Pre-Design Investigation Report
837 Bailey Avenue Offsite IRM
North Properties
Buffalo, New York

Site Number C915298A

May 2022

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway
Albany, New York 12233

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List of Abbreviations and Acronyms

DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
E & E	Ecology and Environment Engineering and Geology, P.C.
EPA	(U.S.) Environmental Protection Agency
mg/kg	milligrams per kilogram
MS	matrix spike
MSD	matrix spike duplicate
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PDI	pre-design investigation
QAPP	Quality Assurance Project Plan
SOP	standard operating procedure
TestAmerica	Eurofins TestAmerica Laboratories, Inc.

1 Introduction

Pursuant to Work Assignment Number D009807-08, Ecology and Environment Engineering and Geology, P.C. (E & E) prepared this pre-design investigation (PDI) report for work performed at the offsite residential properties north of the 837 Bailey Avenue site (site) in the city of Buffalo, New York. These properties are associated with the site (Site Number C915298A). The site is located in the city of Buffalo, Erie County, New York (see Figure 1). This report was prepared on behalf of the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation (DER).

The primary objective of this report is to document the pre-remediation concentrations and extent of arsenic and lead in surface and subsurface soils used to determine excavation areas and depths required for remediation of each property parcel within the investigation area (see Figure 1). The property parcels included in this report were selected for investigation and remediation by the DER and the New York State Department of Health (NYSDOH).

The 837 Bailey Avenue Site is approximately 8.7 acres and is located in an urban area in the city of Buffalo near the intersection of Dingens Street and Bailey Avenue. A mix of commercial and residential properties surrounds the site. The Buffalo River is located approximately 0.75 miles south of the property, and the I-190 (Niagara Thruway) is located approximately 0.5 miles south and east of the property. The site is comprised of filled land with no building structures and is mostly enclosed with fencing. The property was used as an auto salvage/wrecking facility from at least 1940 to 2014, an automotive repair facility from at least 1946 to 1986, a tire recapping facility until at least 1950, and a filling station from at least 1946 to 1950 (EnSol, Inc. 2019).

Prior to remediation of the main site under the Brownfields Cleanup Program, the primary contaminants of concern were metals (arsenic, barium, cadmium, copper, lead, and mercury) and polycyclic aromatic hydrocarbons. Remedial actions successfully achieved soil cleanup objectives for commercial use and a cover system is in place. A certificate of completion, dated December 20, 2019, was issued for this remedial action, and residual contamination at the site is managed under a site management plan.

The northern properties consist of three parcels on Bailey Avenue (853, 861, and 863 Bailey Avenue) and four parcels on Dingens Street (11, 15, 17, and 19 Dingens Street) that are part of the offsite cleanup area work performed under the New York State Superfund Program.

2 Investigation Summary

The PDI for the selected parcels consisted of investigating the level and extent of arsenic and lead contamination in soils. Activities included boundary, base map, and topographic surveys of individual property parcels; installation of 51 soil borings across seven parcels; collection of surface and subsurface soil samples from the borings; and laboratory analysis of soil samples (see Appendix A for locations).

The initial PDI sampling event was conducted on June 24 and 25, 2020. Data gap sampling occurred August 19, 2020 and a single ash sample was collected November 17, 2021. Properties sampled included 853, 861, and 863 Bailey Avenue; and 11, 15, 17, and 19 Dingens Street. Activities were conducted in accordance with the Pre-Interim Remedial Design Investigation Sampling and Analysis Plan (E & E 2020a) and Master Quality Assurance Project Plan (QAPP; E & E 2020b).

A summary of the field procedures and modifications to the planned field investigation is provided in the following subsections. Sample locations are shown on individual parcel figures in Appendix A.

2.1 Pre-field Investigation Activities

In April 2020, letters indicating NYSDEC's intention to proceed with remedial design and construction at the northern properties were mailed to the owners of the properties along with access agreements for their signatures.

Prior to initiating on-site activities, E & E contacted each property owner who had granted access to their property by phone to inform them of the proposed sampling date and discuss any property access restrictions (such as opening gates when dogs are present). E & E's drilling subcontractor contacted Dig Safely New York to request mark-out of underground utilities prior to beginning intrusive activities.

Proposed sampling locations were initially determined on a random rectangular 30- by 30-foot grid. Grid spacing meets the requirements of NYSDEC's DER-10 guidance, Section 5.4(b), which calls for post-excavation confirmation sampling on a grid no larger than 900 square feet (NYSDEC 2010). Points were placed within each grid box and manually moved or removed on individual properties based on the presence of historical sampling locations, structures, or surface ob-

structions. Additional sampling locations were added on properties where planting areas or other features to be protected or restored were observed. E & E personnel marked the proposed sampling locations in the field with paint or flags, and they made some additional adjustments based on actual conditions encountered on the property, including utility locations identified by the Dig Safely New York mark-out. These sample locations were then surveyed by a licensed land surveyor, Ravi Engineering and Land Surveying of Rochester, New York.

2.2 Direct-push Soil Borings and Grab Sampling

A total of 51 soil borings/sampling locations were installed on seven property parcels, during the PDI. The soil boring locations are shown on the property figures in Appendix A and soil boring logs are presented in Appendix B.

All soil borings were labeled with the property address (e.g., 11DINGENS, 853BAILEY) as well as a sequential sample location on the property (e.g., -01, -02).

Following completion of soil sampling, the direct-push borings in grass areas were backfilled with topsoil, while borings in asphalt were backfilled with topsoil and sealed at the top with 3 inches of cold-patch asphalt.

The majority of the soil boring locations were collected to a depth of 4 feet below grade, and up to six soil samples were collected from each of these borings from the following depth intervals: 0 to 3 inches, 3 to 6 inches, 6 to 9 inches, 9 to 12 inches, 12 to 18 inches, and 18 to 24 inches.

The majority of soil borings were installed by LaBella Associates of Buffalo, New York, using a Geoprobe Model 6620DT direct-push machine and 2¼-inch-diameter Macro-Core® probing rods with 1½-inch-diameter dedicated sleeves. In some instances, a hand-driven, 3-inch-diameter, stainless-steel soil auger was used by E & E where access was limited for the Geoprobe or needed to collect data gap samples. LaBella was subcontracted by E & E during this investigation and worked under the supervision of the E & E field team leader.

For soil borings installed using dedicated Macro-Core sleeves, the only portion of the direct-push tooling that contacted the soil samples besides the sleeves was the cutting shoe of the Macro-Core casing. The shoe and the casing itself were decontaminated before each use. When used, hand augers were also decontaminated before each use. Decontamination of all equipment, including stainless-steel spoons used for mixing soil samples was performed by scrubbing with a laboratory-grade detergent (e.g., Alconox) solution, rinsing the equipment with potable water, rinsing with 5% to 10% nitric acid solution, and performing a final rinse with deionized water.

Soils encountered during soil boring installation were generally comprised of topsoil with organics, underlain by sub-soils that mostly consisted of dark- to light-brown silt and silty loam with varying proportions of sand, gravel, clay, and

wood. Suspected or possible fill material, indicated by the presence of black angular material, white and grey ash, and debris, was observed at some locations between the topsoil and clay sub-soil.

Soil samples were collected from the sampling device using stainless-steel spoons. The soil from specific depth intervals was placed in a dedicated paper bowl and homogenized with the spoon prior to transfer to the laboratory container.

During the sampling event, the top six samples (to 24 inches) were collected and analyzed. The remaining portion of the cores below 24 inches deep were archived by E & E for possible sampling and analysis on a later date. Only one such instance occurred at 17 Dingens Street sample -03, which required further analysis at intervals: 24 to 30 inches, 30 to 36 inches, 36 to 42 inches and 42 to 48 inches, in order to establish vertical extent of contamination.

In regard to 19 Dingens Street, during remedial construction it was observed that an ash layer originating from the 837 Bailey Site had extended onto southern portions of the northern properties. This observation prompted the NYSDEC to require a previous contractor responsible for the 837 Bailey Avenue site, to perform additional excavation to remove the observed areas of the ash layer suspected to be on the site itself. While the contractor performed the excavation; at the direction of NYSDEC, E & E, acting as a NYSDEC observer, collected a sidewall grab sample along the southwestern boundary of 19 Dingens to characterize the extent of possible contamination on the property (the owner of 19 Dingens declined remediation by NYSDEC). The sample encompassed an approximately 3-foot ash layer beginning at approximately 10 inches below ground surface and was collected using a clean nitrile glove.

All sample analyses were conducted by a NYSDEC-contracted laboratory, Eurofins TestAmerica Laboratories, Inc. (TestAmerica), and analyzed at either their Amherst, New York, or Edison, New Jersey, laboratory for total arsenic and lead.

2.3 Investigation-derived Waste Management

The following types of investigation-derived waste were generated during this investigation: unused soil from Macro-Cores, Macro-Core plastic sleeves, decontamination water, and spent personal protective equipment, primarily gloves.

The minimal amount of excess soil cuttings and decontamination liquids generated during the sampling event were combined with similar remediation wastes (excavated soil and contact water) for disposal by NYSDEC's remediation contractor.

2.4 Sample Handling and Analysis

Soil samples were collected in containers provided by TestAmerica. All samples were labeled with unique location codes and sample codes and stored on ice pending delivery to the laboratory.

All samples were tested for total arsenic and lead using U.S. Environmental Protection Agency (EPA) SW-846 Method 6010C (inductively coupled plasma). Reports were consistent with NYSDEC Analytical Services Protocol Category B deliverable requirements, and data were provided in NYSDEC EQuIS electronic data deliverables for review by E & E. Laboratory reports are provided in Appendix C.

2.5 Quality Assurance/Quality Control

Quality assurance/quality control samples, including field duplicates, rinsate blanks, and matrix spike (MS)/matrix spike duplicate (MSD) sample sets were collected in accordance with the specifications of E & E's Master QAPP for NYSDEC projects (E & E 2020b). Field duplicates and MS/MSD samples were collected at the rate of one per 20 field samples. Rinsate blanks were collected at a rate of one per day to test the decontamination procedures used on reusable sampling equipment.

Duplicate samples provide insight into the homogeneity of the sample matrix and establish a degree of confidence in the precision of field sampling and analytical method. Soil duplicates were collected by homogenizing the sample matrix, then filling additional laboratory jars. A review of the duplicate sample results is provided in the Data Usability Summary Reports (DUSRs) provided in Appendix D. If the relative percent difference between the original and duplicate sample results exceeded data review guidelines, "J" flags are added to indicate that the results are estimated. Overall, the samples exhibited good precision between duplicate/replicate sample preparations, and there were no impacts on data usability associated with the field duplicate/replicate sample results.

In addition to analytical error introduced by machinery and sample handling, error can also occasionally result from analytical process interference by a sample matrix. This can result in the reporting of analytes at concentrations higher or lower than the true concentrations. Laboratory duplicates or MSDs are aliquots of the same sample that are split prior to analysis and are treated exactly the same throughout the analytical method. The relative percent difference between the MS and MSD samples or between the normal and the laboratory duplicate indicate the precision of the analytical method. There were several instances where the native concentration in the soil sample was outside of acceptance criteria in the MS, MSD, or serial dilutions. In instances where the MS or MSD failed recovery criteria, the post-digestion spike was found to be acceptable, indicating that matrix interference was present and laboratory precision was not an issue. In these cases, the results in the parent samples were qualified "J" as estimated.

Rinsate blanks were collected daily during the sampling event when pouring deionized water over decontaminated sample equipment. Rinsate blanks were analyzed for total arsenic and lead and neither were detected in any of the blanks.

2.6 Data Review

All laboratory deliverables were reviewed in accordance with the QAPP (E & E 2020b). The data were qualified following EPA Region 2 standard operating procedure (EPA 2016). DUSRs were prepared as specified in NYSDEC's Guidance for the Development of Quality Assurance Plans and DUSRs (NYSDEC 2010) for each property. The data review included an evaluation of the following:

- Holding times;
- Initial and continuing calibration;
- Reporting limits/dilutions;
- Calibration blanks and method blanks;
- MS/MSD samples;
- Laboratory control samples;
- Field duplicates; and
- Interference checks.

E & E's data validation chemist prepared the DUSRs (see Appendix D). Any deviations from acceptable quality control specifications are discussed in the DUSRs. Qualifiers were added to the data, if appropriate, to indicate potential concerns with data usability. There were no significant impacts on data usability.

3 Analytical Results

This section presents the analytical results for the soil sampling activities to develop an understanding of the extent of soil contamination at the north properties. A total of 298 normal field samples were analyzed as part of the north properties PDI.

Arsenic was detected in all samples collected from the north properties in the range of 1.8 to 34.9 milligrams per kilogram (mg/kg or parts per million). The median concentration of arsenic was 10 mg/kg. Approximately 16% of the samples contained arsenic concentrations above the remedial goal of 16 mg/kg.

Lead was detected in all samples collected from the north properties in the range of 11.8 mg/kg to 4,170 mg/kg. The median concentration of lead was 244 mg/kg. Approximately 32% of the samples contained lead concentrations above the remedial goal of 400 mg/kg.

Total arsenic and lead concentrations reported in all samples collected during this investigation are provided on the property figures in Appendix A.

The ash sample collected after remediation of nearby properties near the southwest corner of 19 Dingens contained arsenic at 14.6 mg/kg and lead at 688 mg/kg. These concentrations are included with the property figure in Appendix A.

These analytical results, as well as the figures provided in Appendix A, were used to develop the property-specific preliminary remedial excavation plans that were presented to NYSDEC and NYSDOH during development of remedial excavation site plans with one exception. The owner of 19 Dingens Street allowed access to their property for sampling but declined remediation and a remedial excavation plan was not prepared.

4 References

Ecology and Environment Engineering and Geology, P.C. 2020a. *Pre-Interim Remedial Design Investigation Sampling and Analysis Plan, 837 Bailey Avenue Offsite IRM, NYSDEC Site No. C915298A, Buffalo, New York.* Prepared for New York State Department of Environmental Conservation, Albany, New York, June 2020.

_____. 2020b._*Master Quality Assurance Project Plan (QAPP) for New York State Department of Environmental Conservation Projects*. Prepared for New York State Department of Environmental Conservation, Albany, New York, May 2020.

EnSol, Inc. 2019. *Remedial Investigation/Alternative Analysis Report for 837 Bailey Ave. Site, Buffalo, NY, NYSDEC BCP Site No. C915298,* prepared for Near Dingens, LLC, May 2019 (Rev. July 2019).

New York State Department of Environmental Conservation (NYSDEC). 2010. *DER-10, Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation, Albany, New York, May 2010.

