measures: Communication: speak w/ driver about preferred route into/out of site. Radio Contact: communicate before checking truck bed Traffic Control: spotter/flagger

Applicable H&S Documents Referenced: SOP: Truck loading. MSDS: LKD - keep off of skin and out of eyes can dry you out

Daily Safety Observation (DSO): Have enough crew to fulfill the task. shorthanded yesterday Brandon lone man could have used help.

Printed Name	Signature	Company Name
Brandon Holmes	BH AC	LRI
Bob Hellwig	Bob Hellwig	LRI
John Mosy	John Mosy	LRI
GREG Rogers		LRI
Brian Allen		C Allen
Jared Jogna	Jared Jogna	BC
Paul Fisher		SE
Gerald Cummins		NGrid
Adam Sherman		BC
Danielle Bishop	Danielle Bishop	LAND

10/3/17 NG. S. Troy
S. Klein



load soils to trucks for disposal

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG- S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: S. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak				✓	✓	NA	NA	
DustTrak	4	8530131502	UW	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		9003.59	DW1	✓	✓	100	0.0	
PID	—	296	DW2	✓	✓	100	0.0	
PID		080-900279	UW	✓	✓	100	0.0	
PID						100		
PDR1000	7795	7793	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy
Project Number: 144183

Date: 10/3/14 Page 1 of 1
Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center site	1200	–	0.0	load stockpile to truck
"	1300	–	0.0	"

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: J. Klein

Background: PM_{10} 11 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

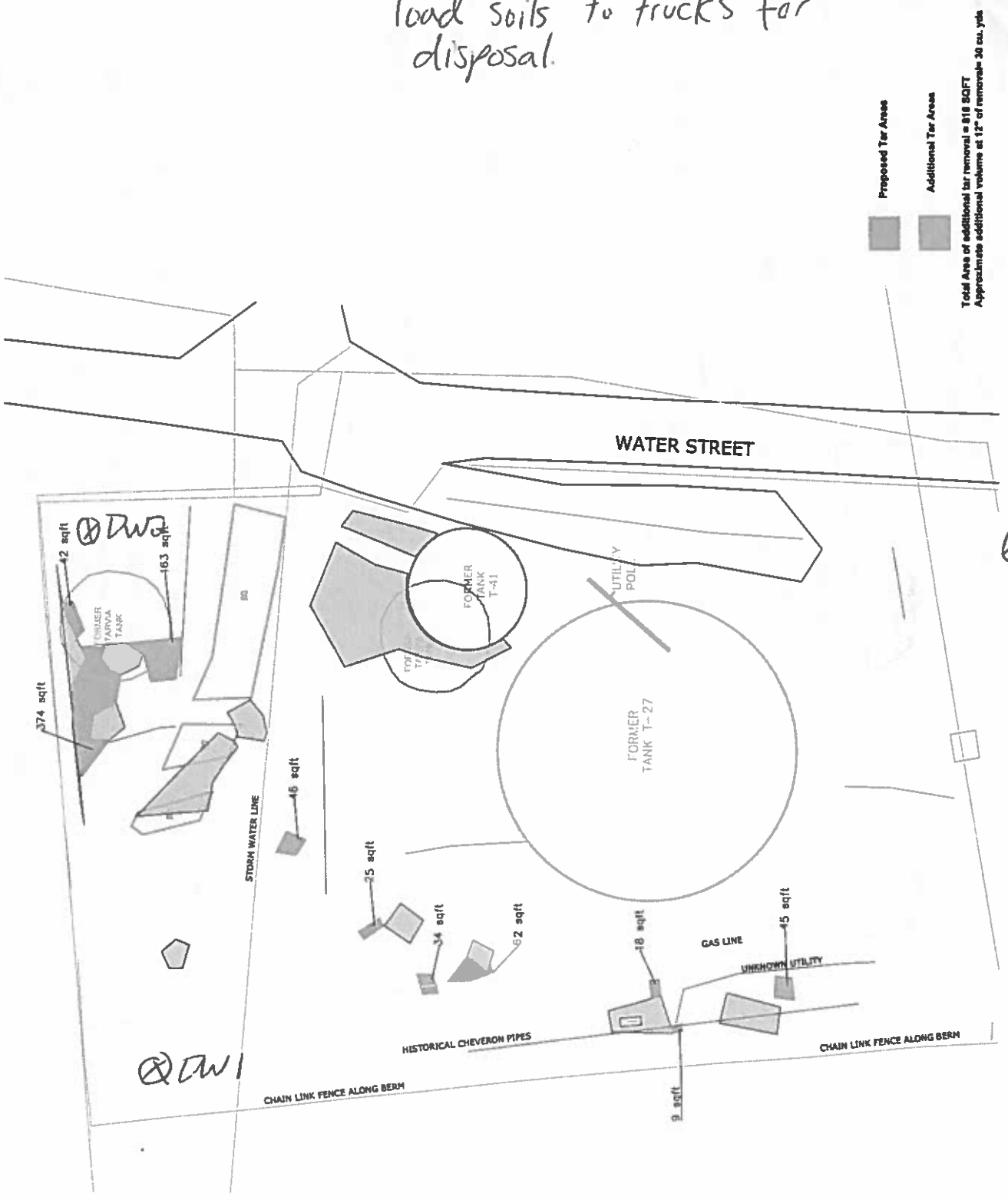
Action Levels: PM_{10} 111 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 161 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1145	0.0	11	Wind 5mph SSE
DW 1	1145	0.0	11	sunny 66°
DW 2	1145	0.0	10	
DW 3				
UW	1245	0.0	11	load stockpile soils in trucks
DW 1	1245	0.0	6	for disposal
DW 2	1245	0.0	31	
DW 3				
UW	1345	0.0	10	"
DW 1	1345	0.0	6	"
DW 2	1345	0.0	16	"
DW 3				

10/4/17

load soils to trucks for disposal.



COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG-S. Troy

Project Number: 17783

Date: 10/4/17

Surveyor: J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530131504	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak		8530113305	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	—	080-900279	UW	✓	—	100	0.0	
PID		9003.59	DW1	✓	✓	100	0.0	
PID		296	DW2	✓	✓	100	0.0	* recal'd @ 0730 high #s
PID						100		
PDR1000		7793	WZ	✓	✓	NA	NA	
PID		900283	WZ			100		Cal issue

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy Date: 10/4/17 Page ____ of ____

Project Number: 17783 Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center of site	0730	—	23	load soils in truck
center of site	0845	—	4	load soils "
"	0945	—	7	load soils "
"	1045	—	6	prep for next haul

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 22 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0715	0.0	21	52° Winds 2mph SE
DW 1	0715	0.0	106	loads soils to truck for disposal
DW 2	0715	0.0	20	
DW 3				
UW	0830	0.0	17	
DW 1	0830	0.0	12	
DW 2	0830	0.0	19	
DW 3				
UW	0945	0.0	17	58° Winds SSE 8mph
DW 1	0945	0.0	11	load soils - 2nd load
DW 2	0945	0.0	22	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17785

Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 82 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1045	0.0	16	56° SSE winds 6mph
DW 1	1045	0.0	17	prep for next haul
DW 2	1045	0.0	13	
DW 3				
UW	1145	0.0	15	65° SE wind 3mph
DW 1	1145	0.0	11	excav B1
DW 2	1145	0.0	42	
DW 3				
UW	1415	0.0	14	Backfill B1
DW 1	1415	0.0	9	73° SE 6 mph winds
DW 2	1415	0.0	44	
DW 3				

LAND Remediation, Inc.
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Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes	BH	10-	08:00		LRI
Mindy Murray	Mindy Murray	10-9-17	08:00	9:45	LRI
Bob Hellwig	Bob Hellwig	10-9-17	7:00		LRI
Pete Hanson		10-9-17	9:15	9:30	ESMI

LAND Remediation, Inc.
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Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-9-17 **Time:** 08:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BL RK	LRI

Work Tasks to be Performed: Uncover pile for ESMI to observe material inside tank, pump water off of TARP, Clean, discharge to ground surface

"911"
7 Water St. Troy NY

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☒	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☒	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☑	~~Severe~~ Weather - RAIN	☐	Other:

Potential Health and Safety Hazards and Mitigation Measures: ~ Due to RAIN wet conditions ensure use of GFCI and inspect extension cords. Ground prong on plug - No Nicks or cuts in cord insulated cover. Set generator away from work area to eliminate need for hearing protection.

Applicable H&S Documents Referenced: HASP,

Daily Safety Observation (DSO):
Clean Windows & Mirrors of equipement. Wipes. Good Visability Stay away from working equipement. Use spotter when necessary

Printed Name	Signature	Company Name
Brandon Holmes	BL RK	LRI
Bob Hellwig	Bob Hellwig	LRI
Minor Murray	Minor Murray	LRI

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
1.					
B. Holmes		10-10-17	6:45		LRI
C. Sutherland		10 10 17	630		LRI
B Holloway		10-10-17	6130		LRI
J. Klein		10.10.17	0645		
M HUGO		10-10-17	630	2:00	LRI
Jarod Tejx		10/10/17	0701		BC

LAND Remediation, Inc.
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Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-10-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
B. Holmes	BH KR	LRI

Work Tasks to be Performed: warm up equipment, pull steel wall out of ground around tank cut steel wall up and toss in steel dumpster, take former tank up to yard to re-fill. Fix wire harness on compressor

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
C. Sutherland	CE	LRI
B. Helling	Bob Helling	LRI
Jason Allen		Golder
Mitch Holt	Mitch Holt	LRI
Jon Joyce	JM	BC

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Helms		10-11-17	06:40		LRI
MAICK HULCO		10-11-17	700		LRI
Bob Hellwig		10-11-17	7100		LRI
Paul Fisher		10-11-17	1030		SE
John Spellman		10-11-17	1045		NYSDEC
Mark Sergott		10/11/17	10:45		NYSDOH
Steve Cowan		10/11/17	10:41		NYSDOH
Jason Klein		10/11/17	0645		Colden
C. Sutherland		10 11 17	1108		LRI
Adam Sherman		10/11/17	10:45	12:00	BC
Jared Jegay		10/11/17	0700		BC

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-11-17 **Time:** 06:40

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	BC HL	LRI

Work Tasks to be Performed: load out HAZ WASTE from TANK, uncover pile - 3 guys + 228 mix concrete w/soil, break concrete, foam pile, traffic control for trucks

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☒	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Traffic Control in high traffic intersection - flaggers, Exposure to HAZ Waste - do not enter tank + PPE load upon Exposed steel - gloves - watch movements near wall

Applicable H&S Documents Referenced: SOP - Welding/Cutting JSA - truck loading - Haz Waste

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
Brandon Holmes	BC HL	LRI
MARK HUGO	Mark Hugo	LRI
Bob Hellwig	Bob Hellwig	LRI
Jason Klein		G Klein
C. Sutherland	CE	LRI
Jarod Teyner	JT	BC

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed with the work).
2. Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE: 10/11/17 | JOB NO.:

LOCATION/BUILDING & FLOOR (Be Specific): NA

DESCRIPTION OF WORK BEING PERFORMED: Cut tank

NAME OF PERSON DOING HOT WORK: Mark Hugo

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Permit Authorizing Individual)

SIGNED: _____
(Person doing Hot Work)

TIME STARTED: 1230 AM/PM

TIME ENDED: 1615 AM/PM

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [ ] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [ ] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [x] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.
- [ ] All wall and floor openings covered. Walkways protected beneath hot work. NA

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES NA

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors.
- [ ] Follow confined space guidelines.

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm. NA
- [ ] Fire watch may be required for opposite side of walls, above, and below floors and ceilings. NA

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed: _____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for 3:45 hour(s) following Hot Work and found fire safe.

Signed: _____

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
MARK HUGG	Mark Hugg	10.12.17	630		LRI
C Sutherland	C Sutherland	10 12 17	630		LRI
S Clair	S Clair	10/12/17	0645		cable
Bob Hellwig	Bob Hellwig	10-12-17	6:45		LRI
Jared Tayne	Jared Tayne	10/12/17	0700		BC
Adam Sherman	Adam Sherman	10/12/17	0900	1145	BC
B. Stiers	B. Stiers	10/12/17	0915		N. Env

LAND Remediation, Inc
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM WATER ST **Date:** 10-12-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes		LRI

Work Tasks to be Performed: scrape tank clean to load out material for last truck load. use weed burner to heat from outside, load out 1 truck,

TOPICS COVERED:

☒	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: Exposed to material in tank while scraping. - Tyvek, Booties, Gloves

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO): TAR takes time to scrape be careful w/ body motions. Don't swing tools w/ people close by.

Printed Name	Signature	Company Name
Brandon Holmes		LRI
MARK HUBA		LRI
C. Sutherland		LRI
S. Klein		Golder
Bob Hellwig		LRI
B. Stone		N.C.A.
Jon Tuyay		BE

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed with the work).
   Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE 10/12/17 JOB NO.

LOCATION/BUILDING & FLOOR (Be Specific)

na

DESCRIPTION OF WORK BEING PERFORMED

Cut tank

NAME OF PERSON DOING HOT WORK

Clark Sutherland

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED:

(Permit Authorizing Individual)

SIGNED:

(Person doing Hot Work)

TIME STARTED: 1630 AM/PM

TIME ENDED: 1830 AM/PM

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [x] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [ ] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [x] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.
- [ ] All wall and floor openings covered.
  Walkways protected beneath hot work. na

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors. Na
- [ ] Follow confined space guidelines. Na

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- [ ] Fire watch may be required for opposite side of walls, above, and below floors and ceilings. na

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed:

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for 4 hour(s) following Hot Work and found fire safe.

Signed:

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		10-13-17	0640	3:30	LRI
C. Sutherland		10-13-17	6:15	3:30	LRI
Bob Hellwig		10-13-17	6:45	3:30	LRI
Si Klein		10/13/17	0645		Golder
MARK HUGO		10.13.17	645	3:30	LRI
Jason Jessing		10/13/17	0645		BC
Adam Sherman		10/13/17	1445	1500	BC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM WATER ST **Date:** 10-13-17 **Time:** 0800

Briefing Conducted By:	Signature:	Company Name:
B. Holmes		LRI

Work Tasks to be Performed: cut remaining tank 91, ~~dis~~load up materials no longer needed -deliver back to yard

TOPICS COVERED:

☒	General PPE Usage	☒	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other:_____

Potential Health and Safety Hazards and Mitigation Measures: HOT WORK- PPE & Techniques must be safe. Final couple days on site- do not become complacent. Loading materials- take time use spotter - check trailer & rigging.

Applicable H&S Documents Referenced:

Hot Work Permit

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
C. Sutherland		LRI
Bob Hellwig		LRI
J. Klein		Colden
MAKIC HUGO		LRI
Josh Yung		Colden
David Young		BC

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed 'th the work).
2. Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE: 10/13/17 | JOB NO:

LOCATION/BUILDING & FLOOR (Be Specific): NA

DESCRIPTION OF WORK BEING PERFORMED: Oil tank

NAME OF PERSON DOING HOT WORK: Clark Sutherland

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Permit Authorizing Individual)

SIGNED: _____
(Person doing Hot Work)

TIME STARTED: 0735 AM/PM

TIME ENDED: 1500 AM/PM

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- [x] Fire watch may be required for opposite side of walls, above, and below floors and ceilings.

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [x] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [x] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [ ] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields. NA
- [ ] All wall and floor openings covered. NA
  Walkways protected beneath hot work.

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors. NA
- [ ] Follow confined space guidelines.

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

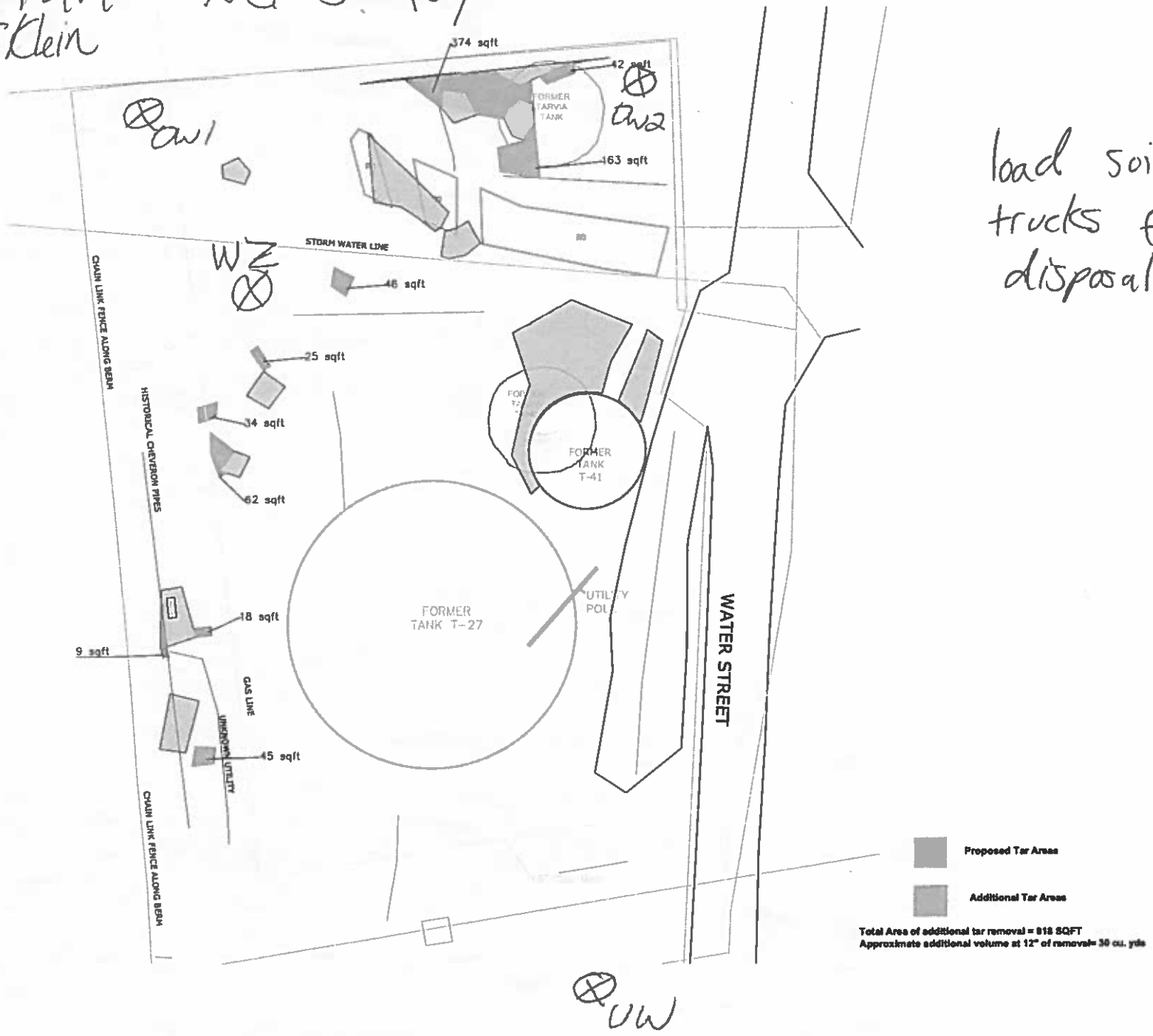
Signed: _____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for 7.5 hour(s) following Hot Work and found fire safe.

Signed: _____

10/3/17 NG. S. Troy
S. Klein



load soils to trucks for disposal

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG- S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: S. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak				✓	✓	NA	NA	
DustTrak	4	8530131502	UW	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		9003.59	DW1	✓	✓	100	0.0	
PID	—	296	DW2	✓	✓	100	0.0	
PID		080-900279	UW	✓	✓	100	0.0	
PID						100		
PDR1000	7795	7793	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy

Project Number: 14483

Date: 10/3/14

Page 1 of 1

Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center site	1200	-	0.0	load stockpile to truck
"	1300	-	0.0	"

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/3/17
Surveyor: J. Klein

Background: PM_{10} 11 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

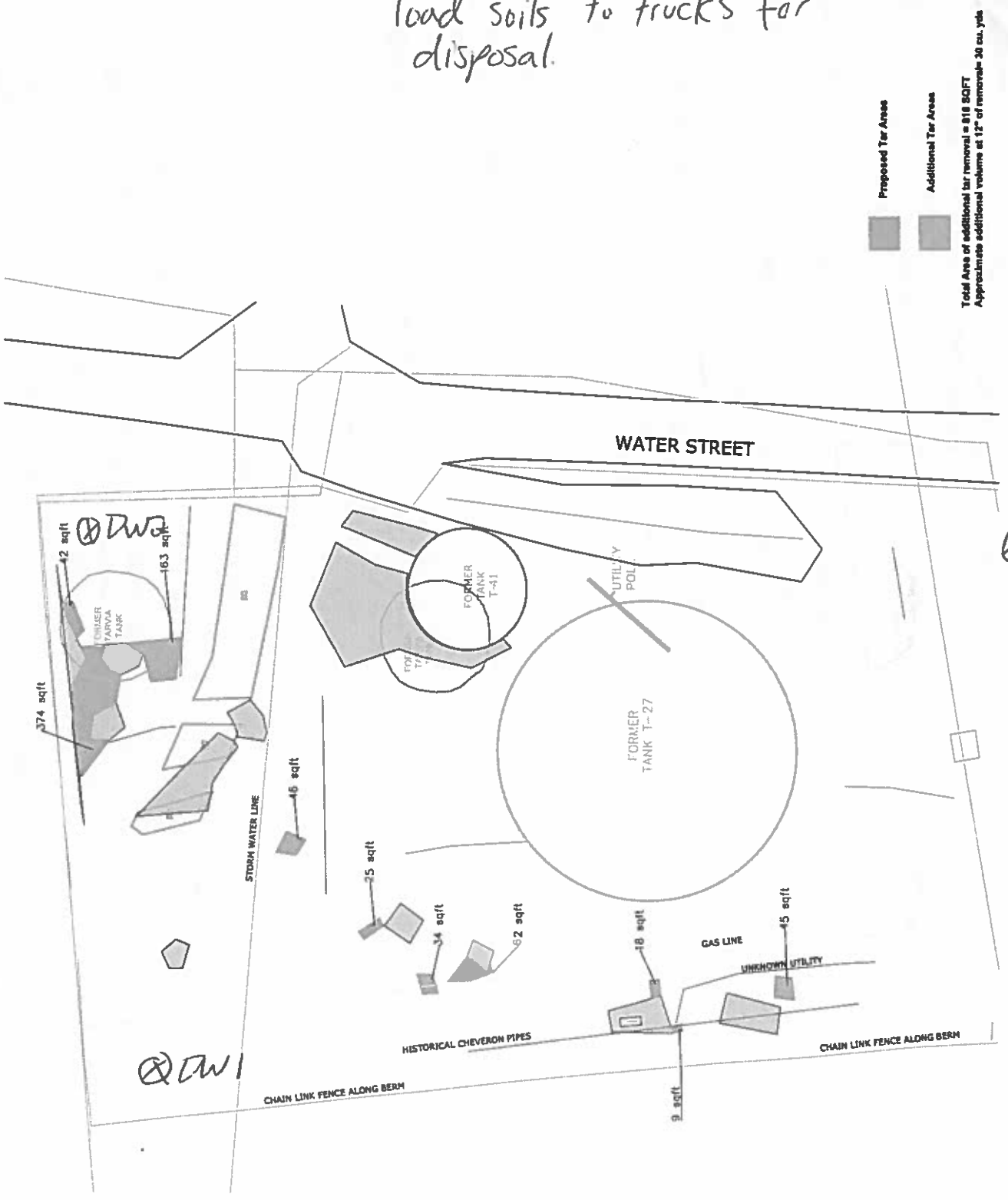
Action Levels: PM_{10} 111 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 161 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1145	0.0	11	Wind 5mph SSE
DW 1	1145	0.0	11	sunny 66°
DW 2	1145	0.0	10	
DW 3				
UW	1245	0.0	11	load stockpile soils in trucks
DW 1	1245	0.0	6	for disposal
DW 2	1245	0.0	31	
DW 3				
UW	1345	0.0	10	"
DW 1	1345	0.0	6	"
DW 2	1345	0.0	16	"
DW 3				

10/4/17

load soils to trucks for disposal.



COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG-S. Troy

Project Number: 17783

Date: 10/4/17

Surveyor: J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	4	8530131504	UW	✓	✓	NA	NA	
DustTrak	7	8530131603	DW1	✓	✓	NA	NA	
DustTrak		8530113305	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	—	080-900279	UW	✓	—	100	0.0	
PID		9003.59	DW1	✓	✓	100	0.0	
PID		296	DW2	✓	✓	100	0.0	* recal'd @ 0730 high #s
PID						100		
PDR1000		7793	WZ	✓	✓	NA	NA	
PID		900283	WZ			100		Cal issue

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy Date: 10/4/17 Page ____ of ____

Project Number: 17783 Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
Center of site	0730	—	23	load soils in truck
center of site	0845	—	4	load soils "
"	0945	—	7	load soils "
"	1045	—	6	prep for next haul

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 22 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0715	0.0	21	52° Winds 2mph SE
DW 1	0715	0.0	106	loads soils to truck for disposal
DW 2	0715	0.0	20	
DW 3				
UW	0830	0.0	17	
DW 1	0830	0.0	12	
DW 2	0830	0.0	19	
DW 3				
UW	0945	0.0	17	58° Winds SSE 8mph
DW 1	0945	0.0	11	load soils - 2nd load
DW 2	0945	0.0	22	
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17785

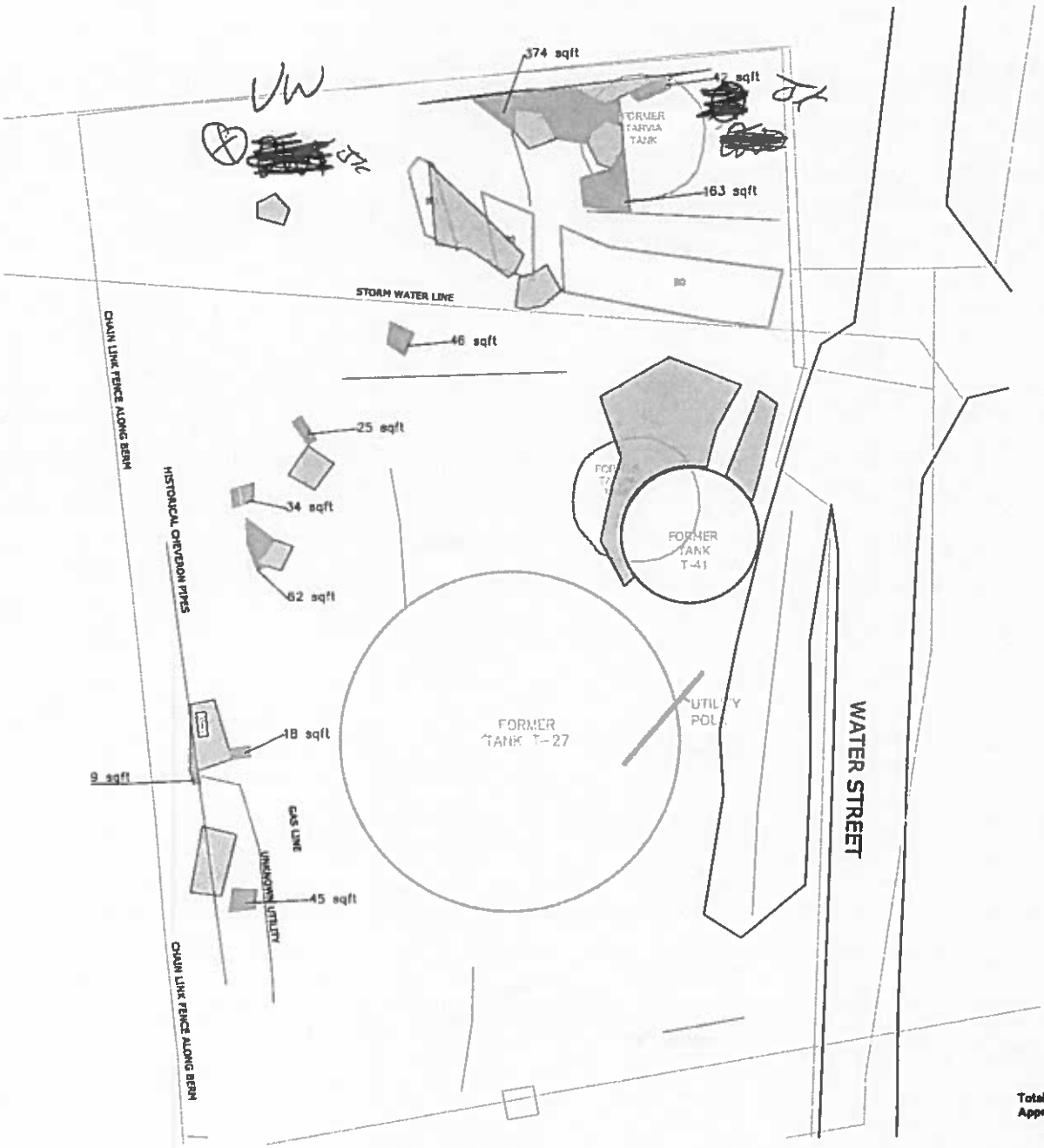
Date: 10/4/17
Surveyor: S. Klein

Background: PM_{10} 82 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 122 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 172 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1045	0.0	16	56° SSE winds 6mph
DW 1	1045	0.0	17	prep for next haul
DW 2	1045	0.0	13	
DW 3				
UW	1145	0.0	15	65° SE wind 3mph
DW 1	1145	0.0	11	excav B1
DW 2	1145	0.0	42	
DW 3				
UW	1415	0.0	14	Backfill B1
DW 1	1415	0.0	9	73° SE 6 mph winds
DW 2	1415	0.0	44	
DW 3				



10/11/17
N winds

DW1 DW2

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/11/17
Surveyor: S. Klein

Background: PM_{10} 03 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 103 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 153 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0730	0.1	38	N winds 58° cloudy
DW 1	0730	0.0	46	
DW 2	0736	0.0	62	
~~DW 3~~				
UW	0800	0.0	47	load out soils ~~in tank~~
DW 1	0806	0.0	32	
DW 2	0800	0.0	34	
DW 3				
UW	0900	0.0	31	load out ~~soils / coal tar~~
DW 1	↓	0.0	36	~~in tank~~ soils SD
DW 2	↓	0.0	34	
DW 3	✓			

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/11/17
Surveyor: J. Klein

Background: PM_{10} 3 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 103 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 153 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1015	0.0		prep tank contents for load out,
DW 1	1015	0.0	32	break concrete, DECON pad, prep
DW 2	1015	0.0	34	
DW 3				
UW	1100	0.0	32	biosolve in tank
DW 1	1100	0.0	16	weekly meeting, walkaround
DW 2	1100	0.0	20	
DW 3				
UW	1500	0.0	10	cut tank w/ torch
DW 1	1500	0.0	7	off load scrap metals
DW 2	1500	—	9	in rolloff
DW 3				

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG. S. Troy
Project Number: 17783

Date: 10, 11, 17.
Surveyor: S. Collin

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	—	8530131504	UW	✓	✓	NA	NA	
DustTrak	—	8530131608	DW1	✓	✓	NA	NA	
DustTrak	—	8530113305	DW2	✓	✓	NA	NA	
DustTrak						NA	NA	
PID		900283	UW	✓	✓	100	0.0	
PID		900359	DW1	✓	✓	100	0.0	
PID		296	DW2	✓	✓	100	0.0	
PID		~~900283~~				100		
PDR1000			WZ			NA	NA	
PID		900279	WZ	✓	✓	100	0.0	

COLDEN CORPORATION

Daily Workzone Monitoring Form (Form 3)

Project Name: NG - S. Troy
Date: 10/11/17 Page 1 of 1
Project Number: 17783
Surveyor: S. Klein

Location	Time	VOC (ppm)	Total Dust (ug/m3)	Operations and Comments
W side of tank	0800	0.0	36	load out soils
	0815			* switched WZ & UW PIDs
Around tank	1100	0.0	16	biosolve tank

10/18/17

SW wind

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: NG - S. Troy
Project Number: 17783

Date: 10/12/17
Surveyor: J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	—	8530113305	DW2	✓	✓	NA	NA	
DustTrak	—	8530131603	DW1	✓	✓	NA	NA	
DustTrak		8530131504	UW	✓	✓	NA	NA	
DustTrak						NA	NA	
PID	—	296	DW2	✓	✓	100	0.0	
PID		900359	DW1	✓	✓	100	0.0	
PID		900283	UW			100	0.0	
PID						100		
PDR1000		080-900279	WZ	✓	✓	NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG. S. Troy
Project Number: 17483

Date: 10/2/17
Surveyor: J. Klein

Background: PM_{10} 8 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 108 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 158 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0800	0.0	~~22~~ 8	Partly cloud 47°
DW 1	0800	0.0	16	uncover tarp over
DW 2	0800	0.0	22	tank
DW 3	0			
UW	0945	0.0	9	scrap tar on tank walls
DW 1	0945	0.0	9	@ 1030 Hotwork begin
DW 2	0945	0.0	8	cut tank walls w/ torch
DW 3				
UW	1245	0.0	9	@ 1230 Hot Work to end
DW 1	1245	0.0	5	1245 load out tank
DW 2	1245	0.0	6	contents
DW 3				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17783

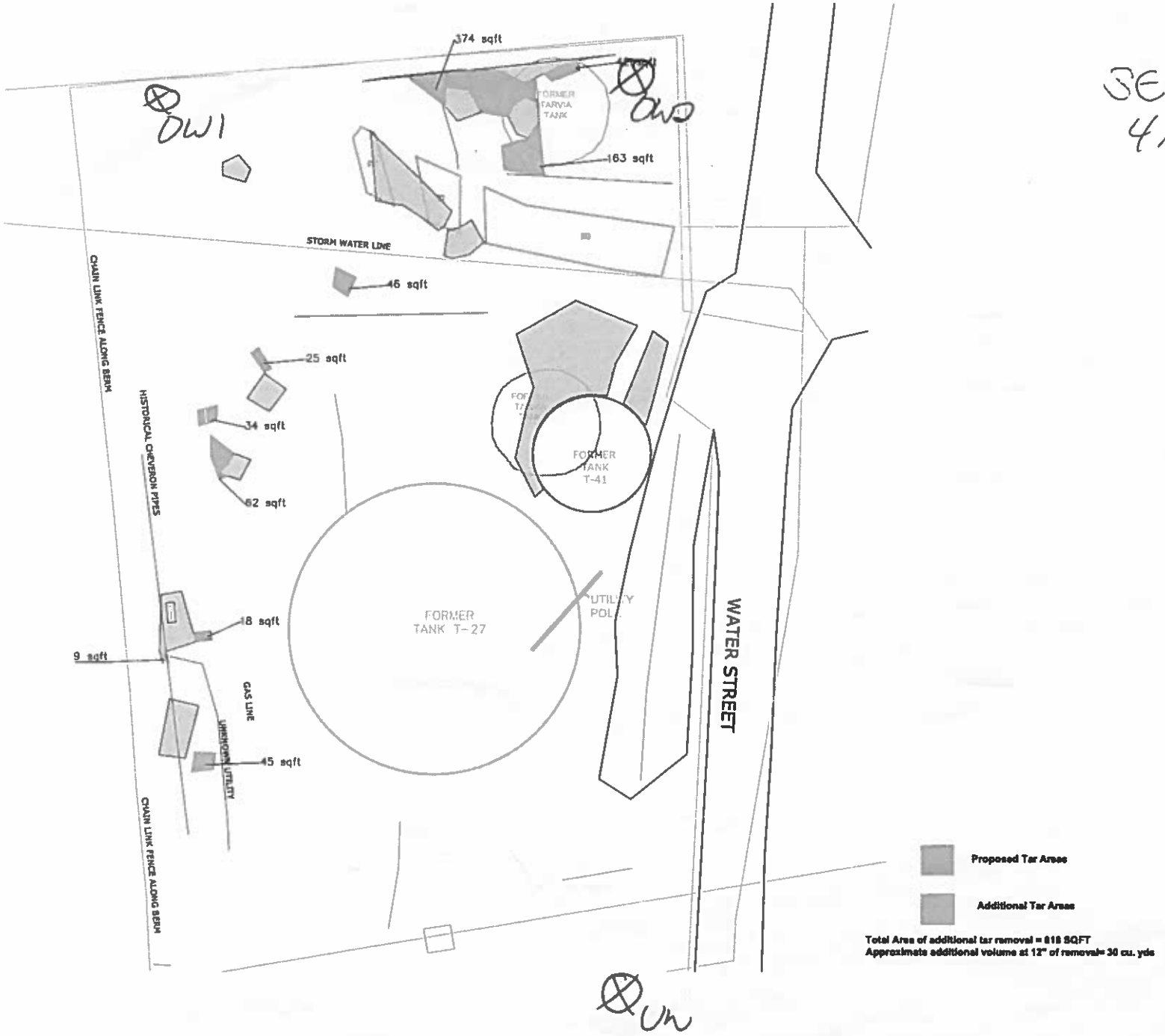
Date: 10/12/17
Surveyor: S. Klein

Background: PM_{10} 8 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 108 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 158 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1445	0.0	7	load out contents
DW 1	1445	0.0	4	of tank
DW 2	1445	0.0	5	
DW 3				
UW				
DW 1				
DW 2				
DW 3				
UW				
DW 1				
DW 2				
DW 3				


10/13/17
SE Wind
4 mph
374 sqft
OW1
OW2
FORMER TARVIA TANK
163 sqft
STORM WATER LINE
46 sqft
CHAIN LINK FENCE ALONG BERM
25 sqft
34 sqft
62 sqft
HISTORICAL CHEVERON PIPES
FORMER TANK T-41
FORMER TANK T-27
UTILITY POL
WATER STREET
18 sqft
9 sqft
GAS LINE
UNKNOWN UTILITY
45 sqft
CHAIN LINK FENCE ALONG BERM
OW
Proposed Tar Areas
Additional Tar Areas
Total Area of additional tar removal = 818 SQFT
Approximate additional volume at 12" of removal= 30 cu. yds

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NGI S-Troy
Project Number: 17755 1

Date: 10/13/17
Surveyor: St Clair

Background: PM_{10} 21 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 121 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 171 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0700	0.0	21	SE Winds 39° Cloudy
DW 1	0800	0.0	11	4 mph - Hot work
DW 2	0800	0.0	13	cut tank
~~DW 3~~				
UW	0900	0.0	9	• Loading up trailer w/materials to go offsite
DW 1	0903	0.0	46	• Cutting Holder up w/Torch
DW 2	0905	0.0	9	
~~DW 3~~				
UW	1041	0.0	4	• Spreading crushed/road
DW 1	1042	0.0	6	• filling up O2 Tank to continue torch cutting
DW 2	1042	0.0	3	
~~DW 3~~				

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NB Troy

Project Number: 17783

Date: 10/13/17

Surveyor: Josh. Y

Background: PM_{10} 21 µg/m3 (initial 15-minute upwind STEL)

VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 121 µg/m3 (100µg/m3 above the background)

VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 171 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)

VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	1220	0.0	4	
DW 1	1230	0.0	31	Torch cutting holder into pieces
DW 2	1231	0.0	2	
~~DW 3~~				
UW				cutting holder - torch
DW 1	1353	0.0	4	
DW 2	1354	0.0	2	
~~DW 3~~				
UW				
DW 1				
DW 2				
~~DW 3~~				

COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: ~~NG COHOES~~ NG - S. Troy

Project Number: ~~17532~~ 11783

Date: 10 / 13 /2017

Surveyor: ~~Joshua Yancy~~ J. Kula

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	~~3004~~ 8530135041	UW	✓	✓	NA	NA	
DustTrak	2	~~3222~~ 8530153003	DW1	✓	✓	NA	NA	
DustTrak	3	~~2431~~ 8531135005	DW2	✓	✓	NA	NA	
DustTrak	(4)Backup	2310	(4)Extra			NA	NA	
PID	1	90022.83 ~~360~~	UW	✓	✓	100		
PID	2	~~361~~ 9003579	DW1	✓	✓	100		
PID	3	296 ~~363~~	DW2	✓	✓	100		
PID	4	~~356~~	Backup			100		
PDR1000			WZ			NA	NA	
PID			WZ			100		

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
Brandon Holmes		10-16-17	6:40		LRI
MIKE HUGO		10-16-17	6:30		LRI
C. Sutherland		10/6/17	6:15		LRI
Bob Hellwig		10-16-17	6:30		LRI
J. Meyer		10.16.17	0630		Colsa
		10-16-17	0645		BC

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: ______________________ **Date:**__________ **Time:**__________

Briefing Conducted By:	Signature:	Company Name:

Work Tasks to be Performed:

TOPICS COVERED:

☐ General PPE Usage	☐ Site/Facility-specific Guidelines	☐ Emergency Procedures
☐ New Work Procedures	☐ Slips Trips and Falls	☐ Elevated Work Surfaces
☐ Personal Hygiene	☐ Heat/Cold Stress	☐ Construction Safety
☐ HAZCOM Issues	☐ Confined Space Entry	☐ Hearing Conservation
☐ Exposure Guidelines	☐ Severe Weather	☐ Other:______________

Potential Health and Safety Hazards and Mitigation Measures:

Applicable H&S Documents Referenced:

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
C. Sutherland	[signature]	LRI
Bob Hellwig	Bob Hellwig	LRI
[illegible]	[signature]	BC
[illegible]	[signature]	Golder

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or spark require a Hot Work Permit. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing, and welding.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

1. Verify precautions listed at right (or do not proceed h the work).
2. Complete page 1 and retain for job files.
3. Post page 2 in vicinity of hot work.

DATE: 10/16/17 | JOB NO.:

LOCATION/BUILDING & FLOOR (Be Specific): NA

DESCRIPTION OF WORK BEING PERFORMED: cut tent

NAME OF PERSON DOING HOT WORK: Clark Sutherland

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Permit Authorizing Individual)

SIGNED: _____
(Person doing Hot Work)

TIME STARTED: 0830 AM/PM

TIME ENDED: _____ AM/PM

If any of the following 8 conditions exist a Fire Watch will be provided

1. Locations where other than a minor fire might develop.
2. Combustible materials are closer than 35 feet to the point of operation.
3. Combustibles that are 35 feet or more away but are easily ignited.
4. Wall or floor openings within a 35 feet radius of exposed combustible materials.
5. Combustible materials are adjacent to the opposite side of metal partitions, ceilings or roofs.
6. In sprinkled buildings while such protection is impaired.
7. In the presence of potentially explosive atmospheres, e.g. flammables.
8. In areas where there is dust accumulation of greater than 1/16 inch within 35 feet of the area where welding/hot work will be conducted.

FIRE WATCH/HOT WORK AREA MONITORING

- [x] Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks.
- [x] Fire watch is supplied with an extinguisher, and/or water pump can, also making use of other extinguishers located throughout work area.
- [x] Fire watch is trained in use of this equipment and familiar with location of sounding alarm.
- [x] Fire watch may be required for opposite side of walls, above, and below floors and ceilings.

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed: _____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for _____ hour(s) following Hot Work and found fire safe.

Signed: _____

HOT WORK CHECKLIST

- [x] Sprinklers and hose streams in service/operable.
- [x] Hot Work Equipment in good condition (e.g., power source, welding leads, torches, etc.)
- [x] Multi-purpose fire extinguisher and/or water pump can.

REQUIREMENTS WITHIN 35 FEET OF WORK

- [x] Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean.
- [x] Explosive atmosphere in area eliminated.
- [ ] Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets. Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields. NA
- [ ] All wall and floor openings covered. Walkways protected beneath hot work. NA

WORK ON WALLS OR CEILINGS

- [ ] Combustibles moved away from other side of wall. NA

WORK IN CONFINED SPACES

- [ ] Confined space cleaned of all combustibles (example: grease, oil, flammable vapors). Containers purged of flammable liquids/vapors. NA
- [ ] Follow confined space guidelines.

LAND Remediation, Inc.
an environmental services company

Site Sign In and Sign Out Log

Name	Signature	Date	Time In	Time Out	Company
B Holmes		10-17-17	7:00		LRI
M Hugo		10-17-17	700		LRI
Bob Hellwig		10-17-17	7:00		LRI

LAND Remediation, Inc.
an environmental services company

Daily Safety Meeting

Project Name: TROY IRM **Date:** 10-17-17 **Time:** 07:00

Briefing Conducted By:	Signature:	Company Name:
Brandon Holmes	[signature]	LRI

Work Tasks to be Performed: assist Finke picking up equipment, finish backfilling over T.41 Concrete Pad, set up Geonex for transport.

TOPICS COVERED:

☑	General PPE Usage	☐	Site/Facility-specific Guidelines	☐	Emergency Procedures
☐	New Work Procedures	☐	Slips Trips and Falls	☐	Elevated Work Surfaces
☐	Personal Hygiene	☐	Heat/Cold Stress	☐	Construction Safety
☐	HAZCOM Issues	☐	Confined Space Entry	☐	Hearing Conservation
☐	Exposure Guidelines	☐	Severe Weather	☐	Other: _____

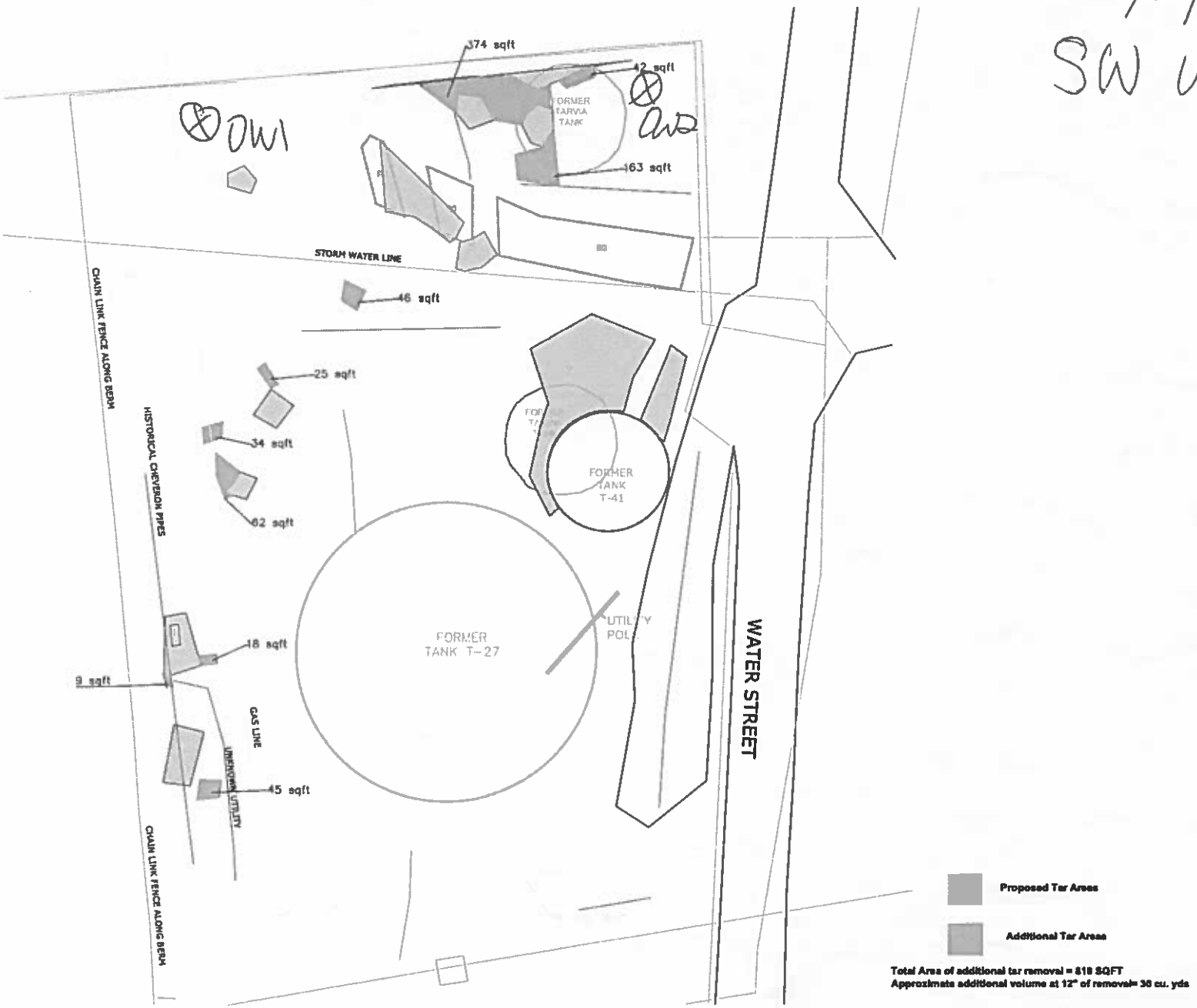
Potential Health and Safety Hazards and Mitigation Measures: Pinch Points- choose where you stand carefully. Traffic control: spotters/flaggers
Truck Rules

Applicable H&S Documents Referenced: Demobilization JSA

Daily Safety Observation (DSO):

Printed Name	Signature	Company Name
B. Holmes	[signature]	LRI
M HUGO	[signature]	LRI
Bob Hellwig	[signature]	LRI

10/16/17
SW work



COLDEN CORPORATION

Daily Instrument Calibration Form (Form 1)

Project Name: ~~NG COHOES~~ NG. 5 Tray

Project Number: ~~17532~~ 17783

Date: 10/16/2017

Surveyor: ~~Joshua Yancy~~ J. Klein

Instrument Name	Given No.	Serial No.	CAMP Station	Battery Check	Zero cal.	Calibration gas (ppm)	Reading (ppm)	Comments
DustTrak	1	8530135011 ~~3004~~	UW	✓	✓	NA	NA	
DustTrak	2	8530135803 ~~3222~~	DW1	✓	✓	NA	NA	
DustTrak	3	8531133305 ~~2431~~	DW2	✓	✓	NA	NA	
DustTrak	(4)Backup	~~2310~~	(4)Extra			NA	NA	
PID	1	~~360~~ 900283	UW	✓	✓	100	0.0	
PID	2	~~361~~ 900359	DW1	✓	✓	100	0.0	
PID	3	~~363~~ 2916	DW2	✓	✓	100	0.0	
PID	4	~~356~~	Backup			100		
PDR1000			WZ			NA	NA	
PID			WZ			100		

COLDEN CORPORATION

Daily CAMP Monitoring Form

Project Name: NG - S. Troy
Project Number: 17-783

Date: 10/16/17
Surveyor: S. Klein

Background: PM_{10} 2 µg/m3 (initial 15-minute upwind STEL)
VOC 0.0 ppm (initial 15-minute upwind STEL)

Action Levels: PM_{10} 102 µg/m3 (100µg/m3 above the background)
VOC 1.0 ppm (1ppm above the background)

Reporting Levels: PM_{10} 152 µg/m3 (Exceeds 150µg/m3 above the background concentration for the 15-min avg. at a DW location)
VOC 5.0 ppm (Exceeds 5ppm above the background concentration for the 15-min avg. at a DW location)

Station	Time	VOC (ppm)	PM_{10} (µg/m3)	Comments
UW	0830	0.0	2	Hot work SW winds 4 mph
DW 1	0830	0.0	2	cut tank
DW 2	0830	0.0	1	
DW 3				
UW	0930	0.0	1	load tank into roll-off
DW 1	0930	0.0	1	
DW 2	0930	0.0	2	
DW 3				
UW	1100	0.0	1	scrap soil on concrete slab
DW 1	1100	0.0	1	under tank area
DW 2	1100	0.0	2	49°, cloudy SW wind 6 mph
DW 3				

Appendix D: Waste Characterization Results

PHOENIX
Environmental Laboratories, Inc.

Wednesday, September 27, 2017

Attn: Mr. Keith Decker
Land Remediation
74 Hudson River Road
Waterford, NY 12188

Project ID: TROY WATER ST IRM
Sample ID#s: BZ01704 - BZ01705

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 27, 2017

FOR: Attn: Mr. Keith Decker
Land Remediation
74 Hudson River Road
Waterford, NY 12188

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	BV	09/14/17	8:50
Location Code:	LANDREM	Received by:	B	09/14/17	17:30
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ01704
Phoenix ID: BZ01704

Project ID: TROY WATER ST IRM
Client ID: WC TROYIRM A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.36	0.36	mg/Kg	1	09/15/17	MA	SW6010C	1
Aluminum	7510	53	mg/Kg	10	09/15/17	MA	SW6010C	1
Arsenic	15.8	0.71	mg/Kg	1	09/15/17	MA	SW6010C	1
Barium	90.2	0.36	mg/Kg	1	09/15/17	MA	SW6010C	1
Beryllium	1.13	0.28	mg/Kg	1	09/15/17	MA	SW6010C	1
Calcium	8650	5.3	mg/Kg	1	09/15/17	MA	SW6010C	1
Cadmium	1.63	0.36	mg/Kg	1	09/15/17	MA	SW6010C	1
Cobalt	10.1	0.36	mg/Kg	1	09/15/17	MA	SW6010C	1
Chromium	33.2	0.36	mg/Kg	1	09/15/17	MA	SW6010C	1
Copper	77.4	0.36	mg/kg	1	09/15/17	MA	SW6010C	1
Iron	82900	53	mg/Kg	10	09/15/17	MA	SW6010C	1,B
Mercury	0.17	0.03	mg/Kg	1	09/18/17	MA	SW7471B	1
Potassium	1230	5.3	mg/Kg	1	09/18/17	MA	SW6010C	1
Magnesium	3990	5.3	mg/Kg	1	09/15/17	MA	SW6010C	1
Manganese	1150	3.6	mg/Kg	10	09/15/17	MA	SW6010C	1
Sodium	292	5.3	mg/Kg	1	09/15/17	MA	SW6010C	1
Nickel	31.3	0.36	mg/Kg	1	09/15/17	MA	SW6010C	1
Lead	275	3.6	mg/Kg	10	09/15/17	MA	SW6010C	1
Antimony	< 3.6	3.6	mg/Kg	1	09/15/17	MA	SW6010C	1
Selenium	< 1.4	1.4	mg/Kg	1	09/15/17	MA	SW6010C	1
Sulfur	1040	3.6	mg/Kg	10	09/15/17	MA	SW6010C	1
TCLP Lead	< 0.10	0.10	mg/L	1	09/22/17	MA	SW6010C	1
Thallium	< 3.2	3.2	mg/Kg	1	09/15/17	MA	SW6010C	1
TCLP Metals Digestion	Completed				09/21/17	W/Q	SW3005A	
Vanadium	84.5	0.36	mg/Kg	1	09/15/17	MA	SW6010C	1
Zinc	157	3.6	mg/Kg	10	09/15/17	MA	SW6010C	1
Percent Solid	88		%		09/14/17	I	SW846-%Solid	1
Corrosivity	Negative		Pos/Neg	1	09/20/17	O	SW846-Corr	1

Ver 1

Project ID: TROY WATER ST IRM
Client ID: WC TROYIRM A

Phoenix I.D.: BZ01704

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Flash Point	>200	200	Degree F	1	09/22/17	Y	SW1010A	1
Ignitability	Passed	140	degree F	1	09/22/17	Y	SW846-Ignit	1
pH at 25C - Soil	6.63	1.00	pH Units	1	09/20/17 20:22	O	SW9045	1
Reactivity Cyanide	< 5	5	mg/Kg	1	09/21/17	BS/GD	SW846-ReactCyn	1
Reactivity Sulfide	< 20	20	mg/Kg	1	09/21/17	BS/GD	SW-7.3	1
Reactivity	Negative		Pos/Neg	1	09/21/17	BS/GD	SW846-React	1
Total Cyanide (SW9010C Distill.)	6.80	0.51	mg/Kg	1	09/18/17	O/GD	SW9012B	1
Soil Extraction for PCB	Completed				09/20/17	BB	SW3545A	
Soil Extraction for Pest	Completed				09/20/17	BB/V	SW3545A	
Soil Extraction for SVOA	Completed				09/14/17	JJ/CKV	SW3545A	
Mercury Digestion	Completed				09/18/17	W/W	SW7471B	
Soil Extraction for Herbicide	Completed				09/20/17	S/D	SW8151A	
TCLP Extraction for Metals	Completed				09/20/17	W	SW1311	
Total Metals Digest	Completed				09/14/17	L/AG/BF	SW3050B	
Extraction of TPH SM	Completed				09/14/17	BC/VCK	SW3545A	
BTU Value	3352	500	BTU/LB		09/19/17	*	ASTMD5865	C
Chlorinated Herbicides								
2,4,5-T	ND	0.094	mg/Kg	10	09/21/17	CW	SW8151A	1
2,4,5-TP (Silvex)	ND	0.094	mg/Kg	10	09/21/17	CW	SW8151A	1
2,4-D	ND	0.19	mg/Kg	10	09/21/17	CW	SW8151A	1
2,4-DB	ND	1.9	mg/Kg	10	09/21/17	CW	SW8151A	1
Dalapon	ND	0.094	mg/Kg	10	09/21/17	CW	SW8151A	1
Dicamba	ND	0.094	mg/Kg	10	09/21/17	CW	SW8151A	1
Dichloroprop	ND	0.19	mg/Kg	10	09/21/17	CW	SW8151A	1
Dinoseb	ND	0.19	mg/Kg	10	09/21/17	CW	SW8151A	1
QA/QC Surrogates								
% DCAA	44		%	10	09/21/17	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1221	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1232	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1242	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1248	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1254	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1260	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1262	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1268	ND	0.37	mg/Kg	10	09/16/17	AW	SW8082A	1
QA/QC Surrogates								
% DCBP	112		%	10	09/16/17	AW	30 - 150 %	
% TCMX	89		%	10	09/16/17	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	0.11	mg/Kg	100	09/22/17	CW	SW8081B	1
4,4' -DDE	ND	0.11	mg/Kg	100	09/22/17	CW	SW8081B	1
4,4' -DDT	ND	0.11	mg/Kg	100	09/22/17	CW	SW8081B	1
a-BHC	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
a-Chlordane	ND	0.19	mg/Kg	100	09/22/17	CW	SW8081B	1
Aldrin	ND	0.19	mg/Kg	100	09/22/17	CW	SW8081B	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
b-BHC	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Chlordane	ND	1.9	mg/Kg	100	09/22/17	CW	SW8081B	1
d-BHC	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Dieldrin	ND	0.19	mg/Kg	100	09/22/17	CW	SW8081B	1
Endosulfan I	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Endosulfan II	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Endosulfan sulfate	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Endrin	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Endrin aldehyde	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Endrin ketone	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
g-BHC	ND	0.075	mg/Kg	100	09/22/17	CW	SW8081B	1
g-Chlordane	ND	0.19	mg/Kg	100	09/22/17	CW	SW8081B	1
Heptachlor	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Heptachlor epoxide	ND	0.38	mg/Kg	100	09/22/17	CW	SW8081B	1
Methoxychlor	ND	1.9	mg/Kg	100	09/22/17	CW	SW8081B	1
Toxaphene	ND	7.5	mg/Kg	100	09/22/17	CW	SW8081B	1
QA/QC Surrogates								
% DCBP	Diluted Out		%	100	09/22/17	CW	30 - 150 %	
% TCMX	Diluted Out		%	100	09/22/17	CW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	1800	280	mg/Kg	5	09/15/17	JRB	SW8015D DRO	1O
QA/QC Surrogates								
% n-Pentacosane	Diluted Out		%	5	09/15/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1,1-Trichloroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1,2,2-Tetrachloroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1,2-Trichloroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1-Dichloroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1-Dichloroethene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1-Dichloropropene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,3-Trichlorobenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,3-Trichloropropane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,4-Trichlorobenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,4-Trimethylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dibromo-3-chloropropane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dibromoethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dichlorobenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dichloroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dichloropropane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,3,5-Trimethylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,3-Dichlorobenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,3-Dichloropropane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,4-Dichlorobenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
2,2-Dichloropropane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
2-Chlorotoluene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
2-Hexanone	ND	4.4	mg/Kg	50	09/15/17	JLI	SW8260C	1
2-Isopropyltoluene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1

Project ID: TROY WATER ST IRM
Client ID: WC TROYIRM A

Phoenix I.D.: BZ01704

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4-Chlorotoluene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
4-Methyl-2-pentanone	ND	4.4	mg/Kg	50	09/15/17	JLI	SW8260C	1
Acetone	ND	4.4	mg/Kg	50	09/15/17	JLI	SW8260C	1
Acrylonitrile	ND	1.8	mg/Kg	50	09/15/17	JLI	SW8260C	1
Benzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromobenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromochloromethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromodichloromethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromoform	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromomethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Carbon Disulfide	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Carbon tetrachloride	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chlorobenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chloroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chloroform	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chloromethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
cis-1,2-Dichloroethene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
cis-1,3-Dichloropropene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Dibromochloromethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Dibromomethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Dichlorodifluoromethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Ethylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Hexachlorobutadiene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Isopropylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
m&p-Xylene	0.42	0.4	mg/Kg	50	09/15/17	JLI	SW8260C	1
Methyl Ethyl Ketone	ND	4.4	mg/Kg	50	09/15/17	JLI	SW8260C	1
Methyl t-butyl ether (MTBE)	ND	1.8	mg/Kg	50	09/15/17	JLI	SW8260C	1
Methylene chloride	ND	1.8	mg/Kg	50	09/15/17	JLI	SW8260C	1
Naphthalene	8.2	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
n-Butylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
n-Propylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
o-Xylene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
p-Isopropyltoluene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
sec-Butylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Styrene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
tert-Butylbenzene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Tetrachloroethene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Tetrahydrofuran (THF)	ND	1.8	mg/Kg	50	09/15/17	JLI	SW8260C	1
Toluene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Total Xylenes	0.42	0.4	mg/Kg	50	09/15/17	JLI	SW8260C	1
trans-1,2-Dichloroethene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
trans-1,3-Dichloropropene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
trans-1,4-dichloro-2-butene	ND	1.8	mg/Kg	50	09/15/17	JLI	SW8260C	1
Trichloroethene	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Trichlorofluoromethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Trichlorotrifluoroethane	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
Vinyl chloride	ND	0.88	mg/Kg	50	09/15/17	JLI	SW8260C	1
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	92		%	50	09/15/17	JLI	70 - 130 %	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	98		%	50	09/15/17	JLI	70 - 130 %	
% Dibromofluoromethane	92		%	50	09/15/17	JLI	70 - 130 %	
% Toluene-d8	90		%	50	09/15/17	JLI	70 - 130 %	
Semivolatiles								
1,2,4,5-Tetrachlorobenzene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
1,2,4-Trichlorobenzene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
1,2-Dichlorobenzene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
1,2-Diphenylhydrazine	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
1,3-Dichlorobenzene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
1,4-Dichlorobenzene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2,4,5-Trichlorophenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2,4,6-Trichlorophenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2,4-Dichlorophenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2,4-Dimethylphenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2,4-Dinitrophenol	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
2,4-Dinitrotoluene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2,6-Dinitrotoluene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2-Chloronaphthalene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2-Chlorophenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2-Methylnaphthalene	18	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2-Methylphenol (o-cresol)	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
2-Nitroaniline	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
2-Nitrophenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
3&4-Methylphenol (m&p-cresol)	4.2	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
3,3'-Dichlorobenzidine	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
3-Nitroaniline	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
4,6-Dinitro-2-methylphenol	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
4-Bromophenyl phenyl ether	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
4-Chloro-3-methylphenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
4-Chloroaniline	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
4-Chlorophenyl phenyl ether	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
4-Nitroaniline	ND	5.9	mg/Kg	10	09/15/17	DD	SW8270D	1
4-Nitrophenol	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Acenaphthene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Acenaphthylene	18	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Acetophenone	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Aniline	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
Anthracene	22	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Benz(a)anthracene	35	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Benzidine	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Benzo(a)pyrene	26	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Benzo(b)fluoranthene	23	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Benzo(ghi)perylene	12	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Benzo(k)fluoranthene	24	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Benzoic acid	ND	7.4	mg/Kg	10	09/15/17	DD	SW8270D	1
Benzyl butyl phthalate	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Bis(2-chloroethoxy)methane	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Bis(2-chloroethyl)ether	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
Bis(2-chloroisopropyl)ether	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Bis(2-ethylhexyl)phthalate	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Carbazole	10	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
Chrysene	32	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Dibenz(a,h)anthracene	4.5	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Dibenzofuran	15	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Diethyl phthalate	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Dimethylphthalate	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Di-n-butylphthalate	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Di-n-octylphthalate	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Fluoranthene	63	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Fluorene	26	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Hexachlorobenzene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Hexachlorobutadiene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Hexachlorocyclopentadiene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Hexachloroethane	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Indeno(1,2,3-cd)pyrene	14	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Isophorone	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Naphthalene	40	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Nitrobenzene	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
N-Nitrosodimethylamine	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
N-Nitrosodi-n-propylamine	ND	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
N-Nitrosodiphenylamine	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
Pentachloronitrobenzene	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
Pentachlorophenol	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
Phenanthrene	79	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Phenol	4.5	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Pyrene	53	2.6	mg/Kg	10	09/15/17	DD	SW8270D	1
Pyridine	ND	3.7	mg/Kg	10	09/15/17	DD	SW8270D	1
QA/QC Surrogates								
% 2,4,6-Tribromophenol	Diluted Out		%	10	09/15/17	DD	30 - 130 %	
% 2-Fluorobiphenyl	Diluted Out		%	10	09/15/17	DD	30 - 130 %	
% 2-Fluorophenol	Diluted Out		%	10	09/15/17	DD	30 - 130 %	
% Nitrobenzene-d5	Diluted Out		%	10	09/15/17	DD	30 - 130 %	
% Phenol-d5	Diluted Out		%	10	09/15/17	DD	30 - 130 %	
% Terphenyl-d14	Diluted Out		%	10	09/15/17	DD	30 - 130 %	
Field Extraction	Completed				09/14/17		SW5035A	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.
1O = This parameter is not certified by NY NELAC for this matrix.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

The TPH (C10-C28) is quantitated using an alkane standard.

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide.This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Corrosivity is based solely on the pH analysis performed above.

Pesticide Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the affected compounds.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

BTU Value (ASTMD5865) was analyzed by MA certified lab #M-MA071.

If there are any questions regarding this data, please call Phoenix Client Services.

Phyllis Shiller, Laboratory Director
September 27, 2017
Reviewed and Released by: Bobbi Aloisa, Vice President

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

September 27, 2017

FOR: Attn: Mr. Keith Decker
Land Remediation
74 Hudson River Road
Waterford, NY 12188

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	BV	09/14/17	9:10
Location Code:	LANDREM	Received by:	B	09/14/17	17:30
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBZ01704
Phoenix ID: BZ01705

Project ID: TROY WATER ST IRM
Client ID: WC TROYIRM B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.33	0.33	mg/Kg	1	09/15/17	MA	SW6010C	1
Aluminum	8910	50	mg/Kg	10	09/15/17	MA	SW6010C	1
Arsenic	20.0	0.66	mg/Kg	1	09/15/17	MA	SW6010C	1
Barium	121	0.33	mg/Kg	1	09/15/17	MA	SW6010C	1
Beryllium	1.01	0.27	mg/Kg	1	09/15/17	MA	SW6010C	1
Calcium	16000	500	mg/Kg	100	09/18/17	MA	SW6010C	1
Cadmium	2.28	0.33	mg/Kg	1	09/15/17	MA	SW6010C	1
Cobalt	13.2	0.33	mg/Kg	1	09/15/17	MA	SW6010C	1
Chromium	61.6	0.33	mg/Kg	1	09/15/17	MA	SW6010C	1
Copper	82.7	0.33	mg/kg	1	09/15/17	MA	SW6010C	1
Iron	97700	500	mg/Kg	100	09/18/17	MA	SW6010C	1,B
Mercury	0.29	0.03	mg/Kg	1	09/18/17	MA	SW7471B	1
Potassium	1370	500	mg/Kg	100	09/18/17	MA	SW6010C	1
Magnesium	6030	50	mg/Kg	10	09/15/17	MA	SW6010C	1
Manganese	1610	33	mg/Kg	100	09/18/17	MA	SW6010C	1
Sodium	579	5.0	mg/Kg	1	09/15/17	MA	SW6010C	1
Nickel	46.7	0.33	mg/Kg	1	09/15/17	MA	SW6010C	1
Lead	918	3.3	mg/Kg	10	09/15/17	MA	SW6010C	1
Antimony	< 3.3	3.3	mg/Kg	1	09/15/17	MA	SW6010C	1
Selenium	< 1.3	1.3	mg/Kg	1	09/15/17	MA	SW6010C	1
Sulfur	1020	3.3	mg/Kg	10	09/15/17	MA	SW6010C	1
TCLP Lead	0.40	0.10	mg/L	1	09/22/17	MA	SW6010C	1
Thallium	< 3.0	3.0	mg/Kg	1	09/15/17	MA	SW6010C	1
TCLP Metals Digestion	Completed				09/21/17	W/Q	SW3005A	
Vanadium	110	0.33	mg/Kg	1	09/15/17	MA	SW6010C	1
Zinc	474	3.3	mg/Kg	10	09/15/17	MA	SW6010C	1
Percent Solid	92		%		09/14/17	I	SW846-%Solid	1
Corrosivity	Negative		Pos/Neg	1	09/20/17	O	SW846-Corr	1

Ver 1

Project ID: TROY WATER ST IRM
Client ID: WC TROYIRM B

Phoenix I.D.: BZ01705

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Flash Point	>200	200	Degree F	1	09/22/17	Y	SW1010A	1
Ignitability	Passed	140	degree F	1	09/22/17	Y	SW846-Ignit	1
pH at 25C - Soil	7.73	1.00	pH Units	1	09/20/17 20:22	O	SW9045	1
Reactivity Cyanide	< 5	5	mg/Kg	1	09/21/17	BS/GD	SW846-ReactCyn	1
Reactivity Sulfide	< 20	20	mg/Kg	1	09/21/17	BS/GD	SW-7.3	1
Reactivity	Negative		Pos/Neg	1	09/21/17	BS/GD	SW846-React	1
Total Cyanide (SW9010C Distill.)	0.70	0.54	mg/Kg	1	09/19/17	O/GD	SW9012B	1
Soil Extraction for PCB	Completed				09/20/17	BB	SW3545A	
Soil Extraction for Pest	Completed				09/20/17	BB/V	SW3545A	
Soil Extraction for SVOA	Completed				09/15/17	JJ/CKV	SW3545A	
Mercury Digestion	Completed				09/18/17	W/W	SW7471B	
Soil Extraction for Herbicide	Completed				09/20/17	S/D	SW8151A	
TCLP Extraction for Metals	Completed				09/20/17	W	SW1311	
Total Metals Digest	Completed				09/14/17	L/AG/BF	SW3050B	
Extraction of TPH SM	Completed				09/14/17	BC/VCK	SW3545A	
BTU Value	1554	500	BTU/LB		09/19/17	*	ASTMD5865	C
Chlorinated Herbicides								
2,4,5-T	ND	0.089	mg/Kg	10	09/21/17	CW	SW8151A	1
2,4,5-TP (Silvex)	ND	0.089	mg/Kg	10	09/21/17	CW	SW8151A	1
2,4-D	ND	0.18	mg/Kg	10	09/21/17	CW	SW8151A	1
2,4-DB	ND	1.8	mg/Kg	10	09/21/17	CW	SW8151A	1
Dalapon	ND	0.089	mg/Kg	10	09/21/17	CW	SW8151A	1
Dicamba	ND	0.089	mg/Kg	10	09/21/17	CW	SW8151A	1
Dichloroprop	ND	0.18	mg/Kg	10	09/21/17	CW	SW8151A	1
Dinoseb	ND	0.18	mg/Kg	10	09/21/17	CW	SW8151A	1
QA/QC Surrogates								
% DCAA	33		%	10	09/21/17	CW	30 - 150 %	
Polychlorinated Biphenyls								
PCB-1016	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1221	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1232	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1242	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1248	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1254	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1260	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1262	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
PCB-1268	ND	0.35	mg/Kg	10	09/16/17	AW	SW8082A	1
QA/QC Surrogates								
% DCBP	115		%	10	09/16/17	AW	30 - 150 %	
% TCMX	95		%	10	09/16/17	AW	30 - 150 %	
Pesticides - Soil								
4,4' -DDD	ND	0.11	mg/Kg	100	09/22/17	CW	SW8081B	1
4,4' -DDE	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
4,4' -DDT	ND	0.11	mg/Kg	100	09/22/17	CW	SW8081B	1
a-BHC	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
a-Chlordane	ND	0.18	mg/Kg	100	09/22/17	CW	SW8081B	1
Aldrin	ND	0.18	mg/Kg	100	09/22/17	CW	SW8081B	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
b-BHC	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Chlordane	ND	1.8	mg/Kg	100	09/22/17	CW	SW8081B	1
d-BHC	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Dieldrin	ND	0.18	mg/Kg	100	09/22/17	CW	SW8081B	1
Endosulfan I	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Endosulfan II	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Endosulfan sulfate	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Endrin	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Endrin aldehyde	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Endrin ketone	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
g-BHC	ND	0.071	mg/Kg	100	09/22/17	CW	SW8081B	1
g-Chlordane	ND	0.18	mg/Kg	100	09/22/17	CW	SW8081B	1
Heptachlor	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Heptachlor epoxide	ND	0.35	mg/Kg	100	09/22/17	CW	SW8081B	1
Methoxychlor	ND	1.8	mg/Kg	100	09/22/17	CW	SW8081B	1
Toxaphene	ND	7.1	mg/Kg	100	09/22/17	CW	SW8081B	1
QA/QC Surrogates								
% DCBP	Diluted Out		%	100	09/22/17	CW	30 - 150 %	
% TCMX	Diluted Out		%	100	09/22/17	CW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	2900	270	mg/Kg	5	09/15/17	JRB	SW8015D DRO	1O
QA/QC Surrogates								
% n-Pentacosane	Diluted Out		%	5	09/15/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1,1-Trichloroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1,2,2-Tetrachloroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1,2-Trichloroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1-Dichloroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1-Dichloroethene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,1-Dichloropropene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,3-Trichlorobenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,3-Trichloropropane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,4-Trichlorobenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2,4-Trimethylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dibromo-3-chloropropane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dibromoethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dichlorobenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dichloroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,2-Dichloropropane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,3,5-Trimethylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,3-Dichlorobenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,3-Dichloropropane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
1,4-Dichlorobenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
2,2-Dichloropropane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
2-Chlorotoluene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
2-Hexanone	ND	3.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
2-Isopropyltoluene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1

Project ID: TROY WATER ST IRM
Client ID: WC TROYIRM B

Phoenix I.D.: BZ01705

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
4-Chlorotoluene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
4-Methyl-2-pentanone	ND	3.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Acetone	ND	3.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Acrylonitrile	ND	1.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Benzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromobenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromochloromethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromodichloromethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromoform	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Bromomethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Carbon Disulfide	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Carbon tetrachloride	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chlorobenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chloroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chloroform	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Chloromethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
cis-1,2-Dichloroethene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
cis-1,3-Dichloropropene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Dibromochloromethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Dibromomethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Dichlorodifluoromethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Ethylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Hexachlorobutadiene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Isopropylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
m&p-Xylene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Methyl Ethyl Ketone	ND	3.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Methyl t-butyl ether (MTBE)	ND	1.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Methylene chloride	ND	1.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Naphthalene	10	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
n-Butylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
n-Propylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
o-Xylene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
p-Isopropyltoluene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
sec-Butylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Styrene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
tert-Butylbenzene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Tetrachloroethene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Tetrahydrofuran (THF)	ND	1.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Toluene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Total Xylenes	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
trans-1,2-Dichloroethene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
trans-1,3-Dichloropropene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
trans-1,4-dichloro-2-butene	ND	1.3	mg/Kg	50	09/15/17	JLI	SW8260C	1
Trichloroethene	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Trichlorofluoromethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Trichlorotrifluoroethane	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
Vinyl chloride	ND	0.66	mg/Kg	50	09/15/17	JLI	SW8260C	1
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	92		%	50	09/15/17	JLI	70 - 130 %	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
% Bromofluorobenzene	99		%	50	09/15/17	JLI	70 - 130 %	
% Dibromofluoromethane	92		%	50	09/15/17	JLI	70 - 130 %	
% Toluene-d8	90		%	50	09/15/17	JLI	70 - 130 %	
Semivolatiles								
1,2,4,5-Tetrachlorobenzene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
1,2,4-Trichlorobenzene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
1,2-Dichlorobenzene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
1,2-Diphenylhydrazine	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
1,3-Dichlorobenzene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
1,4-Dichlorobenzene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2,4,5-Trichlorophenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2,4,6-Trichlorophenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2,4-Dichlorophenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2,4-Dimethylphenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2,4-Dinitrophenol	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
2,4-Dinitrotoluene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2,6-Dinitrotoluene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2-Chloronaphthalene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2-Chlorophenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2-Methylnaphthalene	12	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2-Methylphenol (o-cresol)	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
2-Nitroaniline	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
2-Nitrophenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
3&4-Methylphenol (m&p-cresol)	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
3,3'-Dichlorobenzidine	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
3-Nitroaniline	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
4,6-Dinitro-2-methylphenol	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
4-Bromophenyl phenyl ether	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
4-Chloro-3-methylphenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
4-Chloroaniline	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
4-Chlorophenyl phenyl ether	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
4-Nitroaniline	ND	5.8	mg/Kg	10	09/16/17	DD	SW8270D	1
4-Nitrophenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Acenaphthene	5.1	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Acenaphthylene	14	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Acetophenone	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Aniline	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
Anthracene	18	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Benz(a)anthracene	49	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Benzidine	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Benzo(a)pyrene	42	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Benzo(b)fluoranthene	32	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Benzo(ghi)perylene	22	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Benzo(k)fluoranthene	32	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Benzoic acid	ND	7.2	mg/Kg	10	09/16/17	DD	SW8270D	1
Benzyl butyl phthalate	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Bis(2-chloroethoxy)methane	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Bis(2-chloroethyl)ether	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
Bis(2-chloroisopropyl)ether	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Bis(2-ethylhexyl)phthalate	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Carbazole	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
Chrysene	55	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Dibenz(a,h)anthracene	5.5	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Dibenzofuran	3.7	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Diethyl phthalate	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Dimethylphthalate	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Di-n-butylphthalate	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Di-n-octylphthalate	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Fluoranthene	85	25	mg/Kg	100	09/18/17	DD	SW8270D	1
Fluorene	15	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Hexachlorobenzene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Hexachlorobutadiene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Hexachlorocyclopentadiene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Hexachloroethane	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Indeno(1,2,3-cd)pyrene	21	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Isophorone	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Naphthalene	13	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Nitrobenzene	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
N-Nitrosodimethylamine	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
N-Nitrosodi-n-propylamine	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
N-Nitrosodiphenylamine	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
Pentachloronitrobenzene	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
Pentachlorophenol	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
Phenanthrene	120	25	mg/Kg	100	09/18/17	DD	SW8270D	1
Phenol	ND	2.5	mg/Kg	10	09/16/17	DD	SW8270D	1
Pyrene	110	25	mg/Kg	100	09/18/17	DD	SW8270D	1
Pyridine	ND	3.6	mg/Kg	10	09/16/17	DD	SW8270D	1
QA/QC Surrogates								
% 2,4,6-Tribromophenol	Diluted Out		%	10	09/16/17	DD	30 - 130 %	
% 2-Fluorobiphenyl	Diluted Out		%	10	09/16/17	DD	30 - 130 %	
% 2-Fluorophenol	Diluted Out		%	10	09/16/17	DD	30 - 130 %	
% Nitrobenzene-d5	Diluted Out		%	10	09/16/17	DD	30 - 130 %	
% Phenol-d5	Diluted Out		%	10	09/16/17	DD	30 - 130 %	
% Terphenyl-d14	Diluted Out		%	10	09/16/17	DD	30 - 130 %	
Field Extraction	Completed				09/14/17		SW5035A	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.
1O = This parameter is not certified by NY NELAC for this matrix.
C = This parameter is subcontracted.
B = Present in blank, no bias suspected.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

The TPH (C10-C28) is quantitated using an alkane standard.

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

Corrosivity is based solely on the pH analysis performed above.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide.This method is no longer listed in the current version of SW-846.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

Pesticide Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the affected compounds.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

BTU Value (ASTMD5865) was analyzed by MA certified lab #M-MA071.

If there are any questions regarding this data, please call Phoenix Client Services.

Phyllis Shiller, Laboratory Director
September 27, 2017
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

September 27, 2017

QA/QC Data

SDG I.D.: GBZ01704

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 401739 (mg/kg), QC Sample No: BZ01106 (BZ01704, BZ01705)														
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	87.4	81.9	6.5	98.3			70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 401471 (mg/kg), QC Sample No: BZ01584 (BZ01704, BZ01705)														
ICP Metals - Soil														
Aluminum	BRL	5.1	7310	8200	11.5	105			NC			75 - 125	30	
Antimony	BRL	3.4	<1.8	<3.1	NC	115			100			75 - 125	30	
Arsenic	BRL	0.68	3.11	2.80	NC	103			95.3			75 - 125	30	
Barium	BRL	0.34	44.9	41.9	6.90	107			100			75 - 125	30	
Beryllium	BRL	0.27	0.21 J	0.19	NC	105			94.3			75 - 125	30	
Cadmium	BRL	0.34	0.39	<0.31	NC	106			94.5			75 - 125	30	
Calcium	BRL	5.1	83000	77000	7.50	104			NC			75 - 125	30	
Chromium	BRL	0.34	86.4	78.1	10.1	110			96.7			75 - 125	30	
Cobalt	BRL	0.34	21.3	26.1	20.3	106			98.9			75 - 125	30	
Copper	BRL	0.34	242 N	222	8.60	115			58.8			75 - 125	30	m
Iron	8.8	5.1	17600	18400	4.40	111			NC			75 - 125	30	
Lead	BRL	0.34	35.7	32.8	8.50	110			103			75 - 125	30	
Magnesium	BRL	5.1	5670	6070	6.80	109			NC			75 - 125	30	
Manganese	BRL	0.34	309	310	0.30	107			116			75 - 125	30	
Nickel	BRL	0.34	51.2	57.9	12.3	106			95.9			75 - 125	30	
Potassium	BRL	5.1	652	659	1.10	90.9			118			75 - 125	30	
Selenium	BRL	1.4	<1.4	<1.3	NC	104			88.0			75 - 125	30	
Silver	BRL	0.34	<0.36	<0.31	NC	111			109			75 - 125	30	
Sodium	BRL	5.1	429 N	432	0.70	98.6			>130			75 - 125	30	m
Thallium	BRL	3.1	<1.4	<2.8	NC	108			104			75 - 125	30	
Vanadium	BRL	0.34	66.9	63.3	5.50	115			107			75 - 125	30	
Zinc	BRL	0.34	64.8	59.5	8.50	108			101			75 - 125	30	
QA/QC Batch 402302 (mg/L), QC Sample No: BZ04985 (BZ01704, BZ01705)														
ICP Metals - TCLP Extraction														
Lead	BRL	0.010	0.057	0.059	3.40	108			106			75 - 125	20	

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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NY # 11301

QA/QC Report

September 27, 2017

QA/QC Data

SDG I.D.: GBZ01704

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 402255 (PH), QC Sample No: BZ01704 (BZ01704, BZ01705)													
pH at 25C - Soil			6.63	6.63	0	100						85 - 115	20
QA/QC Batch 401760 (mg/Kg), QC Sample No: BZ01961 50X (BZ01704)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	<0.56	NC	98.7			100			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 401862 (mg/Kg), QC Sample No: BZ02161 50X (BZ01705)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.57	<0.57	NC	92.9			105			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													
QA/QC Batch 402580 (Degree F), QC Sample No: BZ03954 (BZ01704, BZ01705)													
Flash Point			>200	>200	NC	101						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 402287 (mg/Kg), QC Sample No: BZ05090 5X (BZ01704, BZ01705)													
Reactivity Cyanide	BRL	0.05	<5	<5.3	NC	98.0						85 - 115	30

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

September 27, 2017

QA/QC Data

SDG I.D.: GBZ01704

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 401830 (mg/Kg), QC Sample No: BY97754 (BZ01704 (50X) , BZ01705 (50X))											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	0.005	93	96	3.2	85	85	0.0	70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	89	93	4.4	87	87	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	101	102	1.0	96	84	13.3	70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	94	94	0.0	86	86	0.0	70 - 130	30	
1,1-Dichloroethane	ND	0.005	93	101	8.2	89	88	1.1	70 - 130	30	
1,1-Dichloroethene	ND	0.005	88	91	3.4	78	73	6.6	70 - 130	30	
1,1-Dichloropropene	ND	0.005	93	98	5.2	87	87	0.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	98	99	1.0	46	42	9.1	70 - 130	30	m
1,2,3-Trichloropropane	ND	0.005	91	94	3.2	102	102	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.005	99	99	0.0	52	49	5.9	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	0.001	96	98	2.1	75	74	1.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	98	99	1.0	82	84	2.4	70 - 130	30	
1,2-Dibromoethane	ND	0.005	95	95	0.0	90	88	2.2	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	96	98	2.1	82	81	1.2	70 - 130	30	
1,2-Dichloroethane	ND	0.005	94	94	0.0	88	89	1.1	70 - 130	30	
1,2-Dichloropropane	ND	0.005	94	96	2.1	89	89	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	97	99	2.0	84	84	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	95	97	2.1	83	82	1.2	70 - 130	30	
1,3-Dichloropropane	ND	0.005	92	93	1.1	89	89	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	96	98	2.1	83	81	2.4	70 - 130	30	
2,2-Dichloropropane	ND	0.005	89	94	5.5	86	84	2.4	70 - 130	30	
2-Chlorotoluene	ND	0.005	99	101	2.0	95	95	0.0	70 - 130	30	
2-Hexanone	ND	0.025	86	86	0.0	63	64	1.6	70 - 130	30	m
2-Isopropyltoluene	ND	0.005	100	101	1.0	76	77	1.3	70 - 130	30	
4-Chlorotoluene	ND	0.005	97	98	1.0	92	89	3.3	70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	91	91	0.0	73	73	0.0	70 - 130	30	
Acetone	ND	0.01	67	69	2.9	68	66	3.0	70 - 130	30	l,m
Acrylonitrile	ND	0.005	89	99	10.6	81	80	1.2	70 - 130	30	
Benzene	ND	0.001	93	93	0.0	85	87	2.3	70 - 130	30	
Bromobenzene	ND	0.005	99	102	3.0	101	98	3.0	70 - 130	30	
Bromochloromethane	ND	0.005	91	93	2.2	92	89	3.3	70 - 130	30	
Bromodichloromethane	ND	0.005	95	98	3.1	87	87	0.0	70 - 130	30	
Bromoform	ND	0.005	90	91	1.1	76	76	0.0	70 - 130	30	
Bromomethane	ND	0.005	122	124	1.6	109	115	5.4	70 - 130	30	
Carbon Disulfide	ND	0.005	94	99	5.2	76	70	8.2	70 - 130	30	
Carbon tetrachloride	ND	0.005	91	98	7.4	87	89	2.3	70 - 130	30	
Chlorobenzene	ND	0.005	94	96	2.1	85	85	0.0	70 - 130	30	
Chloroethane	ND	0.005	88	90	2.2	81	86	6.0	70 - 130	30	
Chloroform	ND	0.005	88	93	5.5	88	88	0.0	70 - 130	30	
Chloromethane	ND	0.005	93	97	4.2	87	89	2.3	70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	92	97	5.3	91	91	0.0	70 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	0.005	98	100	2.0	85	83	2.4	70 - 130	30	
Dibromochloromethane	ND	0.003	99	101	2.0	90	91	1.1	70 - 130	30	
Dibromomethane	ND	0.005	93	94	1.1	87	86	1.2	70 - 130	30	
Dichlorodifluoromethane	ND	0.005	84	92	9.1	80	84	4.9	70 - 130	30	
Ethylbenzene	ND	0.001	92	97	5.3	84	84	0.0	70 - 130	30	
Hexachlorobutadiene	ND	0.005	99	99	0.0	36	38	5.4	70 - 130	30	m
Isopropylbenzene	ND	0.001	99	102	3.0	97	97	0.0	70 - 130	30	
m&p-Xylene	ND	0.002	91	94	3.2	81	80	1.2	70 - 130	30	
Methyl ethyl ketone	ND	0.005	79	82	3.7	75	75	0.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	0.001	89	89	0.0	86	83	3.6	70 - 130	30	
Methylene chloride	ND	0.005	74	71	4.1	77	73	5.3	70 - 130	30	
Naphthalene	ND	0.005	104	104	0.0	52	47	10.1	70 - 130	30	m
n-Butylbenzene	ND	0.001	101	102	1.0	66	67	1.5	70 - 130	30	m
n-Propylbenzene	ND	0.001	99	99	0.0	91	91	0.0	70 - 130	30	
o-Xylene	ND	0.002	97	100	3.0	84	84	0.0	70 - 130	30	
p-Isopropyltoluene	ND	0.001	98	100	2.0	74	75	1.3	70 - 130	30	
sec-Butylbenzene	ND	0.001	100	102	2.0	78	79	1.3	70 - 130	30	
Styrene	ND	0.005	94	97	3.1	81	79	2.5	70 - 130	30	
tert-Butylbenzene	ND	0.001	98	100	2.0	82	84	2.4	70 - 130	30	
Tetrachloroethene	ND	0.005	95	98	3.1	82	82	0.0	70 - 130	30	
Tetrahydrofuran (THF)	ND	0.005	84	85	1.2	85	83	2.4	70 - 130	30	
Toluene	ND	0.001	95	95	0.0	85	85	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	0.005	83	88	5.8	77	78	1.3	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	94	95	1.1	80	81	1.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	0.005	106	104	1.9	99	97	2.0	70 - 130	30	
Trichloroethene	ND	0.005	94	95	1.1	91	99	8.4	70 - 130	30	
Trichlorofluoromethane	ND	0.005	86	91	5.6	82	85	3.6	70 - 130	30	
Trichlorotrifluoroethane	ND	0.005	85	94	10.1	78	75	3.9	70 - 130	30	
Vinyl chloride	ND	0.005	92	95	3.2	85	87	2.3	70 - 130	30	
% 1,2-dichlorobenzene-d4	91	%	99	100	1.0	99	98	1.0	70 - 130	30	
% Bromofluorobenzene	98	%	98	98	0.0	93	92	1.1	70 - 130	30	
% Dibromofluoromethane	101	%	96	97	1.0	100	99	1.0	70 - 130	30	
% Toluene-d8	88	%	100	100	0.0	97	98	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 401421 (mg/Kg), QC Sample No: BZ00483 (BZ01704, BZ01705)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum HC	ND	50	66	78	16.7	81	76	6.4	30 - 130	30	
% n-Pentacosane	66	%	57	75	27.3	78	77	1.3	50 - 150	30	

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 401472 (mg/Kg), QC Sample No: BZ01181 (BZ01704)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	0.23	62	76	20.3	73	66	10.1	30 - 130	30	
1,2,4-Trichlorobenzene	ND	0.23	58	69	17.3	69	62	10.7	30 - 130	30	
1,2-Dichlorobenzene	ND	0.18	50	63	23.0	64	53	18.8	30 - 130	30	
1,2-Diphenylhydrazine	ND	0.23	62	69	10.7	72	65	10.2	30 - 130	30	
1,3-Dichlorobenzene	ND	0.23	50	60	18.2	60	50	18.2	30 - 130	30	
1,4-Dichlorobenzene	ND	0.23	51	62	19.5	62	52	17.5	30 - 130	30	
2,4,5-Trichlorophenol	ND	0.23	71	80	11.9	79	71	10.7	30 - 130	30	
2,4,6-Trichlorophenol	ND	0.13	68	79	15.0	76	68	11.1	30 - 130	30	

QA/QC Data

SDG I.D.: GBZ01704

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2,4-Dichlorophenol	ND	0.13	64	76	17.1	73	67	8.6	30 - 130	30	
2,4-Dimethylphenol	ND	0.23	56	67	17.9	62	57	8.4	30 - 130	30	
2,4-Dinitrophenol	ND	0.23	<10	<10	NC	22	<10	NC	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	0.13	67	76	12.6	77	70	9.5	30 - 130	30	
2,6-Dinitrotoluene	ND	0.13	69	77	11.0	79	72	9.3	30 - 130	30	
2-Chloronaphthalene	ND	0.23	64	72	11.8	74	65	12.9	30 - 130	30	
2-Chlorophenol	ND	0.23	55	72	26.8	70	61	13.7	30 - 130	30	
2-Methylnaphthalene	ND	0.23	57	69	19.0	68	62	9.2	30 - 130	30	
2-Methylphenol (o-cresol)	ND	0.23	63	82	26.2	78	70	10.8	30 - 130	30	
2-Nitroaniline	ND	0.33	57	66	14.6	69	62	10.7	30 - 130	30	
2-Nitrophenol	ND	0.23	40	50	22.2	47	44	6.6	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	0.23	62	78	22.9	77	69	11.0	30 - 130	30	
3,3'-Dichlorobenzidine	ND	0.13	81	86	6.0	105	84	22.2	30 - 130	30	
3-Nitroaniline	ND	0.33	82	91	10.4	92	86	6.7	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	0.23	11	12	8.7	35	18	64.2	30 - 130	30	l,m,r
4-Bromophenyl phenyl ether	ND	0.23	64	74	14.5	74	69	7.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	0.23	62	71	13.5	72	65	10.2	30 - 130	30	
4-Chloroaniline	ND	0.23	59	67	12.7	66	61	7.9	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	0.23	68	77	12.4	77	69	11.0	30 - 130	30	
4-Nitroaniline	ND	0.23	66	76	14.1	76	69	9.7	30 - 130	30	
4-Nitrophenol	ND	0.23	59	68	14.2	70	63	10.5	30 - 130	30	
Acenaphthene	ND	0.23	69	78	12.2	78	71	9.4	30 - 130	30	
Acenaphthylene	ND	0.13	63	71	11.9	72	65	10.2	30 - 130	30	
Acetophenone	ND	0.23	52	67	25.2	68	59	14.2	30 - 130	30	
Aniline	ND	0.33	54	69	24.4	66	59	11.2	30 - 130	30	
Anthracene	ND	0.23	69	77	11.0	77	72	6.7	30 - 130	30	
Benz(a)anthracene	ND	0.23	71	80	11.9	81	76	6.4	30 - 130	30	
Benzidine	ND	0.33	47	50	6.2	45	36	22.2	30 - 130	30	
Benzo(a)pyrene	ND	0.13	69	78	12.2	78	72	8.0	30 - 130	30	
Benzo(b)fluoranthene	ND	0.16	71	82	14.4	81	76	6.4	30 - 130	30	
Benzo(ghi)perylene	ND	0.23	67	75	11.3	77	70	9.5	30 - 130	30	
Benzo(k)fluoranthene	ND	0.23	71	77	8.1	80	71	11.9	30 - 130	30	
Benzoic Acid	ND	0.33	<10	<10	NC	<10	<10	NC	30 - 130	30	l,m
Benzyl butyl phthalate	ND	0.23	65	73	11.6	74	69	7.0	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	0.23	65	77	16.9	77	68	12.4	30 - 130	30	
Bis(2-chloroethyl)ether	ND	0.13	52	66	23.7	67	58	14.4	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	0.23	60	77	24.8	77	68	12.4	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	0.23	67	74	9.9	75	70	6.9	30 - 130	30	
Carbazole	ND	0.23	69	78	12.2	79	74	6.5	30 - 130	30	
Chrysene	ND	0.23	71	79	10.7	81	75	7.7	30 - 130	30	
Dibenz(a,h)anthracene	ND	0.13	70	80	13.3	82	76	7.6	30 - 130	30	
Dibenzofuran	ND	0.23	67	75	11.3	76	67	12.6	30 - 130	30	
Diethyl phthalate	ND	0.23	61	68	10.9	68	62	9.2	30 - 130	30	
Dimethylphthalate	ND	0.23	64	70	9.0	73	65	11.6	30 - 130	30	
Di-n-butylphthalate	ND	0.23	65	73	11.6	73	67	8.6	30 - 130	30	
Di-n-octylphthalate	ND	0.23	73	80	9.2	81	75	7.7	30 - 130	30	
Fluoranthene	ND	0.23	72	80	10.5	82	77	6.3	30 - 130	30	
Fluorene	ND	0.23	68	77	12.4	77	69	11.0	30 - 130	30	
Hexachlorobenzene	ND	0.13	55	61	10.3	61	57	6.8	30 - 130	30	
Hexachlorobutadiene	ND	0.23	51	60	16.2	60	52	14.3	30 - 130	30	
Hexachlorocyclopentadiene	ND	0.23	45	53	16.3	53	48	9.9	30 - 130	30	
Hexachloroethane	ND	0.13	45	56	21.8	56	46	19.6	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	68	78	13.7	81	74	9.0	30 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Isophorone	ND	0.13	56	67	17.9	67	61	9.4	30 - 130	30
Naphthalene	ND	0.23	58	68	15.9	69	62	10.7	30 - 130	30
Nitrobenzene	ND	0.13	53	70	27.6	70	60	15.4	30 - 130	30
N-Nitrosodimethylamine	ND	0.23	52	62	17.5	66	54	20.0	30 - 130	30
N-Nitrosodi-n-propylamine	ND	0.13	59	77	26.5	76	67	12.6	30 - 130	30
N-Nitrosodiphenylamine	ND	0.13	69	76	9.7	78	70	10.8	30 - 130	30
Pentachloronitrobenzene	ND	0.23	57	63	10.0	63	58	8.3	30 - 130	30
Pentachlorophenol	ND	0.23	37	42	12.7	43	34	23.4	30 - 130	30
Phenanthrene	ND	0.13	67	75	11.3	76	70	8.2	30 - 130	30
Phenol	ND	0.23	64	83	25.9	81	73	10.4	30 - 130	30
Pyrene	ND	0.23	72	82	13.0	83	77	7.5	30 - 130	30
Pyridine	ND	0.23	42	45	6.9	48	39	20.7	30 - 130	30
% 2,4,6-Tribromophenol	58	%	52	61	15.9	60	56	6.9	30 - 130	30
% 2-Fluorobiphenyl	75	%	66	75	12.8	75	67	11.3	30 - 130	30
% 2-Fluorophenol	57	%	51	65	24.1	64	56	13.3	30 - 130	30
% Nitrobenzene-d5	62	%	52	68	26.7	68	59	14.2	30 - 130	30
% Phenol-d5	68	%	58	77	28.1	75	68	9.8	30 - 130	30
% Terphenyl-d14	84	%	68	77	12.4	78	72	8.0	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 401417 (mg/Kg), QC Sample No: BZ01255 2X (BZ01704, BZ01705)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	0.033	74	79	6.5	67	75	11.3	40 - 140	30
PCB-1221	ND	0.033							40 - 140	30
PCB-1232	ND	0.033							40 - 140	30
PCB-1242	ND	0.033							40 - 140	30
PCB-1248	ND	0.033							40 - 140	30
PCB-1254	ND	0.033							40 - 140	30
PCB-1260	ND	0.033	107	112	4.6	91	93	2.2	40 - 140	30
PCB-1262	ND	0.033							40 - 140	30
PCB-1268	ND	0.033							40 - 140	30
% DCBP (Surrogate Rec)	112	%	118	122	3.3	92	115	22.2	30 - 150	30
% TCMX (Surrogate Rec)	86	%	90	94	4.3	76	91	18.0	30 - 150	30

QA/QC Batch 401616 (mg/Kg), QC Sample No: BZ01961 (BZ01705)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	0.23	61	60	1.7	57	62	8.4	30 - 130	30
1,2,4-Trichlorobenzene	ND	0.23	61	60	1.7	57	62	8.4	30 - 130	30
1,2-Dichlorobenzene	ND	0.18	58	57	1.7	53	62	15.7	30 - 130	30
1,2-Diphenylhydrazine	ND	0.23	69	68	1.5	66	65	1.5	30 - 130	30
1,3-Dichlorobenzene	ND	0.23	53	54	1.9	49	55	11.5	30 - 130	30
1,4-Dichlorobenzene	ND	0.23	56	55	1.8	52	58	10.9	30 - 130	30
2,4,5-Trichlorophenol	ND	0.23	71	74	4.1	70	66	5.9	30 - 130	30
2,4,6-Trichlorophenol	ND	0.13	65	69	6.0	66	63	4.7	30 - 130	30
2,4-Dichlorophenol	ND	0.13	69	71	2.9	67	68	1.5	30 - 130	30
2,4-Dimethylphenol	ND	0.23	66	64	3.1	61	61	0.0	30 - 130	30
2,4-Dinitrophenol	ND	0.23	<10	<10	NC	50	43	15.1	30 - 130	30
2,4-Dinitrotoluene	ND	0.13	72	75	4.1	69	69	0.0	30 - 130	30
2,6-Dinitrotoluene	ND	0.13	66	70	5.9	65	64	1.6	30 - 130	30
2-Chloronaphthalene	ND	0.23	68	69	1.5	66	66	0.0	30 - 130	30
2-Chlorophenol	ND	0.23	59	60	1.7	56	65	14.9	30 - 130	30
2-Methylnaphthalene	ND	0.23	60	59	1.7	56	61	8.5	30 - 130	30