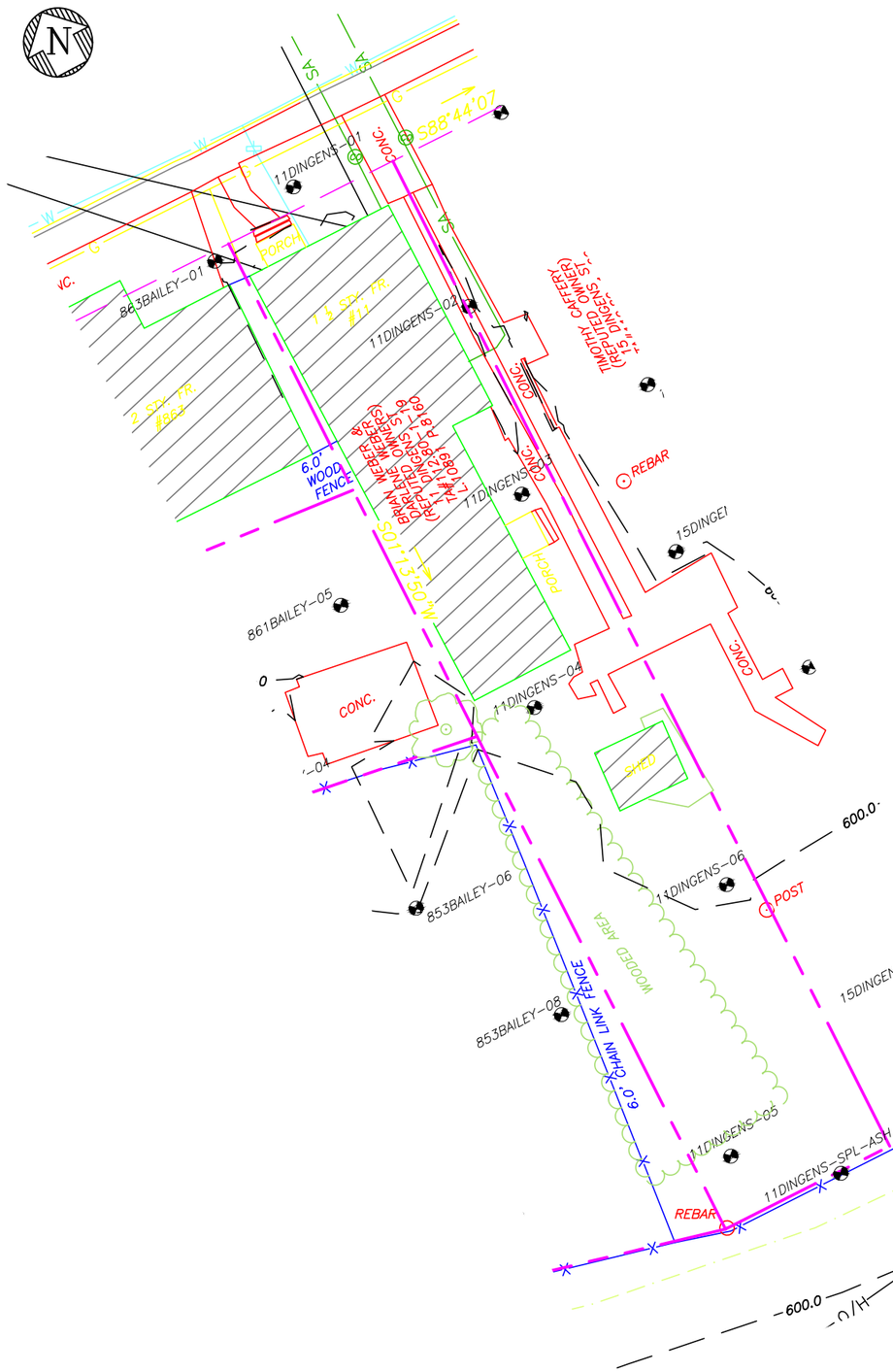
U.S. Environmental Protection Agency (EPA) Region 2. 2016. *Hazardous Waste Support Section, SOP No. HW-3a Revision 1, ISM02.2, ICP-AES Data Validation*. New York, New York, September 2016.

Figures

Source: Google Earth 2020

Figure 1
837 Bailey Avenue Off-Site
Project 837 Bailey Avenue,
Buffalo, New York
Site No. C915298A

A Analytical Results Figures for North Properties



SCALE IN FEET

0 20 40 60

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LEGEND

- SURVEY CONTROL POINT
- SURVEY BENCHMARK
- UTILITY LIGHT POLE
- UTILITY POLE
- PEDESTRIAN LIGHT POLE
- POST
- FLAG POLE
- SIGN
- CONIFEROUS SHRUB
- TREE STUMP
- DECIDUOUS SHRUB
- DECIDUOUS TREE
- CONIFEROUS TREE
- UTILITY ELECTRIC METER
- UTILITY ELECTRIC MANHOLE
- UTILITY SANITARY MANHOLE
- UTILITY TELEPHONE MANHOLE
- UTILITY DRAINAGE MANHOLE
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- UTILITY WATER VALVE
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- UTILITY VENT
- UTILITY PULLBOX
- LANDSCAPE BOULDER
- UTILITY OVERHEAD WIRES
- UTILITY UNDERGROUND ELECTRIC
- UTILITY UNDERGROUND GAS MAIN
- UTILITY COMBINED SANITARY SEWER
- UTILITY STORM SEWER
- UTILITY UNDERGROUND WATER MAIN
- PROPERTY LINE

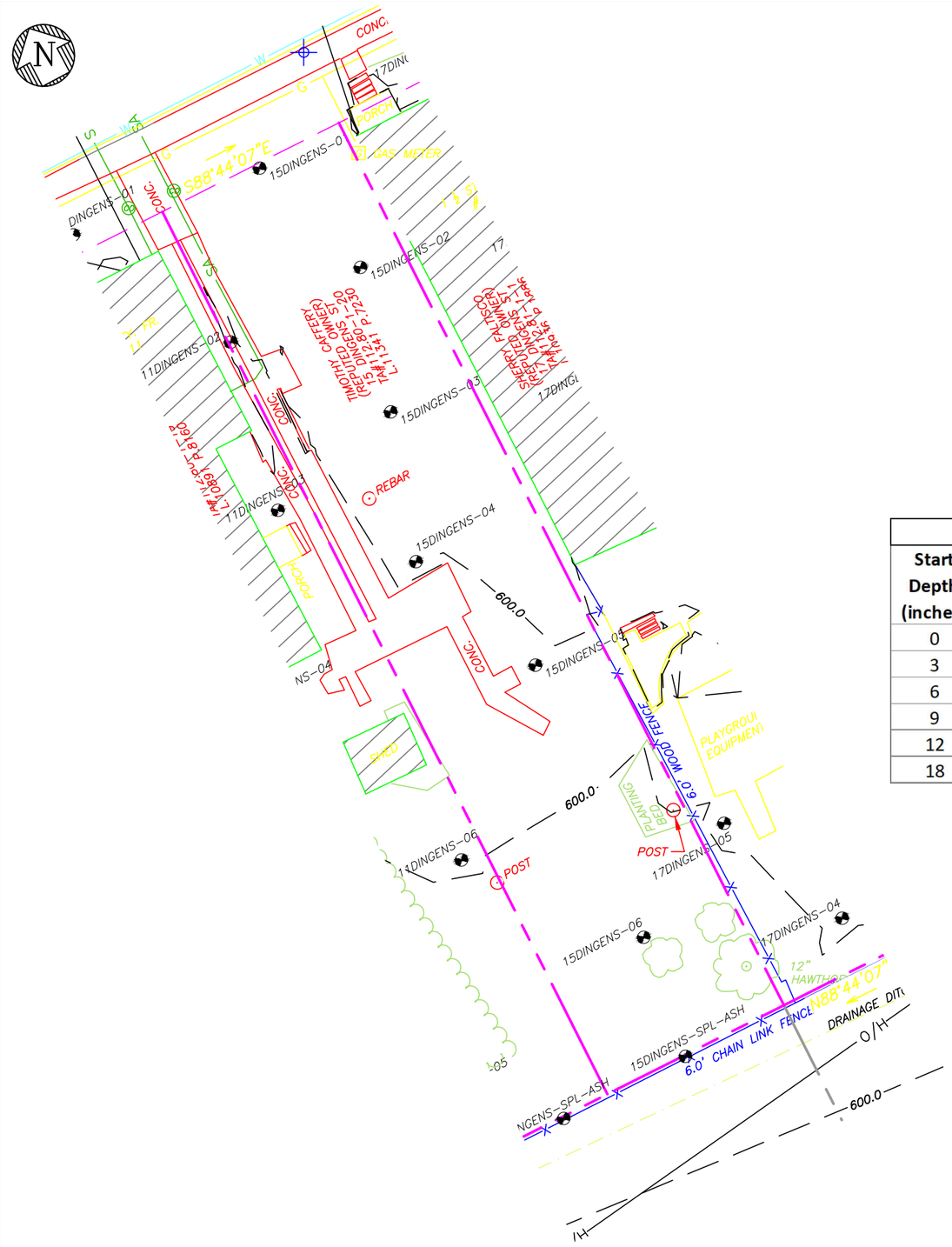
2020 Analytical Results for 11 Dingens Street

Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)											
		11DINGENS-01		11DINGENS-02		11DINGENS-03		11DINGENS-04		11DINGENS-05		11DINGENS-06	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	9.9	**794**	**23.1**	**4170**	**17.0**	**3170**	**22.3**	**3510**	11.0	**1280**	**18.6**	**781**
3	6	7.9	166	**22.4 J**	**2520**	**23.4**	**2130**	**23.9**	**3480**	8.8	224	**18.8**	**748**
6	9	5.5	110	15.2	244	**17.0**	**1030**	**17.3**	**1550**	9.4	57.6	**19.1**	388
9	12	7.7	31.6	4.4	17.1	9.1	116	9.1	64.7	9.0	43.6	11.7	296
12	18	8.9	46.3	5.7	16.2	8.0	89.5	10.9	57.7	9.9	146	3.5	32.0
18	24	8.6	30.9	8.0	19.8	8.2	98.3	7.3	19.1	7.5	65.3	7.1	19.8
24	36												

NOTES

1. FIGURE PREPARED BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C.
2. BASE MAP SURVEY BY RAVI ENGINEERING AND LAND SURVEYING, P.C.
3. NYSDEC ANALYTICAL RESULTS PROVIDED BY EUROFINS TESTAMERICA.
4. DATA VALIDATION BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C. ANALYTES FLAGGED "J" WERE POSITIVELY IDENTIFIED AND THE ASSOCIATED VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE. SHADED VALUES IN TABLES EXCEED SOIL CLEANUP OBJECTIVES.

ANALYTICAL RESULTS
PROPERTY ID: 11 DINGENS
11 DINGENS STREET
BAILEY AVENUE
BUFFALO, NEW YORK



LEGEND

SURVEY CONTROL POINT		UTILITY ELECTRIC MANHOLE	
SURVEY BENCHMARK		UTILITY SANITARY MANHOLE	
UTILITY LIGHT POLE		UTILITY TELEPHONE MANHOLE	
UTILITY POLE		UTILITY DRAINAGE MANHOLE	
PEDESTRIAN LIGHT POLE		UTILITY UNKNOWN MANHOLE	
POST		UTILITY DRAINAGE CATCHBASIN	
FLAG POLE		UTILITY FIRE HYDRANT	
SIGN		UTILITY WATER VALVE	
CONIFEROUS SHRUB		UTILITY UNKNOWN VALVE	
TREE STUMP		UTILITY VENT	
DECIDUOUS SHRUB		UTILITY PULLBOX	
DECIDUOUS TREE		LANDSCAPE BOULDER	
CONIFEROUS TREE		UTILITY OVERHEAD WIRES	O/H
UTILITY ELECTRIC METER		UTILITY UNDERGROUND ELECTRIC	E
		UTILITY UNDERGROUND GAS MAIN	G
		UTILITY COMBINED SANITARY SEWER	SA
		UTILITY STORM SEWER	ST
		UTILITY UNDERGROUND WATER MAIN	W
		PROPERTY LINE	

2020 Analytical Results for 15 Dingens Street

Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)											
		15DINGENS-01		15DINGENS-02		15DINGENS-03		15DINGENS-04		15DINGENS-05		15DINGENS-06	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	10.5	395	7.1	168	7.0	250	6.1	45.8	**29.0**	**999**	**23.8**	**1540**
3	6	8.2	286	5.6	20.8	8.1	**811**	10.8	387	**17.8**	258	7.0	159
6	9	8.0	69.2	5.8	19.3	4.6	196	10.4	339	7.5	107	4.1	21.5
9	12	7.4	25.1	7.3	16.8	6.9	15.5	9.5	183	4.6	52.1	4.6	11.8
12	18	7.8	19.8	8.8	19.9	8.1	16.4	8.1	177	5.2	58.8	9.0	18.2
18	24	7.5	17.5	8.9	19.9	8.2	15.8	6.7	101	7.1	49.3 J	7.4	13.4

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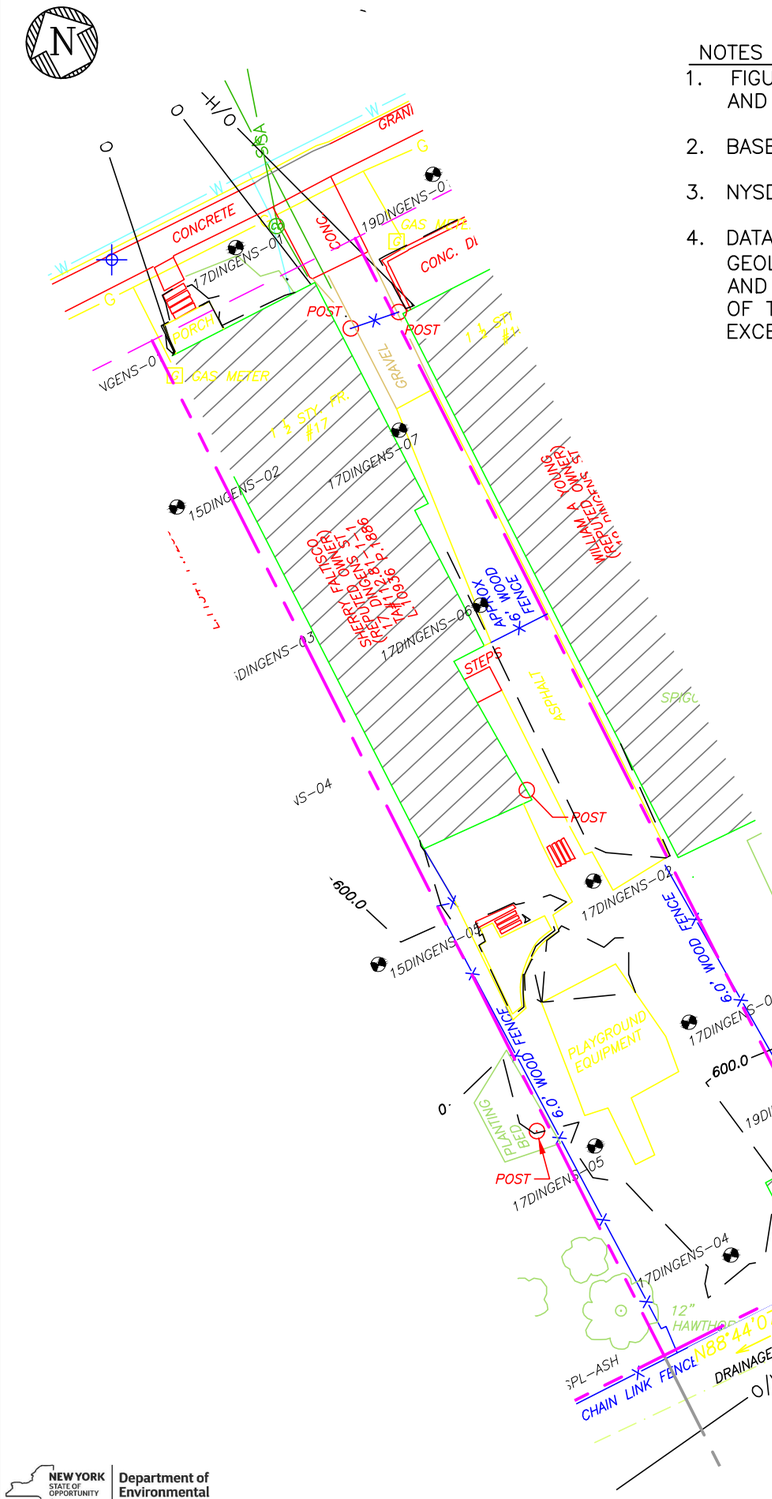
ANALYTICAL RESULTS
PROPERTY ID: 15 DINGENS
15 DINGENS AVENUE
BAILEY AVENUE
BUFFALO, NEW YORK