QA/QC Data

SDG I.D.: GBZ01704

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylphenol (o-cresol)	ND	0.23	68	69	1.5	66	77	15.4	30 - 130	30	
2-Nitroaniline	ND	0.33	81	82	1.2	77	75	2.6	30 - 130	30	
2-Nitrophenol	ND	0.23	47	47	0.0	45	48	6.5	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	0.23	68	69	1.5	66	77	15.4	30 - 130	30	
3,3'-Dichlorobenzidine	ND	0.13	74	71	4.1	78	73	6.6	30 - 130	30	
3-Nitroaniline	ND	0.33	80	84	4.9	77	73	5.3	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	0.23	12	<10	NC	61	56	8.5	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	0.23	68	70	2.9	65	67	3.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	0.23	65	69	6.0	66	65	1.5	30 - 130	30	
4-Chloroaniline	ND	0.23	62	63	1.6	57	59	3.4	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	0.23	66	66	0.0	62	62	0.0	30 - 130	30	
4-Nitroaniline	ND	0.23	62	67	7.8	64	62	3.2	30 - 130	30	
4-Nitrophenol	ND	0.23	61	60	1.7	60	56	6.9	30 - 130	30	
Acenaphthene	ND	0.23	73	75	2.7	72	70	2.8	30 - 130	30	
Acenaphthylene	ND	0.13	64	65	1.6	63	62	1.6	30 - 130	30	
Acetophenone	ND	0.23	55	55	0.0	54	64	16.9	30 - 130	30	
Aniline	ND	0.33	56	57	1.8	51	56	9.3	30 - 130	30	
Anthracene	ND	0.23	70	70	0.0	68	68	0.0	30 - 130	30	
Benz(a)anthracene	ND	0.23	67	69	2.9	63	63	0.0	30 - 130	30	
Benzidine	ND	0.33	44	38	14.6	15	17	12.5	30 - 130	30	m
Benzo(a)pyrene	ND	0.13	66	67	1.5	62	60	3.3	30 - 130	30	
Benzo(b)fluoranthene	ND	0.16	76	75	1.3	75	71	5.5	30 - 130	30	
Benzo(ghi)perylene	ND	0.23	63	63	0.0	65	60	8.0	30 - 130	30	
Benzo(k)fluoranthene	ND	0.23	79	82	3.7	71	71	0.0	30 - 130	30	
Benzoic Acid	ND	0.33	<10	<10	NC	24	16	40.0	30 - 130	30	l,m,r
Benzyl butyl phthalate	ND	0.23	76	75	1.3	72	73	1.4	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	0.23	68	67	1.5	62	68	9.2	30 - 130	30	
Bis(2-chloroethyl)ether	ND	0.13	57	57	0.0	56	66	16.4	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	0.23	60	60	0.0	56	67	17.9	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	0.23	80	77	3.8	74	78	5.3	30 - 130	30	
Carbazole	ND	0.23	73	75	2.7	70	69	1.4	30 - 130	30	
Chrysene	ND	0.23	70	73	4.2	66	65	1.5	30 - 130	30	
Dibenz(a,h)anthracene	ND	0.13	68	68	0.0	69	65	6.0	30 - 130	30	
Dibenzofuran	ND	0.23	66	67	1.5	65	64	1.6	30 - 130	30	
Diethyl phthalate	ND	0.23	68	69	1.5	63	63	0.0	30 - 130	30	
Dimethylphthalate	ND	0.23	69	70	1.4	67	65	3.0	30 - 130	30	
Di-n-butylphthalate	ND	0.23	70	69	1.4	62	65	4.7	30 - 130	30	
Di-n-octylphthalate	ND	0.23	73	71	2.8	67	71	5.8	30 - 130	30	
Fluoranthene	ND	0.23	66	66	0.0	56	56	0.0	30 - 130	30	
Fluorene	ND	0.23	70	71	1.4	67	66	1.5	30 - 130	30	
Hexachlorobenzene	ND	0.13	63	63	0.0	64	62	3.2	30 - 130	30	
Hexachlorobutadiene	ND	0.23	58	55	5.3	53	58	9.0	30 - 130	30	
Hexachlorocyclopentadiene	ND	0.23	52	51	1.9	43	45	4.5	30 - 130	30	
Hexachloroethane	ND	0.13	52	51	1.9	46	53	14.1	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	61	63	3.2	65	61	6.3	30 - 130	30	
Isophorone	ND	0.13	61	61	0.0	55	61	10.3	30 - 130	30	
Naphthalene	ND	0.23	62	61	1.6	58	63	8.3	30 - 130	30	
Nitrobenzene	ND	0.13	57	60	5.1	56	67	17.9	30 - 130	30	
N-Nitrosodimethylamine	ND	0.23	34	35	2.9	34	37	8.5	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	0.13	61	64	4.8	59	71	18.5	30 - 130	30	
N-Nitrosodiphenylamine	ND	0.13	73	74	1.4	69	66	4.4	30 - 130	30	
Pentachloronitrobenzene	ND	0.23	58	60	3.4	57	58	1.7	30 - 130	30	
Pentachlorophenol	ND	0.23	50	47	6.2	67	61	9.4	30 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Phenanthrene	ND	0.13	69	69	0.0	69	68	1.5	30 - 130	30	
Phenol	ND	0.23	64	68	6.1	64	72	11.8	30 - 130	30	
Pyrene	ND	0.23	66	68	3.0	56	57	1.8	30 - 130	30	
Pyridine	ND	0.23	27	23	16.0	24	26	8.0	30 - 130	30	l,m
% 2,4,6-Tribromophenol	53	%	53	57	7.3	53	52	1.9	30 - 130	30	
% 2-Fluorobiphenyl	67	%	68	69	1.5	65	66	1.5	30 - 130	30	
% 2-Fluorophenol	56	%	53	56	5.5	52	58	10.9	30 - 130	30	
% Nitrobenzene-d5	60	%	55	59	7.0	54	65	18.5	30 - 130	30	
% Phenol-d5	63	%	59	63	6.6	58	65	11.4	30 - 130	30	
% Terphenyl-d14	63	%	66	67	1.5	57	59	3.4	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 402195 (mg/Kg), QC Sample No: BZ03567 10X (BZ01704, BZ01705)

Chlorinated Herbicides - Soil

2,4,5-T	ND	0.083	80	83	3.7	83	77	7.5	40 - 140	30	
2,4,5-TP (Silvex)	ND	0.083	80	88	9.5	88	81	8.3	40 - 140	30	
2,4-D	ND	0.17	72	71	1.4	74	68	8.5	40 - 140	30	
2,4-DB	ND	1.7	73	71	2.8	77	71	8.1	40 - 140	30	
Dalapon	ND	0.083	43	40	7.2	32	30	6.5	40 - 140	30	
Dicamba	ND	0.083	77	77	0.0	79	73	7.9	40 - 140	30	
Dichloroprop	ND	0.17	90	91	1.1	93	86	7.8	40 - 140	30	
Dinoseb	ND	0.17	72	71	1.4	77	74	4.0	40 - 140	30	
% DCAA (Surrogate Rec)	55	%	62	62	0.0	64	60	6.5	30 - 150	30	

QA/QC Batch 402186 (mg/Kg), QC Sample No: BZ04431 2X (BZ01704, BZ01705)

Pesticides - Soil

4,4' -DDD	ND	0.0017	72	90	22.2	57	76	28.6	40 - 140	30	
4,4' -DDE	ND	0.0017	69	86	21.9	61	72	16.5	40 - 140	30	
4,4' -DDT	ND	0.0017	73	95	26.2	61	77	23.2	40 - 140	30	
a-BHC	ND	0.001	76	91	18.0	66	75	12.8	40 - 140	30	
a-Chlordane	ND	0.0033	70	87	21.7	61	78	24.5	40 - 140	30	
Aldrin	ND	0.001	73	87	17.5	64	72	11.8	40 - 140	30	
b-BHC	ND	0.001	76	90	16.9	66	112	51.7	40 - 140	30	r
Chlordane	ND	0.033	75	89	17.1	57	67	16.1	40 - 140	30	
d-BHC	ND	0.0033	70	86	20.5	59	70	17.1	40 - 140	30	
Dieldrin	ND	0.001	65	81	21.9	54	65	18.5	40 - 140	30	
Endosulfan I	ND	0.0033	74	90	19.5	63	75	17.4	40 - 140	30	
Endosulfan II	ND	0.0033	70	88	22.8	58	73	22.9	40 - 140	30	
Endosulfan sulfate	ND	0.0033	64	80	22.2	52	64	20.7	40 - 140	30	
Endrin	ND	0.0033	73	91	22.0	58	73	22.9	40 - 140	30	
Endrin aldehyde	ND	0.0033	49	61	21.8	46	63	31.2	40 - 140	30	r
Endrin ketone	ND	0.0033	72	82	13.0	55	69	22.6	40 - 140	30	
g-BHC	ND	0.001	79	94	17.3	69	77	11.0	40 - 140	30	
g-Chlordane	ND	0.0033	75	89	17.1	57	67	16.1	40 - 140	30	
Heptachlor	ND	0.0033	78	92	16.5	70	77	9.5	40 - 140	30	
Heptachlor epoxide	ND	0.0033	77	91	16.7	65	76	15.6	40 - 140	30	
Methoxychlor	ND	0.0033	86	87	1.2	57	66	14.6	40 - 140	30	
Toxaphene	ND	0.13	NA	NA	NC	NA	NA	NC	40 - 140	30	
% DCBP	81	%	71	77	8.1	61	67	9.4	30 - 150	30	
% TCMX	83	%	86	93	7.8	77	80	3.8	30 - 150	30	

QA/QC Data

SDG I.D.: GBZ01704

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
September 27, 2017

Wednesday, September 27, 2017

Criteria: None

State: NY

Sample Criteria Exceedances Report

GBZ01704 - LANDREM

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Comments

September 27, 2017 SDG I.D.: GBZ01704

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

Herbicide Narration

AU-ECD12 09/21/17-1: BZ01704, BZ01705

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: BZ01704, BZ01705
Preceding CC 921B027 - Dalapon (1) 20%L (15%)
Succeeding CC 921B043 - Dalapon (1) 17%L (15%)

ICP Metals Narration

ARCOS 09/18/17 07:31: BZ01704, BZ01705

The following ICP Interference Check (ICSAB) compounds did not meet criteria:
ICSAB 09/18/17 18:34: Potassium 126% (80-120)

Additional criteria for CCV and ICSAB:
Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB).

PEST Narration

AU-ECD4 09/21/17-2: BZ01704, BZ01705

The following Continuing Calibration compounds did not meet % deviation criteria:
Samples: BZ01704, BZ01705
Preceding CC 921B062 - None.
Succeeding CC 921B075 - % DCBP 22%L (20%), Methoxychlor 24%L (20%)
A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

SVOA Narration

CHEM06 09/15/17-1: BZ01704

The following Initial Calibration compounds did not meet RSD% criteria: 2,4-Dinitrophenol 32% (20%), 4,6-Dinitro-2-methylphenol 22% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.066 (0.1), Hexachlorobenzene 0.084 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: 2-Nitroaniline 58%L (30%), 2-Nitrophenol 32%L (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation criteria: 2-Nitroaniline 58%L (40%)
The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.045 (0.1), Hexachlorobenzene 0.063 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM19 09/15/17-1: BZ01705

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Comments

September 27, 2017 SDG I.D.: GBZ01704

The following Initial Calibration compounds did not meet RSD% criteria: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: 2-Nitroaniline 37%L (30%), N-Nitrosodimethylamine 39%L (30%), Pyridine 41%L (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation criteria: Pyridine 41%L (40%)
The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.053 (0.1), Hexachlorobenzene 0.077 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM18 09/15/17-1: BZ01704, BZ01705

The following Initial Calibration compounds did not meet RSD% criteria: Bromomethane 21% (20%), Methylene chloride 21% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

September 27, 2017

SDG I.D.: GBZ01704

The samples in this delivery group were received at 2.3°C.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [7] ICE [ ] No [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Temp 2.3 °C Pg of

Data Delivery:
[ ] Fax #:
[X] Email: bcv@land-remediation.com, kad@land-remediation.com

Customer: LAND REMEDIATION, INC.
Address: 74 HUDSON RIVER RD., WATERFORD, NY 12188

Project: TROY (WATER ST.) - IRM
Report to: KEITH DECKER / BRAD VALIK
Invoice to: LAND REMEDIATION INC.
Phone #: (518) 233 0107
Fax #:

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Brad C. Valik Date: 9/14/17

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	TPH Petroleum Hydrocarbon	VOC's	SVOC's	PCB's	Cyanide	Sulfide	BTU's	TAL Metal				Soil VOA Vials [X] methanol [ ] H2O	GL Soil container (8) oz	GL Soil container (4) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml GL Soil GL WT- 2 oz	PL NaOH 250ml	Bacteria Bottle			
01704	WC-TROY IRM-A	S	9/14/17	8:50 A	X	X	X	X	X	X	X	X				3	1	2				1						
01705	WC-TROY IRM-B	S	9/14/17	9:10 A	X	X	X	X	X	X	X	X				3	1	2				1						

Relinquished by:	Accepted by:	Date:	Time:
Brad C. Valik	[signature]	9/14/17	1430
[signature]	[signature]		3:30
[signature]	K Burnett	9.14.17	17:30

Comments, Special Requirements or Regulations:
ANALYZE FOR RCRA HAZARDOUS WASTE CHARACTERISTICS

Turnaround:
[ ] 1 Day*
[X] 2 Days*
[X] 3 Days*
[ ] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[ ] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: NEW YORK

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

Page 20 of 31

Bobbi Aloisa

From: Keith Decker <kad@land-remediation.com>
Sent: Wednesday, September 20, 2017 4:44 PM
To: Bobbi Aloisa
Subject: RE: Troy results with BTU

Bobbi,

Hope you are well.

Do we have enough sample to run the following on the two samples remaining:

TCLP Lead on Each based on the total concentrations Ignitability, Reactivity, pH, Herbicide and Pesticide on each?

Thanks

Note Change of Address
Keith Decker
LAND REMEDIATION
74 Hudson River Road
Waterford, NY 12188
cell - 518-229-7214
phone - 518-766-4105 ext.14
fax - 518-233-0141
Check out our Website at
www.land-remediation.com

-----Original Message-----
From: Bobbi Aloisa [mailto:bobbi@phoenixlabs.com]
Sent: Wednesday, September 20, 2017 9:50 AM
To: kad@land-remediation.com; wpl@land-remediation.com
Subject: Troy results with BTU

Bobbi Aloisa
Vice President
Director of Client Services
Phoenix Environmental Laboratories
587 East Middle Turnpike
Manchester, CT 06040

Ph: 860-645-8728

PHOENIX
Environmental Laboratories, Inc.

Thursday, October 05, 2017

Attn: Mr. Keith Decker
Land Remediation
74 Hudson River Road
Waterford, NY 12188

Project ID: TROY WATER ST AREA 3 IRM
Sample ID#s: BZ07744 - BZ07745

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

October 05, 2017

FOR: Attn: Mr. Keith Decker
Land Remediation
74 Hudson River Road
Waterford, NY 12188

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	BV	09/22/17	9:05
Location Code:	LANDREM	Received by:	B	09/22/17	17:20
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	TROY IRM				

Laboratory Data

SDG ID: GBZ07744
Phoenix ID: BZ07744

Project ID: TROY WATER ST AREA 3 IRM
Client ID: WC-TROYIRM-C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.31	0.31	mg/Kg	1	09/23/17	MA	SW6010C	
Aluminum	4850	47	mg/Kg	10	09/23/17	MA	SW6010C	
Arsenic	26.3	0.63	mg/Kg	1	09/23/17	MA	SW6010C	
Barium	223	0.31	mg/Kg	1	09/23/17	MA	SW6010C	
Beryllium	< 0.25	0.25	mg/Kg	1	09/23/17	MA	SW6010C	
Calcium	17600	47	mg/Kg	10	09/23/17	MA	SW6010C	
Cadmium	3.09	0.31	mg/Kg	1	09/23/17	MA	SW6010C	
Cobalt	14.8	0.31	mg/Kg	1	09/23/17	MA	SW6010C	
Chromium	62.6	0.31	mg/Kg	1	09/23/17	MA	SW6010C	
Copper	124	0.31	mg/kg	1	09/23/17	MA	SW6010C	
Iron	157000	470	mg/Kg	100	09/25/17	MA	SW6010C	
Mercury	0.96	0.03	mg/Kg	1	09/25/17	RS	SW7471B	
Potassium	894	4.7	mg/Kg	1	09/23/17	MA	SW6010C	
Magnesium	2270	4.7	mg/Kg	1	09/23/17	MA	SW6010C	
Manganese	931	3.1	mg/Kg	10	09/23/17	MA	SW6010C	
Sodium	1780	4.7	mg/Kg	1	09/23/17	MA	SW6010C	
Nickel	43.2	0.31	mg/Kg	1	09/23/17	MA	SW6010C	
Lead	1240	31	mg/Kg	100	09/25/17	MA	SW6010C	
Antimony	< 3.1	3.1	mg/Kg	1	09/23/17	MA	SW6010C	
Selenium	< 1.3	1.3	mg/Kg	1	09/23/17	MA	SW6010C	
Sulfur	4220	31	mg/Kg	100	09/25/17	MA	SW6010C	1
TCLP Silver	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Barium	0.40	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/25/17	MA	SW6010C	
TCLP Chromium	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Mercury	< 0.0002	0.0002	mg/L	1	09/25/17	RS	SW7470A	
TCLP Lead	0.77	0.10	mg/L	1	09/25/17	MA	SW6010C	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
TCLP Selenium	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
Thallium	< 2.8	2.8	mg/Kg	1	09/23/17	MA	SW6010C	
TCLP Metals Digestion	Completed				09/25/17	W/W	SW3005A	
Vanadium	106	0.31	mg/Kg	1	09/23/17	MA	SW6010C	
Zinc	296	3.1	mg/Kg	10	09/23/17	MA	SW6010C	
Percent Solid	98		%		09/22/17	Q	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	09/22/17	O	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/25/17	EG	SW1010A	
Ignitability	Passed	140	degree F	1	09/25/17	EG	SW846-Ignit	1
pH at 25C - Soil	9.91	1.00	pH Units	1	09/22/17 19:53	O	SW9045	1
Reactivity Cyanide	< 5	5	mg/Kg	1	09/26/17	BS/GD	SW846-ReactCyn	1
Reactivity Sulfide	< 20	20	mg/Kg	1	09/26/17	BS/GD	SW-7.3	1
Reactivity	Negative		Pos/Neg	1	09/26/17	BS/GD	SW846-React	1
Total Cyanide (SW9010C Distill.)	0.73	0.51	mg/Kg	1	10/04/17	EG	SW9012B	
Soil Extraction for PCB	Completed				09/22/17	JJ/V	SW3545A	
Soil Extraction for SVOA	Completed				09/22/17	JJ/CKV	SW3545A	
Mercury Digestion	Completed				09/25/17	W/W	SW7471B	
TCLP Digestion Mercury	Completed				09/25/17	W/W	SW7470A	
TCLP Herbicides Extraction	Completed				09/25/17	Q/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				09/22/17	W	SW1311	
TCLP Extraction for Organics	Completed				09/22/17	W	SW1311	
TCLP Pesticides Extraction	Completed				09/25/17	NT	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/25/17	NT	SW3510C	
TCLP Extraction Volatiles	Completed				09/22/17	Y	SW1311	
Total Metals Digest	Completed				09/22/17	L/AG/BF	SW3050B	
Extraction of TPH SM	Completed				09/22/17	BJ/VCK	SW3545A	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	ND	260	mg/Kg	2500	09/24/17	C/P	SW8015D	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	105		%	2500	09/24/17	C/P	70 - 130 %	
BTU Value	8820	500	BTU/LB		09/27/17	*	ASTMD5865	C
Polychlorinated Biphenyls								
PCB-1016	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1221	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1232	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1242	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1248	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1254	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1260	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1262	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
PCB-1268	ND	0.5	mg/Kg	10	09/25/17	AW	SW8082A	
QA/QC Surrogates								
% DCBP	108		%	10	09/25/17	AW	30 - 150 %	
% TCMX	77		%	10	09/25/17	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	8.3	ug/L	10	09/26/17	CW	SW8151A	
2,4-D	ND	17	ug/L	10	09/26/17	CW	SW8151A	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
QA/QC Surrogates								
% DCAA	59		%	10	09/26/17	CW	30 - 150 %	
TCLP Pesticides								
4,4' -DDD	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
4,4' -DDE	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
4,4' -DDT	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
a-BHC	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Alachlor	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	1
Aldrin	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
b-BHC	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Chlordane	ND	5.0	ug/L	10	09/26/17	CW	SW8081B	
d-BHC	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Dieldrin	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
Endosulfan I	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Endosulfan II	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
Endosulfan Sulfate	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
Endrin	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
Endrin Aldehyde	ND	1.0	ug/L	10	09/26/17	CW	SW8081B	
g-BHC (Lindane)	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Heptachlor	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Heptachlor epoxide	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Methoxychlor	ND	0.50	ug/L	10	09/26/17	CW	SW8081B	
Toxaphene	ND	20	ug/L	10	09/26/17	CW	SW8081B	
QA/QC Surrogates								
%DCBP (Surrogate Rec)	78		%	10	09/26/17	CW	30 - 150 %	
%TCMX (Surrogate Rec)	80		%	10	09/26/17	CW	30 - 150 %	
TPH DRO (C10-C28)								
Diesel Range Organics (C10-C28)	4100	510	mg/Kg	10	09/26/17	JRB	SW8015D DRO	
QA/QC Surrogates								
% n-Pentacosane	Diluted Out		%	10	09/26/17	JRB	50 - 150 %	
Volatiles								
1,1,1,2-Tetrachloroethane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,1,1-Trichloroethane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,1,2-Trichloroethane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,1-Dichloroethane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,1-Dichloroethene	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,1-Dichloropropene	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2,3-Trichloropropane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2,4-Trimethylbenzene	2.9	L 2.5	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2-Dibromoethane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2-Dichlorobenzene	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2-Dichloroethane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,2-Dichloropropane	ND	L 5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	

Project ID: TROY WATER ST AREA 3 IRM
Client ID: WC-TROYIRM-C

Phoenix I.D.: BZ07744

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,3,5-Trimethylbenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,3-Dichlorobenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,3-Dichloropropane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
1,4-Dichlorobenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
2,2-Dichloropropane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
2-Chlorotoluene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
2-Hexanone	ND	L	26	mg/Kg	1000	09/23/17	JLI	SW8260C	
2-Isopropyltoluene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	1
4-Chlorotoluene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
4-Methyl-2-pentanone	ND	L	26	mg/Kg	1000	09/23/17	JLI	SW8260C	
Acetone	ND	L	26	mg/Kg	1000	09/23/17	JLI	SW8260C	
Acrylonitrile	ND	L	10	mg/Kg	1000	09/23/17	JLI	SW8260C	
Benzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Bromobenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Bromochloromethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Bromodichloromethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Bromoform	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Bromomethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Carbon Disulfide	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Carbon tetrachloride	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Chlorobenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Chloroethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Chloroform	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Chloromethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Dibromochloromethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Dibromomethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Dichlorodifluoromethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Ethylbenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Hexachlorobutadiene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Isopropylbenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
m&p-Xylene	3	L	2.5	mg/Kg	1000	09/23/17	JLI	SW8260C	
Methyl Ethyl Ketone	ND	L	26	mg/Kg	1000	09/23/17	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	L	10	mg/Kg	1000	09/23/17	JLI	SW8260C	
Methylene chloride	ND	L	10	mg/Kg	1000	09/23/17	JLI	SW8260C	
Naphthalene	490	L	26	mg/Kg	5000	09/24/17	JLI	SW8260C	
n-Butylbenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
n-Propylbenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
o-Xylene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
p-Isopropyltoluene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
sec-Butylbenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Styrene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
tert-Butylbenzene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Tetrachloroethene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	L	10	mg/Kg	1000	09/23/17	JLI	SW8260C	1
Toluene	2.7	L	2.5	mg/Kg	1000	09/23/17	JLI	SW8260C	
Total Xylenes	3		2.5	mg/Kg	1000	09/23/17	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C	

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	L	10	mg/Kg	1000	09/23/17	JLI	SW8260C
Trichloroethene	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C
Trichlorofluoromethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C
Vinyl chloride	ND	L	5.2	mg/Kg	1000	09/23/17	JLI	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	99			%	1000	09/23/17	JLI	70 - 130 %
% Bromofluorobenzene	101			%	1000	09/23/17	JLI	70 - 130 %
% Dibromofluoromethane	95			%	1000	09/23/17	JLI	70 - 130 %
% Toluene-d8	100			%	1000	09/23/17	JLI	70 - 130 %
TCLP Volatiles								
1,1-Dichloroethene	ND		50	ug/L	10	09/26/17	HM	SW8260C
1,2-Dichloroethane	ND		50	ug/L	10	09/26/17	HM	SW8260C
Benzene	59		50	ug/L	10	09/26/17	HM	SW8260C
Carbon tetrachloride	ND		50	ug/L	10	09/26/17	HM	SW8260C
Chlorobenzene	ND		50	ug/L	10	09/26/17	HM	SW8260C
Chloroform	ND		50	ug/L	10	09/26/17	HM	SW8260C
Methyl ethyl ketone	ND		50	ug/L	10	09/26/17	HM	SW8260C
Tetrachloroethene	ND		50	ug/L	10	09/26/17	HM	SW8260C
Trichloroethene	ND		50	ug/L	10	09/26/17	HM	SW8260C
Vinyl chloride	ND		50	ug/L	10	09/26/17	HM	SW8260C
QA/QC Surrogates								
% 1,2-dichlorobenzene-d4	101			%	10	09/26/17	HM	70 - 130 %
% Bromofluorobenzene	98			%	10	09/26/17	HM	70 - 130 %
% Dibromofluoromethane	99			%	10	09/26/17	HM	70 - 130 %
% Toluene-d8	100			%	10	09/26/17	HM	70 - 130 %
Semivolatiles								
1,2,4,5-Tetrachlorobenzene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
1,2,4-Trichlorobenzene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
1,2-Dichlorobenzene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
1,2-Diphenylhydrazine	ND		51	mg/Kg	20	09/25/17	D/P	SW8270D
1,3-Dichlorobenzene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
1,4-Dichlorobenzene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2,4,5-Trichlorophenol	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2,4,6-Trichlorophenol	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2,4-Dichlorophenol	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2,4-Dimethylphenol	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2,4-Dinitrophenol	ND		51	mg/Kg	20	09/25/17	D/P	SW8270D
2,4-Dinitrotoluene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2,6-Dinitrotoluene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2-Chloronaphthalene	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2-Chlorophenol	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
2-Methylnaphthalene	400		35	mg/Kg	20	09/25/17	D/P	SW8270D
2-Methylphenol (o-cresol)	13		12	mg/Kg	20	09/25/17	D/P	SW8270D
2-Nitroaniline	ND		51	mg/Kg	20	09/25/17	D/P	SW8270D
2-Nitrophenol	ND		35	mg/Kg	20	09/25/17	D/P	SW8270D
3&4-Methylphenol (m&p-cresol)	32		30	mg/Kg	20	09/25/17	D/P	SW8270D

Project ID: TROY WATER ST AREA 3 IRM
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Phoenix I.D.: BZ07744

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
3-Nitroaniline	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
4,6-Dinitro-2-methylphenol	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
4-Bromophenyl phenyl ether	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
4-Chloro-3-methylphenol	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
4-Chloroaniline	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
4-Chlorophenyl phenyl ether	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
4-Nitroaniline	ND	81	mg/Kg	20	09/25/17	D/P	SW8270D
4-Nitrophenol	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Acenaphthene	51	35	mg/Kg	20	09/25/17	D/P	SW8270D
Acenaphthylene	47	35	mg/Kg	20	09/25/17	D/P	SW8270D
Acetophenone	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Aniline	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
Anthracene	99	35	mg/Kg	20	09/25/17	D/P	SW8270D
Benz(a)anthracene	230	35	mg/Kg	20	09/25/17	D/P	SW8270D
Benzidine	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Benzo(a)pyrene	230	35	mg/Kg	20	09/25/17	D/P	SW8270D
Benzo(b)fluoranthene	180	35	mg/Kg	20	09/25/17	D/P	SW8270D
Benzo(ghi)perylene	98	35	mg/Kg	20	09/25/17	D/P	SW8270D
Benzo(k)fluoranthene	170	35	mg/Kg	20	09/25/17	D/P	SW8270D
Benzoic acid	ND	100	mg/Kg	20	09/25/17	D/P	SW8270D
Benzyl butyl phthalate	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Bis(2-chloroethoxy)methane	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Bis(2-chloroethyl)ether	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
Bis(2-chloroisopropyl)ether	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Bis(2-ethylhexyl)phthalate	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Carbazole	85	51	mg/Kg	20	09/25/17	D/P	SW8270D
Chrysene	240	35	mg/Kg	20	09/25/17	D/P	SW8270D
Dibenz(a,h)anthracene	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Dibenzofuran	110	35	mg/Kg	20	09/25/17	D/P	SW8270D
Diethyl phthalate	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Dimethylphthalate	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Di-n-butylphthalate	ND	100	mg/Kg	20	09/25/17	D/P	SW8270D
Di-n-octylphthalate	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Fluoranthene	410	35	mg/Kg	20	09/25/17	D/P	SW8270D
Fluorene	230	35	mg/Kg	20	09/25/17	D/P	SW8270D
Hexachlorobenzene	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Hexachlorobutadiene	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Hexachlorocyclopentadiene	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Hexachloroethane	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Indeno(1,2,3-cd)pyrene	95	35	mg/Kg	20	09/25/17	D/P	SW8270D
Isophorone	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
Naphthalene	1300	180	mg/Kg	100	09/26/17	D/P	SW8270D
Nitrobenzene	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
N-Nitrosodimethylamine	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
N-Nitrosodi-n-propylamine	ND	35	mg/Kg	20	09/25/17	D/P	SW8270D
N-Nitrosodiphenylamine	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
Pentachloronitrobenzene	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D
Pentachlorophenol	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Phenanthrene	920	35	mg/Kg	20	09/25/17	D/P	SW8270D	
Phenol	47	35	mg/Kg	20	09/25/17	D/P	SW8270D	
Pyrene	430	35	mg/Kg	20	09/25/17	D/P	SW8270D	
Pyridine	ND	51	mg/Kg	20	09/25/17	D/P	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	25		%	20	09/25/17	D/P	30 - 130 %	3
% 2-Fluorobiphenyl	71		%	20	09/25/17	D/P	30 - 130 %	
% 2-Fluorophenol	48		%	20	09/25/17	D/P	30 - 130 %	
% Nitrobenzene-d5	76		%	20	09/25/17	D/P	30 - 130 %	
% Phenol-d5	64		%	20	09/25/17	D/P	30 - 130 %	
% Terphenyl-d14	57		%	20	09/25/17	D/P	30 - 130 %	
TCLP Acid/Base-Neutral								
1,4-Dichlorobenzene	ND	83	ug/L	1	09/26/17	DD	SW8270D	
2,4,5-Trichlorophenol	ND	83	ug/L	1	09/26/17	DD	SW8270D	
2,4,6-Trichlorophenol	ND	83	ug/L	1	09/26/17	DD	SW8270D	
2,4-Dinitrotoluene	ND	83	ug/L	1	09/26/17	DD	SW8270D	
2-Methylphenol (o-cresol)	180	83	ug/L	1	09/26/17	DD	SW8270D	
3&4-Methylphenol (m&p-Cresol)	500	83	ug/L	1	09/26/17	DD	SW8270D	
Hexachlorobenzene	ND	83	ug/L	1	09/26/17	DD	SW8270D	
Hexachlorobutadiene	ND	83	ug/L	1	09/26/17	DD	SW8270D	
Hexachloroethane	ND	83	ug/L	1	09/26/17	DD	SW8270D	
Nitrobenzene	ND	83	ug/L	1	09/26/17	DD	SW8270D	
Pentachlorophenol	ND	83	ug/L	1	09/26/17	DD	SW8270D	
Pyridine	ND	83	ug/L	1	09/26/17	DD	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	97		%	1	09/26/17	DD	15 - 110 %	
% 2-Fluorobiphenyl	100		%	1	09/26/17	DD	30 - 130 %	
% 2-Fluorophenol	80		%	1	09/26/17	DD	15 - 110 %	
% Nitrobenzene-d5	94		%	1	09/26/17	DD	30 - 130 %	
% Phenol-d5	76		%	1	09/26/17	DD	15 - 110 %	
% Terphenyl-d14	100		%	1	09/26/17	DD	30 - 130 %	
Field Extraction	Completed				09/22/17		SW5035A	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.
3 = This parameter exceeds laboratory specified limits.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The GRO (C6-C10) is quantitated using an gasoline standard.

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide.This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

Volatile Comment:
Elevated reporting limits for volatiles due to the presence of target and/or non-target compounds.

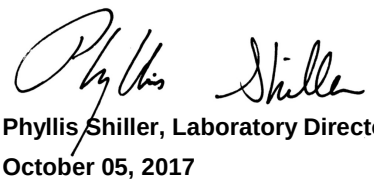
Elevated reporting limits for GRO due to the large presence of a non-target compound - Naphthalene.

BZ07744 - The pH in the preserved volatile vial was greater than 2. A negative bias may have occurred.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

BTU Value (ASTMD5865) was analyzed by MA certified lab #M-MA071.

If there are any questions regarding this data, please call Phoenix Client Services.



Phyllis Shiller, Laboratory Director
October 05, 2017
Reviewed and Released by: Bobbi Aloisa, Vice President

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

October 05, 2017

FOR: Attn: Mr. Keith Decker
Land Remediation
74 Hudson River Road
Waterford, NY 12188

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	BV	09/22/17	9:10
Location Code:	LANDREM	Received by:	B	09/22/17	17:20
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	TROY IRM				

Laboratory Data

SDG ID: GBZ07744
Phoenix ID: BZ07745

Project ID: TROY WATER ST AREA 3 IRM
Client ID: WC-TROYIRM-D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Silver	< 0.34	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Aluminum	2710	52	mg/Kg	10	09/23/17	MA	SW6010C	
Arsenic	36.4	0.69	mg/Kg	1	09/23/17	MA	SW6010C	
Barium	18.2	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Beryllium	< 0.28	0.28	mg/Kg	1	09/23/17	MA	SW6010C	
Calcium	1300	5.2	mg/Kg	1	09/23/17	MA	SW6010C	
Cadmium	1.57	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Cobalt	3.29	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Chromium	6.08	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Copper	15.7	0.34	mg/kg	1	09/23/17	MA	SW6010C	
Iron	16600	52	mg/Kg	10	09/23/17	MA	SW6010C	
Mercury	0.56	0.03	mg/Kg	1	09/25/17	RS	SW7471B	
Potassium	357	5.2	mg/Kg	1	09/23/17	MA	SW6010C	
Magnesium	1090	5.2	mg/Kg	1	09/23/17	MA	SW6010C	
Manganese	192	3.4	mg/Kg	10	09/23/17	MA	SW6010C	
Sodium	1200	5.2	mg/Kg	1	09/23/17	MA	SW6010C	
Nickel	11.6	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Lead	100	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Antimony	< 3.4	3.4	mg/Kg	1	09/23/17	MA	SW6010C	
Selenium	< 1.4	1.4	mg/Kg	1	09/23/17	MA	SW6010C	
Sulfur	3460	34	mg/Kg	100	10/03/17	MA	SW6010C	1
TCLP Silver	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Arsenic	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Barium	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Cadmium	< 0.050	0.050	mg/L	1	09/25/17	MA	SW6010C	
TCLP Chromium	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
TCLP Mercury	< 0.0002	0.0002	mg/L	1	09/25/17	RS	SW7470A	
TCLP Lead	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
TCLP Selenium	< 0.10	0.10	mg/L	1	09/25/17	MA	SW6010C	
Thallium	9.3	3.1	mg/Kg	1	09/23/17	MA	SW6010C	
TCLP Metals Digestion	Completed				09/25/17	W/W	SW3005A	
Vanadium	19.7	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Zinc	96.2	0.34	mg/Kg	1	09/23/17	MA	SW6010C	
Percent Solid	92		%		09/22/17	Q	SW846-%Solid	
Corrosivity	Negative		Pos/Neg	1	09/22/17	O	SW846-Corr	1
Flash Point	>200	200	Degree F	1	09/25/17	EG	SW1010A	
Ignitability	Passed	140	degree F	1	09/25/17	EG	SW846-Ignit	1
pH at 25C - Soil	7.00	1.00	pH Units	1	09/22/17 19:53	O	SW9045	1
Reactivity Cyanide	< 5	5	mg/Kg	1	09/26/17	BS/GD	SW846-ReactCyn	1
Reactivity Sulfide	< 20	20	mg/Kg	1	09/26/17	BS/GD	SW-7.3	1
Reactivity	Negative		Pos/Neg	1	09/26/17	BS/GD	SW846-React	1
Total Cyanide (SW9010C Distill.)	2.48	0.54	mg/Kg	1	10/04/17	EG	SW9012B	
Soil Extraction for PCB	Completed				09/22/17	JJ/V	SW3545A	
Soil Extraction for SVOA	Completed				09/22/17	JJ/CKV	SW3545A	
Mercury Digestion	Completed				09/25/17	W/W	SW7471B	
TCLP Digestion Mercury	Completed				09/25/17	W/W	SW7470A	
TCLP Herbicides Extraction	Completed				09/25/17	Q/D	SW8150 MOD	
TCLP Extraction for Metals	Completed				09/22/17	W	SW1311	
TCLP Extraction for Organics	Completed				09/22/17	W	SW1311	
TCLP Pesticides Extraction	Completed				09/25/17	NT	SW3510C	
TCLP Semi-Volatile Extraction	Completed				09/25/17	NT	SW3510C	
TCLP Extraction Volatiles	Completed				09/22/17	Y	SW1311	
Total Metals Digest	Completed				09/22/17	L/AG/BF	SW3050B	
Extraction of TPH SM	Completed				09/22/17	JJ/VCK	SW3545A	
Gasoline Range Hydrocarbons (C6-C10)								
GRO (C6-C10)	1200	1100	mg/Kg	1000	09/24/17	CG	SW8015D	
QA/QC Surrogates								
% 2,5-Dibromotoluene (FID)	101		%	1000	09/24/17	CG	70 - 130 %	
BTU Value	8112	500	BTU/LB		09/27/17	*	ASTMD5865	C
Polychlorinated Biphenyls								
PCB-1016	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1221	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1232	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1242	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1248	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1254	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1260	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1262	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
PCB-1268	ND	0.97	mg/Kg	2	09/26/17	AW	SW8082A	
QA/QC Surrogates								
% DCBP	40		%	2	09/26/17	AW	30 - 150 %	
% TCMX	44		%	2	09/26/17	AW	30 - 150 %	
TCLP Herbicides								
2,4,5-TP (Silvex)	ND	8.3	ug/L	10	09/26/17	CW	SW8151A	
2,4-D	ND	17	ug/L	10	09/26/17	CW	SW8151A	

Project ID: TROY WATER ST AREA 3 IRM
Client ID: WC-TROYIRM-D

Phoenix I.D.: BZ07745

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference	
QA/QC Surrogates									
% DCAA	66			%	10	09/26/17	CW	30 - 150 %	
TCLP Pesticides									
4,4' -DDD	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
4,4' -DDE	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
4,4' -DDT	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
a-BHC	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Alachlor	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	1
Aldrin	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
b-BHC	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Chlordane	ND		5.0	ug/L	10	09/26/17	CW	SW8081B	
d-BHC	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Dieldrin	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
Endosulfan I	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Endosulfan II	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
Endosulfan Sulfate	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
Endrin	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
Endrin Aldehyde	ND		1.0	ug/L	10	09/26/17	CW	SW8081B	
g-BHC (Lindane)	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Heptachlor	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Heptachlor epoxide	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Methoxychlor	ND		0.50	ug/L	10	09/26/17	CW	SW8081B	
Toxaphene	ND		20	ug/L	10	09/26/17	CW	SW8081B	
QA/QC Surrogates									
%DCBP (Surrogate Rec)	88			%	10	09/26/17	CW	30 - 150 %	
%TCMX (Surrogate Rec)	77			%	10	09/26/17	CW	30 - 150 %	
TPH DRO (C10-C28)									
Diesel Range Organics (C10-C28)	63000		3500	mg/Kg	5	09/25/17	JRB	SW8015D DRO	
QA/QC Surrogates									
% n-Pentacosane	Diluted Out			%	5	09/25/17	JRB	50 - 150 %	
Volatiles									
1,1,1,2-Tetrachloroethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,1,1-Trichloroethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,1,2,2-Tetrachloroethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,1,2-Trichloroethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,1-Dichloroethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,1-Dichloroethene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,1-Dichloropropene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2,3-Trichlorobenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2,3-Trichloropropane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2,4-Trichlorobenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2,4-Trimethylbenzene	87	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2-Dibromo-3-chloropropane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2-Dibromoethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2-Dichlorobenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2-Dichloroethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,2-Dichloropropane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	

Project ID: TROY WATER ST AREA 3 IRM
Client ID: WC-TROYIRM-D

Phoenix I.D.: BZ07745

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference	
1,3,5-Trimethylbenzene	32	L	30	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,3-Dichlorobenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,3-Dichloropropane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
1,4-Dichlorobenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
2,2-Dichloropropane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
2-Chlorotoluene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
2-Hexanone	ND	L	270	mg/Kg	1000	09/24/17	JLI	SW8260C	
2-Isopropyltoluene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	1
4-Chlorotoluene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
4-Methyl-2-pentanone	ND	L	270	mg/Kg	1000	09/24/17	JLI	SW8260C	
Acetone	ND	L	270	mg/Kg	1000	09/24/17	JLI	SW8260C	
Acrylonitrile	ND	L	110	mg/Kg	1000	09/24/17	JLI	SW8260C	
Benzene	100	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Bromobenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Bromochloromethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Bromodichloromethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Bromoform	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Bromomethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Carbon Disulfide	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Carbon tetrachloride	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Chlorobenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Chloroethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Chloroform	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Chloromethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
cis-1,2-Dichloroethene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
cis-1,3-Dichloropropene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Dibromochloromethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Dibromomethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Dichlorodifluoromethane	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Ethylbenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Hexachlorobutadiene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Isopropylbenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
m&p-Xylene	140	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Methyl Ethyl Ketone	ND	L	270	mg/Kg	1000	09/24/17	JLI	SW8260C	
Methyl t-butyl ether (MTBE)	ND	L	110	mg/Kg	1000	09/24/17	JLI	SW8260C	
Methylene chloride	ND	L	110	mg/Kg	1000	09/24/17	JLI	SW8260C	
Naphthalene	6000	L	550	mg/Kg	10000	09/25/17	JLI	SW8260C	
n-Butylbenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
n-Propylbenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
o-Xylene	59	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
p-Isopropyltoluene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
sec-Butylbenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Styrene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
tert-Butylbenzene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Tetrachloroethene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Tetrahydrofuran (THF)	ND	L	110	mg/Kg	1000	09/24/17	JLI	SW8260C	1
Toluene	190	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	
Total Xylenes	199		55	mg/Kg	1000	09/24/17	JLI	SW8260C	
trans-1,2-Dichloroethene	ND	L	55	mg/Kg	1000	09/24/17	JLI	SW8260C	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
trans-1,3-Dichloropropene	ND	L 55	mg/Kg	1000	09/24/17	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	L 110	mg/Kg	1000	09/24/17	JLI	SW8260C
Trichloroethene	ND	L 55	mg/Kg	1000	09/24/17	JLI	SW8260C
Trichlorofluoromethane	ND	L 55	mg/Kg	1000	09/24/17	JLI	SW8260C
Trichlorotrifluoroethane	ND	L 55	mg/Kg	1000	09/24/17	JLI	SW8260C
Vinyl chloride	ND	L 55	mg/Kg	1000	09/24/17	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	1000	09/24/17	JLI	70 - 130 %
% Bromofluorobenzene	102		%	1000	09/24/17	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1000	09/24/17	JLI	70 - 130 %
% Toluene-d8	101		%	1000	09/24/17	JLI	70 - 130 %
TCLP Volatiles							
1,1-Dichloroethene	ND	50	ug/L	10	09/26/17	HM	SW8260C
1,2-Dichloroethane	ND	50	ug/L	10	09/26/17	HM	SW8260C
Benzene	1200	50	ug/L	10	09/26/17	HM	SW8260C
Carbon tetrachloride	ND	50	ug/L	10	09/26/17	HM	SW8260C
Chlorobenzene	ND	50	ug/L	10	09/26/17	HM	SW8260C
Chloroform	ND	50	ug/L	10	09/26/17	HM	SW8260C
Methyl ethyl ketone	ND	50	ug/L	10	09/26/17	HM	SW8260C
Tetrachloroethene	ND	50	ug/L	10	09/26/17	HM	SW8260C
Trichloroethene	ND	50	ug/L	10	09/26/17	HM	SW8260C
Vinyl chloride	ND	50	ug/L	10	09/26/17	HM	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	100		%	10	09/26/17	HM	70 - 130 %
% Bromofluorobenzene	98		%	10	09/26/17	HM	70 - 130 %
% Dibromofluoromethane	98		%	10	09/26/17	HM	70 - 130 %
% Toluene-d8	102		%	10	09/26/17	HM	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
1,2,4-Trichlorobenzene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
1,2-Dichlorobenzene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
1,2-Diphenylhydrazine	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
1,3-Dichlorobenzene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
1,4-Dichlorobenzene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2,4,5-Trichlorophenol	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2,4,6-Trichlorophenol	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2,4-Dichlorophenol	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2,4-Dimethylphenol	240	32	mg/Kg	10	09/23/17	DD	SW8270D
2,4-Dinitrophenol	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
2,4-Dinitrotoluene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2,6-Dinitrotoluene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2-Chloronaphthalene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2-Chlorophenol	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
2-Methylnaphthalene	4300	640	mg/Kg	200	09/26/17	DD	SW8270D
2-Methylphenol (o-cresol)	390	32	mg/Kg	10	09/23/17	DD	SW8270D
2-Nitroaniline	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
2-Nitrophenol	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	1000	910	mg/Kg	200	09/26/17	DD	SW8270D

Project ID: TROY WATER ST AREA 3 IRM
Client ID: WC-TROYIRM-D

Phoenix I.D.: BZ07745

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
3,3'-Dichlorobenzidine	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
3-Nitroaniline	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
4-Bromophenyl phenyl ether	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
4-Chloro-3-methylphenol	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
4-Chloroaniline	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
4-Nitroaniline	ND	73	mg/Kg	10	09/23/17	DD	SW8270D
4-Nitrophenol	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Acenaphthene	340	32	mg/Kg	10	09/23/17	DD	SW8270D
Acenaphthylene	190	32	mg/Kg	10	09/23/17	DD	SW8270D
Acetophenone	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Aniline	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
Anthracene	700	32	mg/Kg	10	09/23/17	DD	SW8270D
Benz(a)anthracene	1300	640	mg/Kg	200	09/26/17	DD	SW8270D
Benzidine	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Benzo(a)pyrene	890	32	mg/Kg	10	09/23/17	DD	SW8270D
Benzo(b)fluoranthene	850	32	mg/Kg	10	09/23/17	DD	SW8270D
Benzo(ghi)perylene	400	32	mg/Kg	10	09/23/17	DD	SW8270D
Benzo(k)fluoranthene	580	32	mg/Kg	10	09/23/17	DD	SW8270D
Benzoic acid	ND	91	mg/Kg	10	09/23/17	DD	SW8270D
Benzyl butyl phthalate	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Bis(2-chloroethyl)ether	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Carbazole	910	46	mg/Kg	10	09/23/17	DD	SW8270D
Chrysene	1200	640	mg/Kg	200	09/26/17	DD	SW8270D
Dibenz(a,h)anthracene	140	32	mg/Kg	10	09/23/17	DD	SW8270D
Dibenzofuran	1600	640	mg/Kg	200	09/26/17	DD	SW8270D
Diethyl phthalate	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Dimethylphthalate	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Di-n-butylphthalate	ND	91	mg/Kg	10	09/23/17	DD	SW8270D
Di-n-octylphthalate	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Fluoranthene	3500	640	mg/Kg	200	09/26/17	DD	SW8270D
Fluorene	2300	640	mg/Kg	200	09/26/17	DD	SW8270D
Hexachlorobenzene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Hexachlorobutadiene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Hexachlorocyclopentadiene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Hexachloroethane	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Indeno(1,2,3-cd)pyrene	430	32	mg/Kg	10	09/23/17	DD	SW8270D
Isophorone	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
Naphthalene	17000	3200	mg/Kg	1000	09/26/17	DD	SW8270D
Nitrobenzene	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
N-Nitrosodimethylamine	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	32	mg/Kg	10	09/23/17	DD	SW8270D
N-Nitrosodiphenylamine	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
Pentachloronitrobenzene	ND	46	mg/Kg	10	09/23/17	DD	SW8270D
Pentachlorophenol	ND	46	mg/Kg	10	09/23/17	DD	SW8270D

Project ID: TROY WATER ST AREA 3 IRM
Client ID: WC-TROYIRM-D

Phoenix I.D.: BZ07745

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference	
Phenanthrene	6900	640	mg/Kg	200	09/26/17	DD	SW8270D	
Phenol	1400	640	mg/Kg	200	09/26/17	DD	SW8270D	
Pyrene	2600	640	mg/Kg	200	09/26/17	DD	SW8270D	
Pyridine	ND	46	mg/Kg	10	09/23/17	DD	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	39		%	10	09/23/17	DD	30 - 130 %	
% 2-Fluorobiphenyl	64		%	10	09/23/17	DD	30 - 130 %	
% 2-Fluorophenol	61		%	10	09/23/17	DD	30 - 130 %	
% Nitrobenzene-d5	58		%	10	09/23/17	DD	30 - 130 %	
% Phenol-d5	62		%	10	09/23/17	DD	30 - 130 %	
% Terphenyl-d14	62		%	10	09/23/17	DD	30 - 130 %	
TCLP Acid/Base-Neutral								
1,4-Dichlorobenzene	ND	830	ug/L	10	09/26/17	PS	SW8270D	
2,4,5-Trichlorophenol	ND	830	ug/L	10	09/26/17	PS	SW8270D	
2,4,6-Trichlorophenol	ND	830	ug/L	10	09/26/17	PS	SW8270D	
2,4-Dinitrotoluene	ND	130	ug/L	10	09/26/17	PS	SW8270D	
2-Methylphenol (o-cresol)	5900	830	ug/L	10	09/26/17	PS	SW8270D	
3&4-Methylphenol (m&p-Cresol)	16000	830	ug/L	10	09/26/17	PS	SW8270D	
Hexachlorobenzene	ND	130	ug/L	10	09/26/17	PS	SW8270D	
Hexachlorobutadiene	ND	500	ug/L	10	09/26/17	PS	SW8270D	
Hexachloroethane	ND	830	ug/L	10	09/26/17	PS	SW8270D	
Nitrobenzene	ND	830	ug/L	10	09/26/17	PS	SW8270D	
Pentachlorophenol	ND	830	ug/L	10	09/26/17	PS	SW8270D	
Pyridine	ND	830	ug/L	10	09/26/17	PS	SW8270D	
QA/QC Surrogates								
% 2,4,6-Tribromophenol	84		%	10	09/26/17	PS	15 - 110 %	
% 2-Fluorobiphenyl	84		%	10	09/26/17	PS	30 - 130 %	
% 2-Fluorophenol	67		%	10	09/26/17	PS	15 - 110 %	
% Nitrobenzene-d5	78		%	10	09/26/17	PS	30 - 130 %	
% Phenol-d5	66		%	10	09/26/17	PS	15 - 110 %	
% Terphenyl-d14	85		%	10	09/26/17	PS	30 - 130 %	
Field Extraction	Completed				09/22/17		SW5035A	1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.
C = This parameter is subcontracted.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

The TPH (C10-C28) is quantitated using an alkane standard.

Corrosivity is based solely on the pH analysis performed above.

The GRO (C6-C10) is quantitated using an gasoline standard.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide.This method is no longer listed in the current version of SW-846.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Sulfide. This method is no longer listed in the current version of SW-846.

This sample was not collected in accordance with EPA method 5035. NELAC requires the laboratory to qualify the volatile soil data as biased low.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

BTU Value (ASTMD5865) was analyzed by MA certified lab #M-MA071.

If there are any questions regarding this data, please call Phoenix Client Services.

Phyllis Shiller, Laboratory Director
October 05, 2017
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

October 05, 2017

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 402756 (mg/kg), QC Sample No: BZ02850 (BZ07744, BZ07745)														
Mercury - Soil	BRL	0.03	0.03	<0.03	NC	94.6	98.9	4.4	102			70 - 130	30	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 402767 (mg/L), QC Sample No: BZ06980 (BZ07744, BZ07745)														
ICP Metals - TCLP Extraction														
Arsenic	BRL	0.01	<0.01	<0.01	NC	108			105			75 - 125	20	
Barium	BRL	0.01	0.56	0.56	0	96.0			94.6			75 - 125	20	
Cadmium	BRL	0.005	<0.005	<0.005	NC	100			99.0			75 - 125	20	
Chromium	BRL	0.010	<0.010	<0.010	NC	99.5			97.8			75 - 125	20	
Lead	BRL	0.010	0.037	0.038	NC	107			106			75 - 125	20	
Selenium	BRL	0.01	<0.01	<0.01	NC	114			112			75 - 125	20	
Silver	BRL	0.010	<0.010	<0.010	NC	113			111			75 - 125	20	
QA/QC Batch 402758 (mg/L), QC Sample No: BZ06980 (BZ07744, BZ07745)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	93.4			87.8			80 - 120	20	
Comment:														
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.														
QA/QC Batch 402637 (mg/kg), QC Sample No: BZ07290 (BZ07744, BZ07745)														
ICP Metals - Soil														
Aluminum	BRL	5.2	9640	10200	5.60	102			NC			75 - 125	30	
Antimony	BRL	3.5	<3.3	<3.3	NC	113			95.9			75 - 125	30	
Arsenic	BRL	0.69	6.35	6.09	4.20	99.9			95.8			75 - 125	30	
Barium	BRL	0.35	29.0	36.8	23.7	101			107			75 - 125	30	
Beryllium	BRL	0.28	0.47	0.49	NC	103			98.1			75 - 125	30	
Cadmium	BRL	0.35	0.46	0.41	NC	106			99.2			75 - 125	30	
Calcium	BRL	5.2	2020	1990	1.50	88.5			NC			75 - 125	30	
Chromium	BRL	0.35	9.59	9.40	2.00	111			101			75 - 125	30	
Cobalt	BRL	0.35	6.31	5.64	11.2	107			99.2			75 - 125	30	
Copper	BRL	0.35	13.4	38.8	97.3	111			109			75 - 125	30	r
Iron	BRL	5.2	13200	15000	12.8	99.5			NC			75 - 125	30	
Lead	BRL	0.35	58.1	64.7	10.7	104			>130			75 - 125	30	m
Magnesium	BRL	5.2	2880	3180	9.90	105			NC			75 - 125	30	
Manganese	BRL	0.35	335	360	7.20	104			>130			75 - 125	30	m
Nickel	BRL	0.35	9.40	15.9	51.4	108			99.9			75 - 125	30	r
Potassium	BRL	5.2	816	1040	24.1	88.8			>130			75 - 125	30	m
Selenium	BRL	1.4	<1.3	<1.3	NC	98.3			85.5			75 - 125	30	
Silver	BRL	0.35	<0.33	<0.33	NC	102			99.8			75 - 125	30	
Sodium	BRL	5.2	108	125	14.6	92.4			>130			75 - 125	30	m
Thallium	BRL	3.1	<3.0	<3.0	NC	108			100			75 - 125	30	
Vanadium	BRL	0.35	21.0	22.9	8.70	110			101			75 - 125	30	
Zinc	BRL	0.35	113	224	65.9	103			99.9			75 - 125	30	r

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

QA/QC Report

October 05, 2017

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 402896 (mg/Kg), QC Sample No: BZ06072 4.76X (BZ07744, BZ07745)													
Reactivity Cyanide	BRL	0.05	<6	<5.6	NC	97.2						85 - 115	30
QA/QC Batch 402775 (Degree F), QC Sample No: BZ06896 (BZ07744, BZ07745)													
Flash Point			121	124	NC	101						75 - 125	30
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 402653 (PH), QC Sample No: BZ07744 (BZ07744, BZ07745)													
pH at 25C - Soil			9.91	9.91	0	99.8						85 - 115	20
QA/QC Batch 404044 (mg/Kg), QC Sample No: BZ13614 50X (BZ07744, BZ07745)													
Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.49	<0.54	NC	99.9			105			80 - 120	30
Comment:													
Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils													

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

October 05, 2017

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 402608 (mg/Kg), QC Sample No: BZ02018 (BZ07744, BZ07745)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum HC	ND	50	82	77	6.3	86	82	4.8	30 - 130	30	
% n-Pentacosane	75	%	72	64	11.8	76	73	4.0	50 - 150	30	
Comment:											
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.											
QA/QC Batch 402714 (mg/Kg), QC Sample No: BZ06072 (BZ07744 (2500X) , BZ07745 (1000X))											
Gasoline Range Hydrocarbons (C6C10) - Soil											
GRO (C6-C10)	ND	0.10	90	93	3.3	89	90	1.1	70 - 130	50	
% 2,5-Dibromotoluene (FID)	109	%	121	114	6.0	110	114	3.6	70 - 130	50	
QA/QC Batch 402592 (mg/Kg), QC Sample No: BZ06405 2X (BZ07744, BZ07745)											
Polychlorinated Biphenyls - Soil											
PCB-1016	ND	0.033	84	74	12.7	77	75	2.6	40 - 140	30	
PCB-1221	ND	0.033							40 - 140	30	
PCB-1232	ND	0.033							40 - 140	30	
PCB-1242	ND	0.033							40 - 140	30	
PCB-1248	ND	0.033							40 - 140	30	
PCB-1254	ND	0.033							40 - 140	30	
PCB-1260	ND	0.033	93	66	34.0	71	67	5.8	40 - 140	30	r
PCB-1262	ND	0.033							40 - 140	30	
PCB-1268	ND	0.033							40 - 140	30	
% DCBP (Surrogate Rec)	77	%	99	74	28.9	78	74	5.3	30 - 150	30	
% TCMX (Surrogate Rec)	82	%	96	82	15.7	88	83	5.8	30 - 150	30	
QA/QC Batch 402954 (mg/Kg), QC Sample No: BZ06767 (BZ07745 (10000X))											
Volatiles - Soil											
Naphthalene	ND	0.005	111	112	0.9	106	104	1.9	70 - 130	30	
Comment:											
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.											
QA/QC Batch 402774 (mg/Kg), QC Sample No: BZ07137 (BZ07744 (5000X) , BZ07745 (1000X))											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	0.005	95	94	1.1	80	79	1.3	70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	92	92	0.0	89	87	2.3	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	93	90	3.3	75	70	6.9	70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	91	90	1.1	78	75	3.9	70 - 130	30	
1,1-Dichloroethane	ND	0.005	91	89	2.2	84	83	1.2	70 - 130	30	
1,1-Dichloroethene	ND	0.005	94	91	3.2	87	85	2.3	70 - 130	30	
1,1-Dichloropropene	ND	0.005	96	93	3.2	91	89	2.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	99	98	1.0	54	51	5.7	70 - 130	30	m
1,2,3-Trichloropropane	ND	0.005	89	85	4.6	75	67	11.3	70 - 130	30	m
1,2,4-Trichlorobenzene	ND	0.005	102	101	1.0	56	53	5.5	70 - 130	30	m

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2,4-Trimethylbenzene	ND	0.001	92	90	2.2	74	73	1.4	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	96	95	1.0	73	69	5.6	70 - 130	30	m
1,2-Dibromoethane	ND	0.005	92	88	4.4	74	71	4.1	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	92	90	2.2	67	65	3.0	70 - 130	30	m
1,2-Dichloroethane	ND	0.005	92	91	1.1	81	78	3.8	70 - 130	30	
1,2-Dichloropropane	ND	0.005	90	89	1.1	82	79	3.7	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	94	91	3.2	78	76	2.6	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	94	91	3.2	69	66	4.4	70 - 130	30	m
1,3-Dichloropropane	ND	0.005	89	87	2.3	75	73	2.7	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	93	92	1.1	67	65	3.0	70 - 130	30	m
2,2-Dichloropropane	ND	0.005	104	103	1.0	94	93	1.1	70 - 130	30	
2-Chlorotoluene	ND	0.005	94	90	4.3	76	74	2.7	70 - 130	30	
2-Hexanone	ND	0.025	87	85	2.3	69	64	7.5	70 - 130	30	m
2-Isopropyltoluene	ND	0.005	103	101	2.0	87	84	3.5	70 - 130	30	
4-Chlorotoluene	ND	0.005	94	90	4.3	73	71	2.8	70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	91	90	1.1	76	71	6.8	70 - 130	30	
Acetone	ND	0.01	79	71	10.7	62	57	8.4	70 - 130	30	m
Acrylonitrile	ND	0.005	101	101	0.0	85	81	4.8	70 - 130	30	
Benzene	ND	0.001	91	90	1.1	83	81	2.4	70 - 130	30	
Bromobenzene	ND	0.005	93	91	2.2	73	71	2.8	70 - 130	30	
Bromochloromethane	ND	0.005	92	92	0.0	80	77	3.8	70 - 130	30	
Bromodichloromethane	ND	0.005	92	92	0.0	81	79	2.5	70 - 130	30	
Bromoform	ND	0.005	97	94	3.1	73	72	1.4	70 - 130	30	
Bromomethane	ND	0.005	102	97	5.0	89	88	1.1	70 - 130	30	
Carbon Disulfide	ND	0.005	109	105	3.7	96	96	0.0	70 - 130	30	
Carbon tetrachloride	ND	0.005	97	95	2.1	89	89	0.0	70 - 130	30	
Chlorobenzene	ND	0.005	91	88	3.4	77	75	2.6	70 - 130	30	
Chloroethane	ND	0.005	107	103	3.8	96	95	1.0	70 - 130	30	
Chloroform	ND	0.005	90	89	1.1	81	80	1.2	70 - 130	30	
Chloromethane	ND	0.005	103	99	4.0	90	91	1.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	91	90	1.1	82	80	2.5	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.005	96	94	2.1	80	77	3.8	70 - 130	30	
Dibromochloromethane	ND	0.003	97	96	1.0	79	77	2.6	70 - 130	30	
Dibromomethane	ND	0.005	90	89	1.1	77	74	4.0	70 - 130	30	
Dichlorodifluoromethane	ND	0.005	115	112	2.6	101	101	0.0	70 - 130	30	
Ethylbenzene	ND	0.001	93	89	4.4	81	80	1.2	70 - 130	30	
Hexachlorobutadiene	ND	0.005	102	99	3.0	74	69	7.0	70 - 130	30	m
Isopropylbenzene	ND	0.001	94	91	3.2	83	81	2.4	70 - 130	30	
m&p-Xylene	ND	0.002	92	89	3.3	80	78	2.5	70 - 130	30	
Methyl ethyl ketone	ND	0.005	90	90	0.0	72	67	7.2	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	0.001	100	98	2.0	85	82	3.6	70 - 130	30	
Methylene chloride	ND	0.005	80	79	1.3	71	70	1.4	70 - 130	30	
Naphthalene	ND	0.005	101	102	1.0	62	58	6.7	70 - 130	30	m
n-Butylbenzene	ND	0.001	98	94	4.2	77	74	4.0	70 - 130	30	
n-Propylbenzene	ND	0.001	95	92	3.2	81	78	3.8	70 - 130	30	
o-Xylene	ND	0.002	95	92	3.2	81	79	2.5	70 - 130	30	
p-Isopropyltoluene	ND	0.001	96	93	3.2	80	77	3.8	70 - 130	30	
sec-Butylbenzene	ND	0.001	98	96	2.1	84	82	2.4	70 - 130	30	
Styrene	ND	0.005	94	90	4.3	75	73	2.7	70 - 130	30	
tert-Butylbenzene	ND	0.001	93	90	3.3	81	79	2.5	70 - 130	30	
Tetrachloroethene	ND	0.005	97	95	2.1	69	67	2.9	70 - 130	30	m
Tetrahydrofuran (THF)	ND	0.005	102	99	3.0	85	80	6.1	70 - 130	30	
Toluene	ND	0.001	93	91	2.2	84	82	2.4	70 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
trans-1,2-Dichloroethene	ND	0.005	93	91	2.2	84	83	1.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	95	93	2.1	76	73	4.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	0.005	114	110	3.6	75	73	2.7	70 - 130	30	
Trichloroethene	ND	0.005	94	93	1.1	87	85	2.3	70 - 130	30	
Trichlorofluoromethane	ND	0.005	103	99	4.0	94	94	0.0	70 - 130	30	
Trichlorotrifluoroethane	ND	0.005	107	105	1.9	102	101	1.0	70 - 130	30	
Vinyl chloride	ND	0.005	108	103	4.7	97	96	1.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	%	101	100	1.0	99	99	0.0	70 - 130	30	
% Bromofluorobenzene	100	%	102	101	1.0	101	102	1.0	70 - 130	30	
% Dibromofluoromethane	100	%	101	101	0.0	101	103	2.0	70 - 130	30	
% Toluene-d8	101	%	100	100	0.0	101	100	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 402777 (mg/Kg), QC Sample No: BZ07176 (BZ07744 (1000X))

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	0.005	92	90	2.2	103	89	14.6	70 - 130	30	
1,1,1-Trichloroethane	ND	0.005	96	92	4.3	107	92	15.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	0.003	95	88	7.7	101	84	18.4	70 - 130	30	
1,1,2-Trichloroethane	ND	0.005	92	88	4.4	102	84	19.4	70 - 130	30	
1,1-Dichloroethane	ND	0.005	93	89	4.4	107	90	17.3	70 - 130	30	
1,1-Dichloroethene	ND	0.005	94	90	4.3	106	90	16.3	70 - 130	30	
1,1-Dichloropropene	ND	0.005	99	95	4.1	111	94	16.6	70 - 130	30	
1,2,3-Trichlorobenzene	ND	0.005	92	89	3.3	89	76	15.8	70 - 130	30	
1,2,3-Trichloropropane	ND	0.005	89	84	5.8	95	85	11.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	0.005	94	90	4.3	88	75	16.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	0.001	94	90	4.3	100	86	15.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	0.005	94	90	4.3	97	83	15.6	70 - 130	30	
1,2-Dibromoethane	ND	0.005	94	89	5.5	101	86	16.0	70 - 130	30	
1,2-Dichlorobenzene	ND	0.005	92	88	4.4	97	83	15.6	70 - 130	30	
1,2-Dichloroethane	ND	0.005	95	89	6.5	105	88	17.6	70 - 130	30	
1,2-Dichloropropane	ND	0.005	94	90	4.3	104	87	17.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	0.001	96	92	4.3	103	89	14.6	70 - 130	30	
1,3-Dichlorobenzene	ND	0.005	93	89	4.4	97	83	15.6	70 - 130	30	
1,3-Dichloropropane	ND	0.005	92	88	4.4	101	85	17.2	70 - 130	30	
1,4-Dichlorobenzene	ND	0.005	93	89	4.4	94	81	14.9	70 - 130	30	
2,2-Dichloropropane	ND	0.005	105	103	1.9	109	93	15.8	70 - 130	30	
2-Chlorotoluene	ND	0.005	95	91	4.3	102	88	14.7	70 - 130	30	
2-Hexanone	ND	0.025	88	82	7.1	91	72	23.3	70 - 130	30	
2-Isopropyltoluene	ND	0.005	106	103	2.9	115	100	14.0	70 - 130	30	
4-Chlorotoluene	ND	0.005	93	90	3.3	100	85	16.2	70 - 130	30	
4-Methyl-2-pentanone	ND	0.025	92	85	7.9	96	77	22.0	70 - 130	30	
Acetone	ND	0.01	71	65	8.8	72	58	21.5	70 - 130	30	l,m
Acrylonitrile	ND	0.005	102	96	6.1	110	87	23.4	70 - 130	30	
Benzene	ND	0.001	94	89	5.5	106	89	17.4	70 - 130	30	
Bromobenzene	ND	0.005	94	89	5.5	96	83	14.5	70 - 130	30	
Bromochloromethane	ND	0.005	94	88	6.6	103	86	18.0	70 - 130	30	
Bromodichloromethane	ND	0.005	94	89	5.5	104	89	15.5	70 - 130	30	
Bromoform	ND	0.005	90	86	4.5	93	80	15.0	70 - 130	30	
Bromomethane	ND	0.005	105	99	5.9	121	103	16.1	70 - 130	30	
Carbon Disulfide	ND	0.005	110	104	5.6	122	104	15.9	70 - 130	30	
Carbon tetrachloride	ND	0.005	96	92	4.3	106	91	15.2	70 - 130	30	
Chlorobenzene	ND	0.005	92	89	3.3	98	84	15.4	70 - 130	30	

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Chloroethane	ND	0.005	110	104	5.6	124	105	16.6	70 - 130	30	
Chloroform	ND	0.005	92	87	5.6	103	87	16.8	70 - 130	30	
Chloromethane	ND	0.005	109	102	6.6	122	102	17.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	0.005	93	90	3.3	104	88	16.7	70 - 130	30	
cis-1,3-Dichloropropene	ND	0.005	97	92	5.3	104	88	16.7	70 - 130	30	
Dibromochloromethane	ND	0.003	95	92	3.2	103	88	15.7	70 - 130	30	
Dibromomethane	ND	0.005	92	88	4.4	101	85	17.2	70 - 130	30	
Dichlorodifluoromethane	ND	0.005	129	122	5.6	144	121	17.4	70 - 130	30	m
Ethylbenzene	ND	0.001	94	91	3.2	93	80	15.0	70 - 130	30	
Hexachlorobutadiene	ND	0.005	101	98	3.0	100	87	13.9	70 - 130	30	
Isopropylbenzene	ND	0.001	97	93	4.2	99	86	14.1	70 - 130	30	
m&p-Xylene	ND	0.002	94	90	4.3	101	86	16.0	70 - 130	30	
Methyl ethyl ketone	ND	0.005	90	81	10.5	92	73	23.0	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	0.001	99	93	6.3	109	91	18.0	70 - 130	30	
Methylene chloride	ND	0.005	78	74	5.3	89	76	15.8	70 - 130	30	
n-Butylbenzene	ND	0.001	98	95	3.1	91	80	12.9	70 - 130	30	
n-Propylbenzene	ND	0.001	96	92	4.3	91	79	14.1	70 - 130	30	
o-Xylene	ND	0.002	96	93	3.2	105	90	15.4	70 - 130	30	
p-Isopropyltoluene	ND	0.001	98	93	5.2	103	89	14.6	70 - 130	30	
sec-Butylbenzene	ND	0.001	102	97	5.0	104	91	13.3	70 - 130	30	
Styrene	ND	0.005	94	91	3.2	95	81	15.9	70 - 130	30	
tert-Butylbenzene	ND	0.001	97	93	4.2	106	91	15.2	70 - 130	30	
Tetrachloroethene	ND	0.005	98	93	5.2	108	90	18.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	0.005	102	93	9.2	105	85	21.1	70 - 130	30	
Toluene	ND	0.001	94	91	3.2	105	88	17.6	70 - 130	30	
trans-1,2-Dichloroethene	ND	0.005	93	88	5.5	103	88	15.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	0.005	95	91	4.3	100	84	17.4	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	0.005	108	102	5.7	104	85	20.1	70 - 130	30	
Trichloroethene	ND	0.005	96	92	4.3	106	90	16.3	70 - 130	30	
Trichlorofluoromethane	ND	0.005	103	98	5.0	116	99	15.8	70 - 130	30	
Trichlorotrifluoroethane	ND	0.005	107	103	3.8	121	103	16.1	70 - 130	30	
Vinyl chloride	ND	0.005	111	106	4.6	126	106	17.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	99	1.0	99	101	2.0	70 - 130	30	
% Bromofluorobenzene	101	%	103	103	0.0	102	102	0.0	70 - 130	30	
% Dibromofluoromethane	101	%	99	98	1.0	99	100	1.0	70 - 130	30	
% Toluene-d8	101	%	100	100	0.0	101	100	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 402721 (ug/L), QC Sample No: BZ07294 10X (BZ07744, BZ07745)

Chlorinated Herbicides

2,4,5-TP (Silvex)	ND	8.3	80	77	3.8				40 - 140	20	
2,4-D	ND	17	79	78	1.3				40 - 140	20	
% DCAA (Surrogate Rec)	70	%	75	77	2.6				30 - 150	20	

QA/QC Batch 402898 (ug/L), QC Sample No: BZ07325 10X (BZ07744, BZ07745)

Pesticides

4,4' -DDD	ND	0.25	83	88	5.8				40 - 140	20	
4,4' -DDE	ND	0.25	82	88	7.1				40 - 140	20	
4,4' -DDT	ND	0.25	85	91	6.8				40 - 140	20	
a-BHC	ND	0.15	81	87	7.1				40 - 140	20	
Alachlor	ND	0.50	NA	NA	NC				40 - 140	20	
Aldrin	ND	0.15	78	83	6.2				40 - 140	20	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
b-BHC	ND	0.15	78	83	6.2				40 - 140	20
Chlordane	ND	5.0	81	85	4.8				40 - 140	20
d-BHC	ND	0.50	79	84	6.1				40 - 140	20
Dieldrin	ND	0.15	85	90	5.7				40 - 140	20
Endosulfan I	ND	0.50	87	93	6.7				40 - 140	20
Endosulfan II	ND	0.50	87	91	4.5				40 - 140	20
Endosulfan sulfate	ND	0.50	83	88	5.8				40 - 140	20
Endrin	ND	0.50	80	87	8.4				40 - 140	20
Endrin aldehyde	ND	0.50	87	93	6.7				40 - 140	20
g-BHC	ND	0.15	83	89	7.0				40 - 140	20
Heptachlor	ND	0.50	81	86	6.0				40 - 140	20
Heptachlor epoxide	ND	0.50	86	90	4.5				40 - 140	20
Hexachlorobenzene	ND	0.50	80	85	6.1				40 - 140	20
Methoxychlor	ND	0.50	77	81	5.1				40 - 140	20
Toxaphene	ND	20	NA	NA	NC				40 - 140	20
% DCBP	86	%	92	97	5.3				30 - 150	20
% TCMX	75	%	79	86	8.5				30 - 150	20

Comment:

A LCS and LCS duplicate were performed instead of a matrix spike and matrix spike duplicate, unless otherwise noted. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane.

QA/QC Batch 402899 (ug/L), QC Sample No: BZ07325 (BZ07744, BZ07745)

Semivolatiles

1,4-Dichlorobenzene	ND	17	80	83	3.7				30 - 130	20
2,4,5-Trichlorophenol	ND	17	104	106	1.9				30 - 130	20
2,4,6-Trichlorophenol	ND	17	99	102	3.0				30 - 130	20
2,4-Dinitrotoluene	ND	58	105	104	1.0				30 - 130	20
2-Methylphenol (o-cresol)	ND	17	93	107	14.0				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	17	92	102	10.3				30 - 130	20
Hexachlorobenzene	ND	58	100	101	1.0				30 - 130	20
Hexachlorobutadiene	ND	58	83	85	2.4				30 - 130	20
Hexachloroethane	ND	58	75	75	0.0				30 - 130	20
Nitrobenzene	ND	58	95	99	4.1				30 - 130	20
Pentachlorophenol	ND	58	104	111	6.5				30 - 130	20
Pyridine	ND	83	64	70	9.0				30 - 130	20
% 2,4,6-Tribromophenol	95	%	107	107	0.0				15 - 110	20
% 2-Fluorobiphenyl	96	%	96	98	2.1				30 - 130	20
% 2-Fluorophenol	79	%	78	81	3.8				15 - 110	20
% Nitrobenzene-d5	96	%	90	95	5.4				30 - 130	20
% Phenol-d5	72	%	69	77	11.0				15 - 110	20
% Terphenyl-d14	100	%	103	105	1.9				30 - 130	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 402610 (mg/Kg), QC Sample No: BZ07436 (BZ07744, BZ07745)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	0.23	64	60	6.5	56	59	5.2	30 - 130	30
1,2,4-Trichlorobenzene	ND	0.23	61	56	8.5	54	56	3.6	30 - 130	30
1,2-Dichlorobenzene	ND	0.18	58	51	12.8	52	53	1.9	30 - 130	30
1,2-Diphenylhydrazine	ND	0.23	66	65	1.5	61	64	4.8	30 - 130	30
1,3-Dichlorobenzene	ND	0.23	56	49	13.3	49	49	0.0	30 - 130	30

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,4-Dichlorobenzene	ND	0.23	58	50	14.8	50	52	3.9	30 - 130	30	
2,4,5-Trichlorophenol	ND	0.23	67	67	0.0	60	64	6.5	30 - 130	30	
2,4,6-Trichlorophenol	ND	0.13	66	65	1.5	55	61	10.3	30 - 130	30	
2,4-Dichlorophenol	ND	0.13	68	64	6.1	56	62	10.2	30 - 130	30	
2,4-Dimethylphenol	ND	0.23	70	67	4.4	59	66	11.2	30 - 130	30	
2,4-Dinitrophenol	ND	0.23	<10	<10	NC	39	40	2.5	30 - 130	30	l
2,4-Dinitrotoluene	ND	0.13	70	70	0.0	64	69	7.5	30 - 130	30	
2,6-Dinitrotoluene	ND	0.13	70	71	1.4	62	67	7.8	30 - 130	30	
2-Chloronaphthalene	ND	0.23	68	65	4.5	60	63	4.9	30 - 130	30	
2-Chlorophenol	ND	0.23	64	58	9.8	55	59	7.0	30 - 130	30	
2-Methylnaphthalene	ND	0.23	61	59	3.3	56	59	5.2	30 - 130	30	
2-Methylphenol (o-cresol)	ND	0.23	70	64	9.0	57	63	10.0	30 - 130	30	
2-Nitroaniline	ND	0.33	90	86	4.5	79	84	6.1	30 - 130	30	
2-Nitrophenol	ND	0.23	55	51	7.5	47	50	6.2	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	0.23	69	66	4.4	59	67	12.7	30 - 130	30	
3,3'-Dichlorobenzidine	ND	0.13	67	69	2.9	56	65	14.9	30 - 130	30	
3-Nitroaniline	ND	0.33	84	81	3.6	71	75	5.5	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	0.23	<10	<10	NC	46	49	6.3	30 - 130	30	l
4-Bromophenyl phenyl ether	ND	0.23	69	66	4.4	60	65	8.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	0.23	68	68	0.0	62	64	3.2	30 - 130	30	
4-Chloroaniline	ND	0.23	65	63	3.1	53	55	3.7	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	0.23	68	65	4.5	60	63	4.9	30 - 130	30	
4-Nitroaniline	ND	0.23	67	65	3.0	58	62	6.7	30 - 130	30	
4-Nitrophenol	ND	0.23	64	59	8.1	56	59	5.2	30 - 130	30	
Acenaphthene	ND	0.23	73	72	1.4	65	68	4.5	30 - 130	30	
Acenaphthylene	ND	0.13	66	64	3.1	60	63	4.9	30 - 130	30	
Acetophenone	ND	0.23	61	55	10.3	52	58	10.9	30 - 130	30	
Aniline	ND	0.33	55	56	1.8	46	46	0.0	30 - 130	30	
Anthracene	ND	0.23	74	71	4.1	65	70	7.4	30 - 130	30	
Benz(a)anthracene	ND	0.23	67	67	0.0	64	65	1.6	30 - 130	30	
Benzidine	ND	0.33	45	38	16.9	12	13	8.0	30 - 130	30	m
Benzo(a)pyrene	ND	0.13	64	63	1.6	53	56	5.5	30 - 130	30	
Benzo(b)fluoranthene	ND	0.16	66	64	3.1	59	63	6.6	30 - 130	30	
Benzo(ghi)perylene	ND	0.23	78	76	2.6	38	48	23.3	30 - 130	30	
Benzo(k)fluoranthene	ND	0.23	69	70	1.4	66	64	3.1	30 - 130	30	
Benzoic Acid	ND	0.33	<10	<10	NC	27	25	7.7	30 - 130	30	l,m
Benzyl butyl phthalate	ND	0.23	69	69	0.0	56	59	5.2	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	0.23	68	62	9.2	58	61	5.0	30 - 130	30	
Bis(2-chloroethyl)ether	ND	0.13	54	46	16.0	48	51	6.1	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	0.23	49	44	10.8	43	46	6.7	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	0.23	76	76	0.0	64	71	10.4	30 - 130	30	
Carbazole	ND	0.23	75	73	2.7	66	70	5.9	30 - 130	30	
Chrysene	ND	0.23	73	72	1.4	63	68	7.6	30 - 130	30	
Dibenz(a,h)anthracene	ND	0.13	78	76	2.6	43	55	24.5	30 - 130	30	
Dibenzofuran	ND	0.23	69	68	1.5	62	64	3.2	30 - 130	30	
Diethyl phthalate	ND	0.23	67	66	1.5	59	62	5.0	30 - 130	30	
Dimethylphthalate	ND	0.23	70	68	2.9	61	64	4.8	30 - 130	30	
Di-n-butylphthalate	ND	0.67	76	75	1.3	63	66	4.7	30 - 130	30	
Di-n-octylphthalate	ND	0.23	74	74	0.0	59	66	11.2	30 - 130	30	
Fluoranthene	ND	0.23	73	71	2.8	63	63	0.0	30 - 130	30	
Fluorene	ND	0.23	71	69	2.9	63	68	7.6	30 - 130	30	
Hexachlorobenzene	ND	0.13	70	67	4.4	59	65	9.7	30 - 130	30	
Hexachlorobutadiene	ND	0.23	59	53	10.7	52	51	1.9	30 - 130	30	

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Hexachlorocyclopentadiene	ND	0.23	55	48	13.6	12	<10	NC	30 - 130	30	m
Hexachloroethane	ND	0.13	54	47	13.9	46	45	2.2	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	0.23	73	71	2.8	40	49	20.2	30 - 130	30	
Isophorone	ND	0.13	59	55	7.0	50	53	5.8	30 - 130	30	
Naphthalene	ND	0.23	63	59	6.6	58	59	1.7	30 - 130	30	
Nitrobenzene	ND	0.13	58	54	7.1	51	56	9.3	30 - 130	30	
N-Nitrosodimethylamine	ND	0.23	55	51	7.5	48	54	11.8	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	0.13	60	57	5.1	53	60	12.4	30 - 130	30	
N-Nitrosodiphenylamine	ND	0.13	72	71	1.4	64	68	6.1	30 - 130	30	
Pentachloronitrobenzene	ND	0.23	71	69	2.9	60	64	6.5	30 - 130	30	
Pentachlorophenol	ND	0.23	33	24	31.6	43	47	8.9	30 - 130	30	l,r
Phenanthrene	ND	0.13	71	68	4.3	66	69	4.4	30 - 130	30	
Phenol	ND	0.23	66	60	9.5	55	64	15.1	30 - 130	30	
Pyrene	ND	0.23	74	73	1.4	63	62	1.6	30 - 130	30	
Pyridine	ND	0.23	42	37	12.7	37	42	12.7	30 - 130	30	
% 2,4,6-Tribromophenol	60	%	65	64	1.6	54	60	10.5	30 - 130	30	
% 2-Fluorobiphenyl	66	%	66	65	1.5	57	62	8.4	30 - 130	30	
% 2-Fluorophenol	59	%	61	55	10.3	50	57	13.1	30 - 130	30	
% Nitrobenzene-d5	59	%	58	55	5.3	52	58	10.9	30 - 130	30	
% Phenol-d5	62	%	64	60	6.5	53	61	14.0	30 - 130	30	
% Terphenyl-d14	74	%	71	72	1.4	56	56	0.0	30 - 130	30	

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 402962 (ug/L), QC Sample No: BZ08165 (BZ07744 (10X) , BZ07745 (10X))

Volatiles - TCLP

1,1-Dichloroethene	ND	5.0	103	107	3.8				70 - 130	30	
1,2-Dichloroethane	ND	0.60	98	101	3.0				70 - 130	30	
Benzene	ND	0.70	97	103	6.0				70 - 130	30	
Carbon tetrachloride	ND	5.0	93	97	4.2				70 - 130	30	
Chlorobenzene	ND	1.0	96	99	3.1				70 - 130	30	
Chloroform	ND	5.0	102	104	1.9				70 - 130	30	
Methyl ethyl ketone	ND	5.0	98	99	1.0				70 - 130	30	
Tetrachloroethene	ND	1.0	96	99	3.1				70 - 130	30	
Trichloroethene	ND	5.0	97	100	3.0				70 - 130	30	
Vinyl chloride	ND	5.0	108	111	2.7				70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	100	100	0.0				70 - 130	30	
% Bromofluorobenzene	98	%	100	99	1.0				70 - 130	30	
% Dibromofluoromethane	99	%	101	104	2.9				70 - 130	30	
% Toluene-d8	101	%	100	102	2.0				70 - 130	30	

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD specified recovery limits.
r = This parameter is outside laboratory RPD specified recovery limits.

QA/QC Data

SDG I.D.: GBZ07744

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
October 05, 2017

Thursday, October 05, 2017

Criteria: None

State: NY

Sample Criteria Exceedances Report

GBZ07744 - LANDREM

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BZ07745	$TCLP-VOAR	Benzene	EPA / 40 CFR 261.24 / Toxicity Characteristics	1200	50	500	500	ug/L

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

Analysis Comments

October 05, 2017 SDG I.D.: GBZ07744

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

SVOA Narration

CHEM06 09/26/17-1: BZ07744, BZ07745

The following Initial Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.076 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.079 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM19 09/25/17-1: BZ07744

The following Initial Calibration compounds did not meet RSD% criteria: 2,4-Dinitrophenol 24% (20%), 2-Nitroaniline 23% (20%)
The following Initial Calibration compounds did not meet maximum RSD% criteria: None.
The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.071 (0.1), Hexachlorobenzene 0.090 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet % deviation criteria: N-Nitrosodimethylamine 49%L (30%), Pyridine 51%L (30%)
The following Continuing Calibration compounds did not meet Maximum % deviation criteria: N-Nitrosodimethylamine 49%L (40%), Pyridine 51%L (40%)
The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.069 (0.1), Hexachlorobenzene 0.087 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

CHEM27 09/22/17-2: BZ07745

The following Initial Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.095 (0.1), Bis(2-chloroethoxy)methane 0.271 (0.3), Hexachlorobenzene 0.087 (0.1)
The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: 2-Nitrophenol 0.080 (0.1), Bis(2-chloroethoxy)methane 0.257 (0.3), Hexachlorobenzene 0.077 (0.1)
The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

NY Temperature Narration

October 05, 2017

SDG I.D.: GBZ07744

The samples in this delivery group were received at 2.1°C.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☐ No ☐
Coolant: IPK ☒ ICE ☐ No ☐
Temp 2.1 °C Pg of

PHOENIX Environmental Laboratories, Inc.

NY/NJ CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
☐ Fax:
☒ Phone: (518) 229-7214
☒ Email: kad@land-remediation.com

Customer: LAND REMEDIATION, INC.
Address: 74 HUDSON RIVER RD., WATERFORD, NY 12188

Project: TROY (WATER ST.) - AREA 3 IRM
Project P.O: TROY IRM
Report to: KEITH DECKER, kad@land-remediation.com
Invoice to: LAND REMEDIATION
→ ALSO, BRAD VALIK, bcv@land-remediation.com

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: Brad C. Valik Date: 9/22/2017

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	SVOC	METALS	TPH DRO PCB'S	IGNITABILITY, BTU, CORROSIVES	TPH GRO VOC'S	REACTIVITY	FULL TCLP	TCLP VOC'S	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container (8) oz	GL Soil container (4) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1000ml	PL HNO3 250ml	Bacteria Bottle w/thio	Bacteria Bottle as is
07744	WC-TROYIRM-C-TOT	S	9/22/17	9:05AM	X	X	X	X	X					3	2							
	WC-TROYIRM-C-TCLP	S	9/22/17	9:05AM						X	X			2						1		
07745	WC-TROYIRM-D-TOT	SL	9/22/17	9:10AM	X	X	X	X	X					3	2							
	WC-TROYIRM-D-TCLP	SL	9/22/17	9:10AM						X	X			2						1		

GL SOIL CONTAINER 2oz

Relinquished by:	Accepted by:	Date:	Time:
BRAD C. VALIK		9/22/17	1230
			3 00
		9/23/17	1120

Comments, Special Requirements or Regulations:

Turnaround:
☐ 1 Day*
☒ 2 Days*
☐ 3 Days*
☐ 5 Days
☐ 10 Days
☐ Other
* SURCHARGE APPLIES

NJ
☐ Res. Criteria
☐ Non-Res. Criteria
☐ Impact to GW Soil Cleanup Criteria
☐ Impact to GW soil screen Criteria
☐ GW Criteria

What State were samples collected?
NEW YORK

NY
☐ TOGS GW
☐ CP-51 SOIL
☐ 375SCO Unrestricted Soil
☐ 375SCO Residential Soil
☐ 375SCO Residential
☐ 375SCO Commercial Soil
☐ 375SCO Industrial Soil
☐ Subpart 5 DW

Data Format
☐ Phoenix Std Report
☐ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ NJ Hazsite EDD
☐ NY EZ EDD (ASP)
☐ Other

Data Package
☐ NJ Reduced Deliv. *
☐ NY Enhanced (ASP B) *
☐ Other

Loreen Fay

From: Brad Valik <bcv@land-remediation.com>
Sent: Tuesday, September 26, 2017 8:57 AM
To: Loreen Fay
Cc: bmh@land-remediation.com
Subject: NG - Troy (Water Street) - TCLP
Attachments: COC 9-22-2017.pdf

Hey Loreen,

We'd like to run a TCLP analysis for the samples indicated as "WC-TROYIRM-C-TCLP" and "WC-TROYIRM-C-TCLP" in the attached chain of custody.

Thanks,

Brad Valik
LAND Remediation, Inc.
e: bcv@land-remediation.com | c: (315) 480-4994

Bobbi Aloisa

From: Keith Decker <kad@land-remediation.com>
Sent: Tuesday, October 03, 2017 11:56 AM
To: Bobbi Aloisa
Subject: RE: National Grid, Troy, NY Coal Tar
Attachments: image002.jpg; image003.jpg; image004.png; GBZ07744-Analytical-Report.pdf

Bobbi,

Can you still run % Sulfur and Total Cyanide on this sample?

Thanks

Note Change of Address
Keith Decker
LAND REMEDIATION
74 Hudson River Road
Waterford, NY 12188
cell - 518-229-7214
phone - 518-766-4105 ext.14
fax - 518-233-0141
Check out our Website at
www.land-remediation.com

Appendix E: Waste Management Documentation

NATIONAL GRID
TROY AREA 3 IRM
WASTE TRACKING LOG

Load #	Manifest #	Date	Waste Description	Estimated Tons	Actual Tons	Ticket #	Destination/Invoice	Transporter	Truck Plate No.
1	1	10/4/2017	Non-RCRA, Non DOT	35	39.42	760330	Ontario County Landfill	Longhorn Trucking	464
2	2	10/4/2017	Non-RCRA, Non DOT	35	39.47	760332	Ontario County Landfill	Longhorn Trucking	456
3	3	10/4/2017	Non-RCRA, Non DOT	35	35.01	760422	Ontario County Landfill	Longhorn Trucking	836
4	4	10/4/2017	Non-RCRA, Non DOT	35	36.19	760445	Ontario County Landfill	Longhorn Trucking	835
		10/4/2017			**150.09**				
1	5	10/5/2017	Non-RCRA, Non DOT	35	41.59	760554	Ontario County Landfill	Longhorn Trucking	669
		10/5/2017			**41.59**				

Totals:	**191.68**

NATIONAL GRID
TROY AREA 3 IRM
WASTE TRACKING LOG

Load:	Manifest #	Date	Waste Code	Estimated Tons	Disposed Facility Certified (Tons)	Ticket #	Destination	Transporter	Truck No.	Trailer Plate No.
1	1	10/11/2017	Coal Tar Impacted Waste	35	30.19	2720984	ESMI of NY, Fort Edward	Real Bark Mulch	22	18
2	2	10/11/2017	Coal Tar Impacted Waste	35	31.55	2720987	ESMI of NY, Fort Edward	Real Bark Mulch	30	6
3	3	10/11/2017	Coal Tar Impacted Waste	35	38.66	2721013	ESMI of NY, Fort Edward	Real Bark Mulch	22	18
4	4	10/11/2017	Coal Tar Impacted Waste	35	37.01	2721016	ESMI of NY, Fort Edward	Real Bark Mulch	30	6
		10/11/2017			**137.41**					
5	5	10/12/2017	Coal Tar Impacted Waste	35	14.31	2721047	ESMI of NY, Fort Edward	Real Bark Mulch	22	18
		10/12/2017			**14.31**					
6	6	10/16/2017	Coal Tar Impacted Waste	35	14.51	2721098	ESMI of NY, Fort Edward	Real Bark Mulch	22	18
		10/16/2017			**14.51**					

Totals:	**166.23**

NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems
1879 NYS Route 5&20
Stanley, NY 14561

001

Ticket: 760330
Date: 10/4/2017
Time: 06:59:54 - 07:56:17

Customer: LE-00723/LAND REMEDIATION/
Carrier: LH/LONGHORN
Truck: 464
Truck Type: DR/DUMP TRAILER
Profile: 7800/NATIONAL GRID - TROY
Generator: NATIONAL/NATIONAL GRID - TR
Grid: PH8/PHASE 8A-1

Comment: 7800-001

Gross: 117960 L In Scale 1
Tare: 39120 L Out Scale 2
Net: 78840 L

Tons: 39.42

Materials & Services

Origin: RR/RENSSELAER
Material: IN/INDUSTRIAL WASTE
Quantity: 39.42 Ton

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT deposit any PROHIBITED WASTES

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NYR000046235		1-800-424-9300	001

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd.West, Syracuse, NY 13202
Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180
Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Longhorn Trucking Company — U.S. EPA ID Number: NY5 364 Permit #4A-485

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Ontario County Landfill, 3555 Post Farm Road, Stanley, NY 14561 — U.S. EPA ID Number: NY State Facility ID # 8324400004000010
Facility's Phone: 1-585-526-4420

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA, Non-DOT Regulated Solid (Non Hazardous Soil)	001	DT	35 est.	T	L
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 464 Approval # 7800
Trailer # - 366

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid - Jared Degaray — Signature — Month 10 Day 3 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Dion Battisti — Signature — Month 10 Day 3 Year 17
Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Ben Coon — Signature — Month 10 Day 4 Year 17

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems
1879 NYS Route 5&20
Stanley, NY 14561

002

Ticket: 760332
Date: 10/4/2017
Time: 07:28:21 - 07:58:35

Customer: LE-00723/LAND REMEDIATION/
Carrier: LH/LONGHORN
Truck: 456
Truck Type: DR/DUMP TRAILER
Profile: 7800/NATIONAL GRID - TROY
Generator: NATIONAL/NATIONAL GRID - TR
Grid: PH8/PHASE 8A-1

Comment: 7800-002

Gross: 117680 L In Scale 1
Tare: 38740 L Out Scale 2
Net: 78940 L

Tons: 39.47

Materials & Services

Origin: RR/RENSSELAER
Material: IN/INDUSTRIAL WASTE
Quantity: 39.47 Ton

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT deposit any PROHIBITED WASTES

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NYR000046235		1-800-424-9300	002

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd.West, Syracuse, NY 13202
Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180
Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Longhorn Trucking Company — U.S. EPA ID Number: NY5 364 Permit #4A-485

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Ontario County Landfill, 3555 Post Farm Road, Stanley, NY 14561 — U.S. EPA ID Number: NY State Facility ID # 8324400004000010
Facility's Phone: 1-585-526-4420

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA, Non-DOT Regulated Solid (Non Hazardous Soil)	001	DT	35 est.	T	L
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 456 Approval # 7800
Trailer # - 712

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid - David Degraj — Signature: David Degraj — Month 10 Day 3 Year 17

INT'L
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeff Sealas — Signature: Jeff Sealas — Month 10 Day 3 Year 17

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY
17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Lisa Cox — Signature — Month 10 Day 4 Year 17

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATO

NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems
1879 NYS Route 5&20
Stanley, NY 14561

003

Ticket: 760422
Date: 10/4/2017
Time: 11:35:07 - 12:00:11

Customer: LE-00723/LAND REMEDIATION/
Carrier: LH/LONGHORN
Truck: 836
Truck Type: DR/DUMP TRAILER
Profile: 7800/NATIONAL GRID - TROY
Generator: NATIONAL/NATIONAL GRID - TR
Grid: PH8/PHASE 8A-1

Comment: 7800-003

Gross: 109460 L In Scale 1
Tare: 39440 L Out Scale 2
Net: 70020 L

Tons: 35.01

Materials & Services

Origin: RR/RENSSELAER
Material: IN/INDUSTRIAL WASTE
Quantity: 35.01 Ton

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT deposit any PROHIBITED WASTES

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYR000046235		1-800-424-9300	003

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd. West, Syracuse, NY 13202

Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180

Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Longhorn Trucking Company — U.S. EPA ID Number: NYS 364 Permit #4A-485

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Ontario County Landfill, 3555 Post Farm Road, Stanley, NY 14561 — U.S. EPA ID Number: NY State Facility ID # 8324400004000010

Facility's Phone: 1-585-526-4420

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA, Non-DOT Regulated Solid (Non Hazardous Soil)	001	DT	35 est.	T	L
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 836 Approval # 7800
Trailer # - 810

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid - Jared Jegany — Signature — Month 10 Day 4 Year 17

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Paul Tweedy — Signature — Month 10 Day 4 Year 17

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Brian Com — Signature — Month 10 Day 4 Year 17

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems
1879 NYS Route 5&20
Stanley, NY 14561

004

Ticket: 760445
Date: 10/4/2017
Time: 12:41:53 - 12:55:50

Customer: LE-00723/LAND REMEDIATION/
Carrier: LH/LONGHORN
Truck: 835
Truck Type: DR/DUMP TRAILER
Profile: 7800/NATIONAL GRID - TROY
Generator: NATIONAL/NATIONAL GRID - TR
Grid: PH8/PHASE 8A-1

Comment: 7800-004

Gross: 111340 L In Scale 1
Tare: 38960 L Out Scale 2
Net: 72380 L

Tons: 36.19

Materials & Services

Origin: RR/RENSSELAER
Material: IN/INDUSTRIAL WASTE
Quantity: 36.19 Ton

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT deposit any PROHIBITED WASTES

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NYR000046235		1-800-424-9300	004

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd.West, Syracuse, NY 13202
Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180
Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Longhorn Trucking Company — U.S. EPA ID Number: NYS 364 Permit #4A-485

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Ontario County Landfill, 3555 Post Farm Road, Stanley, NY 14561 — U.S. EPA ID Number: NY State Facility ID # 832440000040000010
Facility's Phone: 1-585-526-4420

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA, Non-DOT Regulated Solid (Non Hazardous Soil)	001	DT	35 est.	T	L
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 835 Approval # 7800
Trailer # - 367

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid- Jared Tegarty — Signature — Month 10 Day 4 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Mitch Lapoche — Signature — Month 10 Day 4 Year 17

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Lisa Cook — Signature — Month 10 Day 10 Year 17

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

NEWS NE / ONTARIO COUNTY LANDFILL

A Division of Casella Waste Systems
1879 NYS Route 5&20
Stanley, NY 14561

005

Ticket: 760554
Date: 10/5/2017
Time: 07:42:41 - 08:21:03

Customer: LE-00723/LAND REMEDIATION/
Carrier: LH/LONGHORN
Truck: 669
Truck Type: DR/DUMP TRAILER
Profile: 7800/NATIONAL GRID - TROY
Generator: NATIONAL/NATIONAL GRID - TR
Grid: PH8/PHASE 8A-1

Comment: 7800-005

Gross: 122400 L In Scale 1
Tare: 39220 L Out Scale 2
Net: 83180 L

Tons: 41.59

Materials & Services

Origin: RR/RENSSELAER
Material: IN/INDUSTRIAL WASTE
Quantity: 41.59 Ton

Weighmaster: Lisa

Driver:

By signing above, I declare that I did NOT deposit any PROHIBITED WASTES

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NYRD00046235		1-800-424-9300	005

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd.West, Syracuse, NY 13202

Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180

Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Longhorn Trucking Company — U.S. EPA ID Number: NYS 364 Permit #4A-485

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: Ontario County Landfill, 3555 Post Farm Road, Stanley, NY 14561 — U.S. EPA ID Number: NY State Facility ID # 8324000004000010

Facility's Phone: 1-585-526-4420

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-RCRA, Non-DOT Regulated Solid (Non Hazardous Soil)	001	DT	35 est.	T	L
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 669 Approval # - 7800
Trailer # - 370

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: ~~Brown & Caldwell on behalf of and as an~~ Agent for National Grid - Jarod Jegaraj — Signature — Month 10 Day 4 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Daniel Brunell — Signature — Month 10 Day 4 Year 17

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Lisa Loar — Signature — Month 10 Day 5 Year 17

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364
WASTE TRANSPORTER PERMIT NO. 4A-485

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

LONGHORN TRUCKING COMPANY, INC.
6605 STATE HIGHWAY 5
FORT PLAIN, NY 13339

PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME:	VINCENT LOGAN	EFFECTIVE DATE:	06/11/2017
COUNTY:	MONTGOMERY	EXPIRATION DATE:	**06/10/2018**
TELEPHONE NO:	(518)993-3480	US EPA ID NUMBER:	NYR000164178

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
Albany (City) SWMF	Albany , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
Ava Landfill	Boonville , NY	Petroleum Contaminated Soil	
Broome County Landfill	Binghamton , NY	Petroleum Contaminated Soil	
Chemung County Sanitary Landfill	Chemung , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
Colonie (T) SWMF	Colonie , NY	Petroleum Contaminated Soil	
ESMI of New York	Fort Edward , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
Finch Municipal Solid Waste Facility	Gansevoort , NY	Petroleum Contaminated Soil	
Fulton County Landfill	Johnstown , NY	Asbestos Petroleum Contaminated Soil	
High Acres Western Expansion Landfill	Fairport , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
Hyland Landfill	Angelica , NY	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil	
Ontario County Sanitary Landfill	Stanley , NY	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil	

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 05/31/17

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364
WASTE TRANSPORTER PERMIT NO. 4A-485

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

LONGHORN TRUCKING COMPANY, INC.
6605 STATE HIGHWAY 5
FORT PLAIN, NY 13339

PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME:	VINCENT LOGAN	EFFECTIVE DATE:	06/11/2017
COUNTY:	MONTGOMERY	EXPIRATION DATE:	**06/10/2018**
TELEPHONE NO:	(518)993-3480	US EPA ID NUMBER:	NYR000164178

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
Seneca Meadows LF	Waterloo , NY	Non-Hazardous Industrial/Commercial	
		Asbestos	
		Petroleum Contaminated Soil	
		Waste Tires	
		Sludge from Sewage or Water Supply Treatment Plant	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364
WASTE TRANSPORTER PERMIT NO. 4A-485

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

LONGHORN TRUCKING COMPANY, INC.
6605 STATE HIGHWAY 5
FORT PLAIN, NY 13339

PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME:	VINCENT LOGAN	EFFECTIVE DATE:	06/11/2017
COUNTY:	MONTGOMERY	EXPIRATION DATE:	**06/10/2018**
TELEPHONE NO:	(518)993-3480	US EPA ID NUMBER:	NYR000164178

AUTHORIZED VEHICLES:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

21 (Twenty One) Permitted Vehicle(s)

NY BA36416
NY BB51196
NY BB51197
NY BC21502
NY BC91176
NY BE22355
NY BE22389
NY BG43867
NY BG43868
NY BG88289
NY BG88290
NY BG88291
NY BG88332
NY BG88333
NY BG88334
NY BH59030
NY BH59031
NY BH59127
NY BH59129
NY BL33918
NY BL49877
End of List

ESMI OF NEW YORK

Customer Usage by Date

Date Run: 10/19/2017
Time Run: 4:13:05PM

Ticket Date	Ticket Number	Truck/Trailer ID	Material ID	Unit	Net	Material	Delivery	Tax/Misc.	Total
Customer: LANDR			LAND REMEDIATION INC						
Order: 10469			NIAGARA MOHAW POWEI						
			TROY MGP SITE			TROY	NY	12180	
10/11/17	2720984	RBM-22-D18	CT01		30.190 tn				
10/11/17	2720987	RBM-30-D6	CT01		31.550 tn				
10/11/17	2721013	RBM-22-D18	CT01		38.660 tn				
10/11/17	2721016	RBM-30-D6	CT01		37.010 tn				
10/12/17	2721047	RBM-22-D18	CT01		14.310 tn				
10/16/17	2721098	RBM-22-D18	CT01		14.510 tn				
01 COAL TAR REMEDIATION WASTE Totals					166.230 tn				
Total Tickets: 6									
NIAGARA MOHAW POWER CORP Totals					166.230 tn				
Total Tickets: 6									
LAND REMEDIATION INC Totals					**166.230 tn**				
Total Tickets: 6									
Grand Totals					**166.230 tn**				
Total Tickets: 6									

ESMI OF NEW YORK
304 Towpath Road

Fort Edward, New York 12828

(518)747-5500

Ticket No :2720964
Date :10/11/17

Max. Acceptable Soil: 300.00

Customer: LANDR
LAND REMEDIATION INC
74 HUDSON RIVER ROAD

WATERFORD, NY 12188

Job No : 10469
NIAGARA MOHAW POWER CORP
TROY MGP SITE
TROY NY 12180

Running Tonnage: 30.19

Truck : RBM-22-D18 REAL BARK MULCH
Location: DEFAULT

Gross : 96540 lb Scale 1 In
Tare : 36160 lb STORED Out

Net : 60380 lb
30.190 tn

Weigh Master: DONELLA_FISHER

License # 603581

Donella L Fisher

Material $
Delivery $
Misc $
Tax $
Total $

Remarks:

Signature:

MATERIAL	QTY	UNIT-$	DELIVERY-$	MISC-$	TAX-$	TOTAL-$
01 COAL TAR REMEDIATION WASTE	30.190 tn					

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYR000046235	1	1-800-424-9300	01

GENERATOR

5. Generator's Name and Mailing Address
Niagara Mohawk Power Corporation
300 Erie Blvd.West, Syracuse, NY 13202

Generator's Site Address (if different than mailing address)
Troy Former MGP Site
7 Water Street
Troy, NY 12180

Generator's Phone: 315-428-6073 Garry Cummins

NYR

6. Transporter 1 Company Name
Real Bark Mulch, LLC

U.S. EPA ID Number 000-158-691
NYS 364 Permit #5-735

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
ESMI of New York
304 Towpath Road
Fort Edward, NY 12828

U.S. EPA ID Number NA
NY State Facility ID #
5-5330-00038/00019

Facility's Phone: 1-800-511-3764

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non DOT (D018 – MGP Exempt – MGP Impacted Soil) COAL TAR IMPACTED	001	DT	35 est.	T	B
2.						
3.						
4.						