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LEGEND

- SURVEY CONTROL POINT
- SURVEY BENCHMARK
- UTILITY LIGHT POLE
- UTILITY POLE
- PEDESTRIAN LIGHT POLE
- POST
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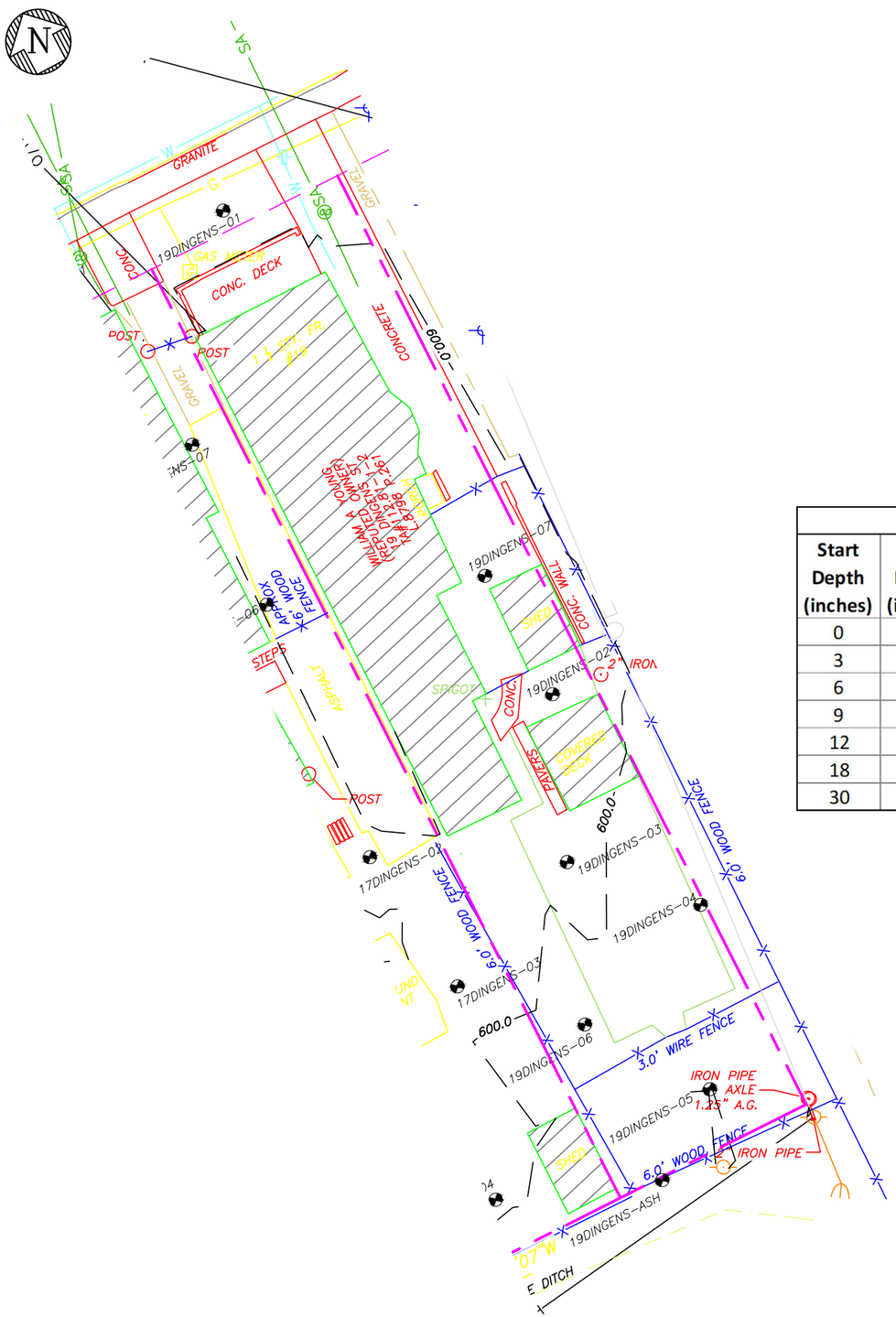
- UTILITY PULLBOX
- LANDSCAPE BOULDER
- UTILITY OVERHEAD WIRES
- UTILITY UNDERGROUND ELECTRIC
- UTILITY UNDERGROUND GAS MAIN
- UTILITY COMBINED SANITARY SEWER
- UTILITY STORM SEWER
- UTILITY UNDERGROUND WATER MAIN
- PROPERTY LINE

2020 Analytical Results for 17 Dingens Street

Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)													
		17DINGENS-01		17DINGENS-02		17DINGENS-03		17DINGENS-04		17DINGENS-05		17DINGENS-06		17DINGENS-07	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	8.5	375	**17.5**	**558**	10.3	390	13.2	**735**	9.9	**441**	Asphalt	Asphalt	5.4	**622**
3	6	9.4	207	13.4	**472**	8.8	370	15.2	**4120**	11.3	370	14.4	**972**	12.9	**462**
6	9	9.8	104	**18.7**	**1250**	8.3	267	**17.8**	**720**	12.0	**451**	15.2	**850**	8.3	105
9	12	8.2	45.2	13.0	397	14.2	**433**	**18.0**	**849**	**22.3**	**459**	10.6	114	12.9	66.9
12	18	9.4	31.8	12.2	**557**	**16.5**	386	8.2	393 J	10.2	397	8.0	48.9	8.8	28.8
18	24	7.3	61.8	9.6	395	13.1	**637**	8.7	83.7	2.6	16.2				
24	30					5.7	174								
30	36					12.1	20.8								
36	42					13.3	26.3								
42	48					9.5	17.4								

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ANALYTICAL RESULTS
PROPERTY ID: 17 DINGENS
17 DINGENS STREET
BAILEY AVENUE
BUFFALO, NEW YORK



LEGEND

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- UTILITY OVERHEAD WIRES
- UTILITY UNDERGROUND ELECTRIC
- UTILITY UNDERGROUND GAS MAIN
- UTILITY COMBINED SANITARY SEWER
- UTILITY STORM SEWER
- UTILITY UNDERGROUND WATER MAIN
- PROPERTY LINE

2020 and 2021 Analytical Results for 19 Dingens Street

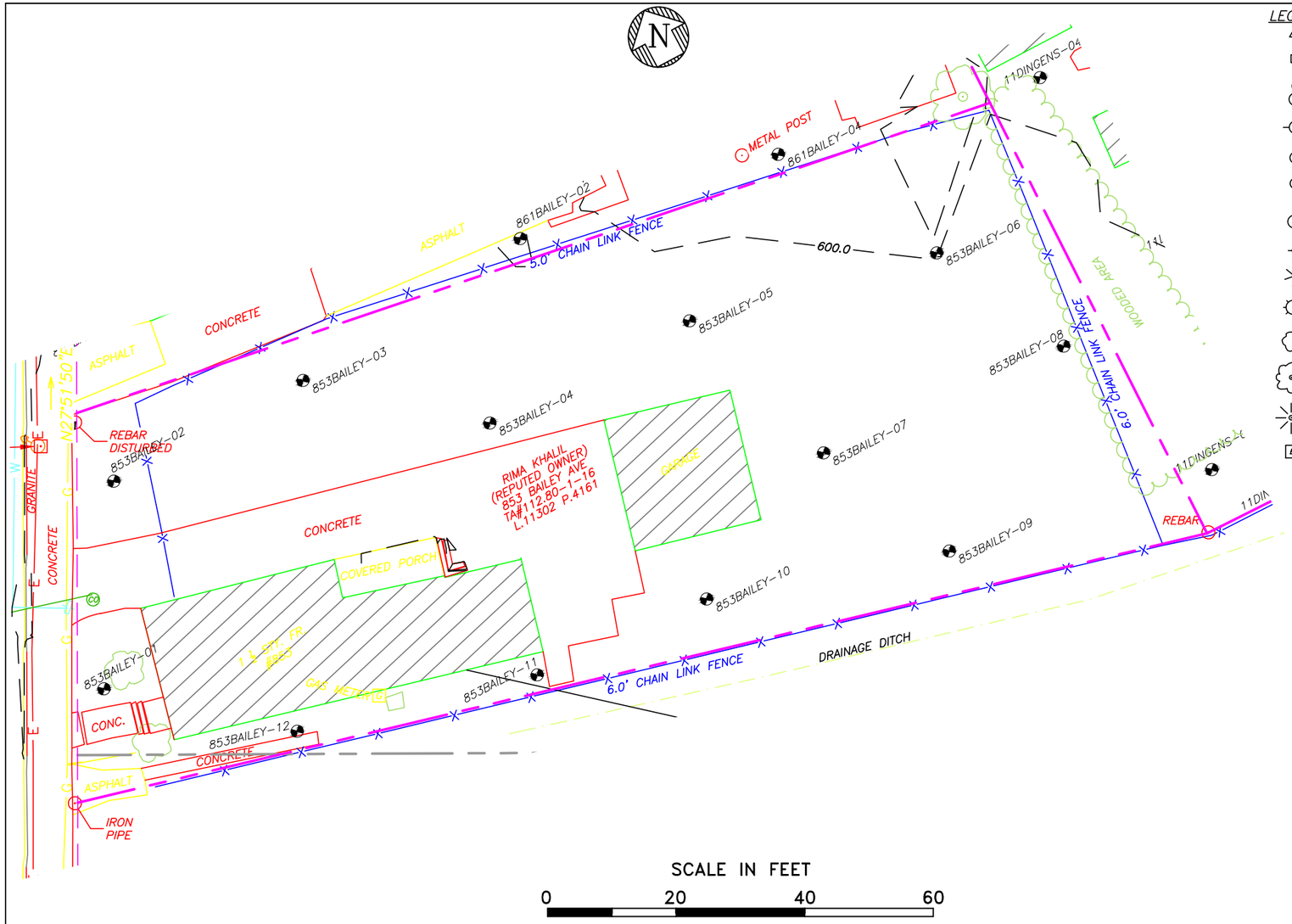
Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)															
		19DINGENS-01		19DINGENS-02		19DINGENS-03		19DINGENS-04		19DINGENS-05		19DINGENS-06		19DINGENS-07		19DINGENS-ASH	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	10	335	7.9	**869**	11.5	**787**	9.1	**473**	**17.8**	**762**	11.3	374	3.8	105		
3	6	9.8	243	7.9	**2030**	11.6	**842**	10	**596**	15.6	**820**	12.7	**461**	2.4	**2260**		
6	9	6.8	114	6.1	**852**	12.8	**967**	10.8	**762**	15.9	**1170**	13.2	**451**	1.8 J	23.2		
9	12	9.0	50.9 J	14.3	**1680**	15.3	**1070**	12.5	**937**	14.2	**1550**	**17.8**	**502**	12.6	**564**		
12	18	9.3	70.2	11.2	**1620**	12.4	**1180**	12.8	**623**	13.1	**859**	10.8	338	6.9	138		
18	24	8.1	24.2	9.3	**448**	8.5	391	9.5	**475**	13.6	**680**	3.2	23.0	5.4	67.4		
30	42															14.6	**688**

NOTES

1. FIGURE PREPARED BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C.
2. BASE MAP SURVEY BY RAVI ENGINEERING AND LAND SURVEYING, P.C.
3. NYSDEC ANALYTICAL RESULTS PROVIDED BY EUROFINS TESTAMERICA.
4. DATA VALIDATION BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C. ANALYTES FLAGGED "J" WERE POSITIVELY IDENTIFIED AND THE ASSOCIATED VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE. SHADED VALUES IN TABLES EXCEED SOIL CLEANUP OBJECTIVES.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ANALYTICAL RESULTS
PROPERTY ID: 19 Dingens
19 DINGENS STREET
BAILEY AVENUE
BUFFALO, NEW YORK



SCALE IN FEET

0 20 40 60

LEGEND

SURVEY CONTROL POINT		E	UTILITY ELECTRIC MANHOLE
SURVEY BENCHMARK		S	UTILITY SANITARY MANHOLE
UTILITY LIGHT POLE		T	UTILITY TELEPHONE MANHOLE
UTILITY POLE			UTILITY DRAINAGE MANHOLE
PEDESTRIAN LIGHT POLE			UTILITY UNKNOWN MANHOLE
POST			UTILITY DRAINAGE CATCHBASIN
FLAG POLE			UTILITY FIRE HYDRANT
SIGN			UTILITY WATER VALVE
CONIFEROUS SHRUB			UTILITY UNKNOWN VALVE
TREE STUMP			UTILITY VENT
DECIDUOUS SHRUB			UTILITY PULLBOX
DECIDUOUS TREE			LANDSCAPE BOULDER
CONIFEROUS TREE		O/H	UTILITY OVERHEAD WIRES
UTILITY ELECTRIC METER		E E	UTILITY UNDERGROUND ELECTRIC
		G G	UTILITY UNDERGROUND GAS MAIN
		SA SA	UTILITY COMBINED SANITARY SEWER
		ST ST	UTILITY STORM SEWER
		W W	UTILITY UNDERGROUND WATER MAIN
			PROPERTY LINE

NOTES

1. FIGURE PREPARED BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C.
2. BASE MAP SURVEY BY RAVI ENGINEERING AND LAND SURVEYING, P.C.
3. NYSDEC ANALYTICAL RESULTS PROVIDED BY EUROFINS TESTAMERICA.
4. DATA VALIDATION BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C. ANALYTES FLAGGED "J" WERE POSITIVELY IDENTIFIED AND THE ASSOCIATED VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE. "N/A" IN THE TABLE INDICATES THAT A SAMPLE COULD NOT BE COLLECTED. SHADED VALUES IN TABLES EXCEED SOIL CLEANUP OBJECTIVES.