35 ton min

30.19

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 22 Approval #
Trailer # - 18

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid- Jared Jegarj
Signature
Month 10 Day 11 Year 17

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Lyle Golucha
Signature
Month 10 Day 11 Year 17

Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Donella Fisher
Signature: Donella Fisher
Month 10 Day 11 Year 17

ESMI OF NEW YORK
304 Towpath Road

Fort Edward, New York 12828

(518)747-5500

Ticket No :2720967
Date :10/11/17

Max. Acceptable Soil: 300.00

Customer: LANDR
LAND REMEDIATION INC
74 HUDSON RIVER ROAD

WATERFORD, NY 12188

Job No : 10469
NIAGARA MOHAW POWER CORP
TROY MGP SITE
TROY NY 12180

Running Tonnage: 61.74

Truck : RBM-30-D6 REAL BARK MULCH
Location: DEFAULT

Gross : 99440 lb Scale 1 In
Tare : 36340 lb STORED Out

Net : 63100 lb
31.550 tn

Weigh Master: DONELLA_FISHER

License # 603581

Donella L Fisher

Material $
Delivery $
Misc $
Tax $

Total $

Remarks:

Signature:

MATERIAL	QTY	UNIT-$	DELIVERY-$	MISC-$	TAX-$	TOTAL-$
01 COAL TAR REMEDIATION WASTE	31.550 tn					

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NYR000046235	1	1-800-424-9300	02

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd.West, Syracuse, NY 13202

Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180

Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Real Bark Mulch, LLC — U.S. EPA ID Number: NYR 000-158-691 — NYS 364 Permit #5-735

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: ESMI of New York, 304 Towpath Road, Fort Edward, NY 12828 — U.S. EPA ID Number: NA — NY State Facility ID # 5-5330-00038/00019

Facility's Phone: 1-800-511-3764

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non DOT (D018 – MGP Exempt – MGP Impacted Soil) COAL TAR IMPACTED SOIL	001	DT	35 est.	T	B
2.				31.55		
3.				33 Drums		
4.						

13. Special Handling Instructions and Additional Information

In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 30 Approval #
Trailer # - 6

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid - Jared Jegarej — Signature — Month 10 Day 11 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Bacon — Signature — Month 10 Day 11 Year 17

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Daniela Fisher — Signature — Month 10 Day 11 Year 17

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

ESMI OF NEW YORK
304 Towpath Road

Fort Edward, New York 12828

(518)747-5500

Ticket No :2721013
Date :10/11/17

Max. Acceptable Soil: 300.00

Customer: LANDR
LAND REMEDIATION INC
74 HUDSON RIVER ROAD

WATERFORD, NY 12188

Job No : 10469
NIAGARA MOHAW POWER CORP
TROY MGP SITE
TROY NY 12180

Running Tonnage: 100.40

Truck : RBM-22-D16 REAL BARK MULCH
Location: DEFAULT

Gross : 113480 lb Scale 1 In
Tare : 36160 lb STORED Out

Net : 77320 lb
38.660 tn

Weigh Master: DONELLA_FISHER

License # 603581

Donella R Fisher

Material $
Delivery $
Misc $
Tax $
Total $

Remarks:

Signature:

MATERIAL	QTY	UNIT-$	DELIVERY-$	MISC-$	TAX-$	TOTAL-$
01 COAL TAR REMEDIATION WASTE	38.660 tn					

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NYR000046235

2. Page 1 of: 1

3. Emergency Response Phone: 1-800-424-9300

4. Waste Tracking Number: 03

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation
300 Erie Blvd.West, Syracuse, NY 13202

Generator's Site Address (if different than mailing address): Troy Former MGP Site
7 Water Street
Troy, NY 12180

Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Real Bark Mulch, LLC

U.S. EPA ID Number: NYR 000-158-691

NYS 364 Permit #5-735

7. Transporter 2 Company Name:

U.S. EPA ID Number:

8. Designated Facility Name and Site Address: ESMI of New York
304 Towpath Road
Fort Edward, NY 12828

U.S. EPA ID Number: NA

NY State Facility ID #
5-5330-00038/00019

Facility's Phone: 1-800-511-3764

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non DOT (D018 – MGP Exempt – MGP Impacted Soil) COAL TAR IMPACTED SOIL	001	DT	35 est.	T	B
2.				38.66		
3.						
4.						

13. Special Handling Instructions and Additional Information

In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 22 Approval #
Trailer # - 18

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid- Jared Jegou

Signature:

Month: 10 Day: 11 Year: 17

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Luke Colusha

Signature:

Month: 10 Day: 11 Year: 17

Transporter 2 Printed/Typed Name:

Signature:

Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Danielle L Fisher

Signature: Danielle L Fisher

Month: 10 Day: 11 Year: 17

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

ESMI OF NEW YORK
304 Towpath Road

Fort Edward, New York 12828

(518)747-5500

Ticket No :2721016
Date :10/11/17

Max. Acceptable Soil: 300.00

Customer: LANDR
LAND REMEDIATION INC
74 HUDSON RIVER ROAD

WATERFORD, NY 12188

Job No : 10469
NIAGARA MOHAW POWER CORP
TROY MGP SITE
TROY NY 12180

Running Tonnage: 137.41

Truck : RBM-30-D6 REAL BARK MULCH
Location: DEFAULT

Gross : 110360 lb Scale 1 In
Tare : 36340 lb STORED Out

Net : 74020 lb
37.010 tn

Weigh Master: DONELLA_FISHER

License # 603581

Donella K Fisher

Material $
Delivery $
Misc $
Tax $
Total $

Remarks:

Signature:

MATERIAL	QTY	UNIT-$	DELIVERY-$	MISC-$	TAX-$	TOTAL-$
01 COAL TAR REMEDIATION WASTE	37.010 tn					

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
NYR000046235	1	1-800-424-9300	04

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation
300 Erie Blvd. West, Syracuse, NY 13202

Generator's Site Address (if different than mailing address): Troy Former MGP Site
7 Water Street
Troy, NY 12180

Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Real Bark Mulch, LLC
U.S. EPA ID Number: NYR 000-158-691
NYS 364 Permit #5-735

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: ESMI of New York
304 Towpath Road
Fort Edward, NY 12828
U.S. EPA ID Number - NA
NY State Facility ID #
5-5330-00038/00019

Facility's Phone: 1-800-511-3764

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non DOT (D018 – MGP Exempt – MGP Impacted Soil) COAL TAR IMPACTED SOIL	001	DT	35 est. 37.01	T	B
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 30 Approval #
Trailer # - 6

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid - Jared Jegarey
Signature
Month 10 Day 11 Year 17

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: DAVID BOLTON
Signature
Month 10 Day 11 Year 17

Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Donella L Fisher
Signature: Donella L Fisher
Month 10 Day 11 Year 17

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

DESIGNATED FACILITY TO GENERATOR

169-BLC-O 5 11977 (Rev. 9/09)

ESMI OF NEW YORK
304 Towpath Road

Fort Edward, New York 12828

(518)747-5500

Ticket No :2721047
Date :10/12/17

Max. Acceptable Soil: 300.00

Customer: LANDR
LAND REMEDIATION INC
74 HUDSON RIVER ROAD

WATERFORD, NY 12188

Job No : 10469
NIAGARA MOHAW POWER CORP
TROY MGP SITE
TROY NY 12180

Running Tonnage: 151.72

Truck : RBM-22-D18 REAL BARK MULCH
Location: DEFAULT

Gross : 64780 lb Scale 1 In
Tare : 36160 lb STORED Out

Net : 28620 lb
14.310 tn

Weigh Master: DONELLA_FISHER

License # 603581

Donella R Fisher

Material $
Delivery $
Misc $
Tax $

Total $

Remarks:

Signature:

MATERIAL	QTY	UNIT-$	DELIVERY-$	MISC-$	TAX-$	TOTAL-$
01 COAL TAR REMEDIATION WASTE	14.310 tn					

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NYR000046235	1	1-800-424-9300	05

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd. West, Syracuse, NY 13202
Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180
Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Real Bark Mulch, LLC
U.S. EPA ID Number: NYR-000-158-691
NYS 364 Permit #5-735

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: ESMI of New York, 304 Towpath Road, Fort Edward, NY 12828
U.S. EPA ID Number: NA
NY State Facility ID #: 5-5330-00038/00019
Facility's Phone: 1-800-511-3764

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non DOT (D018 – MGP Exempt – MGP Impacted Soil) COAL TAR IMPACTED SOIL	001	DT	35 est.	T	B
2.				14.31		
3.						
4.				32 to 40 min		

13. Special Handling Instructions and Additional Information
In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindhelmer (LAND Remediation) 518-937-0473
Truck # - 22 Approval # 1 hr demerge time BH
Trailer # - 18

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid - Jared Jegarij
Signature
Month 10 Day 12 Year 17

INT'L
15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER
16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Mike Golucha
Signature
Month 10 Day 12 Year 17
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY
17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Donella L Fisher
Signature: Donella L Fisher
Month 10 Day 12 Year 17

ESMI OF NEW YORK
304 Towpath Road

Fort Edward, New York 12828

(518)747-5500

Ticket No :2721098
Date :10/16/17

Max. Acceptable Soil: 300.00

Customer: LANDR
LAND REMEDIATION INC
74 HUDSON RIVER ROAD

WATERFORD, NY 12188

Job No : 10469
NIAGARA MOHAW POWER CORP
TROY MGP SITE
TROY NY 12180

Running Tonnage: 166.23

Truck : RBM-22-D18 REAL BARK MULCH
Location: DEFAULT

Gross : 65180 lb Scale 1 In
Tare : 36160 lb STORED Out

Net : 29020 lb
14.510 tn

Weigh Master: DONELLA_FISHER

License # 603581

Donella L Fisher

Material $
Delivery $
Misc $
Tax $
Total $

Remarks:

Signature:

MATERIAL	QTY	UNIT-$	DELIVERY-$	MISC-$	TAX-$	TOTAL-$
01 COAL TAR REMEDIATION WAST	14.510 tn					

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	NYR000046235	1	1-800-424-9300	06

5. Generator's Name and Mailing Address: Niagara Mohawk Power Corporation, 300 Erie Blvd.West, Syracuse, NY 13202

Generator's Site Address (if different than mailing address): Troy Former MGP Site, 7 Water Street, Troy, NY 12180

Generator's Phone: 315-428-6073 Garry Cummins

6. Transporter 1 Company Name: Real Bark Mulch, LLC — U.S. EPA ID Number: NYR-000-158-691; NYS 364 Permit #5-735

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: ESMI of New York, 304 Towpath Road, Fort Edward, NY 12828 — U.S. EPA ID Number: NA; NY State Facility ID # 5-5330-00038/00019

Facility's Phone: 1-800-511-3764

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non RCRA, Non DOT (D018 – MGP Exempt – MGP Impacted Soil) COAL TAR IMPACTED SOIL	001	DT	35 est. 14.51	T	B
2.						
3.						
4.						

Bardwin

13. Special Handling Instructions and Additional Information

In case of emergency or for information on this shipment contact:
Keith Decker (LAND Remediation) 518-229-7214 or Will Lindheimer (LAND Remediation) 518-937-0473
Truck # - 22 Approval #
Trailer # - 18

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Brown & Caldwell on behalf of and as an Agent for National Grid- Jared Jegard — Signature — Month 10 Day 16 Year 17

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Kyle Casluska — Signature — Month 10 Day 16 Year 17

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Donella L Fisher — Signature: Donella L Fisher — Month 10 Day 16 Year 17

Certificate of Treatment & Recycling

ESMI of New York hereby acknowledges the ***Treatment & Recycling***

of 166.23 tons of Coal Tar Contaminated Soil from

Niagara Mohawk Power Corp. (Troy MGP Site)
7 Water Street, Troy, NY
by

Thermal Desorption

Certificate No. 112717-10469

Issued To: LAND Remediation, Inc.

By:
Peter C. Hansen, Compliance Manager
Environmental Soil Management of New York, LLC.

New York State DEC Permit No. 5-5330-00038/00019

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364
WASTE TRANSPORTER PERMIT NO. 5A-735

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

REAL BARK MULCH LLC
1380 TOWPATH LANE
FORT EDWARD, NY 12828

CONTACT NAME: JACK BULLARD
COUNTY: WASHINGTON
TELEPHONE NO: (518)747-2065

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 06/22/2017
EXPIRATION DATE: **01/19/2018**
US EPA ID NUMBER: NYR000158691

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
Albany (City) SWMF	Albany , NY	Petroleum Contaminated Soil	
Ava Landfill	Boonville , NY	Petroleum Contaminated Soil	
Broome County Landfill	Binghamton , NY	Petroleum Contaminated Soil	
Clinton County Landfill	Morrisonville , NY	Petroleum Contaminated Soil	
CLINTON WWTP	CLINTON , NY	Non-Hazardous Industrial/Commercial	
Colonie (T) SWMF	Colonie , NY	Petroleum Contaminated Soil **Sludge from Sewage or Water Supply Treatment Plant**	
CWM CHEMICAL SERVICES LLC	MODEL CITY , NY	Non-Hazardous Industrial/Commercial **Asbestos** **Petroleum Contaminated Soil**	
ESMI OF NEW HAMPSHIRE	LOUDON , NH	Petroleum Contaminated Soil	
ESMI of New York	Fort Edward , NY	Non-Hazardous Industrial/Commercial **Petroleum Contaminated Soil** Sludge from Sewage or Water Supply Treatment Plant	
Finch Municipal Solid Waste Facility	Gansevoort , NY	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Sludge from Sewage or Water Supply Treatment Plant	
Fulton County Landfill	Johnstown , NY	Petroleum Contaminated Soil **Waste Oil**	

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 06/20/17

WASTE TRANSPORTER PERMIT

GENERAL CONDITIONS

The permittee must:

1. Carry a copy of this waste transporter permit in each vehicle to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for change of address or company name.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations. Transporters who provide a pre-printed manifest to a generator/shipper/ offeror of regulated waste shall ensure that all information is correct and clearly legible on all copies of the manifest.

11. Deliver waste only to transfer, storage, treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department at the time of permit renewal, or to any law enforcement officer, if requested to do so.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. **Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:**

New York State Department of Environmental Conservation
Division of Materials Management, Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364
WASTE TRANSPORTER PERMIT NO. 5A-735

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

REAL BARK MULCH LLC
1380 TOWPATH LANE
FORT EDWARD, NY 12828

CONTACT NAME: JACK BULLARD
COUNTY: WASHINGTON
TELEPHONE NO: (518)747-2065

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 06/22/2017
EXPIRATION DATE: 01/19/2018
US EPA ID NUMBER: NYR000158691

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

Destination Facility	Location	Waste Type(s)	Note
High Acres Western Expansion Landfill	Fairport , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
Hyland Landfill	Angelica , NY	Petroleum Contaminated Soil	
Oneida-Herkimer Eastern Transfer Station	Utica , NY	Non-Hazardous Industrial/Commercial	
Ontario County Sanitary Landfill	Stanley , NY	Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil	
Seneca Meadows LF	Waterloo , NY	Non-Hazardous Industrial/Commercial Asbestos Petroleum Contaminated Soil Waste Tires	
Wheelabrator Hudson Falls	Hudson Falls , NY	Non-Hazardous Industrial/Commercial	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

PART 364
WASTE TRANSPORTER PERMIT NO. 5A-735

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

PERMIT ISSUED TO:

REAL BARK MULCH LLC
1380 TOWPATH LANE
FORT EDWARD, NY 12828

PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

CONTACT NAME:	JACK BULLARD	EFFECTIVE DATE:	06/22/2017
COUNTY:	WASHINGTON	EXPIRATION DATE:	**01/19/2018**
TELEPHONE NO:	(518)747-2065	US EPA ID NUMBER:	NYR000158691

AUTHORIZED VEHICLES
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

22 (Twenty Two) Permitted Vehicle(s)

NY 17449ME
NY 23834MH
NY 62253ME
NY 65031ME
NY 65116ME
NY 69317KA
NY 79217MC
NY 95748JX
NY AM67493
NY BE63554
NY BG36746
NY BG36747
NY BG36750
NY BG36751
NY BG36752
NY BG36753
NY BG36754
NY BG36755
NY BG36770
NY BK26594
NY BK26595
NY BK84518
End of List

POST OFFICE BOX 103
41 EUCLID STREET
COHOES, NY 12047
(518) 237-5133
FAX (518) 233-8555

NHKelman, Inc.
SCRAP RECYCLING

DATE 10/13

SELLER ☐
BUYER ☐ Land Remediation

ADDRESS

CITY South Troy STATE ZIP

up
5.4 ton

47660 lb GROSS GROSS
35440 lb GROSS TARE
12120 NET

DRIVER ON ☒ OFF ☐ WEIGHED BY RM

DIGITAL WEIGHT INDICATOR & PRINTER 92274

POST OFFICE BOX 103
41 EUCLID STREET
COHOES, NY 12047
(518) 237-5133
FAX (518) 233-8555

NHKelman, Inc.
SCRAP RECYCLING

DEALER IN: SCRAP IRON, METALS, PAPER STOCK AND MILL WASTE
SANITARY WIPING CLOTHS, USED STRUCTURAL STEEL - I B M CARDS

DATE 10/16

SELLER ☐
BUYER ☐ LRI

ADDRESS

CITY STATE ZIP

up
5.5 ton

48440 lb GROSS GROSS
36000 lb GROSS TARE
12440 NET

DRIVER ON ☒ OFF ☐ WEIGHED BY RM

DIGITAL WEIGHT INDICATOR & PRINTER 92541

Appendix F: Fill Material Documentation

Adam Sherman

From: Spellman, John (DEC) <john.spellman@dec.ny.gov>
Sent: Friday, September 22, 2017 1:38 PM
To: Adam Sherman
Cc: Cummins, Gerald; Paul Fisher
Subject: RE: Troy (Water Street) Former MGP Site - Area 3 IRM Submittal

Adam,

The proposed imported fill material may be furnished at the subject IRM.

Thank you for your response.

John

John Spellman, P.E.
New York State Department of
Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, NY 12233-7014
(518) 402-9686

From: Adam Sherman [mailto:ASherman@Brwncald.com]
Sent: Friday, September 22, 2017 12:51 PM
To: Spellman, John (DEC) <john.spellman@dec.ny.gov>
Cc: Cummins, Gerald <Gerald.Cummins@nationalgrid.com>; Paul Fisher <paulmfisher@gmail.com>
Subject: RE: Troy (Water Street) Former MGP Site - Area 3 IRM Submittal

Hi John,

I received your voicemail and as a follow-up below are the sources of the material:

- Brown Sand and Gravel – Constantine Construction and Farms, Inc., 55 Button Road, Waterford, NY
- No. 3 Crushed Stone and Crusher Run – Callanan Industries, Inc., 3 Palitsch Rd., Cropseyville, NY

Please let me know if you need any additional information.

Thanks, Adam

Adam Sherman, P.E.
Brown and Caldwell | Albany, NY
T 518.560.5911 | **C** 201.602.0075

From: Adam Sherman
Sent: Thursday, September 21, 2017 1:37 PM
To: John Spellman (jtspellm@gw.dec.state.ny.us) <jtspellm@gw.dec.state.ny.us>

Cc: Cummins, Gerald <Gerald.Cummins@nationalgrid.com>; Paul Fisher <paulmfisher@gmail.com>
Subject: Troy (Water Street) Former MGP Site - Area 3 IRM Submittal

Good Afternoon John,

Attached for your review is the gradation and quality information for the proposed imported fill for the Troy Area 3 IRM. Three materials are planned for import:

1. Brown Sand and Gravel – to be used for backfilling surface tar excavation areas
2. No. 3 Crushed Stone – to be used for decon pad
3. Crusher Run (Type 2 Subbase) – to be used for miscellaneous on-site use (maintaining access roads and ramps to crane mat bridge

The gradation for the Brown Sand and Gravel is very similar to the "Gravel Fill" material identified in the approved IRM Workplan.

After your review, please let me know if you have any questions or issues with these materials.

Thanks, Adam

Adam Sherman, P.E.
Brown and Caldwell | Albany, NY
T 518.560.5911 | **C** 201.602.0075

CALLANAN est. 1883
Safety · Quality · Service
INDUSTRIES, INC.
8 Southwoods Blvd 4th Floor
PO Box 15097
Albany, NY 12212-5097

July 20, 2017

Constantine Construction Farm Inc.
564 Albany Shaker Road
Loudonville, NY 12211

Attn: Rich Szesnat
Re: National Grid, Cohoes

Dear Mr. Szesnat:

As they are produced by our Cropseyville source, NYSDOT #3A Stone, NYSDOT #1A Stone and Type 2 Sub base (also known as Crusher Run) are manufactured to meet New York State Department of Transportation Standard Specifications.

Our Cropseyville source (#1-7R) is quarried and processed to finished sizes. Material shipped from our Cropseyville facility is clean and free of contaminants prior to loading. Our Cropseyville source was approved by the NYSDOT under test number 16AR38 and that test result indicating source quality is attached. Also attached, please find a typical gradation for NYSDOT #3A Stone, NYSDOT #1A Stone and Type 2 Sub base.

If you have any questions or require additional information, please contact me at (518) 374-2222 or cvanpatten callanan.com.

Very truly yours,
CALLANAN INDUSTRIES INC.

Colleen VanPatten
Quality Control

Callanan Industries Inc.

Location : Corpseyville
Material : Type 2 Subbase
Sample # 1
Tested By : Ray Lohraseb
Note: New Stockpile Type 2 Subbase

Time : 12:45
Date : 10/28/2016
Sample Type : Stockpile
Washed Gradation

Sieve Size	Weight	% Retained	% Passing	NYSDOT Limits
2"	0.00	0.00	100.0	100
1 /12"	0.00	0.00	100.0	
1"	1135.40	14.88	85.1	
3/4"	1126.40	14.76	70.4	
1/2"	996.80	13.06	57.3	
3/8"	392.20	5.14	52.2	
1/4"	478.20	6.27	45.9	25 - 60

Pan from large shaker	3501.400
Sample weight =	7630.400

Weight of Split before wash	672.9
Weight of Split after wash	586.1

Sieve Size	Weight	% RET.	% Passing minus 1/4 in.	% Passing Based on total sample	NYSDOT Limits
#4	42.30	6.3	93.7	43.0	
#10	160.80	23.9	69.8	32.0	
#20	153.90	22.9	46.9	21.5	
#40	82.40	12.2	34.7	15.9	5 - 40
#60	49.60	7.4	27.3	12.5	
#100	40.10	6.0	21.4	9.8	
#200	40.20	6.0	15.4	7.1	0 - 10
Pan	16.80	2.5			
Total	672.90				

Material History . Number of samples = 1

	1 /12"	1"	3/4"	1/2"	1/4"	#40	#60	#200
10/28/2016	**100.00**	**85.12**	**70.36**	**57.29**	**45.89**	**15.92**	**12.54**	**7.06**
AVERAGE FOR THE YEAR	100.00	85.12	70.36	57.29	45.89	15.92	12.54	7.06

CALLANAN est. 1883
Safety · Quality · Service
INDUSTRIES, INC.

Standard Proctor - ASTM D698

Source Location	Cropseyville	**Date**	3/2/2017
Material:	Type 2 Subbase	**Sample By**	D. Boehlke
Test Procedure	B	**Tested By**	D. Berner
Preparation Method	Moist		

Type 2 Subbase (Crusher Run)

Sieve Analysis		
Sieve Size	**Weight**	**Passing**
3 4"	522.4	97.7
3 8"	5008.3	75.4
4	5005.3	53.1
Pan	11925	

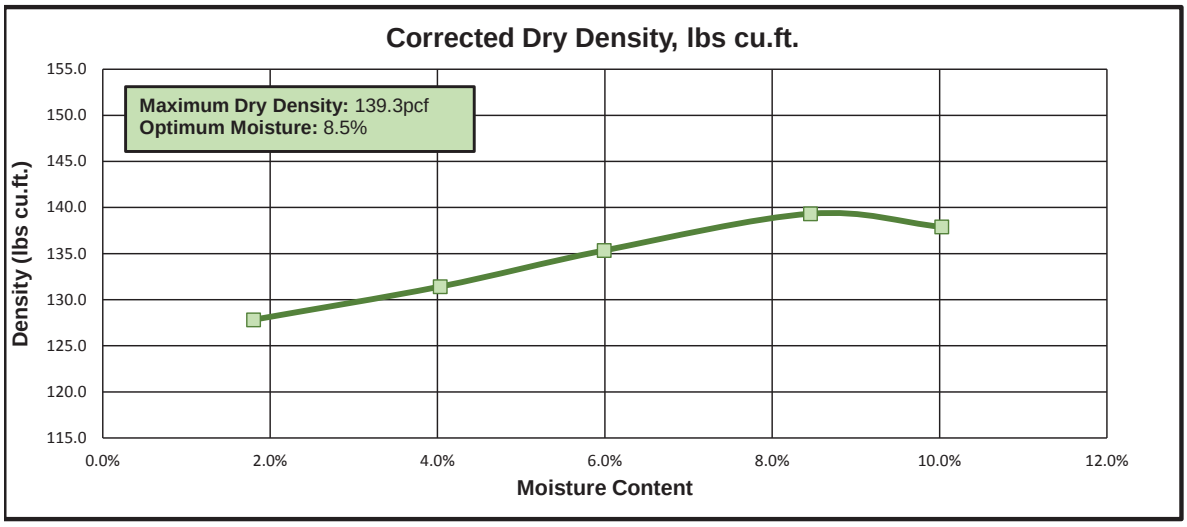
Material GSB	2.681
Coarse	22.3
Fine	77.7

Test Reults

a	**Desired Moisture**		**2**	**4**	**6**	**8**	**10**
b	**Actual Moisture Content**	**n**	1.8%	4.0%	6.0%	8.5%	10.0%
c	**Weight of Mold**		4257.5	4257.5	4257.5	4257.5	4257.5
d	**Volume of Mold**		0.0333	0.0333	0.0333	0.0333	0.0333
e	**Weight of Mold and Soil**		6098.3	6202.8	6311.5	6435.4	6439.1
f	**Weight of Soil, g**	**e-c**	1840.8	1945.3	2054.0	2177.9	2181.6
g	**Weight of Soil, lbs**	**f 453.6**	4.058	4.289	4.528	4.801	4.810
h	**Moist Density, lbs cu.ft.**	**g d**	121.9	128.8	136.0	144.2	144.4
i	**Dry Density, lbs cu.ft.**	**h (1 b)**	119.7	123.8	128.3	132.9	131.3
	Corrected Dry Density lbs cu.ft.	**ASTM D4718**	127.8	131.4	135.3	**139.3**	137.9

Actual Moisture Content

	Sample		1	2	3	4	5
j	**Pan Tare Weight**		187.3	185.5	191.3	186.1	188.8
k	**Weight of Wet soil and Pan, g**		758.3	737.7	723.8	742.6	761.7
l	**Weight of Dry Soil and Pan, g**		748.2	716.3	693.7	699.2	709.5
m	**Weight of moisture loss**	**(k-j)-(l-j)**	10.1	21.4	30.1	43.4	52.2
n	**Moisture Content**	**(m (l-j)) 100**	1.8%	4.0%	6.0%	**8.5**	10.0%



NYSDOT approval for stone from Callanan Industries' Cropseyville source

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
MATERIALS BUREAU
COARSE AGGREGATE ANALYSIS FOR 703-02 PHYSICAL REQUIREMENTS

SOURCE #: **1- 7R** TEST #: **16AR 38** BR3a SERIAL #: **236504** SM LAB #: **16024998**

Callanan Industries, Inc.
Cropseyville, NY

On 08/04/16 results of tests on material represented by sample 236504 were evaluated

Material meets specifications for Item 703-02. Consult friction aggregate requirements for approved use.

REMARKS:

NYSDOT Sizes	No. 2	No. 1	No. 1A
10 Cycle $MgSO_4$		1.6	
25 Cycle 3% freeze -thaw UCVC		54	
% Non-carbonate		100	Percent non-carbonate and percent insoluble residue values represent this sample only. When designing mixes, follow procedures in the appropriate Materials Method.
% Insoluble residue			
L.A. Abrasion			

Bulk Specific Gravity SSD	2.71
Bulk Specific Gravity	2.693
Apparent Specific Gravity	2.729
Absorption	0.5

Gravity and Absorption values represent this sample only. They may not be appropriate for designing mixes

COMPOSITION (Size No.)	%

COMPOSITION (Size No. 1)	%
Quartzite	90.0
Metagraywacke	4.2
Argillite	3.0
Quartzite (Weathered)	2.8

Gradation results - No. 3 Stone (Cropseyville source)

CALLANAN est. 1883
INDUSTRIES, INC.
PO Box 15097
Albany, NY 12212-5097

Plant: Cropseyville Aggregate
Date Created: 07/20/2017
Date Modified: 07/20/2017
Name: Cropseyville 3a stone with NYSDOT #3A stone
Description: spec

Sieve/Test	Spec	Result	NYSDOT 3A-NYSDOT 3A
Bin			
Price		0	0
% Product		100	100
TPH		0	0
% Gate			0
2" (50mm)	100-100	100.0	100.0
1 1/2" (37.5mm)	90-100	91.7	91.7
1" (25mm)	0-15	14.5	14.5
3/4" (19mm)		3.8	3.8
1/2" (12.5mm)		2.2	2.2
3/8" (9.5mm)		2.0	2.0
#200 (75µm)		0.0	0.0

CALLANAN est. 1883
Safety · Quality · Service
INDUSTRIES, INC.
PO Box 15097
Albany, NY 12212-5097

NYSDOT approval for No. 3 Stone from Callanan Industries' South Bethlehem source

September 19, 2017

Constantine Construction & Farm Inc.
564 Albany Shaker Road
Loudonville, NY 12211

Attn: Rich Szesnat
Re: National Grid, Cohoes

Dear Mr. Szesnat:

As it is produced by our South Bethlehem source, NYSDOT #3A Stone is manufactured to meet New York State Department of Transportation Standard Specifications.

Our South Bethlehem source (1-2RS) was approved by the NYSDOT under test number 14AR94S, that test result indicating source quality is attached. Material shipped from our South Bethlehem facility is clean and free of contaminants prior to loading. Also attached, please find a typical gradation for NYSDOT #3A Stone.

If you have any questions or require additional information, please contact me at 518.374.2222 or at cvanpatten@callanan.com.

Very truly yours,
CALLANAN INDUSTRIES INC.

Colleen VanPatten
Quality Control Department

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
MATERIALS BUREAU
COARSE AGGREGATE ANALYSIS FOR 703-02 PHYSICAL REQUIREMENTS

SOURCE #: **1- 2RS** TEST #: **14AR 94S** BR3a SERIAL #: **220646** SM LAS #: 14069131

Callanan Industries Inc
South Bethlehem, NY

On 06/08/15 results of tests on material represented by sample 220646 Were evaluated

Material meets specifications for Item 703-02. Consult friction aggregate requirements for approved use.

REMARKS: NYSDOT approval for No. 3 Stone from Callanan Industries' South Bethlehem source

NYSDOT Sizes	No. 2	No. 1	No. 1A	
10 Cycle MgSO4				
25 "Cycle 3% freeze -thaw	17.8			
UCVC		52		
% Non-carbonate		0		Percent non-carbonate and percent insoluble residue values represent this sample only. When designing mixes, follow procedures in the appropriate Materials Method.
% Insoluble residue		40.4		
L.A. Abrasion				

Bulk Specific Gravity SSD	2.69	Gravity and Absorption values represent this sample only. They may not be appropriate for designing mixes
Bulk Specific Gravity	2.671	
Apparent Specific Gravity	2.729	
Absorption	0.8	

COMPOSITION (Size No.

COMPOSITION (Size No. 1

Limestone Argillaceous	66.6
Limestone (Med-Coarse Grained)	33.4

Cc

CALLANAN est. 1883
INDUSTRIES, INC.
PO Box 15097
Albany, NY 12212-5097

Gradation Results - No. 3 Stone (South Bethlehem source)

Gradation Test Report

Plant 001_00002-South Bethlehem Aggregate
Product NYSDOT 3A-NYSDOT 3A
Specification NYSDOT 3A

1843756210

Sample Information

Sample No 1843756210
Date Sampled 10/22/2015 09:43
Sampled By Darrell Boehlke
Type Production
Method Stockpile
Location Stone Plant
Weather Cloudy

Split Sample ☐
Resample ☐

Gradation Results

Date Completed 10/22/2015 09:43
Tested By Darrell Boehlke

Unit	Moist Mass	Dry Mass	Wash Mass	Moisture %	Wash Loss %	Procedure
g		10664.11				

Sieve	Mass Retained	Cum Mass Retained	Ind % Retained	% Retained	% Passing	Target	Specification	Comment
2" (50mm)	0.00	0.00	0.0	0.0	100.0		100-100	
1 1/2" (37.5mm)	885.20	885.20	8.3	8.3	91.7		90-100	
1" (25mm)	8794.30	9679.50	82.5	90.8	9.2		0-15	
3/4" (19mm)	836.10	10515.60	7.8	98.6	1.4			
1/2" (12.5mm)	6.80	10522.40	0.1	98.7	1.3			
3/8" (9.5mm)	2.40	10524.80	0.0	98.7	1.3			
1/4" (6.3mm)	1.60	10526.40	0.0	98.7	1.3			
Pan	139.30	10665.70	1.29	100.00	0.00			

PERMIT

Under the Environmental Conservation Law (ECL)

Permittee and Facility Information

Permit Issued To:
CONSTANTINE CONSTRUCTION & FARM INC
564 ALBANY SHAKER RD
LOUDONVILLE, NY 12211-2118

Facility:
CONSTANTINE CONSTRUCTION AND FARM MINE
BUTTON RD
HALFMOON, NY

Facility Location: in HALFMOON in SARATOGA COUNTY
Facility Principal Reference Point: NYTM-E: 606.459 NYTM-N: 4744.249
Latitude: 42°50'36.3" Longitude: 73°41'49.9"
Authorized Activity: The mining of sand and gravel, and material processing by washing and screening, on lands owned by the permittee. Approved operations involve a total of 35.7 acres of affected land during the 2017-2022 permit term. The affected acreage comprises a portion of a 98.3 acre life of mine area, as identified in the approved Mined Land Use Plan. This is a renewal of the previous permit.

Permit Authorizations

Mined Land Reclamation - Under Article 23, Title 27
Permit ID 5-4138-00004/00003 (Mined Land ID 50383)
Renewal Effective Date: 5/9/2017 Expiration Date: 5/8/2022

NYSDEC Approval

By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the ECL, all applicable regulations, and all conditions included as part of this permit.

Permit Administrator: KEVIN R BLISS, Deputy Regional Permit Administrator
Address: NYSDEC Region 5 Warrensburg Sub-Office
232 Golf Course Rd
Warrensburg, NY 12885

Authorized Signature: Kevin R. Bliss Date 5/8/17

Permit Components

MINED LAND RECLAMATION PERMIT CONDITIONS

GENERAL CONDITIONS, APPLY TO ALL AUTHORIZED PERMITS

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

MINED LAND RECLAMATION PERMIT CONDITIONS

1. **Conformance With Plans** All activities authorized by this permit must be in strict conformance with the approved plans submitted by the applicant or applicant's agent as part of the permit application. Such plans were approved by DEC Staff on 5/3/2017 and consist of the following items:
Mine Plan Map prepared February 2017 by George L. Marshall Engineering Geologists, LLC.

Reclamation Plan Map dated 5/16/2006 & Cross-Sections dated 12/18/2006, prepared by H2H Associates, LLC.

Mined Land Use Plan narrative prepared May 1989 by Dunn Geosciences Corp.

2. **Fueling of Equipment and Reporting of Spills** Fueling of equipment shall be controlled to prevent spillage. Any spillage of fuels, waste oils, other petroleum products or hazardous materials shall be reported to the Department's Spill Hotline number (1-800-457-7362) within 2 hours. The permittee shall retain the Department's Spill Response number for immediate access in the permittee's office and at the mine site.

3. **Bond, Surety to Remain in Force** Any required reclamation bond or other surety, in an amount determined by the Department, shall be maintained in full force and effect. Such a bond or other surety shall not be terminated until the reclamation of the mined area is approved by the department in writing.

MINING

4. **Maintain Area Markers for Permit Term** The permittee shall provide permanent markers such as stakes, posts or other devices acceptable to the Department to identify and delineate the permit area, as outlined on the approved Mining Plan Map. These markers are to be installed prior to the start of mining and shall be maintained for the duration of the permit term.

5. **Minimum 25' Separation From Property Line** No mining activity of any kind, including clearing and grubbing, shall occur within 25 feet of any adjacent property line or right-of-way. When mining is conducted lower than the adjacent property, the distance from the floor of the mine to the nearest property line shall be no closer than 25 feet plus 1.5 times the depth of the excavation.

6. **Clear Trees, Etc., Dispose of Properly Before Mining** All trees, stumps, and brush must be cleared from areas of the mine site to be mined during any calendar year and disposed of in a manner approved by DEC before mining for that year begins.

7. **Strip and Stockpile Soils for Reclamation** Prior to the excavation of previously undisturbed areas, topsoil and overburden shall be stripped, stockpiled separately, and used for reclamation of mined areas. These stockpiles shall be seeded to establish a vegetative cover within 30 days, or as soon as practicable following their construction. The permittee shall locate all overburden stockpiles within the permitted area of the approved Life of Mine. Sufficient quantities of topsoil must be retained on the site for use in reclamation, unless prior approval is granted by the Department.

8. **Prevent Contamination of Water** Any contamination of surface or subsurface water must be prevented.

9. **No Unpermitted Discharge Outside Limits of Mine** There shall be no natural swales or channels or constructed features such as ditches, pipes, etc., that are capable of discharging waters to any offsite areas or to any areas outside the limits of the Life of Mine except those explicitly described and shown in the narrative and graphic portions of the approved Mined Land Use Plan. All silt laden water and storm water generated on, or running across, the site shall be retained within the approved project area. The permittee must comply with all applicable State Pollutant Discharge Elimination System (SPDES) permit requirements and provide necessary notifications for off-site point source discharges.

10. **No Wastes at Mine** There shall be no disposal, storage, transfer or processing of trash or garbage, demolition debris, or other wastes regulated under the Environmental Conservation Law in the mine.

11. **Dust Control** Water or other approved dust palliatives must be applied to haulageways and other parts of the mine, as often as necessary, to prevent visible dust from leaving the mine property.

12. **Mining at Least 5' Above Groundwater** All mining must be conducted at least 5 feet above the mean annual high groundwater table. The permittee must dig occasional test holes in the mine floor at least five feet deep in order to determine compliance with this condition.

RECLAMATION

13. **Removal of Stockpiles and Equipiment** All mineral stockpiles, mining and processing equipment, and personal property must be removed from the life of mine area at the time of final reclamation.

14. **Successful Revegetation** The permittee must successfully reclaim the entire life of mine area within two years of the permit expiration date, according to the approved reclamation plan.

15. **Bury, Remove Wastes** All waste generated by mining activity, including trees, stumps, brush and rock rubble must be buried at the mine site or otherwise disposed of in a manner approved by the Department.

16. **Soil Cover for Plant Growth** Portions of the permit area incapable of supporting vegetative growth shall be covered with a minimum of six inches of cover material with a soil composition capable of sustaining plant growth.

17. **Successful Revegetation Standard** Revegetation of the mine site to perennial grasses must be established over a minimum of 75%. Lime, fertilizer, seed and mulch must be applied to reclaim the mine site in accordance with the approved mined land use plan.

18. **Leave Sufficient Materials to Meet Final Grades** Sufficient materials shall be left in place in areas to be sloped (along the perimeter of the mine) to achieve the final approved grades without backfilling.

GENERAL CONDITIONS - Apply to ALL Authorized Permits:

1. **Facility Inspection by The Department** The permitted site or facility, including relevant records, is subject to inspection at reasonable hours and intervals by an authorized representative of the Department of Environmental Conservation (the Department) to determine whether the permittee is complying with this permit and the ECL. Such representative may order the work suspended pursuant to ECL 71- 0301 and SAPA 401(3).

The permittee shall provide a person to accompany the Department's representative during an inspection to the permit area when requested by the Department.

A copy of this permit, including all referenced maps, drawings and special conditions, must be available for inspection by the Department at all times at the project site or facility. Failure to produce a copy of the permit upon request by a Department representative is a violation of this permit.

2. **Relationship of this Permit to Other Department Orders and Determinations** Unless expressly provided for by the Department, issuance of this permit does not modify, supersede or rescind any order or determination previously issued by the Department or any of the terms, conditions or requirements contained in such order or determination.

3. **Applications For Permit Renewals, Modifications or Transfers** The permittee must submit a separate written application to the Department for permit renewal, modification or transfer of this permit. Such application must include any forms or supplemental information the Department requires. Any renewal, modification or transfer granted by the Department must be in writing. Submission of applications for permit renewal, modification or transfer are to be submitted to:

Regional Permit Administrator
NYSDEC Region 5 Warrensburg Sub-Office
232 Golf Course Rd
Warrensburg, NY12885

4. **Submission of Renewal Application** The permittee must submit a renewal application at least 30 days before permit expiration for the following permit authorizations: Mined Land Reclamation.

5. **Permit Modifications, Suspensions and Revocations by the Department** The Department reserves the right to exercise all available authority to modify, suspend or revoke this permit. The grounds for modification, suspension or revocation include:

a. materially false or inaccurate statements in the permit application or supporting papers;

b. failure by the permittee to comply with any terms or conditions of the permit;

c. exceeding the scope of the project as described in the permit application;

d. newly discovered material information or a material change in environmental conditions, relevant technology or applicable law or regulations since the issuance of the existing permit;

e. noncompliance with previously issued permit conditions, orders of the commissioner, any provisions of the Environmental Conservation Law or regulations of the Department related to the permitted activity.

6. **Permit Transfer** Permits are transferrable unless specifically prohibited by statute, regulation or another permit condition. Applications for permit transfer should be submitted prior to actual transfer of ownership.

NOTIFICATION OF OTHER PERMITTEE OBLIGATIONS

Item A: Permittee Accepts Legal Responsibility and Agrees to Indemnification
The permittee, excepting state or federal agencies, expressly agrees to indemnify and hold harmless the Department of Environmental Conservation of the State of New York, its representatives, employees, and agents ("DEC") for all claims, suits, actions, and damages, to the extent attributable to the permittee's acts or omissions in connection with the permittee's undertaking of activities in connection with, or operation and maintenance of, the facility or facilities authorized by the permit whether in compliance or not in compliance with the terms and conditions of the permit. This indemnification does not extend to any claims, suits, actions, or damages to the extent attributable to DEC's own negligent or intentional acts or omissions, or to any claims, suits, or actions naming the DEC and arising under Article 78 of the New York Civil Practice Laws and Rules or any citizen suit or civil rights provision under federal or state laws.

Item B: Permittee's Contractors to Comply with Permit
The permittee is responsible for informing its independent contractors, employees, agents and assigns of their responsibility to comply with this permit, including all special conditions while acting as the permittee's agent with respect to the permitted activities, and such persons shall be subject to the same sanctions for violations of the Environmental Conservation Law as those prescribed for the permittee.

Item C: Permittee Responsible for Obtaining Other Required Permits
The permittee is responsible for obtaining any other permits, approvals, lands, easements and rights-of-way that may be required to carry out the activities that are authorized by this permit.

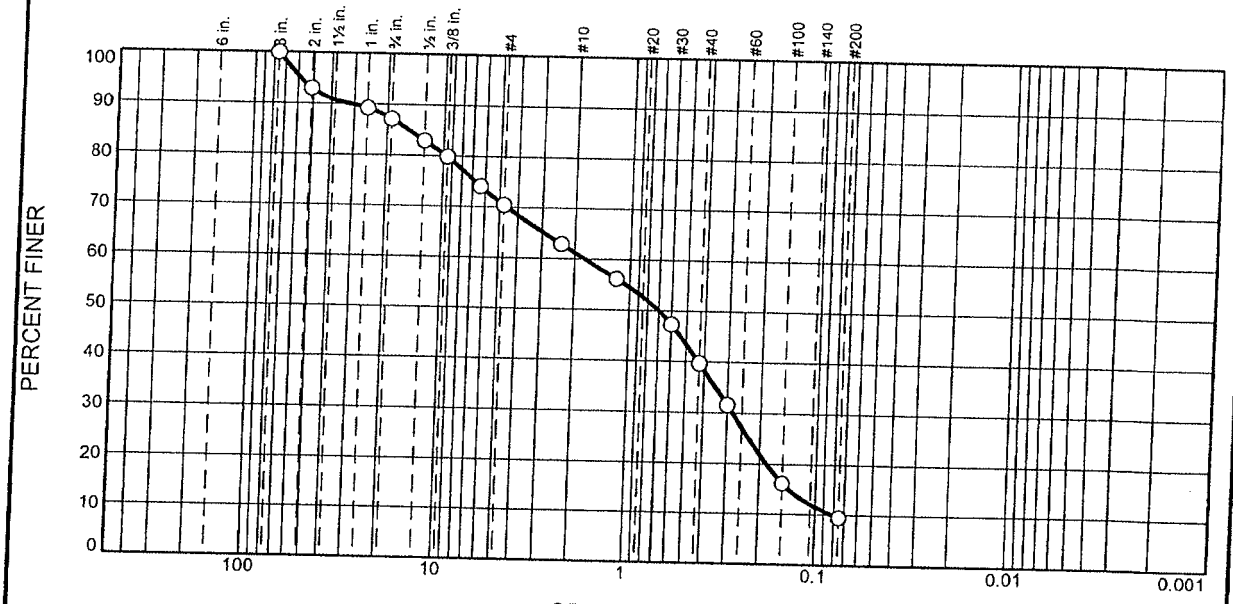
Item D: No Right to Trespass or Interfere with Riparian Rights
This permit does not convey to the permittee any right to trespass upon the lands or interfere with the riparian rights of others in order to perform the permitted work nor does it authorize the impairment of any rights, title, or interest in real or personal property held or vested in a person not a party to the permit.

ATLANTIC TESTING LABORATORIES

WBE certified company

Brown Sand & Gravel (Common Fill) Analysis
(requesting use as gravel fill)

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	13	17	9	21	31	9	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	OUT OF SPEC (X)
3	100		
2	93		
1	89		
.75	87		
.5	83		
.375	80		
.25	74		
#4	70		
#8	63		
#16	56		
#30	47		
#40	40		
#50	32		
#100	16		
#200	9.5		

* (no specification provided)

Soil Description

Brown Sand and Gravel

Atterberg Limits

PL= --- LL= --- PI= ---

Coefficients

D_{85}= 15.3890 D_{60}= 1.7546 D_{50}= 0.6984
D_{30}= 0.2809 D_{15}= 0.1382 D_{10}= 0.0815
C_u= 21.53 C_c= 0.55

Classification

USCS= AASHTO=

Remarks

Sampled and delivered by the client on 7/19/2017
ASTM C 136 / C 117

Source of Sample: Constantine Halfmoon Pit **Depth:** N/A
Sample Number: AT1256S57

ATLANTIC TESTING LABORATORIES, LIMITED
Albany, New York

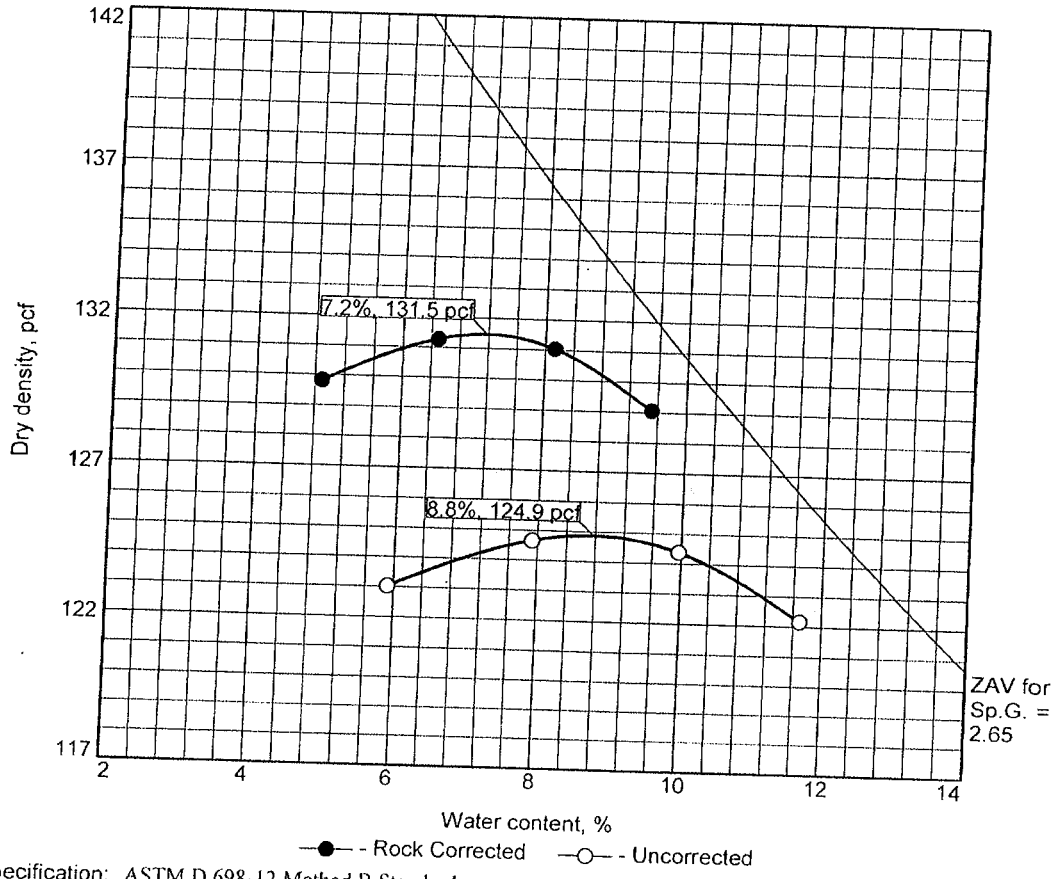
Client: Constantine Construction & Farm
Project: Laboratory Analysis
Report No: AT1256SL-57-07-17 **Date:** 7/22/2017

Tested by: RL Date: 7/21/17
Reviewed by: RRF Date: 7/22/17

ATLANTIC TESTING LABORATORIES

WBE certified company

COMPACTION TEST REPORT



Test specification: ASTM D 698-12 Method B Standard
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

Elev/ Depth	Classification		Received Moist.	Sp.G.	LL	PL	PI	% > 3/8 in.
	USCS	AASHTO						
N/A			---	2.67	---	---	---	20

ROCK CORRECTED TEST RESULTS

Maximum dry density = 131.5 pcf

Optimum moisture = 7.2 %

Report No.: AT1256SL-57-07-17 **Client:** Constantine Construction & Farm
Project: Laboratory Analysis
Source of Sample: Constantine Halfmoon Pit
Sample Number: AT1256S57
Date: 7/22/2017

ATLANTIC TESTING LABORATORIES, LIMITED

Albany, New York

MATERIAL DESCRIPTION

Brown Sand and Gravel

Remarks:

Sampled and delivered by the client on 7/19/2017.
Dry Prep

Rammer: Mechanical
Specific Gravity: Assumed

Tested by: CW Date: 7/21/17
Reviewed by: RFF Date: 7/22/17

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 8, 2017

Laboratory Analytical Data for Common Fill Material

Lisa Gorton
Land Remediation
1644 State Route 43
Averill Park, NY 12018

Project Location: National Grid - Cohoes
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 17G1131

Enclosed are results of analyses for samples received by the laboratory on July 26, 2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

Table of Contents

Table of Contents (continued)

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Land Remediation
1644 State Route 43
Averill Park, NY 12018
ATTN: Lisa Gorton

REPORT DATE: 8/8/2017

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

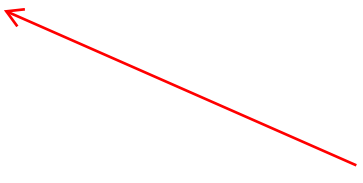
ANALYTICAL SUMMARY

WORK ORDER NUMBER: 17G1131

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: National Grid - Cohoes

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Constantine-CF-C1	17G1131-01	Soil		SM 2540G	
				SW-846 6010C-D	
				SW-846 7196A	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8082A	
				SW-846 8270D	
				SW-846 9014	
				Tri Chrome Calc.	
Constantine-CF-C2	17G1131-02	Soil		SM 2540G	
				SW-846 6010C-D	
				SW-846 7196A	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8082A	
				SW-846 8270D	
				SW-846 9014	
				Tri Chrome Calc.	
Constantine-CF-V1	17G1131-03	Soil		SM 2540G	
				SW-846 8260C	
Constantine-CF-V2	17G1131-04	Soil		SM 2540G	
				SW-846 8260C	
Constantine-CF-V3	17G1131-05	Soil		SM 2540G	
				SW-846 8260C	
Constantine-CF-V4	17G1131-06	Soil		SM 2540G	
				SW-846 8260C	
Constantine-CF-V5	17G1131-07	Soil		SM 2540G	
				SW-846 8260C	
Constantine-CF-V6	17G1131-08	Soil		SM 2540G	
				SW-846 8260C	
Constantine-CF-V7	17G1131-09	Soil		SM 2540G	
				SW-846 8260C	



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Land Remediation
1644 State Route 43
Averill Park, NY 12018
ATTN: Lisa Gorton

REPORT DATE: 8/8/2017

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

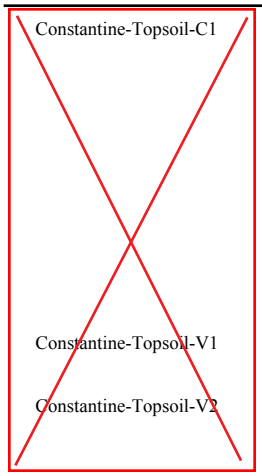
ANALYTICAL SUMMARY

WORK ORDER NUMBER: 17G1131

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: National Grid - Cohoes

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Constantine-Topsoil-C1	17G1131-10	Soil		SM 2540G	
				SW-846 6010C-D	
				SW-846 7196A	
				SW-846 7471B	
				SW-846 8081B	
				SW-846 8082A	
				SW-846 8270D	
				SW-846 9014	
				SW-846 9045C	
				Tri Chrome Calc.	
Constantine-Topsoil-V1	17G1131-11	Soil		SM 2540G	
				SW-846 8260C	
Constantine-Topsoil-V2	17G1131-12	Soil		SM 2540G	
				SW-846 8260C	



Topsoil Samples (ignore results for the topsoil samples, this material will not be used during the IRM)

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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

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SW-846 6010C-D

Qualifications:

MS-07

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Selenium

17G1131-01RE1[Constantine-CF-C1], B183222-MS1

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Manganese

17G1131-01[Constantine-CF-C1], B182617-MS1

SW-846 7196A

Qualifications:

W-06

Elevated method reporting limit due to intense color of sample

Analyte & Samples(s) Qualified:

Hexavalent Chromium

17G1131-01[Constantine-CF-C1], 17G1131-02[Constantine-CF-C2], 17G1131-10[Constantine-Topsoil-C1]

SW-846 8260C

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Acetone

17G1131-03[Constantine-CF-V1], 17G1131-04[Constantine-CF-V2], 17G1131-05[Constantine-CF-V3], 17G1131-06[Constantine-CF-V4], 17G1131-07[Constantine-CF-V5], 17G1131-08[Constantine-CF-V6], 17G1131-09[Constantine-CF-V7], 17G1131-11[Constantine-Topsoil-V1], 17G1131-12[Constantine-Topsoil-V2], B182721-BLK1, B182721-BS1, B182721-BSD1, B182898-BLK1, B182898-BS1, B182898-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:

2-Butanone (MEK)

B182721-BS1

PR-15

According to the NY ELAP program, all voa results less than 0.2mg/Kg are estimated and biased low if not collected according to SW-846 5035-L/5035A-L.

Analyte & Samples(s) Qualified:

17G1131-03[Constantine-CF-V1], 17G1131-04[Constantine-CF-V2], 17G1131-05[Constantine-CF-V3], 17G1131-07[Constantine-CF-V5], 17G1131-08[Constantine-CF-V6], 17G1131-09[Constantine-CF-V7], 17G1131-12[Constantine-Topsoil-V2]

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

2-Butanone (MEK)

17G1131-03[Constantine-CF-V1], 17G1131-04[Constantine-CF-V2], 17G1131-05[Constantine-CF-V3], 17G1131-07[Constantine-CF-V5], 17G1131-08[Constantine-CF-V6], 17G1131-09[Constantine-CF-V7], 17G1131-12[Constantine-Topsoil-V2], B182721-BLK1, B182721-BS1, B182721-BSD1

Acetone

17G1131-03[Constantine-CF-V1], 17G1131-04[Constantine-CF-V2], 17G1131-05[Constantine-CF-V3], 17G1131-06[Constantine-CF-V4], 17G1131-07[Constantine-CF-V5], 17G1131-08[Constantine-CF-V6], 17G1131-09[Constantine-CF-V7], 17G1131-11[Constantine-Topsoil-V1], 17G1131-12[Constantine-Topsoil-V2], B182721-BLK1, B182721-BS1, B182721-BSD1, B182898-BLK1, B182898-BS1, B182898-BSD1

SW-846 9045C

Qualifications:

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H-01

Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

Analyte & Samples(s) Qualified:

pH
17G1131-10[Constantine-Topsoil-C1]

SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C1 | Sampled: 7/26/2017 07:55

Sample ID: 17G1131-01

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	0.054	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Acenaphthylene	ND	0.18	0.060	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Anthracene	ND	0.18	0.051	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Benzo(a)anthracene	ND	0.18	0.047	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Benzo(a)pyrene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Benzo(b)fluoranthene	ND	0.18	0.050	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Benzo(g,h,i)perylene	ND	0.18	0.079	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Benzo(k)fluoranthene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Chrysene	ND	0.18	0.056	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Dibenz(a,h)anthracene	ND	0.18	0.11	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Fluoranthene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Fluorene	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Hexachlorobenzene	ND	0.36	0.063	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	0.13	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
2-Methylphenol	ND	0.36	0.089	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
3/4-Methylphenol	ND	0.36	0.11	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Naphthalene	ND	0.18	0.091	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Pentachlorophenol	ND	0.36	0.086	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Phenanthrene	ND	0.18	0.092	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Phenol	ND	0.36	0.061	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL
Pyrene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:22	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	68.1	30-130		8/1/17 22:22
Phenol-d6	68.2	30-130		8/1/17 22:22
Nitrobenzene-d5	72.1	30-130		8/1/17 22:22
2-Fluorobiphenyl	73.6	30-130		8/1/17 22:22
2,4,6-Tribromophenol	76.9	30-130		8/1/17 22:22
p-Terphenyl-d14	87.5	30-130		8/1/17 22:22

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C1 | Sampled: 7/26/2017 07:55

Sample ID: 17G1131-01

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Aldrin [1]	ND	0.0021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
alpha-BHC [1]	ND	0.0053	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
beta-BHC [1]	ND	0.0053	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
delta-BHC [1]	ND	0.0053	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
gamma-BHC (Lindane) [1]	ND	0.0021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Chlordane [1]	ND	0.021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
4,4'-DDD [1]	ND	0.0011	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
4,4'-DDE [1]	ND	0.0011	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
4,4'-DDT [1]	ND	0.0011	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Dieldrin [1]	ND	0.0021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Endosulfan I [1]	ND	0.0053	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Endosulfan II [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Endosulfan sulfate [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Endrin [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Endrin aldehyde [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Endrin ketone [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Heptachlor [1]	ND	0.0053	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Heptachlor epoxide [1]	ND	0.0053	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Hexachlorobenzene [2]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Methoxychlor [1]	ND	0.053	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG
Toxaphene [1]	ND	0.11	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 17:36	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	80.0	30-150		8/3/17 17:36
Decachlorobiphenyl [2]	86.7	30-150		8/3/17 17:36
Tetrachloro-m-xylene [1]	78.6	30-150		8/3/17 17:36
Tetrachloro-m-xylene [2]	69.0	30-150		8/3/17 17:36

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Common Fill

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Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C1 | Sampled: 7/26/2017 07:55

Sample ID: 17G1131-01

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1221 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1232 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1242 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1248 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1254 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1260 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1262 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB
Aroclor-1268 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 18:48	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	80.8	30-150		8/2/17 18:48
Decachlorobiphenyl [2]	74.2	30-150		8/2/17 18:48
Tetrachloro-m-xylene [1]	79.9	30-150		8/2/17 18:48
Tetrachloro-m-xylene [2]	69.4	30-150		8/2/17 18:48

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Common Fill

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Project Location: National Grid - Cohoes
Sample Description:
Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C1
Sampled: 7/26/2017 07:55

Sample ID: 17G1131-01

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.6	2.6		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Barium	27	2.6		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Beryllium	ND	0.26		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Cadmium	ND	0.26		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Chromium	9.4	0.52		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Chromium, Trivalent	9.4	1.2		mg/Kg	1		Tri Chrome Calc.	7/26/17	8/1/17 10:55	QNW
Copper	19	0.52		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Lead	5.8	0.79		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Manganese	290	0.52		mg/Kg dry	1	MS-19	SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Mercury	ND	0.026		mg/Kg dry	1		SW-846 7471B	7/26/17	8/1/17 9:11	TJK
Nickel	12	0.52		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Selenium	ND	3.5	2.9	mg/Kg dry	1	MS-07	SW-846 6010C-D	8/3/17	8/3/17 17:44	ICP
Silver	ND	0.52		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW
Zinc	38	1.0		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 21:53	QNW

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Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C1 | Sampled: 7/26/2017 07:55

Sample ID: 17G1131-01

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Cyanide	ND	0.38	mg/Kg dry	1		SW-846 9014	8/1/17	8/2/17 23:15	DJM
Hexavalent Chromium	ND	0.33	mg/Kg dry	2	W-06	SW-846 7196A	7/27/17	7/28/17 1:30	MMH
% Solids	95.2		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C2 | Sampled: 7/26/2017 08:05

Sample ID: 17G1131-02

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.18	0.053	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Acenaphthylene	ND	0.18	0.060	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Anthracene	ND	0.18	0.051	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Benzo(a)anthracene	ND	0.18	0.047	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Benzo(a)pyrene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Benzo(b)fluoranthene	ND	0.18	0.050	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Benzo(g,h,i)perylene	ND	0.18	0.078	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Benzo(k)fluoranthene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Chrysene	ND	0.18	0.055	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Dibenz(a,h)anthracene	ND	0.18	0.11	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Fluoranthene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Fluorene	ND	0.18	0.058	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Hexachlorobenzene	ND	0.36	0.063	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Indeno(1,2,3-cd)pyrene	ND	0.18	0.13	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
2-Methylphenol	ND	0.36	0.089	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
3/4-Methylphenol	ND	0.36	0.11	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Naphthalene	ND	0.18	0.091	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Pentachlorophenol	ND	0.36	0.086	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Phenanthrene	ND	0.18	0.092	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Phenol	ND	0.36	0.061	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL
Pyrene	ND	0.18	0.059	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 22:49	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	67.4	30-130		8/1/17 22:49
Phenol-d6	67.9	30-130		8/1/17 22:49
Nitrobenzene-d5	74.1	30-130		8/1/17 22:49
2-Fluorobiphenyl	73.4	30-130		8/1/17 22:49
2,4,6-Tribromophenol	72.9	30-130		8/1/17 22:49
p-Terphenyl-d14	81.5	30-130		8/1/17 22:49

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C2 | Sampled: 7/26/2017 08:05

Sample ID: 17G1131-02

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Aldrin [1]	ND	0.0021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
alpha-BHC [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
beta-BHC [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
delta-BHC [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
gamma-BHC (Lindane) [1]	ND	0.0021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Chlordane [1]	ND	0.021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
4,4'-DDD [1]	ND	0.0010	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
4,4'-DDE [1]	ND	0.0010	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
4,4'-DDT [1]	ND	0.0010	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Dieldrin [1]	ND	0.0021	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Endosulfan I [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Endosulfan II [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Endosulfan sulfate [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Endrin [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Endrin aldehyde [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Endrin ketone [1]	ND	0.0084	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Heptachlor [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Heptachlor epoxide [1]	ND	0.0052	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Hexachlorobenzene [2]	ND	0.0063	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Methoxychlor [1]	ND	0.052	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG
Toxaphene [1]	ND	0.10	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:03	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	85.2	30-150		8/3/17 18:03
Decachlorobiphenyl [2]	92.6	30-150		8/3/17 18:03
Tetrachloro-m-xylene [1]	86.7	30-150		8/3/17 18:03
Tetrachloro-m-xylene [2]	74.0	30-150		8/3/17 18:03

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C2 | Sampled: 7/26/2017 08:05

Sample ID: 17G1131-02

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1221 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1232 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1242 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1248 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1254 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1260 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1262 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB
Aroclor-1268 [1]	ND	0.021	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:01	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	87.3	30-150		8/2/17 19:01
Decachlorobiphenyl [2]	79.4	30-150		8/2/17 19:01
Tetrachloro-m-xylene [1]	88.5	30-150		8/2/17 19:01
Tetrachloro-m-xylene [2]	78.5	30-150		8/2/17 19:01

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C2 | Sampled: 7/26/2017 08:05

Sample ID: 17G1131-02

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.7	2.4		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Barium	21	2.4		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Beryllium	ND	0.24		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Cadmium	ND	0.24		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Chromium	6.7	0.49		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Chromium, Trivalent	6.7	1.2		mg/Kg	1		Tri Chrome Calc.	7/26/17	8/1/17 10:55	QNW
Copper	15	0.49		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Lead	5.5	0.73		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Manganese	250	0.49		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Mercury	ND	0.026		mg/Kg dry	1		SW-846 7471B	7/26/17	8/1/17 9:25	TJK
Nickel	11	0.49		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Selenium	ND	3.5	2.9	mg/Kg dry	1		SW-846 6010C-D	8/3/17	8/3/17 17:48	ICP
Silver	ND	0.49		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW
Zinc	34	0.98		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:21	QNW

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-C2 | Sampled: 7/26/2017 08:05

Sample ID: 17G1131-02

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Cyanide	ND	0.41	mg/Kg dry	1		SW-846 9014	8/1/17	8/2/17 23:15	DJM
Hexavalent Chromium	ND	0.33	mg/Kg dry	2	W-06	SW-846 7196A	7/27/17	7/28/17 1:30	MMH
% Solids	95.6		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V1 | Sampled: 7/26/2017 08:06

Sample ID: 17G1131-03

Sample Matrix: Soil

Sample Flags: PR-15

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	0.024	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Benzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
2-Butanone (MEK)	ND	0.041	0.018	mg/Kg dry	1	V-05	SW-846 8260C	7/27/17	7/27/17 16:34	MFF
n-Butylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
sec-Butylbenzene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
tert-Butylbenzene	ND	0.0021	0.00092	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Carbon Tetrachloride	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Chlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Chloroform	ND	0.0041	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,1-Dichloroethane	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,2-Dichloroethane	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,1-Dichloroethylene	ND	0.0041	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00092	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,4-Dioxane	ND	0.10	0.059	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Ethylbenzene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0041	0.00092	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Methylene Chloride	ND	0.021	0.0073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
n-Propylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Tetrachloroethylene	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Toluene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,1,1-Trichloroethane	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Trichloroethylene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00062	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
Vinyl Chloride	ND	0.010	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
m+p Xylene	ND	0.0041	0.0017	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF
o-Xylene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 16:34	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	91.2	70-130		7/27/17 16:34
Toluene-d8	91.8	70-130		7/27/17 16:34
4-Bromofluorobenzene	86.3	70-130		7/27/17 16:34

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V1 | Sampled: 7/26/2017 08:06

Sample ID: 17G1131-03

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	95.4		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V2 | Sampled: 7/26/2017 08:07

Sample ID: 17G1131-04

Sample Matrix: Soil

Sample Flags: PR-15

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	0.024	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Benzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
2-Butanone (MEK)	ND	0.041	0.018	mg/Kg dry	1	V-05	SW-846 8260C	7/27/17	7/27/17 17:01	MFF
n-Butylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
sec-Butylbenzene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
tert-Butylbenzene	ND	0.0021	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Carbon Tetrachloride	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Chlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Chloroform	ND	0.0041	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,1-Dichloroethane	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,2-Dichloroethane	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,1-Dichloroethylene	ND	0.0041	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,4-Dioxane	ND	0.10	0.059	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Ethylbenzene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0041	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Methylene Chloride	0.010	0.021	0.0073	mg/Kg dry	1	J	SW-846 8260C	7/27/17	7/27/17 17:01	MFF
n-Propylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Tetrachloroethylene	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Toluene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,1,1-Trichloroethane	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Trichloroethylene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00062	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
Vinyl Chloride	ND	0.010	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
m+p Xylene	ND	0.0041	0.0018	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF
o-Xylene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:01	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	89.6	70-130		7/27/17 17:01
Toluene-d8	93.6	70-130		7/27/17 17:01
4-Bromofluorobenzene	91.6	70-130		7/27/17 17:01

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V2 | Sampled: 7/26/2017 08:07

Sample ID: 17G1131-04

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.4		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

con-test® ANALYTICAL LABORATORY

Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V3 | Sampled: 7/26/2017 08:08

Sample ID: 17G1131-05

Sample Matrix: Soil

Sample Flags: PR-15

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	0.025	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Benzene	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
2-Butanone (MEK)	ND	0.042	0.018	mg/Kg dry	1	V-05	SW-846 8260C	7/27/17	7/27/17 17:27	MFF
n-Butylbenzene	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
sec-Butylbenzene	ND	0.0021	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
tert-Butylbenzene	ND	0.0021	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Carbon Tetrachloride	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Chlorobenzene	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Chloroform	ND	0.0042	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,1-Dichloroethane	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,2-Dichloroethane	ND	0.0021	0.0014	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,1-Dichloroethylene	ND	0.0042	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,4-Dioxane	ND	0.11	0.061	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Ethylbenzene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Methylene Chloride	0.0082	0.021	0.0075	mg/Kg dry	1	J	SW-846 8260C	7/27/17	7/27/17 17:27	MFF
n-Propylbenzene	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Tetrachloroethylene	ND	0.0021	0.0014	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Toluene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,1,1-Trichloroethane	ND	0.0021	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Trichloroethylene	ND	0.0021	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00063	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
Vinyl Chloride	ND	0.011	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
m+p Xylene	ND	0.0042	0.0018	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF
o-Xylene	ND	0.0021	0.00074	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 17:27	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	88.2	70-130		7/27/17 17:27
Toluene-d8	93.3	70-130		7/27/17 17:27
4-Bromofluorobenzene	86.0	70-130		7/27/17 17:27

Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes
Sample Description:
Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V3
Sampled: 7/26/2017 08:08

Sample ID: 17G1131-05

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	95.1		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V4 | Sampled: 7/26/2017 08:09

Sample ID: 17G1131-06

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	0.024	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Benzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
2-Butanone (MEK)	ND	0.041	0.018	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
n-Butylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
sec-Butylbenzene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
tert-Butylbenzene	ND	0.0021	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Carbon Tetrachloride	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Chlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Chloroform	ND	0.0041	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,2-Dichloroethane	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,1-Dichloroethylene	ND	0.0041	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,4-Dioxane	ND	0.10	0.060	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Ethylbenzene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0041	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Methylene Chloride	0.0086	0.021	0.0073	mg/Kg dry	1	J	SW-846 8260C	7/27/17	7/31/17 10:43	MFF
n-Propylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Tetrachloroethylene	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Toluene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,1,1-Trichloroethane	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Trichloroethylene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00062	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
Vinyl Chloride	ND	0.010	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
m+p Xylene	ND	0.0041	0.0018	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF
o-Xylene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 10:43	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	85.2	70-130		7/31/17 10:43
Toluene-d8	90.7	70-130		7/31/17 10:43
4-Bromofluorobenzene	90.9	70-130		7/31/17 10:43

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V4 | Sampled: 7/26/2017 08:09

Sample ID: 17G1131-06

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	94.4		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

con-test® ANALYTICAL LABORATORY

Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V5 | Sampled: 7/26/2017 08:10

Sample ID: 17G1131-07

Sample Matrix: Soil

Sample Flags: PR-15

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	0.024	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Benzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
2-Butanone (MEK)	ND	0.041	0.018	mg/Kg dry	1	V-05	SW-846 8260C	7/27/17	7/27/17 18:21	MFF
n-Butylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
sec-Butylbenzene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
tert-Butylbenzene	ND	0.0021	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Carbon Tetrachloride	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Chlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Chloroform	ND	0.0041	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,1-Dichloroethane	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,2-Dichloroethane	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,1-Dichloroethylene	ND	0.0041	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,4-Dioxane	ND	0.10	0.060	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Ethylbenzene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0041	0.00093	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Methylene Chloride	ND	0.021	0.0073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
n-Propylbenzene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Tetrachloroethylene	ND	0.0021	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Toluene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,1,1-Trichloroethane	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Trichloroethylene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00062	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
Vinyl Chloride	ND	0.010	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
m+p Xylene	ND	0.0041	0.0018	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF
o-Xylene	ND	0.0021	0.00072	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:21	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	85.4	70-130		7/27/17 18:21
Toluene-d8	92.8	70-130		7/27/17 18:21
4-Bromofluorobenzene	86.2	70-130		7/27/17 18:21

con-test® ANALYTICAL LABORATORY

Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V5 | Sampled: 7/26/2017 08:10

Sample ID: 17G1131-07

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	95.3		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

con-test® ANALYTICAL LABORATORY

Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V6 | Sampled: 7/26/2017 08:11

Sample ID: 17G1131-08

Sample Matrix: Soil

Sample Flags: PR-15

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.11	0.025	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Benzene	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
2-Butanone (MEK)	ND	0.043	0.019	mg/Kg dry	1	V-05	SW-846 8260C	7/27/17	7/27/17 18:48	MFF
n-Butylbenzene	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
sec-Butylbenzene	ND	0.0021	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
tert-Butylbenzene	ND	0.0021	0.00096	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Carbon Tetrachloride	ND	0.0021	0.00085	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Chlorobenzene	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Chloroform	ND	0.0043	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00085	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,1-Dichloroethane	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,2-Dichloroethane	ND	0.0021	0.0014	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,1-Dichloroethylene	ND	0.0043	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00085	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00096	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,4-Dioxane	ND	0.11	0.061	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Ethylbenzene	ND	0.0021	0.00085	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0043	0.00096	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Methylene Chloride	ND	0.021	0.0076	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
n-Propylbenzene	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Tetrachloroethylene	ND	0.0021	0.0014	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Toluene	ND	0.0021	0.00085	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,1,1-Trichloroethane	ND	0.0021	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Trichloroethylene	ND	0.0021	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00085	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00064	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
Vinyl Chloride	ND	0.011	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
m+p Xylene	ND	0.0043	0.0018	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF
o-Xylene	ND	0.0021	0.00075	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 18:48	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	84.2	70-130		7/27/17 18:48
Toluene-d8	93.4	70-130		7/27/17 18:48
4-Bromofluorobenzene	85.9	70-130		7/27/17 18:48

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V6 | Sampled: 7/26/2017 08:11

Sample ID: 17G1131-08

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	95.0		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V7 | Sampled: 7/26/2017 08:12

Sample ID: 17G1131-09

Sample Matrix: Soil

Sample Flags: PR-15

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.10	0.025	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Benzene	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
2-Butanone (MEK)	ND	0.042	0.018	mg/Kg dry	1	V-05	SW-846 8260C	7/27/17	7/27/17 19:14	MFF
n-Butylbenzene	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
sec-Butylbenzene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
tert-Butylbenzene	ND	0.0021	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Carbon Tetrachloride	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Chlorobenzene	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Chloroform	ND	0.0042	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,2-Dichlorobenzene	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,3-Dichlorobenzene	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,4-Dichlorobenzene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,1-Dichloroethane	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,2-Dichloroethane	ND	0.0021	0.0014	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,1-Dichloroethylene	ND	0.0042	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
cis-1,2-Dichloroethylene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
trans-1,2-Dichloroethylene	ND	0.0021	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,4-Dioxane	ND	0.10	0.060	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Ethylbenzene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0042	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Methylene Chloride	0.0092	0.021	0.0074	mg/Kg dry	1	J	SW-846 8260C	7/27/17	7/27/17 19:14	MFF
n-Propylbenzene	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Tetrachloroethylene	ND	0.0021	0.0014	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Toluene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,1,1-Trichloroethane	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Trichloroethylene	ND	0.0021	0.0010	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,2,4-Trimethylbenzene	ND	0.0021	0.00084	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
1,3,5-Trimethylbenzene	ND	0.0021	0.00063	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
Vinyl Chloride	ND	0.010	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
m+p Xylene	ND	0.0042	0.0018	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF
o-Xylene	ND	0.0021	0.00073	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 19:14	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	84.3	70-130		7/27/17 19:14
Toluene-d8	91.8	70-130		7/27/17 19:14
4-Bromofluorobenzene	86.5	70-130		7/27/17 19:14

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Common Fill

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-CF-V7 | Sampled: 7/26/2017 08:12

Sample ID: 17G1131-09

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	95.7		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Topsoil

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-C1 | Sampled: 7/26/2017 08:15

Sample ID: 17G1131-10

Sample Matrix: Soil

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	0.20	0.060	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Acenaphthylene	ND	0.20	0.067	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Anthracene	ND	0.20	0.058	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Benzo(a)anthracene	ND	0.20	0.053	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Benzo(a)pyrene	0.081	0.20	0.062	mg/Kg dry	1	J	SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Benzo(b)fluoranthene	0.16	0.20	0.057	mg/Kg dry	1	J	SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Benzo(g,h,i)perylene	0.10	0.20	0.088	mg/Kg dry	1	J	SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Benzo(k)fluoranthene	ND	0.20	0.062	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Chrysene	0.065	0.20	0.062	mg/Kg dry	1	J	SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Dibenz(a,h)anthracene	ND	0.20	0.12	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Fluoranthene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Fluorene	ND	0.20	0.065	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Hexachlorobenzene	ND	0.40	0.071	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Indeno(1,2,3-cd)pyrene	ND	0.20	0.14	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
2-Methylphenol	ND	0.40	0.10	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
3/4-Methylphenol	ND	0.40	0.13	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Naphthalene	ND	0.20	0.10	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Pentachlorophenol	ND	0.40	0.097	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Phenanthrene	ND	0.20	0.10	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Phenol	ND	0.40	0.068	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL
Pyrene	ND	0.20	0.066	mg/Kg dry	1		SW-846 8270D	7/28/17	8/1/17 23:16	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	54.9	30-130		8/1/17 23:16
Phenol-d6	55.6	30-130		8/1/17 23:16
Nitrobenzene-d5	60.8	30-130		8/1/17 23:16
2-Fluorobiphenyl	61.1	30-130		8/1/17 23:16
2,4,6-Tribromophenol	57.7	30-130		8/1/17 23:16
p-Terphenyl-d14	68.5	30-130		8/1/17 23:16

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-C1 | Sampled: 7/26/2017 08:15

Sample ID: 17G1131-10

Sample Matrix: Soil

Organochloride Pesticides by GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alachlor [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Aldrin [1]	ND	0.0024	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
alpha-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
beta-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
delta-BHC [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
gamma-BHC (Lindane) [1]	ND	0.0024	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Chlordane [1]	ND	0.024	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
4,4'-DDD [1]	ND	0.0012	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
4,4'-DDE [2]	0.0014	0.0012	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
4,4'-DDT [1]	ND	0.0012	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Dieldrin [1]	ND	0.0024	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Endosulfan I [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Endosulfan II [1]	ND	0.0094	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Endosulfan sulfate [1]	ND	0.0094	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Endrin [1]	ND	0.0094	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Endrin aldehyde [1]	ND	0.0094	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Endrin ketone [1]	ND	0.0094	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Heptachlor [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Heptachlor epoxide [1]	ND	0.0059	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Hexachlorobenzene [2]	ND	0.0071	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Methoxychlor [1]	ND	0.059	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG
Toxaphene [1]	ND	0.12	mg/Kg dry	1		SW-846 8081B	7/31/17	8/3/17 18:30	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	77.3	30-150		8/3/17 18:30
Decachlorobiphenyl [2]	76.0	30-150		8/3/17 18:30
Tetrachloro-m-xylene [1]	75.3	30-150		8/3/17 18:30
Tetrachloro-m-xylene [2]	70.5	30-150		8/3/17 18:30

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Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-C1 | Sampled: 7/26/2017 08:15

Sample ID: 17G1131-10

Sample Matrix: Soil

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1221 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1232 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1242 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1248 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1254 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1260 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1262 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB
Aroclor-1268 [1]	ND	0.024	mg/Kg dry	1		SW-846 8082A	7/31/17	8/2/17 19:13	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	60.1	30-150		8/2/17 19:13
Decachlorobiphenyl [2]	63.0	30-150		8/2/17 19:13
Tetrachloro-m-xylene [1]	66.1	30-150		8/2/17 19:13
Tetrachloro-m-xylene [2]	64.1	30-150		8/2/17 19:13

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes
Sample Description:
Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-C1
Sampled: 7/26/2017 08:15

Sample ID: 17G1131-10

Sample Matrix: Soil

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Arsenic	4.2	3.0		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Barium	29	3.0		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Beryllium	ND	0.30		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Cadmium	ND	0.30		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Chromium	7.1	0.59		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Chromium, Trivalent	7.1	1.2		mg/Kg	1		Tri Chrome Calc.	7/26/17	8/1/17 10:55	QNW
Copper	18	0.59		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Lead	9.6	0.89		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Manganese	260	0.59		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Mercury	ND	0.030		mg/Kg dry	1		SW-846 7471B	7/26/17	8/1/17 9:26	TJK
Nickel	9.4	0.59		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Selenium	ND	3.9	3.2	mg/Kg dry	1		SW-846 6010C-D	8/3/17	8/3/17 18:00	ICP
Silver	ND	0.59		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW
Zinc	47	1.2		mg/Kg dry	1		SW-846 6010C-D	7/26/17	7/31/17 22:26	QNW

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Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-C1 | Sampled: 7/26/2017 08:15

Sample ID: 17G1131-10

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Cyanide	ND	0.43	mg/Kg dry	1		SW-846 9014	8/1/17	8/2/17 23:15	DJM
Hexavalent Chromium	ND	0.92	mg/Kg dry	5	W-06	SW-846 7196A	7/31/17	8/1/17 13:25	MMH
pH @19.3°C	7.4		pH Units	1	H-01	SW-846 9045C	7/27/17	7/27/17 9:35	LL
% Solids	84.9		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-V1 | Sampled: 7/26/2017 08:20

Sample ID: 17G1131-11

Sample Matrix: Soil

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	0.027	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Benzene	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
2-Butanone (MEK)	ND	0.047	0.021	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
n-Butylbenzene	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
sec-Butylbenzene	ND	0.0023	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
tert-Butylbenzene	ND	0.0023	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Carbon Tetrachloride	ND	0.0023	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Chlorobenzene	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Chloroform	ND	0.0047	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,2-Dichlorobenzene	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,3-Dichlorobenzene	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,4-Dichlorobenzene	ND	0.0023	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,1-Dichloroethane	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,2-Dichloroethane	ND	0.0023	0.0015	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,1-Dichloroethylene	ND	0.0047	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
cis-1,2-Dichloroethylene	ND	0.0023	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
trans-1,2-Dichloroethylene	ND	0.0023	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,4-Dioxane	ND	0.12	0.068	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Ethylbenzene	ND	0.0023	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0047	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Methylene Chloride	ND	0.023	0.0083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
n-Propylbenzene	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Tetrachloroethylene	ND	0.0023	0.0015	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Toluene	ND	0.0023	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,1,1-Trichloroethane	ND	0.0023	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Trichloroethylene	ND	0.0023	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,2,4-Trimethylbenzene	ND	0.0023	0.00094	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
1,3,5-Trimethylbenzene	ND	0.0023	0.00070	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
Vinyl Chloride	ND	0.012	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
m+p Xylene	ND	0.0047	0.0020	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF
o-Xylene	ND	0.0023	0.00082	mg/Kg dry	1		SW-846 8260C	7/27/17	7/31/17 11:09	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	87.1	70-130		7/31/17 11:09
Toluene-d8	91.0	70-130		7/31/17 11:09
4-Bromofluorobenzene	92.6	70-130		7/31/17 11:09

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-V1 | Sampled: 7/26/2017 08:20

Sample ID: 17G1131-11

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	82.9		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-V2 | Sampled: 7/26/2017 08:25

Sample ID: 17G1131-12

Sample Matrix: Soil

Sample Flags: PR-15

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	0.12	0.028	mg/Kg dry	1	L-04, V-05	SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Benzene	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
2-Butanone (MEK)	ND	0.047	0.021	mg/Kg dry	1	V-05	SW-846 8260C	7/27/17	7/27/17 20:35	MFF
n-Butylbenzene	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
sec-Butylbenzene	ND	0.0024	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
tert-Butylbenzene	ND	0.0024	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Carbon Tetrachloride	ND	0.0024	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Chlorobenzene	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Chloroform	ND	0.0047	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,2-Dichlorobenzene	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,3-Dichlorobenzene	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,4-Dichlorobenzene	ND	0.0024	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,1-Dichloroethane	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,2-Dichloroethane	ND	0.0024	0.0015	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,1-Dichloroethylene	ND	0.0047	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
cis-1,2-Dichloroethylene	ND	0.0024	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
trans-1,2-Dichloroethylene	ND	0.0024	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,4-Dioxane	ND	0.12	0.068	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Ethylbenzene	ND	0.0024	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Methyl tert-Butyl Ether (MTBE)	ND	0.0047	0.0011	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Methylene Chloride	0.011	0.024	0.0084	mg/Kg dry	1	J	SW-846 8260C	7/27/17	7/27/17 20:35	MFF
n-Propylbenzene	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Tetrachloroethylene	ND	0.0024	0.0015	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Toluene	ND	0.0024	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,1,1-Trichloroethane	ND	0.0024	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Trichloroethylene	ND	0.0024	0.0012	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,2,4-Trimethylbenzene	ND	0.0024	0.00095	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
1,3,5-Trimethylbenzene	ND	0.0024	0.00071	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
Vinyl Chloride	ND	0.012	0.0013	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
m+p Xylene	ND	0.0047	0.0020	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF
o-Xylene	ND	0.0024	0.00083	mg/Kg dry	1		SW-846 8260C	7/27/17	7/27/17 20:35	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	94.5	70-130		7/27/17 20:35
Toluene-d8	92.4	70-130		7/27/17 20:35
4-Bromofluorobenzene	85.9	70-130		7/27/17 20:35

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: National Grid - Cohoes | Sample Description: | Work Order: 17G1131

Date Received: 7/26/2017

Field Sample #: Constantine-Topsoil-V2 | Sampled: 7/26/2017 08:25

Sample ID: 17G1131-12

Sample Matrix: Soil

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
% Solids	83.2		% Wt	1		SM 2540G	7/29/17	7/31/17 8:37	MRL

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Sample Extraction Data

Prep Method: % Solids-SM 2540G

Lab Number [Field ID]	Batch	Date
17G1131-01 [Constantine-CF-C1]	B182839	07/29/17
17G1131-02 [Constantine-CF-C2]	B182839	07/29/17
17G1131-03 [Constantine-CF-V1]	B182839	07/29/17
17G1131-04 [Constantine-CF-V2]	B182839	07/29/17
17G1131-05 [Constantine-CF-V3]	B182839	07/29/17
17G1131-06 [Constantine-CF-V4]	B182839	07/29/17
17G1131-07 [Constantine-CF-V5]	B182839	07/29/17
17G1131-08 [Constantine-CF-V6]	B182839	07/29/17
17G1131-09 [Constantine-CF-V7]	B182839	07/29/17
17G1131-10 [Constantine-Topsoil-C1]	B182839	07/29/17
17G1131-11 [Constantine-Topsoil-V1]	B182839	07/29/17
17G1131-12 [Constantine-Topsoil-V2]	B182839	07/29/17

Prep Method: SW-846 3050B-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01 [Constantine-CF-C1]	B182617	1.00	50.0	07/26/17
17G1131-02 [Constantine-CF-C2]	B182617	1.07	50.0	07/26/17
17G1131-10 [Constantine-Topsoil-C1]	B182617	0.997	50.0	07/26/17

Prep Method: SW-846 3050B-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01RE1 [Constantine-CF-C1]	B183222	1.52	50.0	08/03/17
17G1131-02RE1 [Constantine-CF-C2]	B183222	1.50	50.0	08/03/17
17G1131-10RE1 [Constantine-Topsoil-C1]	B183222	1.51	50.0	08/03/17

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01 [Constantine-CF-C1]	B182673	2.53	100	07/27/17
17G1131-02 [Constantine-CF-C2]	B182673	2.51	100	07/27/17

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-10 [Constantine-Topsoil-C1]	B182892	2.56	100	07/31/17

Prep Method: SW-846 7471-SW-846 7471B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01 [Constantine-CF-C1]	B182618	0.608	50.0	07/26/17
17G1131-02 [Constantine-CF-C2]	B182618	0.609	50.0	07/26/17
17G1131-10 [Constantine-Topsoil-C1]	B182618	0.597	50.0	07/26/17

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Sample Extraction Data

Prep Method: SW-846 3546-SW-846 8081B

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01 [Constantine-CF-C1]	B182863	10.0	10.0	07/31/17
17G1131-02 [Constantine-CF-C2]	B182863	10.0	10.0	07/31/17
17G1131-10 [Constantine-Topsoil-C1]	B182863	10.0	10.0	07/31/17

Prep Method: SW-846 3546-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01 [Constantine-CF-C1]	B182864	10.0	10.0	07/31/17
17G1131-02 [Constantine-CF-C2]	B182864	10.0	10.0	07/31/17
17G1131-10 [Constantine-Topsoil-C1]	B182864	10.0	10.0	07/31/17

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-03 [Constantine-CF-V1]	B182721	5.11	10.0	07/27/17
17G1131-04 [Constantine-CF-V2]	B182721	5.14	10.0	07/27/17
17G1131-05 [Constantine-CF-V3]	B182721	4.98	10.0	07/27/17
17G1131-07 [Constantine-CF-V5]	B182721	5.07	10.0	07/27/17
17G1131-08 [Constantine-CF-V6]	B182721	4.94	10.0	07/27/17
17G1131-09 [Constantine-CF-V7]	B182721	4.98	10.0	07/27/17
17G1131-12 [Constantine-Topsoil-V2]	B182721	5.08	10.0	07/27/17

Prep Method: SW-846 5035-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-06 [Constantine-CF-V4]	B182898	5.12	10.0	07/27/17
17G1131-11 [Constantine-Topsoil-V1]	B182898	5.14	10.0	07/27/17

Prep Method: SW-846 3546-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01 [Constantine-CF-C1]	B182789	30.0	1.00	07/28/17
17G1131-02 [Constantine-CF-C2]	B182789	30.0	1.00	07/28/17
17G1131-10 [Constantine-Topsoil-C1]	B182789	30.0	1.00	07/28/17

SW-846 9014

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
17G1131-01 [Constantine-CF-C1]	B183069	1.37	50.0	08/01/17
17G1131-02 [Constantine-CF-C2]	B183069	1.27	50.0	08/01/17
17G1131-10 [Constantine-Topsoil-C1]	B183069	1.36	50.0	08/01/17

SW-846 9045C

Lab Number [Field ID]	Batch	Initial [g]	Date
17G1131-10 [Constantine-Topsoil-C1]	B182656	20.0	07/27/17

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Sample Extraction Data

Prep Method: SW-846 3050B-Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [g]	Date
17G1131-01 [Constantine-CF-C1]	B182619	1.00	07/26/17
17G1131-02 [Constantine-CF-C2]	B182619	1.00	07/26/17
17G1131-10 [Constantine-Topsoil-C1]	B182619	1.00	07/26/17

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B182721 - SW-846 5035												
Blank (B182721-BLK1)				Prepared & Analyzed: 07/27/17								
Acetone	ND	0.10	mg/Kg wet								L-04, V-05	
Benzene	ND	0.0020	mg/Kg wet									
2-Butanone (MEK)	ND	0.040	mg/Kg wet								V-05	
n-Butylbenzene	ND	0.0020	mg/Kg wet									
sec-Butylbenzene	ND	0.0020	mg/Kg wet									
tert-Butylbenzene	ND	0.0020	mg/Kg wet									
Carbon Tetrachloride	ND	0.0020	mg/Kg wet									
Chlorobenzene	ND	0.0020	mg/Kg wet									
Chloroform	ND	0.0040	mg/Kg wet									
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,1-Dichloroethane	ND	0.0020	mg/Kg wet									
1,2-Dichloroethane	ND	0.0020	mg/Kg wet									
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet									
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet									
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet									
1,4-Dioxane	ND	0.10	mg/Kg wet									
Ethylbenzene	ND	0.0020	mg/Kg wet									
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet									
Methylene Chloride	ND	0.020	mg/Kg wet									
n-Propylbenzene	ND	0.0020	mg/Kg wet									
Tetrachloroethylene	ND	0.0020	mg/Kg wet									
Toluene	ND	0.0020	mg/Kg wet									
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet									
Trichloroethylene	ND	0.0020	mg/Kg wet									
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet									
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet									
Vinyl Chloride	ND	0.010	mg/Kg wet									
m+p Xylene	ND	0.0040	mg/Kg wet									
o-Xylene	ND	0.0020	mg/Kg wet									
Surrogate: 1,2-Dichloroethane-d4	*0.0440*		mg/Kg wet	0.0500		88.1		70-130				
Surrogate: Toluene-d8	*0.0459*		mg/Kg wet	0.0500		91.8		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0442*		mg/Kg wet	0.0500		88.4		70-130				
LCS (B182721-BS1)				Prepared & Analyzed: 07/27/17								
Acetone	0.123	0.10	mg/Kg wet	0.200		**61.5**	*	70-160			L-04, V-05	†
Benzene	0.0181	0.0020	mg/Kg wet	0.0200		90.7		70-130				
2-Butanone (MEK)	0.140	0.040	mg/Kg wet	0.200		**69.8**	*	70-160			L-07, V-05	†
n-Butylbenzene	0.0194	0.0020	mg/Kg wet	0.0200		97.1		70-130				
sec-Butylbenzene	0.0189	0.0020	mg/Kg wet	0.0200		94.5		70-130				
tert-Butylbenzene	0.0190	0.0020	mg/Kg wet	0.0200		94.9		70-160				†
Carbon Tetrachloride	0.0184	0.0020	mg/Kg wet	0.0200		92.1		70-130				
Chlorobenzene	0.0209	0.0020	mg/Kg wet	0.0200		105		70-130				
Chloroform	0.0185	0.0040	mg/Kg wet	0.0200		92.6		70-130				
1,2-Dichlorobenzene	0.0200	0.0020	mg/Kg wet	0.0200		99.8		70-130				
1,3-Dichlorobenzene	0.0204	0.0020	mg/Kg wet	0.0200		102		70-130				
1,4-Dichlorobenzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130				
1,1-Dichloroethane	0.0200	0.0020	mg/Kg wet	0.0200		100		70-130				
1,2-Dichloroethane	0.0194	0.0020	mg/Kg wet	0.0200		96.8		70-130				
1,1-Dichloroethylene	0.0183	0.0040	mg/Kg wet	0.0200		91.6		70-130				
cis-1,2-Dichloroethylene	0.0188	0.0020	mg/Kg wet	0.0200		94.2		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B182721 - SW-846 5035												
LCS (B182721-BS1)				Prepared & Analyzed: 07/27/17								
trans-1,2-Dichloroethylene	0.0185	0.0020	mg/Kg wet	0.0200		92.4		70-130				
1,4-Dioxane	0.182	0.10	mg/Kg wet	0.200		91.0		40-160				†
Ethylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130				
Methyl tert-Butyl Ether (MTBE)	0.0177	0.0040	mg/Kg wet	0.0200		88.7		70-130				
Methylene Chloride	0.0202	0.020	mg/Kg wet	0.0200		101		40-160				†
n-Propylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130				
Tetrachloroethylene	0.0217	0.0020	mg/Kg wet	0.0200		109		70-130				
Toluene	0.0187	0.0020	mg/Kg wet	0.0200		93.7		70-130				
1,1,1-Trichloroethane	0.0198	0.0020	mg/Kg wet	0.0200		98.8		70-130				
Trichloroethylene	0.0192	0.0020	mg/Kg wet	0.0200		95.8		70-130				
1,2,4-Trimethylbenzene	0.0176	0.0020	mg/Kg wet	0.0200		88.0		70-130				
1,3,5-Trimethylbenzene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130				
Vinyl Chloride	0.0168	0.010	mg/Kg wet	0.0200		83.9		40-130				†
m+p Xylene	0.0406	0.0040	mg/Kg wet	0.0400		101		70-130				
o-Xylene	0.0193	0.0020	mg/Kg wet	0.0200		96.3		70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0453*		mg/Kg wet	0.0500		90.6		70-130				
Surrogate: Toluene-d8	*0.0473*		mg/Kg wet	0.0500		94.6		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0486*		mg/Kg wet	0.0500		97.2		70-130				
LCS Dup (B182721-BSD1)				Prepared & Analyzed: 07/27/17								
Acetone	0.115	0.10	mg/Kg wet	0.200		**57.5**	*	70-160	6.64	25	V-05, L-04	†
Benzene	0.0179	0.0020	mg/Kg wet	0.0200		89.3		70-130	1.56	25		
2-Butanone (MEK)	0.146	0.040	mg/Kg wet	0.200		73.1		70-160	4.56	25	V-05	†
n-Butylbenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.5		70-130	4.85	25		
sec-Butylbenzene	0.0181	0.0020	mg/Kg wet	0.0200		90.3		70-130	4.55	25		
tert-Butylbenzene	0.0186	0.0020	mg/Kg wet	0.0200		92.8		70-160	2.24	25		†
Carbon Tetrachloride	0.0184	0.0020	mg/Kg wet	0.0200		91.8		70-130	0.326	25		
Chlorobenzene	0.0208	0.0020	mg/Kg wet	0.0200		104		70-130	0.383	25		
Chloroform	0.0188	0.0040	mg/Kg wet	0.0200		94.2		70-130	1.71	25		
1,2-Dichlorobenzene	0.0192	0.0020	mg/Kg wet	0.0200		96.0		70-130	3.88	25		
1,3-Dichlorobenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.5		70-130	6.58	25		
1,4-Dichlorobenzene	0.0187	0.0020	mg/Kg wet	0.0200		93.6		70-130	7.80	25		
1,1-Dichloroethane	0.0200	0.0020	mg/Kg wet	0.0200		99.8		70-130	0.300	25		
1,2-Dichloroethane	0.0198	0.0020	mg/Kg wet	0.0200		98.9		70-130	2.15	25		
1,1-Dichloroethylene	0.0186	0.0040	mg/Kg wet	0.0200		92.9		70-130	1.41	25		
cis-1,2-Dichloroethylene	0.0185	0.0020	mg/Kg wet	0.0200		92.5		70-130	1.82	25		
trans-1,2-Dichloroethylene	0.0188	0.0020	mg/Kg wet	0.0200		93.9		70-130	1.61	25		
1,4-Dioxane	0.182	0.10	mg/Kg wet	0.200		90.9		40-160	0.187	50		† ‡
Ethylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101		70-130	2.73	25		
Methyl tert-Butyl Ether (MTBE)	0.0174	0.0040	mg/Kg wet	0.0200		87.1		70-130	1.82	25		
Methylene Chloride	0.0192	0.020	mg/Kg wet	0.0200		95.8		40-160	5.38	25	J	†
n-Propylbenzene	0.0191	0.0020	mg/Kg wet	0.0200		95.6		70-130	5.39	25		
Tetrachloroethylene	0.0216	0.0020	mg/Kg wet	0.0200		108		70-130	0.554	25		
Toluene	0.0186	0.0020	mg/Kg wet	0.0200		93.2		70-130	0.535	25		
1,1,1-Trichloroethane	0.0194	0.0020	mg/Kg wet	0.0200		97.1		70-130	1.74	25		
Trichloroethylene	0.0172	0.0020	mg/Kg wet	0.0200		86.1		70-130	10.7	25		
1,2,4-Trimethylbenzene	0.0171	0.0020	mg/Kg wet	0.0200		85.5		70-130	2.88	25		
1,3,5-Trimethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200		102		70-130	1.74	25		
Vinyl Chloride	0.0164	0.010	mg/Kg wet	0.0200		82.0		40-130	2.29	25		†
m+p Xylene	0.0390	0.0040	mg/Kg wet	0.0400		97.6		70-130	3.82	25		
o-Xylene	0.0195	0.0020	mg/Kg wet	0.0200		97.6		70-130	1.34	25		
Surrogate: 1,2-Dichloroethane-d4	*0.0459*		mg/Kg wet	0.0500		91.8		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B182721 - SW-846 5035												
LCS Dup (B182721-BSD1)				Prepared & Analyzed: 07/27/17								
Surrogate: Toluene-d8	*0.0452*		mg/Kg wet	0.0500		90.4		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0487*		mg/Kg wet	0.0500		97.4		70-130				
Batch B182898 - SW-846 5035												
Blank (B182898-BLK1)				Prepared & Analyzed: 07/31/17								
Acetone	ND	0.10	mg/Kg wet								V-05, L-04	
Benzene	ND	0.0020	mg/Kg wet									
2-Butanone (MEK)	ND	0.040	mg/Kg wet									
n-Butylbenzene	ND	0.0020	mg/Kg wet									
sec-Butylbenzene	ND	0.0020	mg/Kg wet									
tert-Butylbenzene	ND	0.0020	mg/Kg wet									
Carbon Tetrachloride	ND	0.0020	mg/Kg wet									
Chlorobenzene	ND	0.0020	mg/Kg wet									
Chloroform	ND	0.0040	mg/Kg wet									
1,2-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,3-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,4-Dichlorobenzene	ND	0.0020	mg/Kg wet									
1,1-Dichloroethane	ND	0.0020	mg/Kg wet									
1,2-Dichloroethane	ND	0.0020	mg/Kg wet									
1,1-Dichloroethylene	ND	0.0040	mg/Kg wet									
cis-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet									
trans-1,2-Dichloroethylene	ND	0.0020	mg/Kg wet									
1,4-Dioxane	ND	0.10	mg/Kg wet									
Ethylbenzene	ND	0.0020	mg/Kg wet									
Methyl tert-Butyl Ether (MTBE)	ND	0.0040	mg/Kg wet									
Methylene Chloride	ND	0.020	mg/Kg wet									
n-Propylbenzene	ND	0.0020	mg/Kg wet									
Tetrachloroethylene	ND	0.0020	mg/Kg wet									
Toluene	ND	0.0020	mg/Kg wet									
1,1,1-Trichloroethane	ND	0.0020	mg/Kg wet									
Trichloroethylene	ND	0.0020	mg/Kg wet									
1,2,4-Trimethylbenzene	ND	0.0020	mg/Kg wet									
1,3,5-Trimethylbenzene	ND	0.0020	mg/Kg wet									
Vinyl Chloride	ND	0.010	mg/Kg wet									
m+p Xylene	ND	0.0040	mg/Kg wet									
o-Xylene	ND	0.0020	mg/Kg wet									
Surrogate: 1,2-Dichloroethane-d4	*0.0433*		mg/Kg wet	0.0500		86.6		70-130				
Surrogate: Toluene-d8	*0.0470*		mg/Kg wet	0.0500		94.1		70-130				
Surrogate: 4-Bromofluorobenzene	*0.0448*		mg/Kg wet	0.0500		89.6		70-130				
LCS (B182898-BS1)				Prepared & Analyzed: 07/31/17								
Acetone	0.122	0.10	mg/Kg wet	0.200		**61.2**	*	70-160			L-04, V-05	†
Benzene	0.0185	0.0020	mg/Kg wet	0.0200		92.6		70-130				
2-Butanone (MEK)	0.152	0.040	mg/Kg wet	0.200		75.8		70-160				†
n-Butylbenzene	0.0195	0.0020	mg/Kg wet	0.0200		97.7		70-130				
sec-Butylbenzene	0.0185	0.0020	mg/Kg wet	0.0200		92.5		70-130				
tert-Butylbenzene	0.0184	0.0020	mg/Kg wet	0.0200		91.8		70-160				†
Carbon Tetrachloride	0.0184	0.0020	mg/Kg wet	0.0200		92.1		70-130				
Chlorobenzene	0.0204	0.0020	mg/Kg wet	0.0200		102		70-130				
Chloroform	0.0189	0.0040	mg/Kg wet	0.0200		94.3		70-130				
1,2-Dichlorobenzene	0.0200	0.0020	mg/Kg wet	0.0200		99.9		70-130				
1,3-Dichlorobenzene	0.0210	0.0020	mg/Kg wet	0.0200		105		70-130				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result		%REC	%REC Limits	RPD	RPD Limit	Notes	
Batch B182898 - SW-846 5035												
LCS (B182898-BS1)				Prepared & Analyzed: 07/31/17								
1,4-Dichlorobenzene	0.0195	0.0020	mg/Kg wet	0.0200			97.6	70-130				
1,1-Dichloroethane	0.0199	0.0020	mg/Kg wet	0.0200			99.7	70-130				
1,2-Dichloroethane	0.0194	0.0020	mg/Kg wet	0.0200			96.8	70-130				
1,1-Dichloroethylene	0.0180	0.0040	mg/Kg wet	0.0200			89.8	70-130				
cis-1,2-Dichloroethylene	0.0180	0.0020	mg/Kg wet	0.0200			90.2	70-130				
trans-1,2-Dichloroethylene	0.0172	0.0020	mg/Kg wet	0.0200			85.8	70-130				
1,4-Dioxane	0.220	0.10	mg/Kg wet	0.200			110	40-160				†
Ethylbenzene	0.0200	0.0020	mg/Kg wet	0.0200			100	70-130				
Methyl tert-Butyl Ether (MTBE)	0.0175	0.0040	mg/Kg wet	0.0200			87.5	70-130				
Methylene Chloride	0.0188	0.020	mg/Kg wet	0.0200			94.1	40-160			J	†
n-Propylbenzene	0.0195	0.0020	mg/Kg wet	0.0200			97.4	70-130				
Tetrachloroethylene	0.0210	0.0020	mg/Kg wet	0.0200			105	70-130				
Toluene	0.0185	0.0020	mg/Kg wet	0.0200			92.4	70-130				
1,1,1-Trichloroethane	0.0192	0.0020	mg/Kg wet	0.0200			95.8	70-130				
Trichloroethylene	0.0179	0.0020	mg/Kg wet	0.0200			89.3	70-130				
1,2,4-Trimethylbenzene	0.0175	0.0020	mg/Kg wet	0.0200			87.3	70-130				
1,3,5-Trimethylbenzene	0.0205	0.0020	mg/Kg wet	0.0200			103	70-130				
Vinyl Chloride	0.0157	0.010	mg/Kg wet	0.0200			78.3	40-130				†
m+p Xylene	0.0387	0.0040	mg/Kg wet	0.0400			96.8	70-130				
o-Xylene	0.0193	0.0020	mg/Kg wet	0.0200			96.4	70-130				
Surrogate: 1,2-Dichloroethane-d4	*0.0454*		mg/Kg wet	0.0500			90.8	70-130				
Surrogate: Toluene-d8	*0.0460*		mg/Kg wet	0.0500			92.1	70-130				
Surrogate: 4-Bromofluorobenzene	*0.0496*		mg/Kg wet	0.0500			99.2	70-130				
LCS Dup (B182898-BSD1)				Prepared & Analyzed: 07/31/17								
Acetone	0.120	0.10	mg/Kg wet	0.200			**59.9**	70-160	2.21	25	L-04, V-05	†
Benzene	0.0178	0.0020	mg/Kg wet	0.0200			89.0	70-130	3.96	25		
2-Butanone (MEK)	0.157	0.040	mg/Kg wet	0.200			78.3	70-160	3.22	25		†
n-Butylbenzene	0.0189	0.0020	mg/Kg wet	0.0200			94.4	70-130	3.44	25		
sec-Butylbenzene	0.0181	0.0020	mg/Kg wet	0.0200			90.3	70-130	2.41	25		
tert-Butylbenzene	0.0180	0.0020	mg/Kg wet	0.0200			90.2	70-160	1.76	25		†
Carbon Tetrachloride	0.0175	0.0020	mg/Kg wet	0.0200			87.6	70-130	5.01	25		
Chlorobenzene	0.0202	0.0020	mg/Kg wet	0.0200			101	70-130	0.591	25		
Chloroform	0.0185	0.0040	mg/Kg wet	0.0200			92.5	70-130	1.93	25		
1,2-Dichlorobenzene	0.0201	0.0020	mg/Kg wet	0.0200			101	70-130	0.698	25		
1,3-Dichlorobenzene	0.0195	0.0020	mg/Kg wet	0.0200			97.5	70-130	7.31	25		
1,4-Dichlorobenzene	0.0193	0.0020	mg/Kg wet	0.0200			96.7	70-130	0.926	25		
1,1-Dichloroethane	0.0198	0.0020	mg/Kg wet	0.0200			99.1	70-130	0.604	25		
1,2-Dichloroethane	0.0192	0.0020	mg/Kg wet	0.0200			96.2	70-130	0.622	25		
1,1-Dichloroethylene	0.0176	0.0040	mg/Kg wet	0.0200			88.0	70-130	2.02	25		
cis-1,2-Dichloroethylene	0.0181	0.0020	mg/Kg wet	0.0200			90.6	70-130	0.442	25		
trans-1,2-Dichloroethylene	0.0174	0.0020	mg/Kg wet	0.0200			86.8	70-130	1.16	25		
1,4-Dioxane	0.179	0.10	mg/Kg wet	0.200			89.6	40-160	20.5	50		† ‡
Ethylbenzene	0.0197	0.0020	mg/Kg wet	0.0200			98.6	70-130	1.51	25		
Methyl tert-Butyl Ether (MTBE)	0.0172	0.0040	mg/Kg wet	0.0200			86.1	70-130	1.61	25		
Methylene Chloride	0.0184	0.020	mg/Kg wet	0.0200			91.9	40-160	2.37	25	J	†
n-Propylbenzene	0.0194	0.0020	mg/Kg wet	0.0200			97.2	70-130	0.206	25		
Tetrachloroethylene	0.0206	0.0020	mg/Kg wet	0.0200			103	70-130	1.64	25		
Toluene	0.0181	0.0020	mg/Kg wet	0.0200			90.3	70-130	2.30	25		
1,1,1-Trichloroethane	0.0189	0.0020	mg/Kg wet	0.0200			94.7	70-130	1.15	25		
Trichloroethylene	0.0178	0.0020	mg/Kg wet	0.0200			89.1	70-130	0.224	25		
1,2,4-Trimethylbenzene	0.0170	0.0020	mg/Kg wet	0.0200			85.1	70-130	2.55	25		