2020 Analytical Results for 853 Bailey Ave

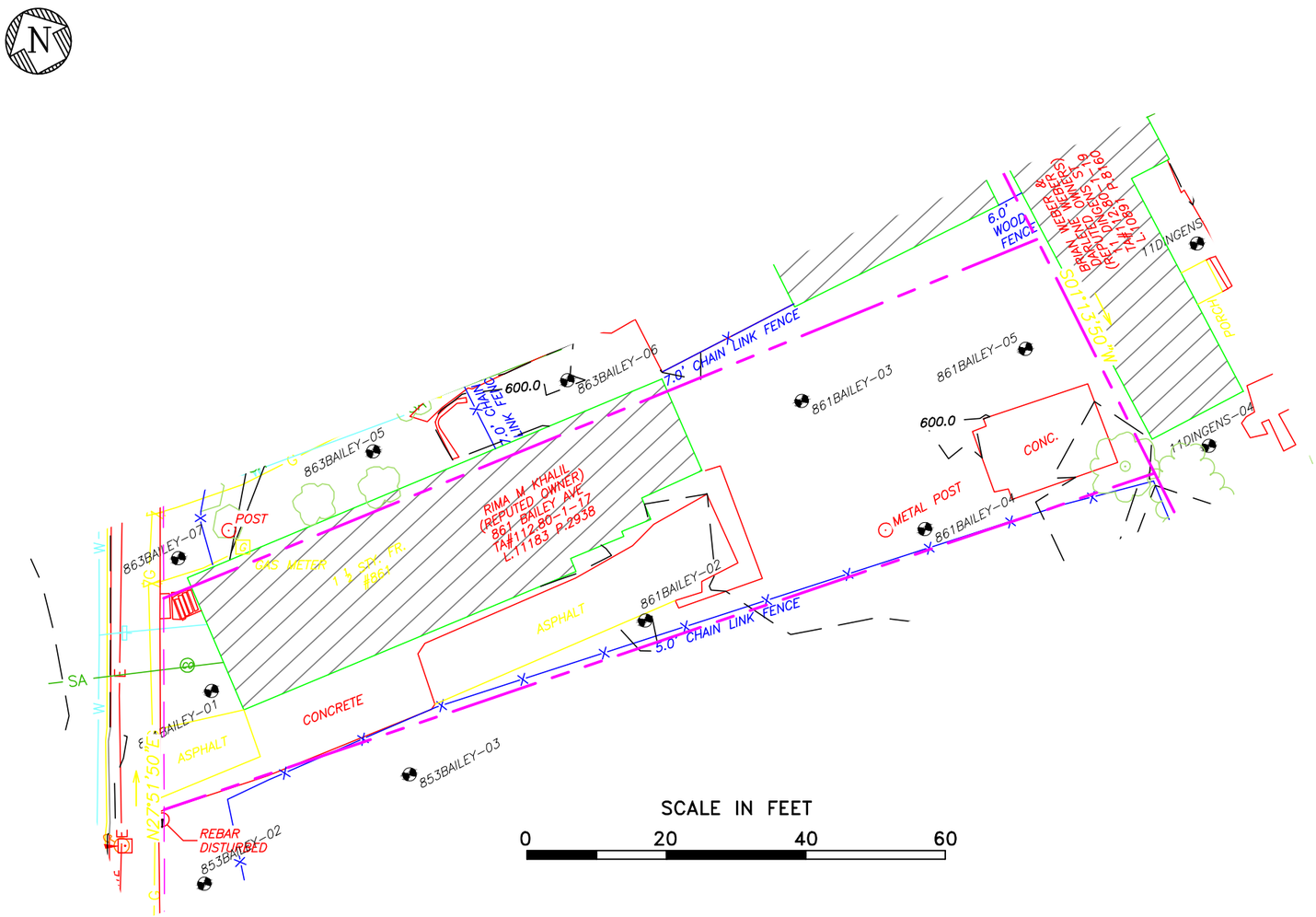
Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)											
		853BAILEY-01		853BAILEY-02		853BAILEY-03		853BAILEY-04		853BAILEY-05		853BAILEY-06	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	13.5	**426**	**16.5 J**	257	12.9	298	11.8	327	12.4	230	14.0	319
3	6	**20.8**	**424**	**25.5**	317	14.6	285	15.5	359	13.5	244	**16.7**	348
6	9	12.7	253	15.8	144	13.8	204	15.5	276	14.5 J	207	**17.4**	313
9	12	9.4	171	9.1	69.0	11.2	153	12.2	217	10.9	131	15.3	236
12	18	8.1	87.8	7.3	24.4	7.8	49.0	8.9	82.5	5.6	48.2	11.8	150
18	24	6.8	71.8	6.8	14.5	7.3	17.5	8.1	27.8	9.4	22.0	8.1	38.5

2020 Analytical Results for 853 Bailey Ave

Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)											
		853BAILEY-07		853BAILEY-08		853BAILEY-09		853BAILEY-10		853BAILEY-11		853BAILEY-12	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	13.0	387	**16.6**	**434**	N/A	N/A	15.1	246	13.3	**459**	**16.5**	**636**
3	6	16.0	244	**22.9**	368	**34.9**	**534**	**17.7**	223	14.5	**544**	**17.7**	**541**
6	9	9.5	81.9	**17.8**	313	**16.1**	316	13.5	91.3	**16.3**	**548**	15.5	318
9	12	6.3	57.8	8.0	81.0	13.3	227	8.5	53.1	**16.9**	**494**	10.3	193
12	18	4.2	26.2	5.8	39.8 J	8.1	83.2	5.7	23.4	11.7	247	9.1	150
18	24	9.0	28.3	9.7	22.4	10.0	22.4	5.6	15.4	8.1	59.5	8.2	32.6

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ANALYTICAL RESULTS
PROPERTY ID: 853 BAILEY
853 BAILEY AVENUE
BAILEY AVENUE
BUFFALO, NEW YORK



LEGEND

SURVEY CONTROL POINT		E	UTILITY ELECTRIC MANHOLE
SURVEY BENCHMARK		S	UTILITY SANITARY MANHOLE
UTILITY LIGHT POLE		T	UTILITY TELEPHONE MANHOLE
UTILITY POLE			UTILITY DRAINAGE MANHOLE
PEDESTRIAN LIGHT POLE			UTILITY UNKNOWN MANHOLE
POST			UTILITY DRAINAGE CATCHBASIN
FLAG POLE			UTILITY FIRE HYDRANT
SIGN			UTILITY WATER VALVE
CONIFEROUS SHRUB			UTILITY UNKNOWN VALVE
TREE STUMP			UTILITY VENT
DECIDUOUS SHRUB			UTILITY PULLBOX
DECIDUOUS TREE			LANDSCAPE BOULDER
CONIFEROUS TREE		O/H	UTILITY OVERHEAD WIRES
UTILITY ELECTRIC METER		E E	UTILITY UNDERGROUND ELECTRIC
		G G	UTILITY UNDERGROUND GAS MAIN
		SA SA	UTILITY COMBINED SANITARY SEWER
		ST ST	UTILITY STORM SEWER
		W W	UTILITY UNDERGROUND WATER MAIN
			PROPERTY LINE

NOTES

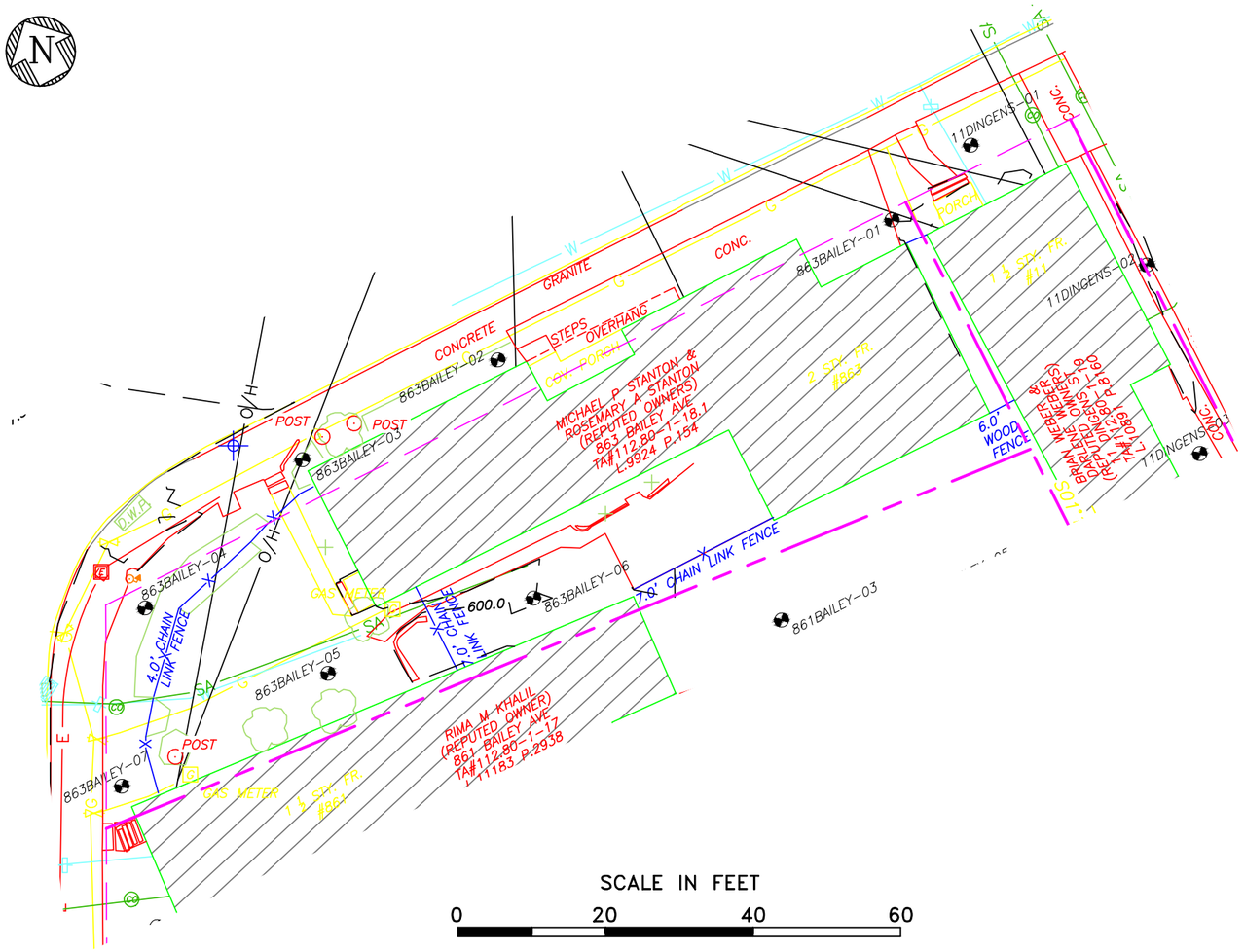
1. FIGURE PREPARED BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C.
2. BASE MAP SURVEY BY RAVI ENGINEERING AND LAND SURVEYING, P.C.
3. NYSDEC ANALYTICAL RESULTS PROVIDED BY EUROFINS TESTAMERICA.
4. DATA VALIDATION BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C. SHADED VALUES IN TABLES EXCEED SOIL CLEANUP OBJECTIVES.

2020 Analytical Results for 861 Bailey Ave

Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)									
		861BAILEY-01		861BAILEY-02		861BAILEY-03		861BAILEY-04		861BAILEY-05	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	13.9	213	10.3	**434**	**16.9**	**601**	15.8	**770**	**18.4**	**1040**
3	6	**20.0**	335	13.0	**589**	6.9	209	15.6	**758**	**17.1**	**808**
6	9	**19.6**	301	12.3	**446**	10.5	351	**16.1**	**910**	14.5	**537**
9	12	15.1	130	14.6	**548**	8.6	115	15.7	**414**	13.1	**414**
12	18	9.2	51.8	12.5	255	5.4	38.5	12.1	142	8.4	64.5
18	24	8.3	27.8	9.5	219	9.1	22.8	6.4	46.1	10.9	62.2

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ANALYTICAL RESULTS
PROPERTY ID: 861 BAILEY
861 BAILEY AVENUE
BAILEY AVENUE
BUFFALO, NEW YORK



LEGEND

△	SURVEY CONTROL POINT	(E)	UTILITY ELECTRIC MANHOLE
⊡	SURVEY BENCHMARK	(S)	UTILITY SANITARY MANHOLE
	UTILITY LIGHT POLE	(T)	UTILITY TELEPHONE MANHOLE
	UTILITY POLE		UTILITY DRAINAGE MANHOLE
	PEDESTRIAN LIGHT POLE		UTILITY UNKNOWN MANHOLE
	POST		UTILITY DRAINAGE CATCHBASIN
	FLAG POLE		UTILITY FIRE HYDRANT
	SIGN		UTILITY WATER VALVE
	CONIFEROUS SHRUB		UTILITY UNKNOWN VALVE
	TREE STUMP		UTILITY VENT
	DECIDUOUS SHRUB		UTILITY PULLBOX
	DECIDUOUS TREE		LANDSCAPE BOULDER
	CONIFEROUS TREE	O/H	UTILITY OVERHEAD WIRES
[E]	UTILITY ELECTRIC METER	E — E	UTILITY UNDERGROUND ELECTRIC
		G — G	UTILITY UNDERGROUND GAS MAIN
		SA — SA	UTILITY COMBINED SANITARY SEWER
		ST — ST	UTILITY STORM SEWER
		W — W	UTILITY UNDERGROUND WATER MAIN
			PROPERTY LINE

NOTES

1. FIGURE PREPARED BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C.
2. BASE MAP SURVEY BY RAVI ENGINEERING AND LAND SURVEYING, P.C.
3. NYSDEC ANALYTICAL RESULTS PROVIDED BY EUROFINS TESTAMERICA.
4. DATA VALIDATION BY ECOLOGY AND ENVIRONMENT ENGINEERING AND GEOLOGY, P.C. ANALYTES FLAGGED "J" WERE POSITIVELY IDENTIFIED AND THE ASSOCIATED VALUE IS THE APPROXIMATE CONCENTRATION OF THE ANALYTE IN THE SAMPLE. SHADED VALUES IN TABLES EXCEED SOIL CLEANUP OBJECTIVES.

2020 Analytical Results for 863 Bailey Ave

Start Depth (inches)	End Depth (inches)	Results in milligrams per kilogram (mg/kg)													
		863BAILEY-01		863BAILEY-02		863BAILEY-03		863BAILEY-04		863BAILEY-05		863BAILEY-06		863BAILEY-07	
		Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead	Arsenic	Lead
0	3	6.5	**695**	7.7	180	11.1	**688**	**17.0**	295	13.2	345	**17.4**	**861**	11.9	279
3	6	8.3	**1130**	9.3	34.2	11.5	**647**	13.9	150	15.1	361	13.2	**719**	15.8	310
6	9	11.0	**914**	9.5	39.4	11.7	**728**	9.0	44.7	15.6	344	13.2	**618**	**18.1 J**	308
9	12	10.7	**1030**	9.6	34.8	9.7	178	9.0	25.2	**17.7**	362	15.2	**669**	9.3	117
12	18	6.7	**520**	8.2	19.5	9.4	201	9.5	32.5	9.5	88.7	10.8	346	9.0	29.6
18	24	9.0	63.6	8.5	21.0	8.6	64.0	9.7	28.4	5.7	16.5	9.3	188	8.8	17.3

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

ANALYTICAL RESULTS
PROPERTY ID: 863 BAILEY
863 BAILEY AVENUE
BAILEY AVENUE
BUFFALO, NEW YORK

B Soil Boring Logs

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 853Bailey-01 Page 1 of 1

Property ID: 853Bailey-01

DATE		SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST		E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER		LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	853Bailey-01 -Z00-03	0-6.5" dark brown top soil with organics
					-Z03-06	6.5-10" dark brown silty loam
					-Z06-09	10-24" light brown silty clay
1					-Z09-12	
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 853Bailey-02 Page 1 of 1

Property ID: 853Bailey-02

DATE	6/25/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Micel	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	853Bailey-02-Z00-03	0-7" dark brown silty top soil browns dark brown silty loam @ 4"
					-Z03-06	
					-Z06-09	
1					-Z09-12	7-34" light brown silty clay
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Solutions

BORING No.: 853 Bailey -03 Page 1 of 1

Property ID: 853 Bailey-03

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.4

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.4	N/A	853Bailey03-Z00-03	0-4" dark brown topsoil with organics
					-Z03-06	4-14" dark brown silty loam
					-Z06-09	14-24" light brown silty clay
1					-Z09-12	
					-Z12-18	4-14 - trace black ashy fill material
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

- 4-14 trace black ashy fill
- high moisture content 20-24", and slight compaction

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Solutions

BORING No.: 853Bailey-04 Page 1 of 1

Property ID: 853Bailey-04

DATE	6/06/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Proch	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	853Bailey-04 -Z00-03	0-7" dark brown top soil with organics
					-Z03-06	
					-Z06-09	7-16" dark brown silty loam
1					-Z09-12	16-44" light brown silty clay
					-Z12-18	Note: 6-16" trace black ashy fill (ILM)
					-Z18-24	
2					-Z24-30	• 12-14 large gravel sized ashy fill / slag clast (ILM)
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 6-16" trace black ashy fill, large clast @ 12-14

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Solutions

BORING No.: 853Bailey-05 Page 1 of 1

Property ID: 853Bailey-05

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	853Bailey-05-Z00-03	0-5" dark brown topsoil with organics
					-Z03-06	5-13" dark brown silty loam with some clay
					-Z06-09	
					-Z09-12	13-24" light brown silty clay
1					-Z12-18	Note 7-12" trace black ashy fill
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 7-12 trace black ashy fill

Method of Completion / Backfill:

Signature: Jessica J. Miceli

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 853Bailey-06 Page 1 of 1

Property ID: 853Bailey-06

DATE		SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST		E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER		LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	853Bailey-06 -Z00-03	0-5" dark brown top soil with organics
					-Z03-06	5-16" dark brown silty loam with some clay
					-Z06-09	
1					-Z09-12	16-34" light brown silty clay
					-Z12-18	
					-Z18-24	Native
2						3-12" trace black and white ashy fill
					-Z24-30	
					-Z30-36	
3						
					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

3-12 trace black and white ashy fill

Method of Completion / Backfill:

Signature:

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Global Environmental Specialists

BORING No.: B53Bailey07 Page 1 of 1

Property ID: 853Bailey-07

DATE		SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST		E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER		LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.7

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.7	N/A	B53Bailey-07 -Z00-03	0 - 5" dark brown top soil with organics
					-Z03-06	5-12" dark brown silty loam with clay
					-Z06-09	12-24" light brown silty clay
1					-Z09-12	
					-Z12-18	Note 3-6 medium sized gravel
					-Z18-24	4 - 12" trace black ashy fill
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 4-12 trace black ashy fill.