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182898 - SW-846 5035										
LCS Dup (B182898-BSD1)				Prepared & Analyzed: 07/31/17						
1,3,5-Trimethylbenzene	0.0202	0.0020	mg/Kg wet	0.0200		101	70-130	1.47	25	
Vinyl Chloride	0.0147	0.010	mg/Kg wet	0.0200		73.5	40-130	6.32	25	†
m+p Xylene	0.0387	0.0040	mg/Kg wet	0.0400		96.8	70-130	0.0517	25	
o-Xylene	0.0187	0.0020	mg/Kg wet	0.0200		93.7	70-130	2.84	25	
Surrogate: 1,2-Dichloroethane-d4	*0.0453*		mg/Kg wet	0.0500		90.5	70-130			
Surrogate: Toluene-d8	*0.0460*		mg/Kg wet	0.0500		92.0	70-130			
Surrogate: 4-Bromofluorobenzene	*0.0497*		mg/Kg wet	0.0500		99.3	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182789 - SW-846 3546										
Blank (B182789-BLK1)				Prepared: 07/28/17 Analyzed: 08/01/17						
Acenaphthene	ND	0.17	mg/Kg wet							
Acenaphthylene	ND	0.17	mg/Kg wet							
Anthracene	ND	0.17	mg/Kg wet							
Benzo(a)anthracene	ND	0.17	mg/Kg wet							
Benzo(a)pyrene	ND	0.17	mg/Kg wet							
Benzo(b)fluoranthene	ND	0.17	mg/Kg wet							
Benzo(g,h,i)perylene	ND	0.17	mg/Kg wet							
Benzo(k)fluoranthene	ND	0.17	mg/Kg wet							
Chrysene	ND	0.17	mg/Kg wet							
Dibenz(a,h)anthracene	ND	0.17	mg/Kg wet							
Fluoranthene	ND	0.17	mg/Kg wet							
Fluorene	ND	0.17	mg/Kg wet							
Hexachlorobenzene	ND	0.34	mg/Kg wet							
Indeno(1,2,3-cd)pyrene	ND	0.17	mg/Kg wet							
2-Methylphenol	ND	0.34	mg/Kg wet							
3/4-Methylphenol	ND	0.34	mg/Kg wet							
Naphthalene	ND	0.17	mg/Kg wet							
Pentachlorophenol	ND	0.34	mg/Kg wet							
Phenanthrene	ND	0.17	mg/Kg wet							
Phenol	ND	0.34	mg/Kg wet							
Pyrene	ND	0.17	mg/Kg wet							
Surrogate: 2-Fluorophenol	*4.33*		mg/Kg wet	6.73		64.3	30-130			
Surrogate: Phenol-d6	*4.42*		mg/Kg wet	6.67		66.2	30-130			
Surrogate: Nitrobenzene-d5	*2.37*		mg/Kg wet	3.33		71.0	30-130			
Surrogate: 2-Fluorobiphenyl	*2.44*		mg/Kg wet	3.33		73.1	30-130			
Surrogate: 2,4,6-Tribromophenol	*5.45*		mg/Kg wet	6.67		81.8	30-130			
Surrogate: p-Terphenyl-d14	*3.22*		mg/Kg wet	3.33		96.5	30-130			
LCS (B182789-BS1)				Prepared: 07/28/17 Analyzed: 08/01/17						
Acenaphthene	1.11	0.17	mg/Kg wet	1.67		66.9	40-140			
Acenaphthylene	1.11	0.17	mg/Kg wet	1.67		66.4	40-140			
Anthracene	1.24	0.17	mg/Kg wet	1.67		74.3	40-140			
Benzo(a)anthracene	1.28	0.17	mg/Kg wet	1.67		76.6	40-140			
Benzo(a)pyrene	1.33	0.17	mg/Kg wet	1.67		79.5	40-140			
Benzo(b)fluoranthene	1.26	0.17	mg/Kg wet	1.67		75.9	40-140			
Benzo(g,h,i)perylene	1.27	0.17	mg/Kg wet	1.67		76.0	40-140			
Benzo(k)fluoranthene	1.27	0.17	mg/Kg wet	1.67		76.1	40-140			
Chrysene	1.26	0.17	mg/Kg wet	1.67		75.7	40-140			
Dibenz(a,h)anthracene	1.22	0.17	mg/Kg wet	1.67		73.0	40-140			
Fluoranthene	1.10	0.17	mg/Kg wet	1.67		66.1	40-140			
Fluorene	1.20	0.17	mg/Kg wet	1.67		71.8	40-140			
Hexachlorobenzene	1.29	0.34	mg/Kg wet	1.67		77.5	40-140			
Indeno(1,2,3-cd)pyrene	1.26	0.17	mg/Kg wet	1.67		75.8	40-140			
2-Methylphenol	1.01	0.34	mg/Kg wet	1.67		60.6	30-130			
3/4-Methylphenol	1.11	0.34	mg/Kg wet	1.67		66.4	30-130			
Naphthalene	0.998	0.17	mg/Kg wet	1.67		59.9	40-140			
Pentachlorophenol	0.944	0.34	mg/Kg wet	1.67		56.7	30-130			
Phenanthrene	1.25	0.17	mg/Kg wet	1.67		75.1	40-140			
Phenol	1.05	0.34	mg/Kg wet	1.67		63.1	30-130			
Pyrene	1.31	0.17	mg/Kg wet	1.67		78.4	40-140			
Surrogate: 2-Fluorophenol	*4.43*		mg/Kg wet	6.73		65.8	30-130			
Surrogate: Phenol-d6	*4.76*		mg/Kg wet	6.67		71.4	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182789 - SW-846 3546										
LCS (B182789-BS1)				Prepared: 07/28/17 Analyzed: 08/01/17						
Surrogate: Nitrobenzene-d5	*2.49*		mg/Kg wet	3.33		74.6	30-130			
Surrogate: 2-Fluorobiphenyl	*2.62*		mg/Kg wet	3.33		78.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*6.81*		mg/Kg wet	6.67		102	30-130			
Surrogate: p-Terphenyl-d14	*3.16*		mg/Kg wet	3.33		94.9	30-130			
LCS Dup (B182789-BSD1)				Prepared: 07/28/17 Analyzed: 08/01/17						
Acenaphthene	0.948	0.17	mg/Kg wet	1.67		56.9	40-140	16.1	30	
Acenaphthylene	0.955	0.17	mg/Kg wet	1.67		57.3	40-140	14.7	30	
Anthracene	1.04	0.17	mg/Kg wet	1.67		62.5	40-140	17.2	30	
Benzo(a)anthracene	1.09	0.17	mg/Kg wet	1.67		65.1	40-140	16.1	30	
Benzo(a)pyrene	1.11	0.17	mg/Kg wet	1.67		66.5	40-140	17.9	30	
Benzo(b)fluoranthene	1.04	0.17	mg/Kg wet	1.67		62.3	40-140	19.7	30	
Benzo(g,h,i)perylene	1.04	0.17	mg/Kg wet	1.67		62.5	40-140	19.5	30	
Benzo(k)fluoranthene	1.04	0.17	mg/Kg wet	1.67		62.6	40-140	19.4	30	
Chrysene	1.06	0.17	mg/Kg wet	1.67		63.9	40-140	16.9	30	
Dibenz(a,h)anthracene	1.01	0.17	mg/Kg wet	1.67		60.8	40-140	18.2	30	
Fluoranthene	0.928	0.17	mg/Kg wet	1.67		55.7	40-140	17.2	30	
Fluorene	1.01	0.17	mg/Kg wet	1.67		60.6	40-140	17.0	30	
Hexachlorobenzene	1.09	0.34	mg/Kg wet	1.67		65.6	40-140	16.6	30	
Indeno(1,2,3-cd)pyrene	0.962	0.17	mg/Kg wet	1.67		57.7	40-140	27.1	30	
2-Methylphenol	0.887	0.34	mg/Kg wet	1.67		53.2	30-130	13.0	30	
3/4-Methylphenol	0.987	0.34	mg/Kg wet	1.67		59.2	30-130	11.3	30	
Naphthalene	0.895	0.17	mg/Kg wet	1.67		53.7	40-140	11.0	30	
Pentachlorophenol	0.728	0.34	mg/Kg wet	1.67		43.7	30-130	25.9	30	
Phenanthrene	1.05	0.17	mg/Kg wet	1.67		63.2	40-140	17.2	30	
Phenol	0.938	0.34	mg/Kg wet	1.67		56.3	30-130	11.4	30	
Pyrene	1.11	0.17	mg/Kg wet	1.67		66.4	40-140	16.6	30	
Surrogate: 2-Fluorophenol	*3.91*		mg/Kg wet	6.73		58.0	30-130			
Surrogate: Phenol-d6	*4.16*		mg/Kg wet	6.67		62.3	30-130			
Surrogate: Nitrobenzene-d5	*2.21*		mg/Kg wet	3.33		66.4	30-130			
Surrogate: 2-Fluorobiphenyl	*2.27*		mg/Kg wet	3.33		68.0	30-130			
Surrogate: 2,4,6-Tribromophenol	*5.42*		mg/Kg wet	6.67		81.3	30-130			
Surrogate: p-Terphenyl-d14	*2.67*		mg/Kg wet	3.33		80.2	30-130			

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182863 - SW-846 3546										
Blank (B182863-BLK1)			Prepared: 07/31/17 Analyzed: 08/02/17							
alpha-Chlordane	ND	0.0050	mg/Kg wet							
alpha-Chlordane [2C]	ND	0.0050	mg/Kg wet							
gamma-Chlordane	ND	0.0050	mg/Kg wet							
gamma-Chlordane [2C]	ND	0.0050	mg/Kg wet							
Alachlor	ND	0.020	mg/Kg wet							
Alachlor [2C]	ND	0.020	mg/Kg wet							
Aldrin	ND	0.0020	mg/Kg wet							
Aldrin [2C]	ND	0.0020	mg/Kg wet							
alpha-BHC	ND	0.0050	mg/Kg wet							
alpha-BHC [2C]	ND	0.0050	mg/Kg wet							
beta-BHC	ND	0.0050	mg/Kg wet							
beta-BHC [2C]	ND	0.0050	mg/Kg wet							
delta-BHC	ND	0.0050	mg/Kg wet							
delta-BHC [2C]	ND	0.0050	mg/Kg wet							
gamma-BHC (Lindane)	ND	0.0020	mg/Kg wet							
gamma-BHC (Lindane) [2C]	ND	0.0020	mg/Kg wet							
Chlordane	ND	0.020	mg/Kg wet							
Chlordane [2C]	ND	0.020	mg/Kg wet							
4,4'-DDD	ND	0.0010	mg/Kg wet							
4,4'-DDD [2C]	ND	0.0010	mg/Kg wet							
4,4'-DDE	ND	0.0010	mg/Kg wet							
4,4'-DDE [2C]	ND	0.0010	mg/Kg wet							
4,4'-DDT	ND	0.0010	mg/Kg wet							
4,4'-DDT [2C]	ND	0.0010	mg/Kg wet							
Dieldrin	ND	0.0020	mg/Kg wet							
Dieldrin [2C]	ND	0.0020	mg/Kg wet							
Endosulfan I	ND	0.0050	mg/Kg wet							
Endosulfan I [2C]	ND	0.0050	mg/Kg wet							
Endosulfan II	ND	0.0080	mg/Kg wet							
Endosulfan II [2C]	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate	ND	0.0080	mg/Kg wet							
Endosulfan Sulfate [2C]	ND	0.0080	mg/Kg wet							
Endrin	ND	0.0080	mg/Kg wet							
Endrin [2C]	ND	0.0080	mg/Kg wet							
Endrin Aldehyde	ND	0.0080	mg/Kg wet							
Endrin Aldehyde [2C]	ND	0.0080	mg/Kg wet							
Endrin Ketone	ND	0.0080	mg/Kg wet							
Endrin Ketone [2C]	ND	0.0080	mg/Kg wet							
Heptachlor	ND	0.0050	mg/Kg wet							
Heptachlor [2C]	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide	ND	0.0050	mg/Kg wet							
Heptachlor Epoxide [2C]	ND	0.0050	mg/Kg wet							
Hexachlorobenzene	ND	0.0060	mg/Kg wet							
Hexachlorobenzene [2C]	ND	0.0060	mg/Kg wet							
Methoxychlor	ND	0.050	mg/Kg wet							
Methoxychlor [2C]	ND	0.050	mg/Kg wet							
Toxaphene	ND	0.10	mg/Kg wet							
Toxaphene [2C]	ND	0.10	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.147*		mg/Kg wet	0.200		73.7	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.161*		mg/Kg wet	0.200		80.3	30-150			
Surrogate: Tetrachloro-m-xylene	*0.157*		mg/Kg wet	0.200		78.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.157*		mg/Kg wet	0.200		78.4	30-150			

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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182863 - SW-846 3546										
LCS (B182863-BS1)				Prepared: 07/31/17 Analyzed: 08/02/17						
alpha-Chlordane	0.084	0.0050	mg/Kg wet	0.100		83.8	40-140			
alpha-Chlordane [2C]	0.087	0.0050	mg/Kg wet	0.100		86.5	40-140			
gamma-Chlordane	0.085	0.0050	mg/Kg wet	0.100		85.1	40-140			
gamma-Chlordane [2C]	0.089	0.0050	mg/Kg wet	0.100		88.8	40-140			
Alachlor	0.094	0.020	mg/Kg wet	0.100		93.7	40-140			
Alachlor [2C]	0.090	0.020	mg/Kg wet	0.100		89.9	40-140			
Aldrin	0.086	0.0020	mg/Kg wet	0.100		86.1	40-140			
Aldrin [2C]	0.088	0.0020	mg/Kg wet	0.100		88.4	40-140			
alpha-BHC	0.085	0.0050	mg/Kg wet	0.100		85.3	40-140			
alpha-BHC [2C]	0.083	0.0050	mg/Kg wet	0.100		83.2	40-140			
beta-BHC	0.085	0.0050	mg/Kg wet	0.100		84.5	40-140			
beta-BHC [2C]	0.081	0.0050	mg/Kg wet	0.100		81.1	40-140			
delta-BHC	0.087	0.0050	mg/Kg wet	0.100		86.6	40-140			
delta-BHC [2C]	0.082	0.0050	mg/Kg wet	0.100		82.4	40-140			
gamma-BHC (Lindane)	0.086	0.0020	mg/Kg wet	0.100		86.3	40-140			
gamma-BHC (Lindane) [2C]	0.084	0.0020	mg/Kg wet	0.100		84.1	40-140			
4,4'-DDD	0.086	0.0010	mg/Kg wet	0.100		85.8	40-140			
4,4'-DDD [2C]	0.088	0.0010	mg/Kg wet	0.100		88.1	40-140			
4,4'-DDE	0.086	0.0010	mg/Kg wet	0.100		85.7	40-140			
4,4'-DDE [2C]	0.089	0.0010	mg/Kg wet	0.100		88.7	40-140			
4,4'-DDT	0.078	0.0010	mg/Kg wet	0.100		78.2	40-140			
4,4'-DDT [2C]	0.084	0.0010	mg/Kg wet	0.100		83.7	40-140			
Dieldrin	0.083	0.0020	mg/Kg wet	0.100		82.8	40-140			
Dieldrin [2C]	0.085	0.0020	mg/Kg wet	0.100		85.1	40-140			
Endosulfan I	0.085	0.0050	mg/Kg wet	0.100		85.2	40-140			
Endosulfan I [2C]	0.090	0.0050	mg/Kg wet	0.100		89.8	40-140			
Endosulfan II	0.085	0.0080	mg/Kg wet	0.100		85.1	40-140			
Endosulfan II [2C]	0.088	0.0080	mg/Kg wet	0.100		87.8	40-140			
Endosulfan Sulfate	0.084	0.0080	mg/Kg wet	0.100		83.6	40-140			
Endosulfan Sulfate [2C]	0.086	0.0080	mg/Kg wet	0.100		86.0	40-140			
Endrin	0.085	0.0080	mg/Kg wet	0.100		84.7	40-140			
Endrin [2C]	0.088	0.0080	mg/Kg wet	0.100		87.6	40-140			
Endrin Aldehyde	0.084	0.0080	mg/Kg wet	0.100		84.0	40-140			
Endrin Aldehyde [2C]	0.086	0.0080	mg/Kg wet	0.100		85.7	40-140			
Endrin Ketone	0.084	0.0080	mg/Kg wet	0.100		84.0	40-140			
Endrin Ketone [2C]	0.086	0.0080	mg/Kg wet	0.100		86.4	40-140			
Heptachlor	0.082	0.0050	mg/Kg wet	0.100		82.5	40-140			
Heptachlor [2C]	0.088	0.0050	mg/Kg wet	0.100		88.4	40-140			
Heptachlor Epoxide	0.084	0.0050	mg/Kg wet	0.100		83.6	40-140			
Heptachlor Epoxide [2C]	0.084	0.0050	mg/Kg wet	0.100		83.9	40-140			
Hexachlorobenzene	0.099	0.0060	mg/Kg wet	0.100		99.3	40-140			
Hexachlorobenzene [2C]	0.089	0.0060	mg/Kg wet	0.100		89.3	40-140			
Methoxychlor	0.080	0.050	mg/Kg wet	0.100		79.8	40-140			
Methoxychlor [2C]	0.086	0.050	mg/Kg wet	0.100		85.9	40-140			
Surrogate: Decachlorobiphenyl	*0.157*		mg/Kg wet	0.200		78.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.173*		mg/Kg wet	0.200		86.3	30-150			
Surrogate: Tetrachloro-m-xylene	*0.169*		mg/Kg wet	0.200		84.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.166*		mg/Kg wet	0.200		83.0	30-150			

0.005
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QUALITY CONTROL

Organochloride Pesticides by GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182863 - SW-846 3546										
LCS Dup (B182863-BSD1)				Prepared: 07/31/17 Analyzed: 08/02/17						
alpha-Chlordane	0.089	0.0050	mg/Kg wet	0.100		88.9	40-140	5.92	30	
alpha-Chlordane [2C]	0.093	0.0050	mg/Kg wet	0.100		92.5	40-140	6.70	30	
gamma-Chlordane	0.090	0.0050	mg/Kg wet	0.100		90.0	40-140	5.69	30	
gamma-Chlordane [2C]	0.095	0.0050	mg/Kg wet	0.100		94.7	40-140	6.46	30	
Alachlor	0.099	0.020	mg/Kg wet	0.100		99.4	40-140	5.89	30	
Alachlor [2C]	0.094	0.020	mg/Kg wet	0.100		93.6	40-140	4.04	30	
Aldrin	0.005 0.092	0.0020	mg/Kg wet	0.100		91.9	40-140	6.45	30	
Aldrin [2C]	0.094	0.0020	mg/Kg wet	0.100		93.7	40-140	5.81	30	
alpha-BHC	0.091	0.0050	mg/Kg wet	0.100		90.5	40-140	5.96	30	
alpha-BHC [2C]	0.088	0.0050	mg/Kg wet	0.100		88.3	40-140	5.93	30	
beta-BHC	0.091	0.0050	mg/Kg wet	0.100		91.0	40-140	7.39	30	
beta-BHC [2C]	0.083	0.0050	mg/Kg wet	0.100		83.0	40-140	2.29	30	
delta-BHC	0.092	0.0050	mg/Kg wet	0.100		92.5	40-140	6.50	30	
delta-BHC [2C]	0.087	0.0050	mg/Kg wet	0.100		87.5	40-140	6.01	30	
gamma-BHC (Lindane)	0.091	0.0020	mg/Kg wet	0.100		90.9	40-140	5.14	30	
gamma-BHC (Lindane) [2C]	0.089	0.0020	mg/Kg wet	0.100		89.0	40-140	5.71	30	
4,4'-DDD	0.092	0.0010	mg/Kg wet	0.100		91.7	40-140	6.64	30	
4,4'-DDD [2C]	0.094	0.0010	mg/Kg wet	0.100		93.7	40-140	6.06	30	
4,4'-DDE	0.092	0.0010	mg/Kg wet	0.100		91.5	40-140	6.57	30	
4,4'-DDE [2C]	0.095	0.0010	mg/Kg wet	0.100		94.9	40-140	6.67	30	
4,4'-DDT	0.081	0.0010	mg/Kg wet	0.100		80.6	40-140	3.07	30	
4,4'-DDT [2C]	0.087	0.0010	mg/Kg wet	0.100		86.8	40-140	3.60	30	
Dieldrin	0.087	0.0020	mg/Kg wet	0.100		87.1	40-140	5.06	30	
Dieldrin [2C]	0.091	0.0020	mg/Kg wet	0.100		90.7	40-140	6.28	30	
Endosulfan I	0.091	0.0050	mg/Kg wet	0.100		91.0	40-140	6.48	30	
Endosulfan I [2C]	0.096	0.0050	mg/Kg wet	0.100		96.1	40-140	6.70	30	
Endosulfan II	0.090	0.0080	mg/Kg wet	0.100		90.2	40-140	5.85	30	
Endosulfan II [2C]	0.094	0.0080	mg/Kg wet	0.100		93.9	40-140	6.68	30	
Endosulfan Sulfate	0.088	0.0080	mg/Kg wet	0.100		88.5	40-140	5.62	30	
Endosulfan Sulfate [2C]	0.091	0.0080	mg/Kg wet	0.100		91.3	40-140	6.06	30	
Endrin	0.090	0.0080	mg/Kg wet	0.100		89.5	40-140	5.56	30	
Endrin [2C]	0.094	0.0080	mg/Kg wet	0.100		93.5	40-140	6.51	30	
Endrin Aldehyde	0.088	0.0080	mg/Kg wet	0.100		87.9	40-140	4.48	30	
Endrin Aldehyde [2C]	0.091	0.0080	mg/Kg wet	0.100		90.6	40-140	5.51	30	
Endrin Ketone	0.088	0.0080	mg/Kg wet	0.100		87.8	40-140	4.53	30	
Endrin Ketone [2C]	0.091	0.0080	mg/Kg wet	0.100		90.5	40-140	4.60	30	
Heptachlor	0.087	0.0050	mg/Kg wet	0.100		86.6	40-140	4.85	30	
Heptachlor [2C]	0.093	0.0050	mg/Kg wet	0.100		92.9	40-140	4.94	30	
Heptachlor Epoxide	0.089	0.0050	mg/Kg wet	0.100		88.6	40-140	5.80	30	
Heptachlor Epoxide [2C]	0.089	0.0050	mg/Kg wet	0.100		89.3	40-140	6.26	30	
Hexachlorobenzene	0.10	0.0060	mg/Kg wet	0.100		104	40-140	4.75	30	
Hexachlorobenzene [2C]	0.094	0.0060	mg/Kg wet	0.100		93.7	40-140	4.84	30	
Methoxychlor	0.081	0.050	mg/Kg wet	0.100		81.2	40-140	1.81	30	
Methoxychlor [2C]	0.088	0.050	mg/Kg wet	0.100		87.9	40-140	2.34	30	
Surrogate: Decachlorobiphenyl	*0.170*		mg/Kg wet	0.200		84.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.182*		mg/Kg wet	0.200		90.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.177*		mg/Kg wet	0.200		88.5	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.173*		mg/Kg wet	0.200		86.5	30-150			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182864 - SW-846 3546										
Blank (B182864-BLK1)				Prepared: 07/31/17 Analyzed: 08/02/17						
Aroclor-1016	ND	0.020	mg/Kg wet							
Aroclor-1016 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1221	ND	0.020	mg/Kg wet							
Aroclor-1221 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1232	ND	0.020	mg/Kg wet							
Aroclor-1232 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1242	ND	0.020	mg/Kg wet							
Aroclor-1242 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1248	ND	0.020	mg/Kg wet							
Aroclor-1248 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1254	ND	0.020	mg/Kg wet							
Aroclor-1254 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1260	ND	0.020	mg/Kg wet							
Aroclor-1260 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1262	ND	0.020	mg/Kg wet							
Aroclor-1262 [2C]	ND	0.020	mg/Kg wet							
Aroclor-1268	ND	0.020	mg/Kg wet							
Aroclor-1268 [2C]	ND	0.020	mg/Kg wet							
Surrogate: Decachlorobiphenyl	*0.167*		mg/Kg wet	0.200		83.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.172*		mg/Kg wet	0.200		85.8	30-150			
Surrogate: Tetrachloro-m-xylene	*0.158*		mg/Kg wet	0.200		79.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.167*		mg/Kg wet	0.200		83.4	30-150			
LCS (B182864-BS1)				Prepared: 07/31/17 Analyzed: 08/02/17						
Aroclor-1016	0.19	0.020	mg/Kg wet	0.200		95.7	40-140			
Aroclor-1016 [2C]	0.20	0.020	mg/Kg wet	0.200		99.4	40-140			
Aroclor-1260	0.18	0.020	mg/Kg wet	0.200		87.8	40-140			
Aroclor-1260 [2C]	0.17	0.020	mg/Kg wet	0.200		84.9	40-140			
Surrogate: Decachlorobiphenyl	*0.207*		mg/Kg wet	0.200		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.215*		mg/Kg wet	0.200		107	30-150			
Surrogate: Tetrachloro-m-xylene	*0.196*		mg/Kg wet	0.200		98.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.207*		mg/Kg wet	0.200		104	30-150			
LCS Dup (B182864-BSD1)				Prepared: 07/31/17 Analyzed: 08/02/17						
Aroclor-1016	0.17	0.020	mg/Kg wet	0.200		84.3	40-140	12.7	30	
Aroclor-1016 [2C]	0.18	0.020	mg/Kg wet	0.200		89.4	40-140	10.6	30	
Aroclor-1260	0.15	0.020	mg/Kg wet	0.200		77.3	40-140	12.6	30	
Aroclor-1260 [2C]	0.15	0.020	mg/Kg wet	0.200		76.9	40-140	9.96	30	
Surrogate: Decachlorobiphenyl	*0.176*		mg/Kg wet	0.200		88.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.182*		mg/Kg wet	0.200		91.2	30-150			
Surrogate: Tetrachloro-m-xylene	*0.172*		mg/Kg wet	0.200		85.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.182*		mg/Kg wet	0.200		91.1	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182617 - SW-846 3050B										
Blank (B182617-BLK1)				Prepared: 07/26/17 Analyzed: 07/31/17						
Arsenic	ND	2.5	mg/Kg wet							
Barium	ND	2.5	mg/Kg wet							
Beryllium	ND	0.25	mg/Kg wet							
Cadmium	ND	0.25	mg/Kg wet							
Chromium	ND	0.50	mg/Kg wet							
Copper	ND	0.50	mg/Kg wet							
Lead	ND	0.75	mg/Kg wet							
Manganese	ND	0.50	mg/Kg wet							
Nickel	ND	0.50	mg/Kg wet							
Selenium	ND	5.0	mg/Kg wet							
Silver	ND	0.50	mg/Kg wet							
Zinc	ND	1.0	mg/Kg wet							
LCS (B182617-BS1)				Prepared: 07/26/17 Analyzed: 07/31/17						
Arsenic	13 56.0	5.0	mg/Kg wet	57.0		98.3	77.8-122.1			
Barium	108	5.0	mg/Kg wet	110		97.9	82-117.4			
Beryllium	69.2	0.50	mg/Kg wet	67.5		103	82.3-117.7			
Cadmium	76.8	0.50	mg/Kg wet	77.8		98.7	81.9-118.2			
Chromium	61.7	1.0	mg/Kg wet	65.0		95.0	78.7-120.6			
Copper	59.1	1.0	mg/Kg wet	56.4		105	80.4-119.6			
Lead	80.8	1.5	mg/Kg wet	85.6		94.4	82.4-117.8			
Manganese	256	1.0	mg/Kg wet	273		93.9	80.8-119.2			
Nickel	60.2	1.0	mg/Kg wet	61.3		98.2	82.2-117.8			
Selenium	78.7	10	mg/Kg wet	78.9		99.7	77.1-122.3			
Silver	57.6	1.0	mg/Kg wet	54.2		106	74.3-125.4			
Zinc	194	2.0	mg/Kg wet	198		97.8	79.7-120.8			
LCS Dup (B182617-BSD1)				Prepared: 07/26/17 Analyzed: 07/31/17						
Arsenic	13 57.2	4.9	mg/Kg wet	57.0		100	77.8-122.1	2.06	30	
Barium	105	4.9	mg/Kg wet	110		95.4	82-117.4	2.58	30	
Beryllium	69.9	0.49	mg/Kg wet	67.5		103	82.3-117.7	0.918	30	
Cadmium	76.6	0.49	mg/Kg wet	77.8		98.5	81.9-118.2	0.187	30	
Chromium	62.5	0.98	mg/Kg wet	65.0		96.1	78.7-120.6	1.14	30	
Copper	58.4	0.98	mg/Kg wet	56.4		104	80.4-119.6	1.23	30	
Lead	83.9	1.5	mg/Kg wet	85.6		98.0	82.4-117.8	3.73	30	
Manganese	261	0.98	mg/Kg wet	273		95.5	80.8-119.2	1.77	30	
Nickel	61.5	0.98	mg/Kg wet	61.3		100	82.2-117.8	2.16	30	
Selenium	81.2	9.8	mg/Kg wet	78.9		103	77.1-122.3	3.22	30	
Silver	58.1	0.98	mg/Kg wet	54.2		107	74.3-125.4	0.985	30	
Zinc	196	2.0	mg/Kg wet	198		98.9	79.7-120.8	1.11	30	
Duplicate (B182617-DUP1)	**Source: 17G1131-01**			Prepared: 07/26/17 Analyzed: 07/31/17						
Arsenic	5.86	2.6	mg/Kg dry		4.65			23.2	35	
Barium	24.7	2.6	mg/Kg dry		27.1			9.39	35	
Beryllium	ND	0.26	mg/Kg dry		ND			NC	35	
Cadmium	ND	0.26	mg/Kg dry		ND			NC	35	
Chromium	7.92	0.52	mg/Kg dry		9.42			17.3	35	
Copper	16.3	0.52	mg/Kg dry		18.8			14.2	35	
Lead	7.51	0.77	mg/Kg dry		5.82			25.3	35	
Manganese	272	0.52	mg/Kg dry		292			6.95	35	
Nickel	12.9	0.52	mg/Kg dry		12.1			6.43	35	
Selenium	ND	5.2	mg/Kg dry		ND			NC	35	
Silver	ND	0.52	mg/Kg dry		ND			NC	35	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B182617 - SW-846 3050B											
Duplicate (B182617-DUP1)		**Source: 17G1131-01**		Prepared: 07/26/17 Analyzed: 07/31/17							
Zinc	40.3	1.0	mg/Kg dry		38.2				5.21	35	
MRL Check (B182617-MRL1)				Prepared: 07/26/17 Analyzed: 07/31/17							
Lead	0.742	0.75	mg/Kg wet	0.746		99.5		80-120			
Matrix Spike (B182617-MS1)		**Source: 17G1131-01**		Prepared: 07/26/17 Analyzed: 08/01/17							
Arsenic	13 31.0	2.6	mg/Kg dry	26.1	4.65	101		75-125			
Barium	49.8	2.6	mg/Kg dry	26.1	27.1	86.9		75-125			
Beryllium	28.0	0.26	mg/Kg dry	26.1	ND	108		75-125			
Cadmium	26.8	0.26	mg/Kg dry	26.1	ND	103		75-125			
Chromium	33.7	0.52	mg/Kg dry	26.1	9.42	93.2		75-125			
Copper	43.9	0.52	mg/Kg dry	26.1	18.8	96.4		75-125			
Lead	31.9	0.78	mg/Kg dry	26.1	5.82	100		75-125			
Manganese	298	0.52	mg/Kg dry	26.1	292	**22.7**	*	75-125			MS-19
Nickel	36.8	0.52	mg/Kg dry	26.1	12.1	94.7		75-125			
Selenium	23.9	5.2	mg/Kg dry	26.1	ND	91.8		75-125			
Silver	26.4	0.52	mg/Kg dry	26.1	ND	101		75-125			
Zinc	62.5	1.0	mg/Kg dry	26.1	38.2	93.2		75-125			
Batch B182618 - SW-846 7471											
Blank (B182618-BLK1)				Prepared: 07/26/17 Analyzed: 08/01/17							
Mercury	ND	0.025	mg/Kg wet								
LCS (B182618-BS1)				Prepared: 07/26/17 Analyzed: 08/01/17							
Mercury	11.2	1.9	mg/Kg wet	9.36		120		73.7-126.3			
LCS Dup (B182618-BSD1)				Prepared: 07/26/17 Analyzed: 08/01/17							
Mercury	11.1	1.9	mg/Kg wet	9.36		119		73.7-126.3	0.471	30	
Duplicate (B182618-DUP1)		**Source: 17G1131-01**		Prepared: 07/26/17 Analyzed: 08/01/17							
Mercury	ND	0.026	mg/Kg dry		ND				NC	35	
Matrix Spike (B182618-MS1)		**Source: 17G1131-01**		Prepared: 07/26/17 Analyzed: 08/01/17							
Mercury	0.214	0.026	mg/Kg dry	0.174	0.00904	118		75-125			
Batch B183222 - SW-846 3050B											
Blank (B183222-BLK1)				Prepared & Analyzed: 08/03/17							
Selenium	ND	5.0	mg/Kg wet								

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B183222 - SW-846 3050B											
LCS (B183222-BS1)				Prepared & Analyzed: 08/03/17							
Selenium	77.0	10	mg/Kg wet	78.9		97.6		77.1-122.3			
LCS Dup (B183222-BSD1)				Prepared & Analyzed: 08/03/17							
Selenium	78.1	10	mg/Kg wet	78.9		98.9		77.1-122.3	1.39	30	
Duplicate (B183222-DUP1)		**Source: 17G1131-01RE1**		Prepared & Analyzed: 08/03/17							
Selenium	ND	3.5	mg/Kg dry		ND				NC	35	
Matrix Spike (B183222-MS1)		**Source: 17G1131-01RE1**		Prepared & Analyzed: 08/03/17							
Selenium	8.13	3.5	mg/Kg dry	17.3	ND	**46.9**	*	75-125			MS-07

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B182656 - SW-846 9045C										
LCS (B182656-BS1)				Prepared & Analyzed: 07/27/17						
pH	6.05		pH Units	6.00		101	98.5-110			
LCS (B182656-BS2)				Prepared & Analyzed: 07/27/17						
pH	6.05		pH Units	6.00		101	98.5-110			
Batch B182673 - SW-846 7196A										
Blank (B182673-BLK1)				Prepared: 07/27/17 Analyzed: 07/28/17						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B182673-BS1)				Prepared: 07/27/17 Analyzed: 07/28/17						
Hexavalent Chromium	43	3.5	mg/Kg wet	41.3		105	80-120			
LCS Dup (B182673-BSD1)				Prepared: 07/27/17 Analyzed: 07/28/17						
Hexavalent Chromium	40	3.5	mg/Kg wet	41.2		97.4	80-120	7.42	20	
Matrix Spike (B182673-MS1) Soluble MS		**Source: 17G1131-01**		Prepared: 07/27/17 Analyzed: 07/28/17						
Hexavalent Chromium	32	0.81	mg/Kg dry	40.5	ND	78.5	75-125			
Matrix Spike (B182673-MS2) PDMS		**Source: 17G1131-01**		Prepared: 07/27/17 Analyzed: 07/28/17						
Hexavalent Chromium	44	1.7	mg/Kg dry	41.8	ND	106	75-125			
Matrix Spike (B182673-MS3) Insoluble MS		**Source: 17G1131-01**		Prepared: 07/27/17 Analyzed: 07/28/17						
Hexavalent Chromium	500	16	mg/Kg dry	650	ND	76.8	75-125			
Matrix Spike Dup (B182673-MSD1) Soluble MS Dup		**Source: 17G1131-01**		Prepared: 07/27/17 Analyzed: 07/28/17						
Hexavalent Chromium	34	0.82	mg/Kg dry	41.1	ND	82.5	75-125	6.42	35	
Batch B182892 - SW-846 7196A										
Blank (B182892-BLK1)				Prepared: 07/31/17 Analyzed: 08/01/17						
Hexavalent Chromium	ND	0.16	mg/Kg wet							
LCS (B182892-BS1)				Prepared: 07/31/17 Analyzed: 08/01/17						
Hexavalent Chromium	46	3.6	mg/Kg wet	41.8		110	80-120			
LCS Dup (B182892-BSD1)				Prepared: 07/31/17 Analyzed: 08/01/17						
Hexavalent Chromium	44	3.6	mg/Kg wet	41.7		105	80-120	4.86	20	
Batch B183069 - SW-846 9014										
Blank (B183069-BLK1)				Prepared: 08/01/17 Analyzed: 08/02/17						
Cyanide	ND	0.49	mg/Kg wet							

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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B183069 - SW-846 9014										
LCS (B183069-BS1)				Prepared: 08/01/17 Analyzed: 08/02/17						
Cyanide	130	2.5	mg/Kg wet	106		120	80-120			
LCS Dup (B183069-BSD1)				Prepared: 08/01/17 Analyzed: 08/02/17						
Cyanide	130	2.5	mg/Kg wet	105		119	80-120	1.04	20	

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BREAKDOWN REPORT

Lab Sample ID:	S014953-PEM1	Analyzed:	08/02/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	4.45
Endrin [1]	2.30

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	3.87
Endrin [2]	3.32

BREAKDOWN REPORT

Lab Sample ID:	S014970-PEM1	Analyzed:	08/03/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	5.28
Endrin [1]	4.22

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	4.57
Endrin [2]	5.36

BREAKDOWN REPORT

Lab Sample ID:	S014970-PEM2	Analyzed:	08/03/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	4.31
Endrin [1]	2.25

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BREAKDOWN REPORT

Lab Sample ID:	S014970-PEM2	Analyzed:	08/03/2017

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	3.77
Endrin [2]	3.36

BREAKDOWN REPORT

Lab Sample ID:	S014970-PEM3	Analyzed:	08/04/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	6.52
Endrin [1]	3.67

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	5.66
Endrin [2]	5.18

BREAKDOWN REPORT

Lab Sample ID:	S014970-PEM4	Analyzed:	08/04/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	7.13
Endrin [1]	4.94

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	6.45
Endrin [2]	5.54

BREAKDOWN REPORT

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BREAKDOWN REPORT

Lab Sample ID:	S014970-PEM5	Analyzed:	08/04/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	5.88
Endrin [1]	3.18

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	4.86
Endrin [2]	4.27

BREAKDOWN REPORT

Lab Sample ID:	S014977-PEM1	Analyzed:	08/03/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	1.25
Endrin [1]	5.68

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	1.48
Endrin [2]	5.95

BREAKDOWN REPORT

Lab Sample ID:	S014977-PEM2	Analyzed:	08/03/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	1.06
Endrin [1]	3.46

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BREAKDOWN REPORT

Lab Sample ID:	S014977-PEM2	Analyzed:	08/03/2017

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	1.06
Endrin [2]	3.17

BREAKDOWN REPORT

Lab Sample ID:	S014977-PEM3	Analyzed:	08/04/2017

Column Number: 1

Analyte	% Breakdown
4,4'-DDT [1]	1.20
Endrin [1]	3.35

Column Number: 2

Analyte	% Breakdown
4,4'-DDT [2]	1.26
Endrin [2]	3.18

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B182863-BS1 Date(s) Analyzed 08/02/2017 08/02/2017

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
4,4'-DDD	1	6.840	6.810	6.870	0.086	
	2	7.085	7.054	7.114	0.088	2.3
4,4'-DDE	1	6.421	6.390	6.450	0.086	
	2	6.660	6.630	6.690	0.089	3.4
4,4'-DDT	1	7.044	7.014	7.074	0.078	
	2	7.318	7.288	7.348	0.084	7.4
Alachlor	1	5.893	5.863	5.923	0.094	
	2	5.868	5.837	5.897	0.090	4.4
Aldrin	1	5.793	5.762	5.822	0.086	
	2	5.916	5.887	5.947	0.088	2.3
alpha-BHC	1	5.150	5.120	5.180	0.085	
	2	5.250	5.220	5.280	0.083	2.4
alpha-Chlordane	1	6.357	6.327	6.387	0.084	
	2	6.529	6.499	6.559	0.087	3.5
beta-BHC	1	5.382	5.352	5.412	0.085	
	2	5.509	5.479	5.539	0.081	4.8
delta-BHC	1	5.484	5.454	5.514	0.087	
	2	5.685	5.655	5.715	0.082	5.9
Dieldrin	1	6.613	6.583	6.643	0.083	
	2	6.761	6.731	6.791	0.085	2.4
Endosulfan I	1	6.446	6.416	6.476	0.085	
	2	6.566	6.536	6.596	0.090	5.7
Endosulfan II	1	6.936	6.906	6.966	0.085	
	2	7.141	7.111	7.171	0.088	3.5
Endosulfan Sulfate	1	7.575	7.544	7.604	0.084	
	2	7.616	7.586	7.646	0.086	2.4
Endrin	1	6.775	6.744	6.804	0.085	
	2	6.980	6.950	7.010	0.088	3.5
Endrin Aldehyde	1	7.245	7.216	7.276	0.084	
	2	7.401	7.371	7.431	0.086	2.4
Endrin Ketone	1	7.784	7.754	7.814	0.084	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS

Lab Sample ID: B182863-BS1 Date(s) Analyzed 08/02/2017 08/02/2017

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	8.018	7.988	8.048	0.086	2.4
gamma-BHC (Lindane)	1	5.329	5.299	5.359	0.086	
	2	5.455	5.425	5.485	0.084	2.4
gamma-Chlordane	1	6.268	6.237	6.297	0.085	
	2	6.427	6.396	6.456	0.089	4.6
Heptachlor	1	5.609	5.578	5.638	0.082	
	2	5.716	5.686	5.746	0.088	5.9
Heptachlor Epoxide	1	6.183	6.154	6.214	0.084	
	2	6.298	6.268	6.328	0.084	0.0
Hexachlorobenzene	1	5.054	5.024	5.084	0.099	
	2	5.166	5.136	5.196	0.089	10.6
Methoxychlor	1	7.423	7.393	7.453	0.080	
	2	7.872	7.842	7.902	0.086	7.2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B182863-BSD1 Date(s) Analyzed 08/02/2017 08/02/2017

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
4,4'-DDD	1	6.840	6.810	6.870	0.092	
	2	7.085	7.054	7.114	0.094	2.2
4,4'-DDE	1	6.421	6.390	6.450	0.092	
	2	6.660	6.630	6.690	0.095	3.2
4,4'-DDT	1	7.044	7.014	7.074	0.081	
	2	7.319	7.288	7.348	0.087	7.1
Alachlor	1	5.894	5.863	5.923	0.099	
	2	5.868	5.837	5.897	0.094	5.2
Aldrin	1	5.792	5.762	5.822	0.092	
	2	5.917	5.887	5.947	0.094	2.2
alpha-BHC	1	5.150	5.120	5.180	0.091	
	2	5.250	5.220	5.280	0.088	3.4
alpha-Chlordane	1	6.358	6.327	6.387	0.089	
	2	6.529	6.499	6.559	0.093	4.4
beta-BHC	1	5.382	5.352	5.412	0.091	
	2	5.510	5.479	5.539	0.083	9.2
delta-BHC	1	5.485	5.454	5.514	0.092	
	2	5.685	5.655	5.715	0.087	6.7
Dieldrin	1	6.613	6.583	6.643	0.087	
	2	6.761	6.731	6.791	0.091	4.5
Endosulfan I	1	6.448	6.416	6.476	0.091	
	2	6.566	6.536	6.596	0.096	5.4
Endosulfan II	1	6.936	6.906	6.966	0.090	
	2	7.142	7.111	7.171	0.094	4.4
Endosulfan Sulfate	1	7.575	7.544	7.604	0.088	
	2	7.616	7.586	7.646	0.091	2.2
Endrin	1	6.775	6.744	6.804	0.090	
	2	6.980	6.950	7.010	0.094	4.4
Endrin Aldehyde	1	7.246	7.216	7.276	0.088	
	2	7.401	7.371	7.431	0.091	3.4
Endrin Ketone	1	7.784	7.754	7.814	0.088	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8081B

LCS Dup

Lab Sample ID: B182863-BSD1 Date(s) Analyzed 08/02/2017 08/02/2017

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
	2	8.018	7.988	8.048	0.091	3.4
gamma-BHC (Lindane)	1	5.329	5.299	5.359	0.091	
	2	5.455	5.425	5.485	0.089	2.2
gamma-Chlordane	1	6.268	6.237	6.297	0.090	
	2	6.427	6.396	6.456	0.095	5.4
Heptachlor	1	5.609	5.578	5.638	0.087	
	2	5.716	5.686	5.746	0.093	6.7
Heptachlor Epoxide	1	6.184	6.154	6.214	0.089	
	2	6.298	6.268	6.328	0.089	0.0
Hexachlorobenzene	1	5.055	5.024	5.084	0.10	
	2	5.166	5.136	5.196	0.094	6.2
Methoxychlor	1	7.424	7.393	7.453	0.081	
	2	7.873	7.842	7.902	0.088	8.3

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B182864-BS1 Date(s) Analyzed 08/02/2017 08/02/2017

Instrument ID (1): ECD4 Instrument ID (2): ECD4

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.19	
	2	0.000	0.000	0.000	0.20	5.1
Aroclor-1260	1	0.000	0.000	0.000	0.18	
	2	0.000	0.000	0.000	0.17	5.7

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B182864-BSD1 Date(s) Analyzed 08/02/2017 08/02/2017

Instrument ID (1): ECD4 Instrument ID (2): ECD4

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.17	
	2	0.000	0.000	0.000	0.18	5.7
Aroclor-1260	1	0.000	0.000	0.000	0.15	
	2	0.000	0.000	0.000	0.15	6.5

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.

H-01	Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
PR-15	According to the NY ELAP program, all voa results less than 0.2mg/Kg are estimated and biased low if not collected according to SW-846 5035-L/5035A-L.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
W-06	Elevated method reporting limit due to intense color of sample

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 6010C-D in Soil	
Arsenic	CT,NH,NY,ME,VA,NC
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,AIHA,ME,VA,NC
Manganese	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7196A in Soil	
Hexavalent Chromium	NY,CT,NH,NC,ME,VA
SW-846 7471B in Soil	
Mercury	CT,NH,NY,NC,ME,VA
SW-846 8081B in Soil	
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Soil	
Endrin [2C]	CT,NH,NY,ME,NC,VA
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8081B in Water	
Alachlor	NC
Alachlor [2C]	NC
Aldrin	CT,NH,NY,ME,NC,VA
Aldrin [2C]	CT,NH,NY,ME,NC,VA
alpha-BHC	CT,NH,NY,ME,NC,VA
alpha-BHC [2C]	CT,NH,NY,ME,NC,VA
beta-BHC	CT,NH,NY,ME,NC,VA
beta-BHC [2C]	CT,NH,NY,ME,NC,VA
delta-BHC	CT,NH,NY,ME,NC,VA
delta-BHC [2C]	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane)	CT,NH,NY,ME,NC,VA
gamma-BHC (Lindane) [2C]	CT,NH,NY,ME,NC,VA
Chlordane	CT,NH,NY,ME,NC,VA
Chlordane [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDD	CT,NH,NY,ME,NC,VA
4,4'-DDD [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDE	CT,NH,NY,ME,NC,VA
4,4'-DDE [2C]	CT,NH,NY,ME,NC,VA
4,4'-DDT	CT,NH,NY,ME,NC,VA
4,4'-DDT [2C]	CT,NH,NY,ME,NC,VA
Dieldrin	CT,NH,NY,ME,NC,VA
Dieldrin [2C]	CT,NH,NY,ME,NC,VA
Endosulfan I	CT,NH,NY,ME,NC,VA
Endosulfan I [2C]	CT,NH,NY,ME,NC,VA
Endosulfan II	CT,NH,NY,ME,NC,VA
Endosulfan II [2C]	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate	CT,NH,NY,ME,NC,VA
Endosulfan Sulfate [2C]	CT,NH,NY,ME,NC,VA
Endrin	CT,NH,NY,ME,NC,VA
Endrin [2C]	CT,NH,NY,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8081B in Water	
Endrin Aldehyde	CT,NH,NY,ME,NC,VA
Endrin Aldehyde [2C]	CT,NH,NY,ME,NC,VA
Endrin Ketone	NC
Endrin Ketone [2C]	NC
Heptachlor	CT,NH,NY,ME,NC,VA
Heptachlor [2C]	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide	CT,NH,NY,ME,NC,VA
Heptachlor Epoxide [2C]	CT,NH,NY,ME,NC,VA
Hexachlorobenzene	NC
Hexachlorobenzene [2C]	NC
Methoxychlor	CT,NH,NY,ME,NC,VA
Methoxychlor [2C]	CT,NH,NY,ME,NC,VA
Toxaphene	CT,NH,NY,ME,NC,VA
Toxaphene [2C]	CT,NH,NY,ME,NC,VA
SW-846 8082A in Soil	
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA
SW-846 8082A in Water	
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8082A in Water	
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA
SW-846 8260C in Soil	
Acetone	CT,NH,NY,ME,VA
Benzene	CT,NH,NY,ME,VA
2-Butanone (MEK)	CT,NH,NY,ME,VA
n-Butylbenzene	CT,NH,NY,ME,VA
sec-Butylbenzene	CT,NH,NY,ME,VA
tert-Butylbenzene	CT,NH,NY,ME,VA
Carbon Tetrachloride	CT,NH,NY,ME,VA
Chlorobenzene	CT,NH,NY,ME,VA
Chloroform	CT,NH,NY,ME,VA
1,2-Dichlorobenzene	CT,NH,NY,ME,VA
1,3-Dichlorobenzene	CT,NH,NY,ME,VA
1,4-Dichlorobenzene	CT,NH,NY,ME,VA
1,1-Dichloroethane	CT,NH,NY,ME,VA
1,2-Dichloroethane	CT,NH,NY,ME,VA
1,1-Dichloroethylene	CT,NH,NY,ME,VA
cis-1,2-Dichloroethylene	CT,NH,NY,ME,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME,VA
1,4-Dioxane	NY
Ethylbenzene	CT,NH,NY,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,VA
Methylene Chloride	CT,NH,NY,ME,VA
Naphthalene	NH,NY,ME,VA
n-Propylbenzene	NH,NY
Tetrachloroethylene	CT,NH,NY,ME,VA
Toluene	CT,NH,NY,ME,VA
1,1,1-Trichloroethane	CT,NH,NY,ME,VA
Trichloroethylene	CT,NH,NY,ME,VA
1,2,4-Trimethylbenzene	CT,NH,NY,ME,VA
1,3,5-Trimethylbenzene	CT,NH,NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME,VA
m+p Xylene	CT,NH,NY,ME,VA
o-Xylene	CT,NH,NY,ME,VA
SW-846 8270D in Soil	
Acenaphthene	CT,NY,NH,ME,NC,VA
Acenaphthylene	CT,NY,NH,ME,NC,VA
Anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)anthracene	CT,NY,NH,ME,NC,VA
Benzo(a)pyrene	CT,NY,NH,ME,NC,VA
Benzo(b)fluoranthene	CT,NY,NH,ME,NC,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Soil	
Benzo(g,h,i)perylene	CT,NY,NH,ME,NC,VA
Benzo(k)fluoranthene	CT,NY,NH,ME,NC,VA
Chrysene	CT,NY,NH,ME,NC,VA
Dibenz(a,h)anthracene	CT,NY,NH,ME,NC,VA
1,2-Dichlorobenzene	NY,NH,ME,NC,VA
1,3-Dichlorobenzene	NY,NH,ME,NC,VA
1,4-Dichlorobenzene	NY,NH,ME,NC,VA
Fluoranthene	CT,NY,NH,ME,NC,VA
Fluorene	NY,NH,ME,NC,VA
Hexachlorobenzene	CT,NY,NH,ME,NC,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NH,ME,NC,VA
2-Methylphenol	CT,NY,NH,ME,NC,VA
3/4-Methylphenol	CT,NY,NH,ME,NC,VA
Naphthalene	CT,NY,NH,ME,NC,VA
Pentachlorophenol	CT,NY,NH,ME,NC,VA
Phenanthrene	CT,NY,NH,ME,NC,VA
Phenol	CT,NY,NH,ME,NC,VA
Pyrene	CT,NY,NH,ME,NC,VA
2-Fluorophenol	NC
SW-846 8270D in Water	
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC
SW-846 9014 in Soil	

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 9014 in Soil	
Cyanide	NY,CT,NC,ME,NH,VA

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2018
RI	Rhode Island Department of Health	LAO00112	12/30/2017
NC	North Carolina Div. of Water Quality	652	12/31/2017
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2017
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2017
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018

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Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

CHAIN OF CUSTODY RECORD
NEW YORK STATE

17G1131

39 Spruce Street
East longmeadow, MA 01028

Company Name: LAND REMEDIATION
Telephone: 518 223 2784
Address: 74 HUDSON RIVER ROAD
WATERFORD, NY 12188
Project #
Client PO#
Attention:
Project Location: NATIONAL GRID - COHOES
Sampled By: LISA GORTON

○ Project Proposal Provided? (for billing purposes)

DATA DELIVERY (check all that apply)
○ FAX ⊗ EMAIL ○ WEBSITE
~~Fax #~~ lag@land-remediation
Email: gtm@land-remediation
Format: PDF ⊗ EXCEL ⊗ GIS ○
○ OTHER
○ "Enhanced Data Package"

	METALS *	PCB/PEST *	SVOCS *	VOCS *	~~pH~~	~~ASBESTOS~~	~~ORGANIC CONTENT~~					
# of Containers	2	2	2	1								
** Preservation	-	-	-	-								
***Container Code	A	A	A	A								

ANALYSIS REQUESTED (note: ~~pH~~ ANC 7/26/17)

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	METALS	PCB/PEST	SVOCS	VOCS
1	CONSTANTINE - CF - C1	7/26 750	755	X		S	L-C	X	X	X	
2	CONSTANTINE - CF-C2	7/26 800	805	X		S	L-C	X	X	X	
3	CONSTANTINE-CF-V1	7/26	806		X	S	L-C				X
4	- CF - V2	7/26	807		X	S	L-C				X
5	- CF - V3	7/26	808		X	S	L-C				X
6	- CF - V4	7/26	809		X	S	L-C				X
7	- CF - V5	7/26	810		X	S	L-C				X
8	- CF - V6	7/26	811		X	S	L-C				X
9	- CF - V7	7/26	812		X	S	L-C				X

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other

Comments:
ANALYZE FOR DER-10 TABLE 5.4(e) CONSTITUENTS ONLY

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:	Relinquished by:	Date/Time:
Lisa Gorton [signature]	7/26/17 815		
Received by: (signature) [signature]	7-26-17 11:50A	Received by:	Date/Time:
Relinquished by: (signature) [signature]	7-26-17 1430	Relinquished by:	Date/Time:
Received by: (signature) [signature] 5.0°C	7/26/17 14:30	Received by:	Date/Time:

Turnaround †
☒ 5-Day
☐ 7 Day
☐ 10-Day or ___
RUSH †
24 hr ○ 48 hr ○
72 hr ○ 4 day ○
† Require lab approval

Program Information/Regulatory
○ NY TOGS ○ NY Restricted Use ○ NY Part 375
○ AWQ STDS ⊗ NY Unrestricted Use ○ NY CP-51
○ NYC Sewer Discharge ○ Other:
○ Part 360 GW (Landfill)

Deliverables
○ ASP-A ○ Equis (1 file) ○ Other:
○ ASP-B ○ Equis (4 file)

TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED. PLEASE BE CAREFUL TO NOT CONTAMINATE THIS DOCUMENT

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CHAIN OF CUSTODY RECORD

NEW YORK STATE

17C1131

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

Company Name: LAND REMEDIATION
Address: 74 HUDSON RIVER ROAD WATERFORD, NY 12188
Attention:
Project Location: NATIONAL GRID - COHOES
Sampled By: LISA GORTON
Telephone: 518-233-2704
Project #
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ⊘ EMAIL ○ WEBSITE
Fax #
Email: lag@landremediation / gtm@land-remediation
Format: PDF ○ EXCEL ○ GIS ○
○ OTHER
○ "Enhanced Data Package"

○ Project Proposal Provided? (for billing purposes)

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection Beginning Date/Time	Collection Ending Date/Time	Composite	Grab	*Matrix Code	Conc Code	# of Containers	** Preservation	***Container Code	ANALYSIS REQUESTED: Metals ✱	PCB/Pest ✱	SVOCs ✱	VOCs ✱	pH	ASP 2074 Category B							
								1	—	A													
10	CONSTANTINE - TOPSOIL - C1	7/26	815	X		S	C	1	—	A	X	X	X	✱	X	X							
11	CONSTANTINE - TOPSOIL - V1	7/26	820		X	S	C	1	—	A				X									
12	" - TOPSOIL - V2	7/26	825		X	S	C	1	—	A				X									
								2	—	A													
								1	—	A													

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
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DW= drinking water
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Comments: ANALYZE FOR DER-10 5.4E CONSTITUENTS ONLY ✱

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time:	Relinquished by:	Date/Time:
LISA GORTON	7/26/17 830		
Received by: (signature)	Date/Time:	Received by:	Date/Time:
	7-26-17 1150A		
Relinquished by: (signature)	Date/Time:	Relinquished by:	Date/Time:
	7-26-17 1430		
Received by: (signature) 5.0°C	Date/Time:	Received by:	Date/Time:
7/26/17	14:30		

Turnaround †
⊘ 5-Day
☐ 7 Day
☐ 10-Day or ___
RUSH †
24 hr ○ 48 hr ○
72 hr ○ 4 day ○
† Require lab approval

Program Information/Regulatory
○ NY TOGS ○ NY Restricted Use ○ NY Part 375
○ AWQ STDS ⊘ NY Unrestricted Use ○ NY CP-51
○ NYC Sewer Discharge ○ Other:
○ Part 360 GW (Landfill)

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○ ASP-A ○ Equis (1 file) ○ Other:
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TURNAROUND TIME (business days) STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED. PLEASE BE CAREFUL TO NOT CONTAMINATE THIS DOCUMENT

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Appendix 5
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on *Soil Cleanup Guidance*. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent[1]	1 [3]	19	19	19	1 [3]
Chromium, Trivalent[1]	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 [3]	1.8	8.9	17	0.0033 [3]
4,4'-DDT	0.0033 [3]	1.7	7.9	47	0.0033 [3]
4,4'-DDD	0.0033 [3]	2.6	13	14	0.0033 [3]
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 [4]
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 [4]
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4[2]	4.8	24	102	NS
Endosulfan II	2.4[2]	4.8	24	102	NS
Endosulfan sulfate	2.4[2]	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 [3]	0.33 [3]	0.33 [3]	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]
Phenanthrene	100	100	100	500	NS
Phenol	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 [3]	0.1 [3]	0.1 [3]	0.1 [3]	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 [3]	0.33 [3]	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)
NS = Not Specified

Footnotes:
[1] The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.
[2] The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.
[3] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.
[4] This SCO is derived from data on mixed isomers of BHC.

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client Land Remediation

Received By WCG Date 7/26/17 Time 14:30

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____ Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 5.0°C By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? N/A Were Samples Tampered with? F

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? Lucy

Is there enough Volume? T

Is there Headspace where applicable? T MS/MSD? N/A

Proper Media/Containers Used? T Is splitting samples required? N/A

Were trip blanks received? N/A On COC? N/A

Do all samples have the proper pH? Acid N/A Base N/A

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	9
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	10
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

National Grid
Troy (Water Street) Former MGP Site - Area 3 IRM
Import Material Tracking

Date	Supplier	Transporter	Type of Fill	Quantity (Ton)	Quantity (Ton)
9/22/2017	Callanan Industries	Constantine Construction	Crusher Run	20.89	
9/22/2017	Callanan Industries	Constantine Construction	#3 Stone		20.11
9/22/2017	Callanan Industries	Constantine Construction	#3 Stone		20.86
			Subtotal Crusher Run	***20.89***	
			Subtotal #3 Stone		***40.97***
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	19.93	
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	21.25	
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	19.1	
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	19.17	
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	20	
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	20	
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	20	
9/25/2017	Constantine Construction	Constantine Construction	Common Fill	20	
			Common Fill Subtotal	***159.45***	
9/26/2017	Constantine Construction	Constantine Construction	Common Fill	21.2	
9/26/2017	Constantine Construction	Constantine Construction	Common Fill	20.8	
			Common Fill Subtotal	***42***	
10/12/2017	Constantine Construction	Constantine Construction	Common Fill	38.42	
			Common Fill Subtotal	***38.42***	
10/16/2017	Constantine Construction	Constantine Construction	Common Fill	39.8	
			Common Fill Subtotal	***39.8***	
10/17/2017	Constantine Construction	Constantine Construction	Common Fill	21.07	
			Common Fill Subtotal	***100.67***	

Type of Fill	Quantity (Ton)
Crusher Run Total	**20.89**
#3 Stone Total	**40.97**
Common Fill Total	**380.34**

CALLANAN INDUSTRIES, INC.

(518) 374-2222

REMIT TO

PO Box 15097
Albany, NY 12212-5097

CUSTOMER

CONSTANTINE CONSTRUCTION
584 Albany-Shaker Rd
Loudonville NY 12211-0000

TICKET

2050040903

STONE
CROPSEYVILLE, N.Y.
PLANT 05

Mail Ticket

ACCOUNT	PO#	DESCRIPTION
114060	LAND REMED	

PRODUCT CODE	NYS DOT CODE	PRODUCT DESCRIPTION
1080		CRUSHER RUN

U/M	QUANTITY	LOAD NO.	ACCUMULATED QTY
TON Metric	20.89 18.95	1	20.89 18.95

TRUCK #	CARRIER/CDL	DELIVERY TYPE	TARE
CON24		FOB	27340 lbs

MILE CODE	ARRIVE	UNLOAD	WAIT TIME	TEMPERATURE

TAXABLE	EXEMPT	ADVANTAGE CODE	TAX ID CODE
	X	4984	

WEIGHED BY	LICENSE
M.BROWN 380074	

DRIVER'S SIGNATURE

RECEIVED BY

DATE	TIME	TICKET
09/22/2017	10:38:20	2050040903

CASH SALES

MATERIAL	$
TRUCKING	$
SUBTOTAL	$
TAX	$
TOTAL	$

Carrier represents that its vehicle has a valid load permit and that the requested load does not exceed its legal weight limitation.

CUSTOMER

CALLANAN INDUSTRIES, INC.

(518) 374-2222

REMIT TO

PO Box 15097
Albany, NY 12212-5097

CUSTOMER

CONSTANTINE CONSTRUCTION
564 Albany-Shaker Rd
Loudonville NY 122110000

TICKET

2050040906

STONE
CROPSEYVILLE, N.Y.
PLANT 05

ACCOUNT	PO#	DESCRIPTION
114060	LAND REMED	

PRODUCT CODE	NYS DOT CODE	PRODUCT DESCRIPTION
1030		#3 CRUSHED STONE

U/M	QUANTITY	LOAD NO.	ACCUMULATED QTY
TON Metric	20.11 18.24	1	20.11 18.24

TRUCK #	CARRIER/CDL	DELIVERY TYPE	TARE
CON24		FOB	27340 lbs

MILE CODE	ARRIVE	UNLOAD	WAIT TIME	TEMPERATURE

TAXABLE	EXEMPT	ADVANTAGE CODE	TAX ID CODE
	X	4984	

WEIGHED BY	LICENSE
M BROWN 380074	

DRIVER'S SIGNATURE

RECEIVED BY

DATE	TIME	TICKET
09/22/2017	11:41:02	2050040906

CASH SALES

MATERIAL	$
TRUCKING	$
SUBTOTAL	$
TAX	$
TOTAL	$

Carrier represents that its vehicle has a valid load permit and that the requested load does not exceed its legal weight limitation.

CUSTOMER

CALLANAN INDUSTRIES, INC.

(518) 374-2222

REMIT TO

PO Box 15097
Albany, NY 12212-5097

CUSTOMER

CONSTANTINE CONSTRUCTION
564 Albany-Shaker Rd
Loudonville NY 122110000

TICKET

2050040913

STONE
CROPSEYVILLE, N.Y.
PLANT 05

ACCOUNT	PO#	DESCRIPTION
114060	LAND REMED	

PRODUCT CODE	NYS DOT CODE	PRODUCT DESCRIPTION
1030		#3 CRUSHED STONE

U/M	QUANTITY	LOAD NO.	ACCUMULATED QTY
TON Metric	20.86 18.92	2	40.97 37.17

TRUCK #	CARRIER/CDL	DELIVERY TYPE	TARE
CON24		FOB	27340 lbs

MILE CODE	ARRIVE	UNLOAD	WAIT TIME	TEMPERATURE

TAXABLE	EXEMPT	ADVANTAGE CODE	TAX ID CODE
	X	4984	

WEIGHED BY	LICENSE
M.BROWN 380074	

DRIVER'S SIGNATURE

RECEIVED BY

DATE	TIME	TICKET
09/22/2017	12:40:35	2050040913

CASH SALES

MATERIAL	$
TRUCKING	$
SUBTOTAL	$
TAX	$
TOTAL	$

Carrier represents that its vehicle has a valid load permit and that the requested load does not exceed its legal weight limitation.

CUSTOMER

TOPSOIL • SAND • GRAVEL • MULCH

No 36933

CONSTANTINE CONSTRUCTION & FARM, INC.

564 ALBANY-SHAKER ROAD • LOUDONVILLE, NY 12211

PHONE: (518) 458-8294 • FAX: (518) 438-7257

Date 9-22-17 Truck No. Can 24

Name Land Remediation

Delivered to 7 water St troy

	AMOUNT	MATERIAL	PIT IN / OUT TIME		JOBSITE IN / OUT TIME	
1	20.89	Crusher	10 25	10 40	11.05	11:10
2	20.11	#3 Stone	11:35	11:45	12:05	12:15
3	20.84	#3 Stone	12:35	12:49	1:10	1:25
4						
5		Haul Ticket				
6						
7						
8						
9						
10						
11						
12						

Received by

Driver Ryan Huntington

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Remediation
Tray Select

Weigh-Out:
Recalled IO#: 024
06:03 am 09/25/17
33.66 ton Gross
13.73 ton Tare
19.93 ton Net

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Remediation
Troy Select

Weigh-Out:
Recalled ID#: 024
07:40 am 09/25/17
34.98 ton Gross
13.73 ton Tare
21.25 ton Net

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Remediation
Troy Common Fill

Weigh-Out:
Recalled ID#: 024
09:00 am 09/25/17
32.83 ton Gross
13.73 ton Tare
19.1 ton Net

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Reclamation
TROY Common Fill

Weish-Out:
Recalled IO#: 024
10:19 am 09/25/17
32.9 ton Gross
13.73 ton Tare
19.17 ton Net

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Reclamation
TRV/ Common fill

20.0 ton

1

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Remediation
TROY Common Fill

Con24

20.0 ton

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Remediation
TR04 Common
FILL

Con 24
20.0 ton

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Reclamation
Clay Common Fill

Con 24/
20.0 ton

TOPSOIL • SAND • GRAVEL • MULCH

No: 36936

CONSTANTINE CONSTRUCTION & FARM, INC.

564 ALBANY-SHAKER ROAD • LOUDONVILLE, NY 12211
PHONE: (518) 458-8294 • FAX: (518) 438-7257

Date 9-25-17 Truck No. Con 24

Name Land Remediation

Delivered to Troy

	AMOUNT	MATERIAL	PIT IN / OUT TIME		JOBSITE IN / OUT TIME	
1	19.93	Common Fill	7:00	7:10	7:40	7:50
2	21.25	Common Fill	8:30	8:45	9:15	9:20
3	19.1	Common Fill	9:45	10:05	10:35	10:45
4	19.17	Common Fill	11:10	11:25	11:53	12:05
5	20.0	Common Fill	12:30	12:40	1:10	1:15
6	20.0	Common Fill	1:45	1:55	2:25	2:30
7	20.0	Common Fill	2:55	3:05	3:35	3:45 3:45
8	20.0	Common Fill	4:15	4:25	5:05	5:15
9						
10						
11						
12						

Received by _____

Driver Ryan Hurlington

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Reclamation
TROY Common Fill

Con 24
21.2 ton

CONSTANTINE
CONSTRUCTION
& FARM, INC

Land Remediation
TROY common Fill

Con 24

20.8 ton

TOPSOIL • SAND • GRAVEL • MULCH

No 36937

CONSTANTINE CONSTRUCTION & FARM, INC.

564 ALBANY-SHAKER ROAD • LOUDONVILLE, NY 12211

PHONE: (518) 458-8294 • FAX: (518) 438-7257

Date 9-26-17 Truck No. Con 24

Name Land Remediation

Delivered to

	AMOUNT	MATERIAL	PIT IN / OUT TIME		JOBSITE IN / OUT TIME	
1	21.2	Common Fill	6:25	6:40	7:10	7:15
2	20.8	Common Fill	7:45	7:50	8:30	8:40
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Received by

Driver Ryan Harrington

CONSTANTINE
CONSTRUCTION
& FARM, INC

Con 18
Cond Remediation
Select
Hoy

Weigh-Out:
Recalled ID#: 018
06:53 am 10/12/17
59.01 ton Gross
20.59 ton Tare
38.42 ton Net

CONSTANTINE
CONSTRUCTION
& FARM, INC

Cog 18
Cond remediation
Select
Hoy

Weigh-Out:
Recalled ID#: 018
11:25 am 10/16/17
60.39 ton Gross
-20.59 ton Tare
39.8 ton Net

CONSTANTINE
CONSTRUCTION
& FARM, INC

LAND
Reclamation
water st
Select

Weigh-Out:
Recalled ID#: 026
11:27 am 10/17/17
34.66 ton Gross
13.59 ton Tare
21.07 ton Net

TOPSOIL • SAND • GRAVEL • MULCH

№ 36237

CONSTANTINE CONSTRUCTION & FARM, INC.

564 ALBANY-SHAKER ROAD • LOUDONVILLE, NY 12211

PHONE: (518) 458-8294 • FAX: (518) 438-7257

Date 10-17 Truck No. 26

Name [illegible]

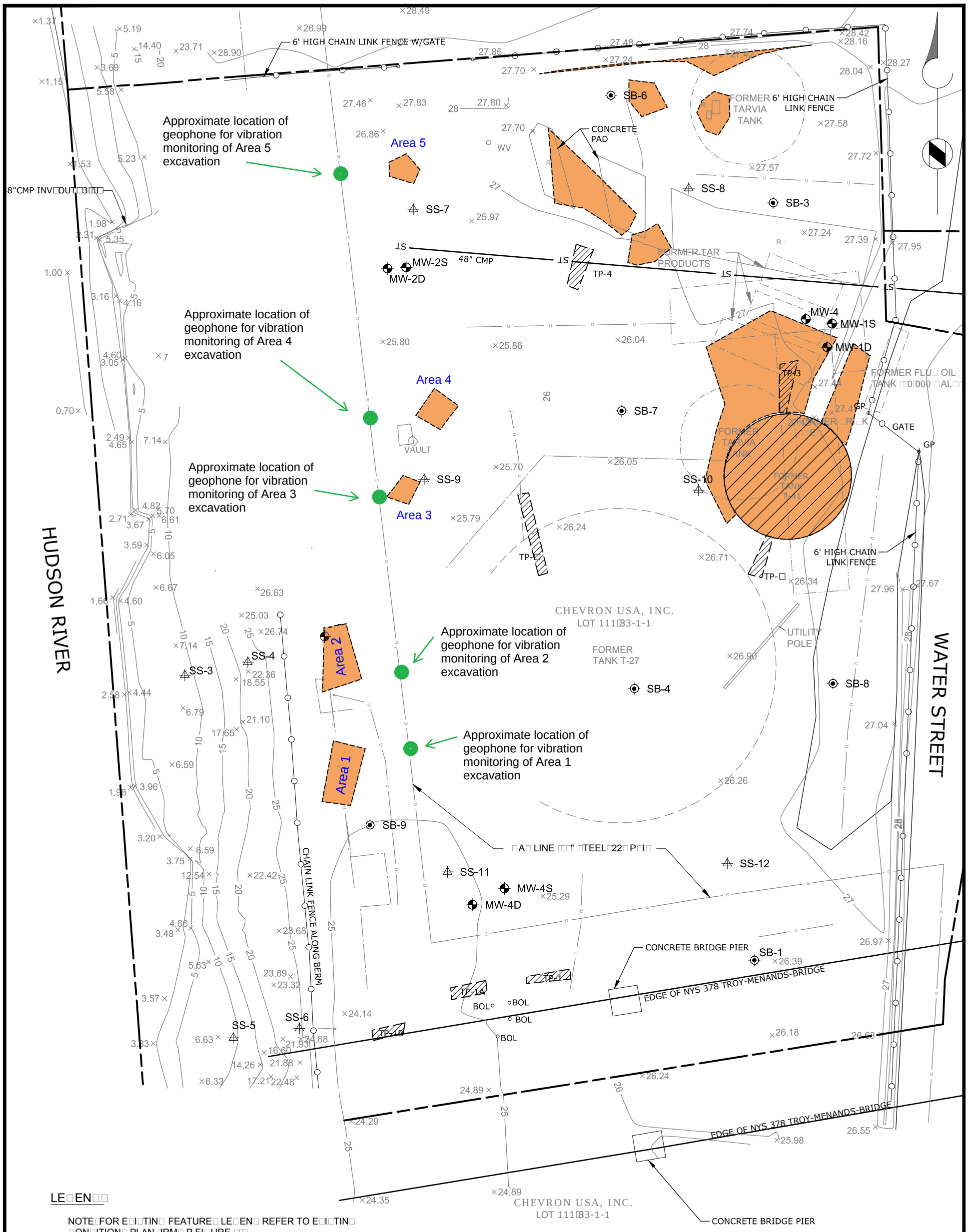
Delivered to Water St

	AMOUNT	MATERIAL	PIT IN / OUT TIME		JOBSITE IN / OUT TIME	
1	21 07	Select	1220			
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

Received by [signature]

Driver [illegible]

Appendix G: Vibration Monitoring Results



LEGEND

NOTE FOR EXCAVATION FEATURE LEGEND REFER TO EXCAVATION CONDITION PLAN IRM PLAN FIGURE

SURFACE TAR REMOVAL AREA (SEE NOTE 1)

STRUCTURE TO BE REMOVED (SEE NOTE 2)

(Not To Scale)

NOTES:

1. EXCAVATION LIMITS AND DEPTHS WILL VARY BASED ON FIELD OBSERVATIONS OF SURFACE TAR BUT WILL NOT EXCEED A MAXIMUM DEPTH OF ONE FOOT BELOW GROUND SURFACE.
2. THE REMAINING STEEL STRUCTURE OF FORMER TANK T-41 WILL BE REMOVED. THE UNDERLYING CONCRETE PAD WILL REMAIN.

SOURCE:

1. BASE MAP DEVELOPED ON DRAWINGS PREPARED BY NAEVA GEOPHYSICS, INC. (APRIL 28, 2017) AND CT MALE ASSOCIATES, P.C. (JUNE 1, 2017).
2. VERTICAL DATUM SHOWN HEREON IS NGVD 29.

FIGURE 1

Vibration Monitoring Locations

Date: 09/20/2017

LAND Remediation, Inc.
an environmental services company

GeoSonics Inc. Seismic Analysis
Continuous Monitor Analysis

Serial No:	8911 v5.25
Date:	20.09.2017 08:08:15
Event No:	1
Record Time:	11265 seconds
Client:	NATIONAL GRID
Operation:	
Location:	TROY (WATER ST) NY
Distance:	14
Operator:	BRAD VALIK
Comment:	
Additional Info:	

Approximate distance between the gas line (geophone) and the edge of the excavation in FT (+/-)

Continuous Monitor Recording Summary Data

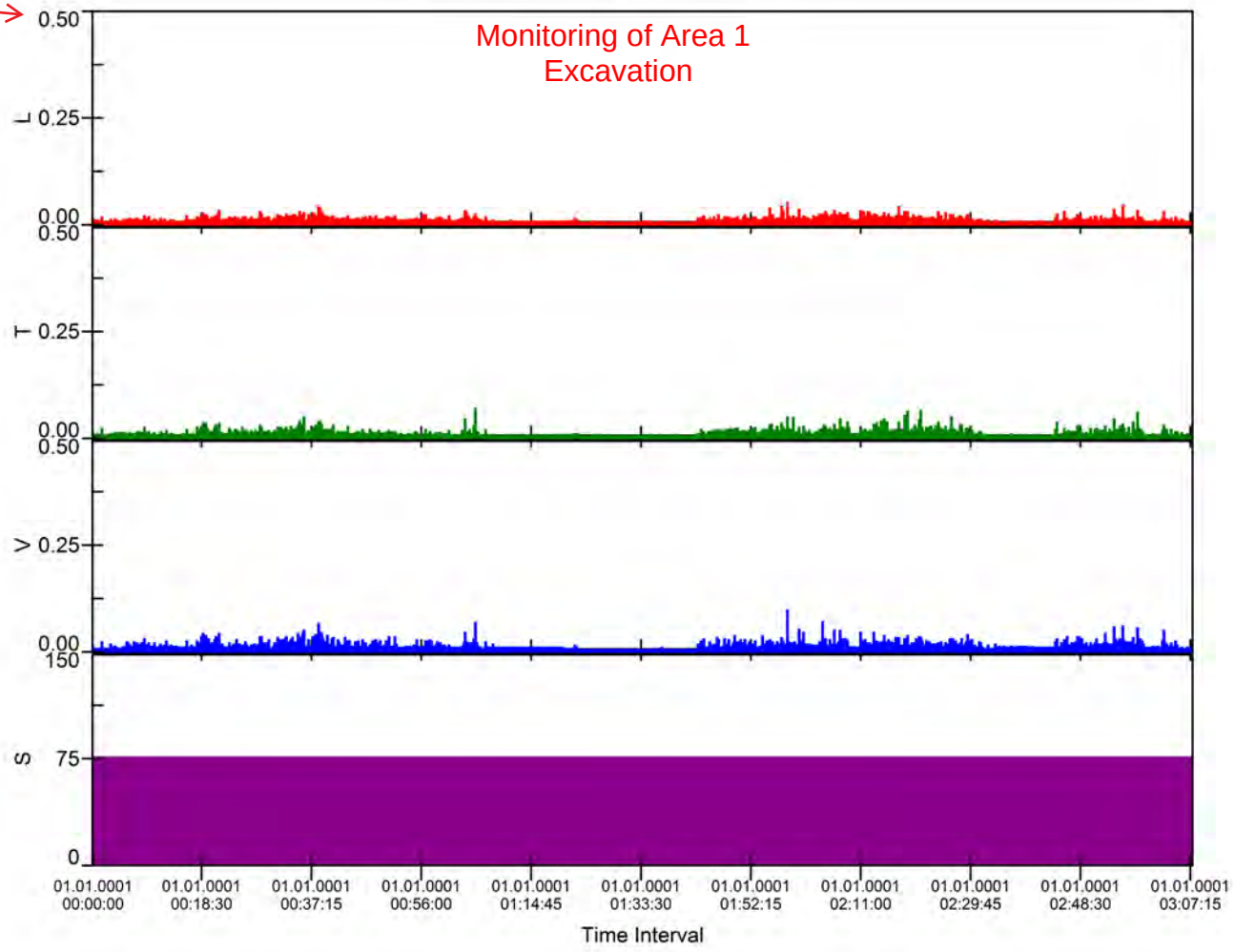
	L	T	V
PPV (in/s)	0.053	0.070	0.098
FREQ (Hz)	21.7	33.3	33.3

Peak Air Pressure:	76 db
Sample Size:	1440
Interval Size:	15 seconds

Shaketable Calibrated: 06.07.2017
By: GeoSonics Inc.
359 Northgate Drive
Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 FAX: 724.934.2999

Continuous Monitor Analysis

Action Level (in/s)



GeoSonics Inc. Seismic Analysis
Continuous Monitor Analysis

Serial No: 8933 v5.25
Date: 20.09.2017 08:26:30
Event No: 2
Record Time: 10185 seconds
Client: NATIONAL GRID
Operation:
Location: TROY (WATER ST) NY
Distance: 12
Operator: BRAD VALIK
Comment:

Additional Info:

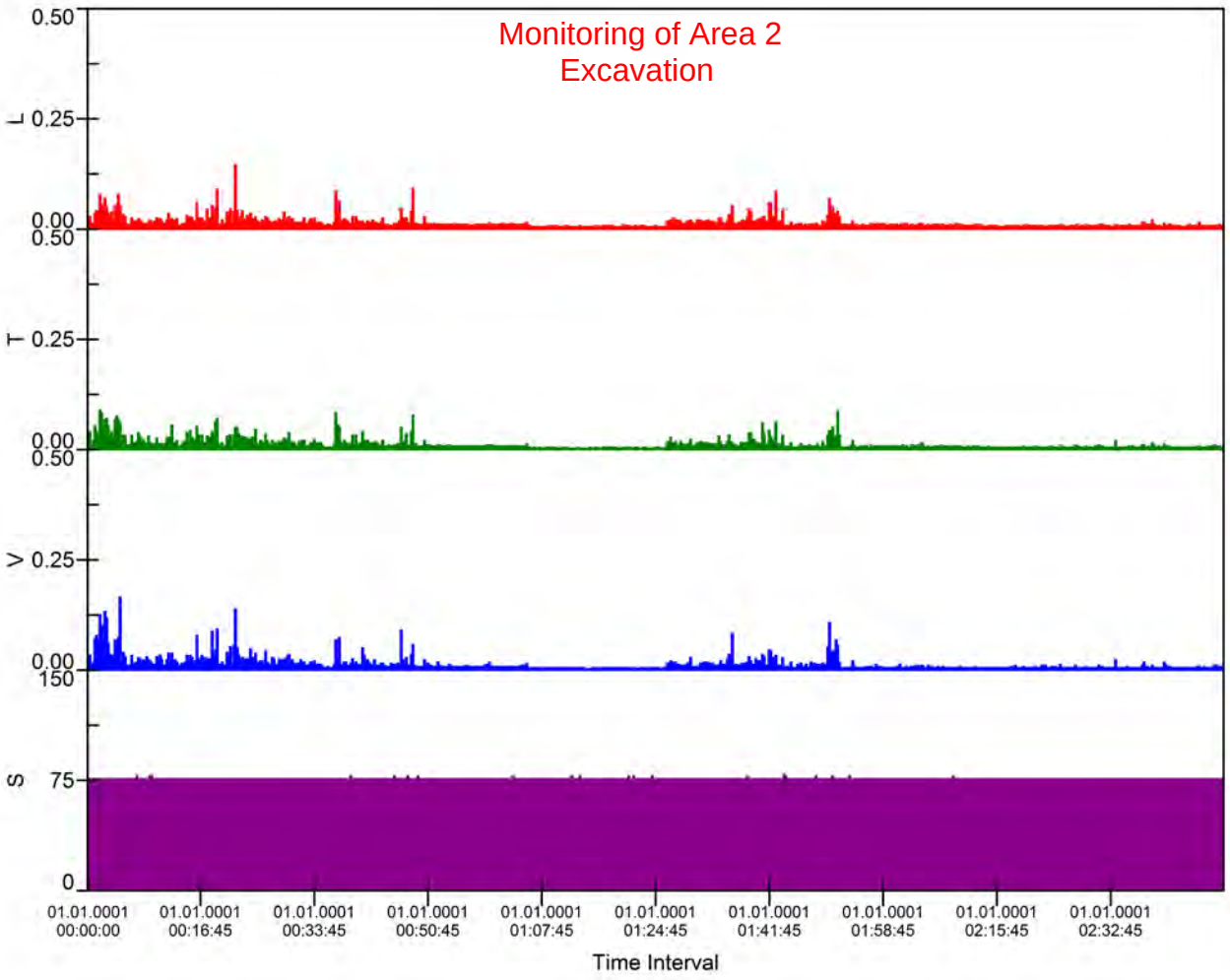
Continuous Monitor Recording Summary Data

	L	T	V
PPV (in/s)	0.145	0.090	0.165
FREQ (Hz)	26.3	41.7	31.3

Peak Air Pressure: 79 db
Sample Size: 1440
Interval Size: 15 seconds

Shaketable Calibrated: 03.07.2017
By: GeoSonics Inc.
359 Northgate Drive
Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 FAX: 724.934.2999

Continuous Monitor Analysis



GeoSonics Inc. Seismic Analysis
Continuous Monitor Analysis

Serial No:	8933 v5.25
Date:	20.09.2017 11:26:45
Event No:	3
Record Time:	5340 seconds
Client:	NATIONAL GRID
Operation:	
Location:	TROY (WATER ST) NY
Distance:	2.5
Operator:	BRAD VALIK
Comment:	
Additional Info:	

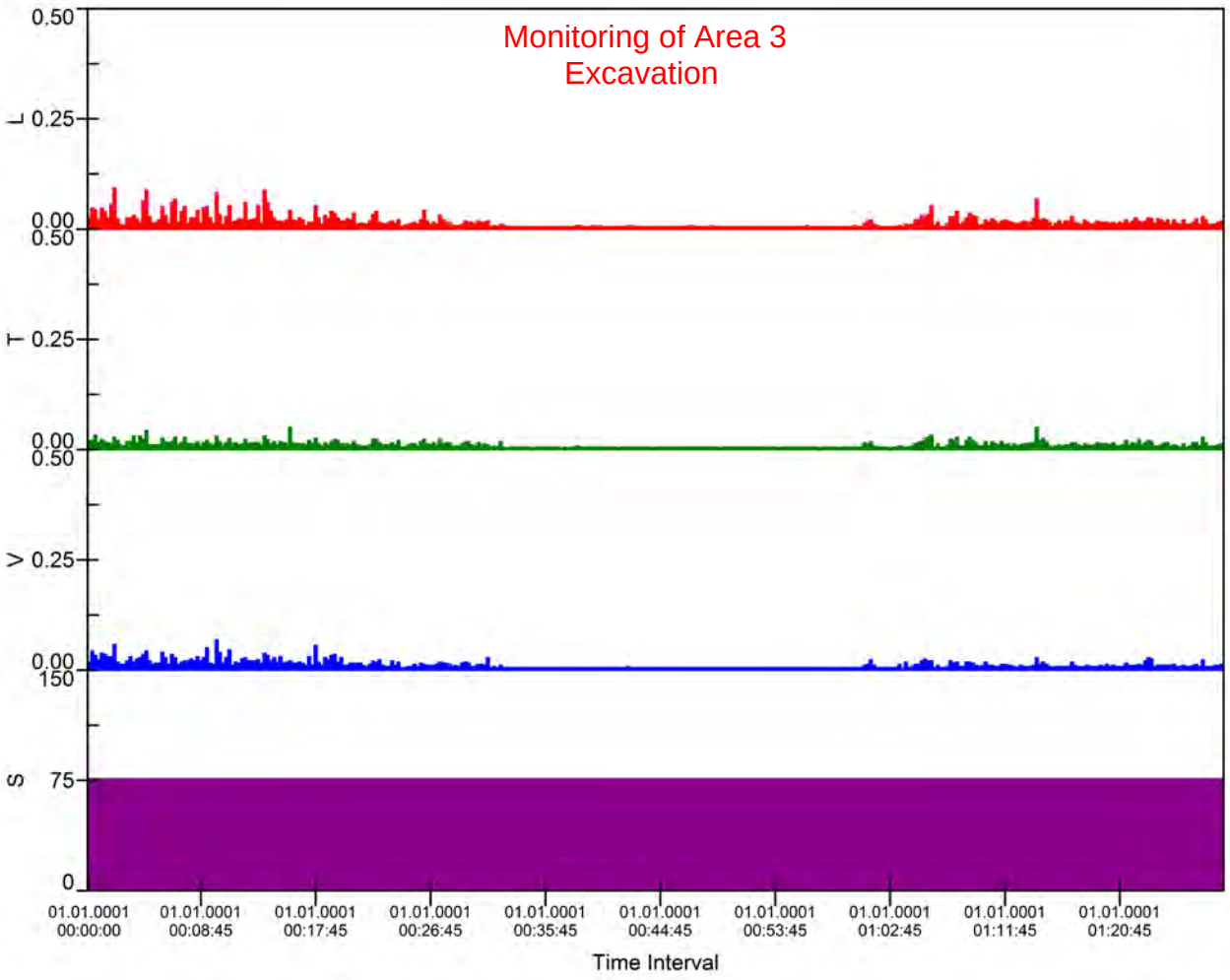
Continuous Monitor Recording Summary Data

	L	T	V
PPV (in/s)	0.093	0.050	0.068
FREQ (Hz)	27.8	15.2	50.0

Peak Air Pressure:	76 db
Sample Size:	1440
Interval Size:	15 seconds

Shaketable Calibrated: 03.07.2017
By: GeoSonics Inc.
359 Northgate Drive
Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 FAX: 724.934.2999

Continuous Monitor Analysis



GeoSonics Inc. Seismic Analysis
Continuous Monitor Analysis

Serial No:	8911 v5.25
Date:	20.09.2017 11:26:15
Event No:	4
Record Time:	10230 seconds
Client:	NATIONAL GRID
Operation:	
Location:	TROY (WATER ST) NY
Distance:	12
Operator:	BRAD VALIK
Comment:	
Additional Info:	

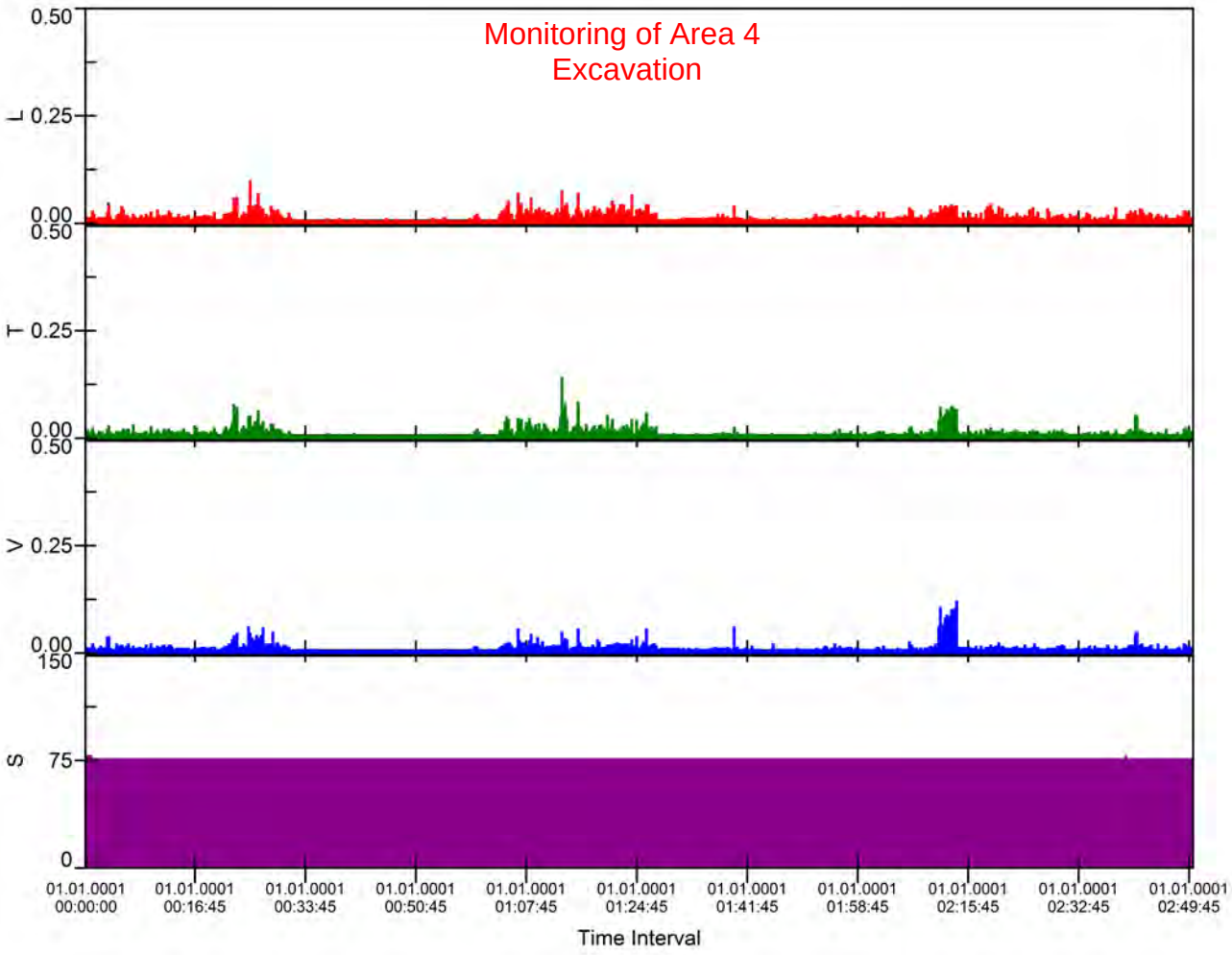
Continuous Monitor Recording Summary Data

	L	T	V
PPV (in/s)	0.098	0.140	0.120
FREQ (Hz)	12.5	16.1	38.5

Peak Air Pressure:	78 db
Sample Size:	1440
Interval Size:	15 seconds

Shaketable Calibrated: 06.07.2017
By: GeoSonics Inc.
359 Northgate Drive
Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 FAX: 724.934.2999

Continuous Monitor Analysis



GeoSonics Inc. Seismic Analysis
Continuous Monitor Analysis

Serial No:	8933 v5.25
Date:	20.09.2017 13:04:15
Event No:	5
Record Time:	4545 seconds
Client:	NATIONAL GRID
Operation:	
Location:	TROY (WATER ST) NY
Distance:	1
Operator:	BRAD VALIK
Comment:	

Additional Info:

Continuous Monitor Recording Summary Data

	L	T	V
PPV (in/s)	0.178	0.153	0.110
FREQ (Hz)	62.5	55.6	45.5

Peak Air Pressure: 76 db
Sample Size: 1440
Interval Size: 15 seconds

Shaketable Calibrated: 03.07.2017
By: GeoSonics Inc.
359 Northgate Drive
Warrendale, PA 15086 U.S.A.
TEL: 724.934.2900 FAX: 724.934.2999

Continuous Monitor Analysis