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Solutions

BORING No.: 853 Bailey -08 Page 1 of 1

Property ID:

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	L. Mirel;	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.6

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.6	N/A	853 Bailey-08-Z00-03	0 - 6" dark brown top soil with organics
					-Z03-06	6 - 12" dark brown silty loam
					-Z06-09	12-24" light brown silty clay
1					-Z09-12	
					-Z12-18	Note: 7 - 12 trace black ash/ fill
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 853Bailey-09 Page 1 of 1
Property ID: 853Bailey-09

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mizel	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.4

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.4	N/A	853Bailey09-Z00-03	0-24" dark brown silty loam becomes light brown silty clay @ 17"
					-Z03-06	
					-Z06-09	
1					-Z09-12	
					-Z12-18	Note: 2-5 small gravel sized clasts of dolomite and glass
					-Z18-24	
2					-Z24-30	6.5-11" ~~trace~~ SLM
					-Z30-36	large gravel sized clasts of slag.
3					-Z36-42	
					-Z42-48	5-16 trace black and white ashy fill
4						
5						
6						
7						
8						

Comments

See notes →

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 853Bailey-10 Page 1 of 1
Property ID: 853Bailey-10

DATE	6/16/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mizeli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	853Bailey-10-Z00-03	0-7" dark brown silty loam with organics
					-Z03-06	
					-Z06-09	7-54" light brown silty clay
1					-Z09-12	
					-Z12-18	Note: 5-7" white ashy fill in trace amounts
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 5-7" trace white ashy fill

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 853 Bailey 11 Page 1 of 1

Property ID: 853 Bailey 11

DATE	6/25/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mizeli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.3

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.3	N/A	853 Bailey 11-Z00-03	0-13" dark brown silty loam with organics from 0-9"
					-Z03-06	
					-Z06-09	
1					-Z09-12	13-24" light brown silty clay
					-Z12-18	
					-Z18-24	Note: 7-15 trace black and white ashy fill
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 7-15 trace black and white ashy fill

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Solutions

BORING No.: 853Bailey-12 Page 1 of 1

Property ID: 853Bailey-12

DATE	6/16/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	C. McEli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	853Bailey12-Z00-03	0-8" dark brown top soil with organics
					-Z03-06	
					-Z06-09	
1					-Z09-12	8-24" dark brown silty clay becomes light brown clay @ 20"
					-Z12-18	
					-Z18-24	
2					-Z24-30	Note: ~~Base~~ SLM
					-Z30-36	4-7 trace white ashy fill
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 4-7 trace white ashy fill

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 861 BAILEY-01 Page ____ of ____

Property ID: _____

DATE	6/25/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	A. Jacobs	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	_____ Datum _____
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8' / 3.8'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	861 BAILEY-01 -Z00-03	0-10" Medium brown Sandy silt topsoil
					-Z03-06	with some organics
					-Z06-09	10-24" Light yellowish brown silt with
					-Z09-12	little sand and trace clay, compact.
1					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill: Topsoil

Signature: _____

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Global Environmental Specialists

BORING No.: 861BAILEY-02 Page ___ of ___

Property ID: _____

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	A. Jacobs	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	_____ Datum _____
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	2
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	1.2/20 and

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	861BAILEY-02 -Z00-03	0-10" Medium brown topsoil with organics sandy silt.
					-Z03-06	
					-Z06-09	10-24" Medium brown sandy silt w/ trace clay.
1					-Z09-12	
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Collected 6/24/20 2 cores, 1st drove to 2', second started at 2' and drove to 4'. Adjusting for compression 1" = 1.7".

Method of Completion / Backfill: Topsoil

Signature: _____

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 861 Bailey - 03 Page 1 of 1

Property ID: 861 Bailey - 03

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mizeli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	861Bailey-03 -Z00-03	0-7" brown (dark brown top soil with organics
					-Z03-06	
					-Z06-09	7-13" dark brown/gray silty clay
1					-Z09-12	13-24" light brown silty clay
					-Z12-18	
					-Z18-24	
2						
					-Z24-30	
					-Z30-36	
3						
					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Ground Environmental Specialists

BORING No.: 861Bailey-04 Page 1 of 1

Property ID: 861Bailey-04

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Mirelli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.6'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.6'	N/A	861Bailey-04 -Z00-03	0-7" dark brown silty loan topsoil
					-Z03-06	with organics from 0-4"
					-Z06-09	7-17" dark brown silty loan with clay
1					-Z09-12	17-34" light brown silty clay
					-Z12-18	Note: 0-15" trace black ashy fill
					-Z18-24	
2						
					-Z24-30	
					-Z30-36	
3						
					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 0-15" trace black ashy fill

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 861BAILEY-05 Page ___ of ___

Property ID: _____

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	A. Jacobs	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	_____ Datum _____
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8/3.8'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	861BAILEY-05-Z00-03	0-6" Medium brown topsoil Sandy Silt.
					-Z03-06	with organic
					-Z06-09	6-12" Medium brown Silt with trace
1					-Z09-12	black fine ashy material
					-Z12-18	12- Medium to light brown silty clay
						with trace black fine ashy material.
					-Z18-24	
2						
					-Z24-30	
					-Z30-36	
3						
					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Collected 6/24/20

Method of Completion / Backfill: Topsoil

Signature: [signature]

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Global Environmental Specialists

BORING No.: 863Bailey-01 Page 1 of 1

Property ID: 863 Bailey-01

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Mitch	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	1.6'/2

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	1.6	N/A	863Bailey-01 -Z00-03	0-7.5" dark brown topsoil with organics
					-Z03-06	7.5-12" dark brown silty loam
					-Z06-09	12-24" light brown silty clay
1					-Z09-12	
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: from 0-12" ~~actual~~ (SLIP) depths sampled are actual
from 12-24" depths adjusted for compaction where 1" = 1.3"

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
General Environmental Specialists

BORING No.: 863Bailey-02 Page 1 of 1

Property ID: 863Bailey-02

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Myeli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Skene	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.4

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.4	N/A	863Bailey-02 -Z00-03	0-.5" top soil with grass
					-Z03-06	.5-1.5" large gravel sized
					-Z06-09	1.5-24" light brown silty clay brown
1					-Z09-12	brown silty clay @ 16"
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 03 Page 1 of 1

Property ID: 863 Bailey

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dillon	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~LaBella~~	ELEVATION	~ Datum ~
DRILLER	NA	LOCATION COORDINATES	~ N / ~ E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	~~Macro-Core~~ hand auger
FINISHED TOTAL DEPTH	2

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	863 Bailey-03-Z00-03	0-6 brown silt with few organic
					-Z03-06	6-9 brown silt with tan silt
					-Z06-09	9-24 brown silt with few clay and
					-Z09-12	tan clay, increasing clay
1					-Z12-18	and tan clay with depth
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Sample time: 1430

Method of Completion / Backfill: Soil

Signature:

ecology and environment engineering, p.c.
Geological Environmental Scientists

BORING No.: 863 Bailey -04 Page 1 of 1

Property ID: 863 Bailey -04

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Pucci	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.3 / 3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft.)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.3	N/A	863 Bailey-04 -Z00-03	0-5" Brown / dark brown top soil with organics
					-Z03-06	
					-Z06-09	5-24" light brown silty clay becomes brown clay @ 18"
1					-Z09-12	
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

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Global Environmental Specialists

BORING No.: 05 Page 1 of 1

Property ID: 863 Bailey

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dillon	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~LaBella~~	ELEVATION	~ Datum ~
DRILLER	NA	LOCATION COORDINATES	~ N / ~ E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	~~Macro-Core~~ hand auger
FINISHED TOTAL DEPTH	2

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	863 Bailey-05 -Z00-03	0-18 dark brown silt w/ few organics
					-Z03-06	18-24 tan to brown silty clay
					-Z06-09	
					-Z09-12	
1					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Sample time: 1510

Method of Completion / Backfill: Soil

Signature:

ecology and environment engineering, p.c.
Geological Environmental Scientists

BORING No.: 06 Page 1 of 1

Property ID: 863 Bailey

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dillon	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~LaBella~~	ELEVATION	~ Datum ~
DRILLER	NA	LOCATION COORDINATES	~ N / ~ E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	~~Macro-Core~~ hand auger
FINISHED TOTAL DEPTH	2

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	863 Bailey-06-Z00-03	0-9 brown silt topsoil
					-Z03-06	9-18 dark brown silt with little clay and
					-Z06-09	tan to reddish brown clay
					-Z09-12	18-24 brown silt with clay and reddish
1					-Z12-18	brown clay, few gravel
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Sample time: 1540

Method of Completion / Backfill: Soil

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 863 Bailey-07 Page 1 of 1

Property ID: 863 Bailey-07

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mireti	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	863Bailey-07 -Z00-03	0-7" dark brown silty loam
					-Z03-06	7-24" light brown silty clay
					-Z06-09	
1					-Z09-12	
					-Z12-18	
					-Z18-24	
2						
					-Z24-30	
					-Z30-36	
3						
					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

ecology and environment engineering, p.c.
Global Environmental Specialists

BORING No.: 11 Dingens -01 Page 1 of 1

Property ID: 11 Dingens -01

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	Justin Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.2' / 3.6'

Depth (ft. BGS)	Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.2	N/A	11 Dingens-01-Z00-03	0-4" medium brown to dark brown top soil with organics
					11 Dingens-01-Z03-06	
					11 Dingens-01-Z06-09	4-9" medium brown silty loam
1					11 Dingens-01-Z09-12	9-24" light brown silty clay
					11 Dingens-01-Z12-18	Notes: 4-9" (JLM) trace black ashy fill with trace slagg
2					11 Dingens-01-Z18-24	
					-Z24-30	• 15-20 compaction and higher moisture content
3					-Z30-36	
					-Z36-42	
4					-Z42-48	
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature: [signature]

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BORING No.: 11 Dingens-02 Page 1 of 1

Property ID:

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	3/3
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	1.9'/2.0

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	1.9	N/A	11Dingens-02-Z00-03	0-3" brown to dark brown top soil with organics
					-Z03-06	
					-Z06-09	3-8" black ashy fill with some top soil and some slagg
1					-Z09-12	8-8.5" large gravel sized dolomite clasts
					-Z12-18	8.5"-16.3" dark brown silty clay (SM)
						8.5"-16.3" trace black ashy fill with slagg
					-Z18-24	16.3"-24" light brown silty clay
2						
					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: From 0-8" sampled depths are actual
8-24" depths adjusted for compaction 1" = 1.3"
3-8" black ashy fill / 8.5-16.3" trace black ashy fill (SM)

Method of Completion / Backfill:

Signature:

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BORING No.: 11Dingens-03 Page 1 of 1

Property ID: 11Dingens-03

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	8.7

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
0		N/A	3.7	N/A	11Dingens-03 -Z00-03	0-7" black/dark brown top soil with trace
					-Z03-06	black ashy fill
					-Z06-09	7-24" reddish brown silty clay becomes
1					-Z09-12	light brown silty clay @ 12"
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature: Jeff S Miceli

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BORING No.: 11 Dingens-04 Page 2 of 1

Property ID: 11 Dingens-04

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Mirch	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.5

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.5	N/A	11Dingens-04 -Z00-03	0-8" dark brown top soil
					-Z03-06	6-9" some black and white ashy fill with large gravel sized clasts of black ashy fill @ 8"
					-Z06-09	
					-Z09-12	
1					-Z12-18	9-34" light brown silty clay
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 6-9" some black ashy fill on white

Method of Completion / Backfill:

Signature: Justin V. Mirch

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BORING No.: 11 Digens -05 Page 1 of 1

Property ID: 11 Dingens-05

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Steve	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1/1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	11 Dingens-05 -Z00-03	0-3" brown topsoil with organics.
					-Z03-06	3-24" light brown silty clay
					-Z06-09	
1					-Z09-12	Note 3-7" trace black ashy fill
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments 3-7 trace black ashy fill

Method of Completion / Backfill:

Signature:

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BORING No.: II Dingens-06 Page 1 of 1

Property ID: II Dingens-06

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mirelli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.4

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.4	N/A	II Dingens-06 -Z00-03	0-2" light brown silty loam with organics
					-Z03-06	
					-Z06-09	2-13" dark brown silty loam
1					-Z09-12	13-24" light brown silty clay
					-Z12-18	Note: 2-10" trace black ashy fill
					-Z18-24	10-13" black and white ashy fill
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments
2-10" trace black ashy fill
11-12" large grain sized clast of white ashy fill material
10-13" white and black ashy fill

Method of Completion / Backfill:

Signature: Justin J. Mirelli

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BORING No.: 15Dingens-01 Page 1 of 1

Property ID: 15 Dingens-01

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Micli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.5' 13.8'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.5	N/A	15Dingens-01 -Z00-03	0-6" medium brown top soil with organics
					15Dingens-01 -Z03-06	
					15Dingens-01 -Z06-09	6-24" light brown silty clay becomes brown silty clay @ 20"
1					15Dingens-01 -Z09-12	
					-Z12-18	
					15Dingens-01	
					-Z18-24	
2					15Dingens-01	
					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature: Justin J. Micli

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BORING No.: 15Dingens-02 Page 1 of 1

Property ID: 15Dingens-02

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	15Dingens-02 -Z00-03	0-2" dark brown top soil with organics and trace red brick fill material
					-Z03-06	
					-Z06-09	2-10" light brown silty clay with trace black ashy fill
1					-Z09-12	
					-Z12-18	10-14 brown silty clay becomes brown clay @ 18"
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 2-10" black ashy fill in trace ammounts.

Method of Completion / Backfill:

Signature:

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BORING No.: 15Dingens-03 Page 1 of 1

Property ID: 15Dingens-03

DATE	6/24/2010	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mizeli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	15Dingens-03 -Z00-03	0-3" brown top soil with organics
					-Z03-06	3-5" reddish brown clay
					-Z06-09	5-9" brown sandy loam with some
					-Z09-12	black ashy fill
1					-Z12-18	9-24" light brown silty clay with some sand.
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 5-9" some black ashy fill

Method of Completion / Backfill:

Signature:

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BORING No.: 15 Dimens-04 Page 1 of 1

Property ID: 15 Dimens-04

DATE	6/29/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8'	N/A	15Dimens-04 -Z00-03	0-3" brown top soil with organics
					-Z03-06	3-4" brown silty clay
					-Z06-09	4-9" loose brown silty loam with some
1					-Z09-12	Gravel and some black ashy fill
					-Z12-18	9-24" medium brown silty clay becomes medium brown clay @ 20"
					-Z18-24	9-14 trace black ashy fill (SLM)
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

4-9" some black ashy fill

9-14" trace black ashy fill

Method of Completion / Backfill:

Signature: Justin L Miceli

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BORING No.: 15 Diggers-05 Page 1 of 1

Property ID:

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	S. Miceli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	1'12" and 1.7'/2'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	15 Diggers-05 -Z00-03	0-3 dark brown silty loam with organics
					-Z03-06	
					-Z06-09	
1					-Z09-12	3-4.5" large red brick clast
					-Z12-18	4.5-7" brown to dark brown loamy with some black ashy fill and gravel sized brick and slag material
					-Z18-24	
2						
					-Z24-30	7-14.2" dark brown silty clay
					-Z30-36	14.2-24" light brown silty clay with some sand
3						
					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments
- Drove it to 2', then drove second tube to 2'-4'
- From 0-7" sampled depths are actual, from 7-24" sample adjusted for compaction; 1" = 2.4"

Method of Completion / Backfill:

Signature:

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BORING No.: 15Dingens-06 Page 1 of 1

Property ID: 15Dingens-06

DATE	6/24/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mizel.	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.5

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.5	N/A	15Dingens-06 -Z00-03	0-3" dark brown top soil with organics
					-Z03-06	
					-Z06-09	3-5" black ashy fill material
1					-Z09-12	5-10" light brown/grey clay with trace black ashy fill
					-Z12-18	10-24" light brown clay with some silt
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

3-5" black ashy fill
5-10" trace black ashy fill

Method of Completion / Backfill:

Signature:

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BORING No.: 17DINGENS-01 Page ____ of ____

Property ID: ____

DATE	6/25/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	A. Jacobs	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	____ Datum ____
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8' / 3.8'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	17DINGENS-01-Z00-03	0-5" Medium brown Sandy silt topsoil
					-Z03-06	with organics
					-Z06-09	5-11" Medium/reddish brown silt with
					-Z09-12	some sand and trace fine gravel.
1					-Z12-18	11-24" Reddish/yellowish brown silt with
						trace sand.
					-Z18-24	
2						
					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill: Topsoil

Signature: [signature]

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BORING No.: 17DINGENS-02 Page ____ of ____

Property ID: ____

DATE	6/25/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	A. Jacobs	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	____ Datum ____
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	2
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	1.4'/2' and 2'/2'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	17DINGENS-02Z00-03	0-5.8 Medium brown Sandy Silt topsoil with organics
					-Z03-06	
					-Z06-09	5.8-~~10.4~~6.5" Rounded and angular medium gravel.
1					-Z09-12	
					-Z12-18	6.5-10.4" Dark brown sandy Silt with coal/Ash angular fill black material @ 10.4"
					-Z18-24	10.4-15.6 Dark brown Sandy Silt with some white flakey fill material throughout
2					-Z24-30	
					-Z30-36	15.6-22.1 Medium brown ~~Sandy~~ Silt Sand with some Silt
3					-Z36-42	22.1-24 Light yellow/brown Sand.
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Drove to 2' with 1.4' recovery. Started archive core @ 2' and drove to 4'
Adjusted for compression 1"=1.3"

Method of Completion / Backfill: Topsoil

Signature: [signature]

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BORING No.: 17DINGENS-03 Page ___ of ___

Property ID: ___

DATE	6/25/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	A. Jacobs	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	___ Datum ___
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	2
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	1.1'/2.0 and 2'/2'

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	17DINGENS03-Z00-03	0-8 Medium brown Sand with some Silt topsoil
					-Z03-06	
					-Z06-09	8-17.6 Dark brown Sand with trace gravel
1					-Z09-12	
					-Z12-18	17.6-24 Medium brown Sandy Silt.
					-Z18-24	Note Some white flakey fine ash material from 19.2-22.4
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Drove to 2' and got 1.1' recovery. Began archive core at 2' and drove to 4'!
Adjusted for compression 1" = 1.6"

Method of Completion / Backfill: Topsoil

Signature: ___

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Ground Environmental Specialists

BORING No.: 17DINGENS-04 Page ___ of ___

Property ID: _____

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	A. Jacobs	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	_____ Datum _____
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.4' / 3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A		N/A	17DINGENS-06-Z00-03	0-11" Medium to dark brown topsoil
					-Z03-06	with organics Sandy
					-Z06-09	11-17" Medium to dark brown Sandy
					-Z09-12	Silt
1					-Z12-18	17-24" Light yellowish brown silt
						with some sand
					-Z18-24	
2						
					-Z24-30	
					-Z30-36	
3						
					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill: Topsoil

Signature: _____

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BORING No.: 17 Dragons - 05 Page 1 of 1

Property ID: 17 Dragons - 05

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Mucci	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.3 / 3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.3	N/A	17Dragons-05 -Z00-03	0- 12" dark brown top soil with some
					-Z03-06	- 5.5-7" light brown sand
					-Z06-09	- 7-12" some small gravel sized concrete
1					-Z09-12	clasts
					-Z12-18	
						12-18 dark brown silty loam
					-Z18-24	18-24" light brown silty clay
2					-Z24-30	Notes trace black ashy fill 10- 18"
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: 10- 18" trace black ashy fill

Method of Completion / Backfill:

Signature:

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BORING No.: 19Dingens-01 Page 1 of 1

Property ID: 19 Dingens-01

DATE	6/26/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Nicoli	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	C. Stone	LOCATION COORDINATES	N / E

WATER LEVEL DATA			
DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	Geoprobe
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	3.8

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	3.8	N/A	19Dingens-01 -Z00-03	0-5" dark brown top soil with organics
					-Z03-06	5-10" brown silty loam with some clay
					-Z06-09	10^24" light brown silty clay
1					-Z09-12	
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature:

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BORING No.: 19Dingens-02 Page 1 of 1

Property ID: 19Dingens-02

DATE	6/25/2020	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	J. Micel	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	LaBella	ELEVATION	Datum
DRILLER	~~[redacted]~~ J. Micel, T. Dillon	LOCATION COORDINATES	N / E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~ Hand Auger
NUMBER OF CORES COLLECTED	
SOIL SAMPLING METHOD	~~Macro Core~~ Hand Auger
FINISHED TOTAL DEPTH	2 ft

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2ft	N/A	19Dingens-02 -Z00-03	0 - 6" dark brown top soil with organics
					-Z03-06	6 - 9" dark brown silty loam with some gravel
					-Z06-09	
1					-Z09-12	9 - 18" dark brown / black silty loam with few Gravel and trace black ashy fill
					-Z12-18	18-24" brown silty clay with few sand trace wire ashy Fill
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments

Method of Completion / Backfill:

Signature: [signature]

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BORING No.: 03 Page 1 of 1

Property ID: 19 Diggers

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dillon	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~LaBella~~	ELEVATION	~ Datum ~
DRILLER	NA	LOCATION COORDINATES	~ N / ~ E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	~~Macro Core~~ hand auger
FINISHED TOTAL DEPTH	2 ft

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	19Diggers-03-Z00-03	0-9 brown silt topsoil with few organics
					-Z03-06	
					-Z06-09	9-18 brown silt
					-Z09-12	18-24 brown silt with trace clay and fill (white flaky material)
1					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Sample time: 1115

Method of Completion / Backfill: Soil

Signature:

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BORING No.: ~~HD~~ 04 Page 1 of 1

Property ID: 19 Dingens

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dilks	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~DaBella~~	ELEVATION	— Datum —
DRILLER	NA	LOCATION COORDINATES	— N / — E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	~~Macro Core~~ hand core
FINISHED TOTAL DEPTH	2 ft

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	HDingens-04 -Z00-03	0-12 black to brown silt with few
					-Z03-06	organics
					-Z06-09	12-18 brown silt with little fill (
					-Z09-12	(white flaky material)
1					-Z12-18	18-24 brown silt with little clay and
						reddish brown clay
					-Z18-24	
2						
					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Collect time: 1125

Method of Completion / Backfill: topsoil

Signature:

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BORING No.: 05 Page 1 of 1

Property ID: 19 Dingens

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dillon	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~LaBella~~	ELEVATION	~ Datum ~
DRILLER	NA	LOCATION COORDINATES	~ N / ~ E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	~~Macro-Core~~ hand auger
FINISHED TOTAL DEPTH	2 ft

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	19Dingens-05-Z00-03	0-9 black silt with little sand
					-Z03-06	9-18 dark brown silt with white material
					-Z06-09	soft, and chunky
					-Z09-12	18-24 dark brown silt with little clay
1					-Z12-18	and tan clay, trace gravel
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Sample time: 1135

Method of Completion / Backfill: top soil

Signature:

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BORING No.: 06 Page 1 of 1

Property ID: 19 Dingens

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dillon	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~LaBella~~	ELEVATION	~ Datum ~
DRILLER	NA	LOCATION COORDINATES	~ N / ~ E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	~~Macro-Core~~ hand auger
FINISHED TOTAL DEPTH	2

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	19Dingens-06-Z00-03	0-3 dark brown silt topsoil
					-Z03-06	3-18 brown silt with few clay
					-Z06-09	18-24 light brown/reddish brown clay
1					-Z09-12	with few silt
					-Z12-18	
					-Z18-24	
2					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Sample time: 1145

Method of Completion / Backfill: topsoil

Signature:

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BORING No.: 07 Page 1 of 1

Property ID: 19Dingens

DATE	6/25/20	SITE NAME / LOCATION	837 Bailey Offsite, Buffalo NY
E & E GEOLOGIST	T. Dillon	E & E PROJECT ID	1705007.0008.01
SUBCONTRACTOR	~~LaBella~~	ELEVATION	~ Datum ~
DRILLER	NA	LOCATION COORDINATES	~ N / ~ E

WATER LEVEL DATA

DATE	TIME	WATER LEVEL	REF. PT.

TYPE OF DRILL RIG	~~Geoprobe~~
NUMBER OF CORES COLLECTED	1
SOIL SAMPLING METHOD	Macro-Core
FINISHED TOTAL DEPTH	2 ft

Depth (ft. BGS)	SAMPLE INFORMATION: Core/SS No.	Blow Count	Recovery (ft)	PID/FID (ppm)	Lab/Field Sample ID & Analysis	SOIL DESCRIPTION / COMMENTS
		N/A	2	N/A	19Dingens-07-Z00-03	0-9 brown silt with some gravel
					-Z03-06	9-12 dark brown silt with little clay
					-Z06-09	trace fill (white flakes) and gravel
1					-Z09-12	
					-Z12-18	12-18 brown silt with few clay and gravel
						18-24 tan/reddish brown clay with few silt
2					-Z18-24	
					-Z24-30	
					-Z30-36	
3					-Z36-42	
					-Z42-48	
4						
5						
6						
7						
8						

Comments: Sample time: 1155

Method of Completion / Backfill: soil

Signature:

C Laboratory Reports

Complete laboratory reports are provided separately.

D Data Usability Summary Reports

Data Usability Summary Report	Project: 837 Bailey Offsite – 11 DINGENS
Date Completed: July 10, 2020	Completed by: Eridania Marte

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Laboratory	Sample Delivery Group	Task Code
Test America, Buffalo Test America, Edison	480-1716746-1	Remedial Design

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-1716746-1	SO	11DINGENS-01-Z00-03	480-171676-1	06/24/2020 08:50			
480-1716746-1	SO	11DINGENS-01-Z03-06	480-171676-2	06/24/2020 08:50			
480-1716746-1	SO	11DINGENS-01-Z06-09	480-171676-3	06/24/2020 08:50			
480-1716746-1	SO	11DINGENS-01-Z09-12	480-171676-4	06/24/2020 08:50			
480-1716746-1	SO	11DINGENS-01-Z12-18	480-171676-5	06/24/2020 08:50			
480-1716746-1	SO	11DINGENS-01-Z18-24	480-171676-6	06/24/2020 08:50			
480-1716746-1	SO	11DINGENS-02-Z00-03	480-171676-7	06/24/2020 11:10			
480-1716746-1	SO	11DINGENS-02-Z03-06	480-171676-8	06/24/2020 11:10		MS/MSD	
480-1716746-1	SO	11DINGENS-02-Z06-09	480-171676-9	06/24/2020 11:10			
480-1716746-1	SO	11DINGENS-02-Z09-12	480-171676-10	06/24/2020 11:10			
480-1716746-1	SO	11DINGENS-02-Z12-18	480-171676-11	06/24/2020 11:10			
480-1716746-1	SO	11DINGENS-02-Z12-18-Q	480-171676-88	06/24/2020 11:10			
480-1716746-1	SO	11DINGENS-02-Z18-24	480-171676-12	06/24/2020 11:10			
480-1716746-1	SO	11DINGENS-03-Z00-03	480-171676-13	06/24/2020 10:40			
480-1716746-1	SO	11DINGENS-03-Z03-06	480-171676-14	06/24/2020 10:40			
480-1716746-1	SO	11DINGENS-03-Z06-09	480-171676-15	06/24/2020 10:40			
480-1716746-1	SO	11DINGENS-03-Z09-12	480-171676-16	06/24/2020 10:40			

Data Usability Summary Report	Project: 837 Bailey Offsite – 11 DINGENS
Date Completed: July 10, 2020	Completed by: Eridania Marte

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-1716746-1	SO	11DINGENS-03-Z12-18	480-171676-17	06/24/2020 10:40			
480-1716746-1	SO	11DINGENS-03-Z18-24	480-171676-18	06/24/2020 10:40			
480-1716746-1	SO	11DINGENS-04-Z00-03	480-171676-19	06/24/2020 10:35		MS/MSD	
480-1716746-1	SO	11DINGENS-04-Z03-06	480-171676-20	06/24/2020 10:35			
480-1716746-1	SO	11DINGENS-04-Z06-09	480-171676-21	06/24/2020 10:35		MS/MSD	
480-1716746-1	SO	11DINGENS-04-Z09-12	480-171676-22	06/24/2020 10:35			
480-1716746-1	SO	11DINGENS-04-Z09-12-Q	480-171676-86	06/24/2020 10:35			
480-1716746-1	SO	11DINGENS-04-Z12-18	480-171676-23	06/24/2020 10:35			
480-1716746-1	SO	11DINGENS-04-Z18-24	480-171676-24	06/24/2020 10:35			
480-1716746-1	SO	11DINGENS-05-Z00-03	480-171676-25	06/24/2020 10:15			
480-1716746-1	SO	11DINGENS-05-Z03-06	480-171676-26	06/24/2020 10:15			
480-1716746-1	SO	11DINGENS-05-Z06-09	480-171676-27	06/24/2020 10:15			
480-1716746-1	SO	11DINGENS-05-Z09-12	480-171676-28	06/24/2020 10:15			
480-1716746-1	SO	11DINGENS-05-Z12-18	480-171676-29	06/24/2020 10:15			
480-1716746-1	SO	11DINGENS-05-Z18-24	480-171676-30	06/24/2020 10:15			
480-1716746-1	SO	11DINGENS-06-Z00-03	480-171676-31	06/24/2020 09:45			
480-1716746-1	SO	11DINGENS-06-Z03-06	480-171676-32	06/24/2020 09:45			
480-1716746-1	SO	11DINGENS-06-Z06-09	480-171676-33	06/24/2020 09:45			
480-1716746-1	SO	11DINGENS-06-Z09-12	480-171676-34	06/24/2020 09:45			
480-1716746-1	SO	11DINGENS-06-Z12-18	480-171676-35	06/24/2020 09:45			
480-1716746-1	SO	11DINGENS-06-Z18-24	480-171676-36	06/24/2020 09:45			

SDG	Matrix	Test Method	Number of Samples	Sample Type
480-1716746-1	SO	6010C	36	N
480-1716746-1	SO	6010C	2	FD

Data Usability Summary Report	Project: 837 Bailey Offsite – 11 DINGENS
Date Completed: July 10, 2020	Completed by: Eridania Marte

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes.
Did coolers arrive at lab between 2 and 6ºC and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	The frequency of field QC will be evaluated at the end of project. 2 FD per 36 samples. 3 MS/MSD per 36 samples. 0 rinsate blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2, 2A, and 2B)
- MS/MSD Outside Limits (Table 3 and 3A)
- LCS Outside Limits (Table 4)
- Serial Dilution Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to List

Data Usability Summary Report	Project: 837 Bailey Offsite – 11 DINGENS
Date Completed: July 10, 2020	Completed by: Eridania Marte

Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	No.
For samples, if results are < 5 times the blank then "U" flag data.	N/A
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 3)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	No. Lead was recovered outside of the acceptance criteria in the MS and MSD for samples 11DINGENS-02-Z03-06, 11DINGENS-04-Z00-03, and 11DINGENS-04-Z06-09. The parent sample results were greater than 4X the spike amount. No qualification was made.
Were elements recovered ≤30%? If so, "R" flag associated NDs.	No.
Is LCS within QC criteria (see Table 4)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an "E" as "J".	Yes.
Are serial dilution within QC criteria? (see Table 5)	No. Serial dilution for arsenic for sample 11DINGENS-02-Z03-06 was outside of the acceptance criteria. The sample result was J qualified as estimated. Serial dilution for arsenic for sample 11DINGENS-04-Z06-09 was outside of the acceptance criteria. The sample result was less than 50x the MDL. No qualification was made.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.
Spot check CCV 90-110%. Contact lab if unacceptable.	Yes.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Were samples re-analyzed or diluted? (see Table 6)	Yes. Samples 11DINGENS-02-Z06-09 and 11DINGENS-03-Z06-09 were diluted by laboratory for lead only. No data usability concerns.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Summary of Potential Impacts on Data Usability
Concerns
• Serial dilution for arsenic for sample 11DINGENS-02-Z03-06 was outside of the acceptance criteria. The sample result was J qualified as estimated.

Data Usability Summary Report	Project: 837 Bailey Offsite – 11 DINGENS
Date Completed: July 10, 2020	Completed by: Eridania Marte

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 – List of MS/MSD Recoveries outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	MS	MSD	Low Limit	High Limit	Sample Qualifier
6010C	11DINGENS-02-Z03-06	MS/MSD	Lead	2520	42.1	1568	-521	75	125	None – 4X
6010C	11DINGENS-04-Z00-03	MS/MSD	Lead	3510	51.3	1249	859	75	125	None – 4X
6010C	11DINGENS-04-Z06-09	MS/MSD	Lead	1550	49.6	13	2227	75	125	None – 4X

Table 3A – List of RPDs outside Control Limits

Method	Sample ID	Analyte	RPD	RPD Limit	Sample Qualifier
6010C	11DINGENS-02-Z03-06	Lead	33	20	None – 4X
6010C	1DINGENS-04-Z06-09	Lead	52	20	None – 4X

Table 4 - List of LCS Recoveries outside Control Limits
None.

Table 5 - List of Serial Dilution Recoveries outside Control Limits

Method	Sample ID	Analyte	Orig. Result	Serial Dilution Result	MDL	%D	Sample Qualifier
6010C	11DINGENS-02-Z03-06	Arsenic	22.4	26.04	0.44	16	J Flag
6010C	11DINGENS-04-Z06-09	Arsenic	17.3	20.3	0.45	18	None < 50x

Table 6 –Samples that were Re-analyzed or Diluted
None.

Sample ID	Lab ID	Method	Sample Type	Action
11DINGENS-02-Z06-09	480-171676-9	6010C	N	2X: Diluted by laboratory for lead
11DINGENS-03-Z06-09	480-171676-15	6010C	N	5X: Diluted by laboratory for lead

Table 7 – Summary of Field Duplicate Results

Data Usability Summary Report	Project: 837 Bailey Offsite – 11 DINGENS
Date Completed: July 10, 2020	Completed by: Eridania Marte

Method	Analyte	Unit	Matrix	PQL	11DINGENS-02-Z12-18	11DINGENS-02-Z12-18-Q	RPD	RPD Rating	Sample Qual
6010C	Arsenic	mg/kg	SO	2.6	5	5.7	13.1%	Good	None
6010C	Lead	mg/kg	SO	1.3	12.4	16.2	26.6%	Good	None

Method	Analyte	Unit	Matrix	PQL	11DINGENS-04-Z09-12	11DINGENS-04-Z09-12-Q	RPD	RPD Rating	Sample Qual
6010C	Arsenic	mg/kg	SO	2.3	8.3	9.1	9.2%	Good	None
6010C	Lead	mg/kg	SO	1.2	47.7	64.7	30.2%	Good	None

Acronym List and Table Key:

COC = chain of custody
DUSR = data usability summary report
FD = Field duplicate
LCS = laboratory control sample
LR = Laboratory replicate
MB = method blank
MS = matrix spike
MSD = matrix spike duplicate
N = Normal sample
ND = not detected
NYSDEC = New York State Department of Environmental Conservation
PDS = Post-digestion spike
PQL = practical quantitation limit
QA = quality assurance
QAPP = quality assurance project plan
QC = quality control
RB = Rinsate blank
RPD = relative percent difference
SDG = sample delivery group

Data Usability Summary Report	Project: 837 Bailey Offsite – 15 Dingens
Date Completed: July 28, 2020	Completed by: Eridania Marte

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Laboratory	Sample Delivery Group	Task Code
Test America, Buffalo	480-171676-2	Remedial Design

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171676-2	SO	15DINGENS-01-Z00-03	480-171676-37	06/24/2020 08:55			
480-171676-2	SO	15DINGENS-01-Z03-06	480-171676-38	06/24/2020 08:55			
480-171676-2	SO	15DINGENS-01-Z06-09	480-171676-39	06/24/2020 08:55			
480-171676-2	SO	15DINGENS-01-Z09-12	480-171676-40	06/24/2020 08:55			
480-171676-2	SO	15DINGENS-01-Z12-18	480-171676-41	06/24/2020 08:55			
480-171676-2	SO	15DINGENS-01-Z18-24	480-171676-42	06/24/2020 08:55			
480-171676-2	SO	15DINGENS-02-Z00-03	480-171676-43	06/24/2020 09:05			
480-171676-2	SO	15DINGENS-02-Z03-06	480-171676-44	06/24/2020 09:05			
480-171676-2	SO	15DINGENS-02-Z03-06-Q	480-171676-85	06/24/2020 09:05			
480-171676-2	SO	15DINGENS-02-Z06-09	480-171676-45	06/24/2020 09:05			
480-171676-2	SO	15DINGENS-02-Z09-12	480-171676-46	06/24/2020 09:05			
480-171676-2	SO	15DINGENS-02-Z12-18	480-171676-47	06/24/2020 09:05		MS/MSD	
480-171676-2	SO	15DINGENS-02-Z18-24	480-171676-48	06/24/2020 09:05			
480-171676-2	SO	15DINGENS-03-Z00-03	480-171676-49	06/24/2020 09:10			
480-171676-2	SO	15DINGENS-03-Z03-06	480-171676-50	06/24/2020 09:10			
480-171676-2	SO	15DINGENS-03-Z06-09	480-171676-51	06/24/2020 09:10			
480-171676-2	SO	15DINGENS-03-Z09-12	480-171676-52	06/24/2020 09:10			
480-171676-2	SO	15DINGENS-03-Z12-18	480-171676-53	06/24/2020 09:10			

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171676-2	SO	15DINGENS-03-Z18-24	480-171676-54	06/24/2020 09:10			
480-171676-2	SO	15DINGENS-04-Z00-03	480-171676-55	06/24/2020 09:20			
480-171676-2	SO	15DINGENS-04-Z03-06	480-171676-56	06/24/2020 09:20			
480-171676-2	SO	15DINGENS-04-Z06-09	480-171676-57	06/24/2020 09:20			
480-171676-2	SO	15DINGENS-04-Z09-12	480-171676-58	06/24/2020 09:20			
480-171676-2	SO	15DINGENS-04-Z12-18	480-171676-59	06/24/2020 09:20			
480-171676-2	SO	15DINGENS-04-Z18-24	480-171676-60	06/24/2020 09:20			
480-171676-2	SO	15DINGENS-05-Z00-03	480-171676-61	06/24/2020 09:35			
480-171676-2	SO	15DINGENS-05-Z03-06	480-171676-62	06/24/2020 09:35			
480-171676-2	SO	15DINGENS-05-Z06-09	480-171676-63	06/24/2020 09:35			
480-171676-2	SO	15DINGENS-05-Z06-09-Q	480-171676-87	06/24/2020 09:35			
480-171676-2	SO	15DINGENS-05-Z09-12	480-171676-64	06/24/2020 09:35			
480-171676-2	SO	15DINGENS-05-Z12-18	480-171676-65	06/24/2020 09:35			
480-171676-2	SO	15DINGENS-05-Z18-24	480-171676-66	06/24/2020 09:35			
480-171676-2	SO	15DINGENS-06-Z00-03	480-171676-67	06/24/2020 10:00			
480-171676-2	SO	15DINGENS-06-Z03-06	480-171676-68	06/24/2020 10:00			
480-171676-2	SO	15DINGENS-06-Z06-09	480-171676-69	06/24/2020 10:00			
480-171676-2	SO	15DINGENS-06-Z09-12	480-171676-70	06/24/2020 10:00			
480-171676-2	SO	15DINGENS-06-Z12-18	480-171676-71	06/24/2020 10:00			
480-171676-2	SO	15DINGENS-06-Z18-24	480-171676-72	06/24/2020 10:00			

SDG	Matrix	Test Method	Number of Samples	Sample Type
480-171676-2	SO	6010C	36	N
480-171676-2	SO	6010C	2	FD

Data Usability Summary Report	Project: 837 Bailey Offsite – 15 Dingens
Date Completed: July 28, 2020	Completed by: Eridania Marte

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes.
Did coolers arrive at lab between 2 and 6ºC and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	The frequency of field QC will be evaluated at the end of project. 2 FD per 36 samples. 2 MS/MSD per 36 samples. 0 rinsate blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2, 2A, and 2B)
- MS/MSD Outside Limits (Table 3 and 3A)
- LCS Outside Limits (Table 4)
- Serial Dilution Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

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Data Usability Summary Report	Project: 837 Bailey Offsite – 15 Dingens
Date Completed: July 28, 2020	Completed by: Eridania Marte

Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	No.
For samples, if results are < 5 times the blank then "U" flag data.	N/A
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 3)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	No. Lead was recovered below the acceptance criteria in the MS and MSD for sample 15DINGENS-05-Z18-24. The parent sample result was J qualified as estimated.
Were elements recovered ≤30%? If so, "R" flag associated NDs.	No.
Is LCS within QC criteria (see Table 4)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an "E" as "J".	Yes.
Are serial dilution within QC criteria? (see Table 5)	Yes.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.
Spot check CCV 90-110%. Contact lab if unacceptable.	Yes.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Were samples re-analyzed or diluted? (see Table 6)	No.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Summary of Potential Impacts on Data Usability
Concerns
• Lead was recovered below the acceptance criteria in the MS and MSD for sample 15DINGENS-05-Z18-24. The parent sample result was J qualified as estimated.

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 – List of MS/MSD Recoveries outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	MS	MSD	Low Limit	High Limit	Sample Qualifier
6010D	15DINGENS-05-Z18-24	MS/MSD	Lead	49.3	49.8	45	41	75	125	J Flag

Table 3A – List of RPDs outside Control Limits
None.

Table 4 - List of LCS Recoveries outside Control Limits
None.

Table 5 - List of Serial Dilution Recoveries outside Control Limits
None.

Table 6 –Samples that were Re-analyzed or Diluted
None.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	15DINGENS-02-Z03-06	15DINGENS-02-Z03-06-Q	RPD	RPD Rating	Sample Qual
6010C	Arsenic	mg/kg	SO	2.3	5.6	5.1	9.3%	Good	None
6010C	Lead	mg/kg	SO	1.1	20.8	16.9	20.7%	Good	None

Method	Analyte	Unit	Matrix	PQL	15DINGENS-05-Z06-09	15DINGENS-05-Z06-09-Q	RPD	RPD Rating	Sample Qual
6010C	Arsenic	mg/kg	SO	2.5	7.1	7.5	5.5%	Good	None
6010C	Lead	mg/kg	SO	1.3	97.6	107	9.2%	Good	None

Acronym List and Table Key:

COC	=	chain of custody
DUSR	=	data usability summary report
FD	=	Field duplicate
LCS	=	laboratory control sample
LR	=	Laboratory replicate
MB	=	method blank
MS	=	matrix spike
MSD	=	matrix spike duplicate
N	=	Normal sample
ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
PDS	=	Post-digestion spike
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RB	=	Rinsate blank
RPD	=	relative percent difference
SDG	=	sample delivery group

Data Usability Summary Report	Project: 837 Bailey Offsite – 17 Dingens
Date Completed: August 31, 2020	Completed by: Eridania Marte

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Laboratory	Sample Delivery Group	Task Code
Test America, Buffalo Test America, Edison	480-171842-4 460-212080-4 480-174025-1	Remedial Design

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171842-4	SO	17DINGENS-05-Z00-03	480-171842-10	06/25/2020 10:05			
480-171842-4	SO	17DINGENS-05-Z03-06	480-171842-11	06/25/2020 10:05			
480-171842-4	SO	17DINGENS-05-Z06-09	480-171842-12	06/25/2020 10:05			
480-171842-4	SO	17DINGENS-05-Z09-12	480-171842-13	06/25/2020 10:05			
480-171842-4	SO	17DINGENS-05-Z12-18	480-171842-14	06/25/2020 10:05			
480-171842-4	SO	17DINGENS-05-Z18-24	480-171842-15	06/25/2020 10:05			
460-212080-4	SO	17DINGENS-01-Z00-03	460-212080-55	06/25/2020 09:05			
460-212080-4	SO	17DINGENS-01-Z03-06	460-212080-56	06/25/2020 09:05			
460-212080-4	SO	17DINGENS-01-Z06-09	460-212080-57	06/25/2020 09:05			
460-212080-4	SO	17DINGENS-01-Z09-12	460-212080-58	06/25/2020 09:05			
460-212080-4	SO	17DINGENS-01-Z12-18	460-212080-59	06/25/2020 09:05			
460-212080-4	SO	17DINGENS-01-Z18-24	460-212080-60	06/25/2020 09:05			
460-212080-4	SO	17DINGENS-02-Z00-03	460-212080-61	06/25/2020 09:30			
460-212080-4	SO	17DINGENS-02-Z03-06	460-212080-62	06/25/2020 09:30			
460-212080-4	SO	17DINGENS-02-Z06-09	460-212080-63	06/25/2020 09:30			

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
460-212080-4	SO	17DINGENS-02-Z09-12	460-212080-64	06/25/2020 09:30			
460-212080-4	SO	17DINGENS-02-Z12-18	460-212080-65	06/25/2020 09:30			
460-212080-4	SO	17DINGENS-02-Z18-24	460-212080-66	06/25/2020 09:30			
460-212080-4	SO	17DINGENS-03-Z00-03	460-212080-67	06/25/2020 09:45			
460-212080-4	SO	17DINGENS-03-Z03-06	460-212080-68	06/25/2020 09:45			
460-212080-4	SO	17DINGENS-03-Z06-09	460-212080-69	06/25/2020 09:45			
460-212080-4	SO	17DINGENS-03-Z09-12	460-212080-70	06/25/2020 09:45			
460-212080-4	SO	17DINGENS-03-Z12-18	460-212080-71	06/25/2020 09:45			
460-212080-4	SO	17DINGENS-03-Z18-24	460-212080-72	06/25/2020 09:45			
460-212080-4	SO	17DINGENS-04-Z00-03	460-212080-73	06/25/2020 10:00			
460-212080-4	SO	17DINGENS-04-Z03-06	460-212080-74	06/25/2020 10:00			
460-212080-4	SO	17DINGENS-04-Z06-09	460-212080-75	06/25/2020 10:00			
460-212080-4	SO	17DINGENS-04-Z09-12	460-212080-76	06/25/2020 10:00			
460-212080-4	SO	17DINGENS-04-Z12-18	460-212080-77	06/25/2020 10:00		LR/ MS	
460-212080-4	SO	17DINGENS-04-Z18-24	460-212080-78	06/25/2020 10:00			
460-212080-4	SO	17DINGENS-04-Z18-24-Q	460-212080-81	06/25/2020 10:00			
460-212080-4	WH	RB-20200625	460-212080-83	06/25/2020 17:00			
480-174025-1	SO	17DINGENS-03-Z24-30	480-174025-9	08/19/2020 15:00			
480-174025-1	SO	17DINGENS-03-Z30-36	480-174025-10	08/19/2020 15:00			
480-174025-1	SO	17DINGENS-03-Z36-42	480-174025-11	08/19/2020 15:00			
480-174025-1	SO	17DINGENS-03-Z42-48	480-174025-12	08/19/2020 15:00			
480-174025-1	SO	17DINGENS-06-Z12-18	480-174025-4	08/19/2020 11:00			
480-174025-1	SO	17DINGENS-06-Z3-6	480-174025-1	08/19/2020 11:00		MS/ MSD	17DINGENS-06-Z03-06
480-174025-1	SO	17DINGENS-06-Z6-9	480-174025-2	08/19/2020 11:00			17DINGENS-06-Z06-09
480-174025-1	SO	17DINGENS-06-Z9-12	480-174025-3	08/19/2020 11:00			

Data Usability Summary Report	Project: 837 Bailey Offsite – 17 Dingens
Date Completed: August 31, 2020	Completed by: Eridania Marte

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-174025-1	SO	17DINGENS-07-Z0-3	480-174025-5	08/19/2020 11:30			17DINGENS-07-Z00-03
480-174025-1	SO	17DINGENS-07-Z12-18	480-174025-8	08/19/2020 11:30			
480-174025-1	SO	17DINGENS-07-Z3-6	480-174025-6	08/19/2020 11:30			17DINGENS-07-Z03-06
480-174025-1	SO	17DINGENS-07-Z6-12	480-174025-7	08/19/2020 11:30			17DINGENS-07-Z06-09
480-174025-1	SO	17DINGENS-07-Z9-12	480-174025-13	08/19/2020 11:30			17DINGENS-07-Z09-12

SDG	Matrix	Test Method	Number of Samples	Sample Type
480-171842-4	SO	6010C	6	N
460-212080-4	SO	6010D	24	N
460-212080-4	SO	6010D	1	FD
460-212080-4	SO	6010D	1	RB
480-174025-1	SO	6010C	13	N

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	No. Sample IDs associated with SDG 480-174025-1 were revised to follow previous sampling schematic. Sample 17DINGENS-07-Z09-12 was received however was not listed on the COC, the sample was logged from the container label.
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	The frequency of field QC will be evaluated at the end of project. 1 FD per 43 samples. 2 MS/MSD per 43 samples. 1 rinsate blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2, 2A, and 2B)
- MS/MSD Outside Limits (Table 3 and 3A)
- LCS Outside Limits (Table 4)
- Serial Dilution Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

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Data Usability Summary Report	Project: 837 Bailey Offsite – 17 Dingens
Date Completed: August 31, 2020	Completed by: Eridania Marte

Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	No.
For samples, if results are < 5 times the blank then "U" flag data.	N/A
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 3)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	No. Lead was recovered above the acceptance criteria in the MS for 17DINGENS-04-Z12-18. The parent sample result was 4X greater than spike amount. No qualification was made. Lead was recovered above the acceptance criteria in the MS and MSD for sample 17DINGENS-06-Z03-06. The parent sample result was greater than 4X the spike amount. No qualification was made.
Were elements recovered ≤30%? If so, "R" flag associated NDs.	No.
Is LCS within QC criteria (see Table 4)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an "E" as "J".	Yes.
Are serial dilution within QC criteria? (see Table 5)	Yes.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.
Spot check CCV 90-110%. Contact lab if unacceptable.	Yes.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Were samples re-analyzed or diluted? (see Table 6)	Samples associated with SDG 460-212080-4 were diluted at 2X dilution by laboratory.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes. Laboratory duplicate pair for 17DINGENS-04-Z12-18 exhibited poor precision. The sample result was J qualified as estimated.

Summary of Potential Impacts on Data Usability
Concerns
• Laboratory duplicate pair for 17DINGENS-04-Z12-18 exhibited poor precision. The sample result was J qualified as estimated.

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 – List of MS/MSD Recoveries outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	MS	MSD	Low Limit	High Limit	Sample Qualifier
6010D	17DINGENS-04-Z12-18	MS	Lead	393	62.9	464	--	72	125	None – 4X
6010C	17DINGENS-06-Z03-06	MS/MSD	Lead	972	49.1	589	607	75	125	None – 4X

Table 3A – List of RPDs outside Control Limits

Method	Sample ID	Analyte	RPD	RPD Limit	Sample Qualifier
6010D	17DINGENS-04-Z12-18	Lead	46	20	J Flag

Table 4 - List of LCS Recoveries outside Control Limits
None.

Table 5 - List of Serial Dilution Recoveries outside Control Limits
None.

Table 6 –Samples that were Re-analyzed or Diluted

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	17DINGENS-04-Z18-24	17DINGENS-04-Z18-24-Q	RPD	RPD Rating	Sample Qual
6010D	Arsenic	mg/kg	SO	3.5	8.7	7.4	16.1%	Good	None
6010D	Lead	mg/kg	SO	2.3	63.3	83.7	27.8%	Good	None

Acronym List and Table Key:
COC = chain of custody

Data Usability Summary Report	Project: 837 Bailey Offsite – 17 Dingens
Date Completed: August 31, 2020	Completed by: Eridania Marte

Acronym List and Table Key:

DUSR	=	data usability summary report
FD	=	Field duplicate
LCS	=	laboratory control sample
LR	=	Laboratory replicate
MB	=	method blank
MS	=	matrix spike
MSD	=	matrix spike duplicate
N	=	Normal sample
ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
PDS	=	Post-digestion spike
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RB	=	Rinsate blank
RPD	=	relative percent difference
SDG	=	sample delivery group

Data Usability Summary Report	Project: 837 Bailey Offsite – 19 Dingens
Date Completed: July 28, 2020	Completed by: Eridania Marte

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Laboratory	Sample Delivery Group	Task Code
Test America, Buffalo	480-171842-2	Remedial Design

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171842-2	SO	19DINGENS-01-Z00-03	480-171842-16	06/25/2020 08:50			
480-171842-2	SO	19DINGENS-01-Z03-06	480-171842-17	06/25/2020 08:50			
480-171842-2	SO	19DINGENS-01-Z06-09	480-171842-18	06/25/2020 08:50			
480-171842-2	SO	19DINGENS-01-Z09-12	480-171842-19	06/25/2020 08:50		MS/ MSD	
480-171842-2	SO	19DINGENS-01-Z12-18	480-171842-20	06/25/2020 08:50			
480-171842-2	SO	19DINGENS-01-Z12-18-Q	480-171842-9	06/26/2020 08:50			
480-171842-2	SO	19DINGENS-01-Z18-24	480-171842-21	06/25/2020 08:50			
480-171842-2	SO	19DINGENS-02-Z00-03	480-171842-22	06/25/2020 11:00			
480-171842-2	SO	19DINGENS-02-Z03-06	480-171842-23	06/25/2020 11:00			
480-171842-2	SO	19DINGENS-02-Z06-09	480-171842-24	06/25/2020 11:00			
480-171842-2	SO	19DINGENS-02-Z09-12	480-171842-25	06/25/2020 11:00			
480-171842-2	SO	19DINGENS-02-Z12-18	480-171842-26	06/25/2020 11:00			
480-171842-2	SO	19DINGENS-02-Z18-24	480-171842-27	06/25/2020 11:00			
480-171842-2	SO	19DINGENS-03-Z00-03	480-171848-1	06/25/2020 11:15			
480-171842-2	SO	19DINGENS-03-Z03-06	480-171848-2	06/25/2020 11:15			
480-171842-2	SO	19DINGENS-03-Z06-09	480-171848-3	06/25/2020 11:15			

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171842-2	SO	19DINGENS-03-Z09-12	480-171848-4	06/25/2020 11:15			
480-171842-2	SO	19DINGENS-03-Z12-18	480-171848-5	06/25/2020 11:15			
480-171842-2	SO	19DINGENS-03-Z18-24	480-171848-6	06/25/2020 11:15			
480-171842-2	SO	19DINGENS-04-Z00-03	480-171848-7	06/25/2020 11:25			
480-171842-2	SO	19DINGENS-04-Z03-06	480-171848-8	06/25/2020 11:25			
480-171842-2	SO	19DINGENS-04-Z06-09	480-171848-9	06/25/2020 11:25			
480-171842-2	SO	19DINGENS-04-Z09-12	480-171848-10	06/25/2020 11:25			
480-171842-2	SO	19DINGENS-04-Z12-18	480-171848-11	06/25/2020 11:25			
480-171842-2	SO	19DINGENS-04-Z18-24	480-171848-12	06/25/2020 11:25			
480-171842-2	SO	19DINGENS-05-Z00-03	480-171848-13	06/25/2020 11:35			
480-171842-2	SO	19DINGENS-05-Z03-06	480-171848-14	06/25/2020 11:35			
480-171842-2	SO	19DINGENS-05-Z06-09	480-171848-15	06/25/2020 11:35		MS/ MSD	
480-171842-2	SO	19DINGENS-05-Z09-12	480-171848-16	06/25/2020 11:35			
480-171842-2	SO	19DINGENS-05-Z09-12-Q	480-171842-6	06/25/2020 11:35			
480-171842-2	SO	19DINGENS-05-Z12-18	480-171848-17	06/25/2020 11:35			
480-171842-2	SO	19DINGENS-05-Z18-24	480-171848-18	06/25/2020 11:35			
480-171842-2	SO	19DINGENS-06-Z00-03	480-171848-19	06/25/2020 11:45			
480-171842-2	SO	19DINGENS-06-Z03-06	480-171848-20	06/25/2020 11:45			
480-171842-2	SO	19DINGENS-06-Z06-09	480-171848-21	06/25/2020 11:45			
480-171842-2	SO	19DINGENS-06-Z09-12	480-171848-22	06/25/2020 11:45			
480-171842-2	SO	19DINGENS-06-Z12-18	480-171848-23	06/25/2020 11:45			
480-171842-2	SO	19DINGENS-06-Z18-24	480-171848-24	06/25/2020 11:45			
480-171842-2	SO	19DINGENS-07-Z00-03	480-171848-37	06/25/2020 11:55			
480-171842-2	SO	19DINGENS-07-Z03-06	480-171848-38	06/25/2020 11:55			
480-171842-2	SO	19DINGENS-07-Z06-09	480-171848-39	06/25/2020 11:55			

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Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171842-2	SO	19DINGENS-07-Z09-12	480-171848-40	06/25/2020 11:55			
480-171842-2	SO	19DINGENS-07-Z12-18	480-171848-41	06/25/2020 11:55			
480-171842-2	SO	19DINGENS-07-Z18-24	480-171848-42	06/25/2020 11:55			

SDG	Matrix	Test Method	Number of Samples	Sample Type
480-171842-2	SO	6010C	42	N
480-171842-2	SO	6010C	2	FD

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes.
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	The frequency of field QC will be evaluated at the end of project. 2 FD per 42 samples. 2 MS/MSD per 42 samples. 0 rinsate blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2, 2A, and 2B)
- MS/MSD Outside Limits (Table 3 and 3A)
- LCS Outside Limits (Table 4)
- Serial Dilution Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

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Data Usability Summary Report	Project: 837 Bailey Offsite – 19 Dingens
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Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	No.
For samples, if results are < 5 times the blank then "U" flag data.	N/A
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 3)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	No. Lead was recovered below the acceptance criteria in the MS and MSD for sample 19DINGENS-05-Z06-09. The parent sample result was greater than 4X the spike amount. No qualification was made. Lead was recovered below the acceptance criteria in the MSD for sample 19DINGENS-01-Z09-12. The parent sample result was J qualified as estimated.
Were elements recovered ≤30%? If so, "R" flag associated NDs.	No.
Is LCS within QC criteria (see Table 4)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an "E" as "J".	Yes.
Are serial dilution within QC criteria? (see Table 5)	No. The serial dilution for lead for sample 19DINGENS-01-Z09-12 was outside of the acceptance criteria. The sample result was J qualified as estimated.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.
Spot check CCV 90-110%. Contact lab if unacceptable.	Yes.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Were samples re-analyzed or diluted? (see Table 6)	No.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Summary of Potential Impacts on Data Usability
Concerns
• Lead was recovered outside of the acceptance criteria in the MSD and serial dilution for sample 19DINGENS-01-Z09-12. The parent sample result was J qualified as estimated.

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 – List of MS/MSD Recoveries outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	MS	MSD	Low Limit	High Limit	Sample Qualifier
6010C	19DINGENS-05-Z06-09	MS/MSD	Lead	1170	58.7	-108	-295	75	125	None – 4X
6010C	19DINGENS-01-Z09-12	MSD	Lead	50.9	46.0	79	68	75	125	J Flag

Table 3A – List of RPDs outside Control Limits
None.

Table 4 - List of LCS Recoveries outside Control Limits
None.

Table 5 - List of Serial Dilution Recoveries outside Control Limits

Method	Sample ID	Analyte	Orig. Result	Serial Dilution Result	MDL	%D	Sample Qualifier
6010C	19DINGENS-01-Z09-12	Lead	50.9	56.38	0.27	11	J Flag

Table 6 –Samples that were Re-analyzed or Diluted
None.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	19DINGENS-01-Z12-18	19DINGENS-01-Z12-18-Q	RPD	RPD Rating	Sample Qual
6010C	Arsenic	mg/kg	SO	2.3	8.8	9.3	5.5%	Good	None
6010C	Lead	mg/kg	SO	1.1	70.2	36.2	63.9%	Good	None

Method	Analyte	Unit	Matrix	PQL	19DINGENS-05-Z09-12	19DINGENS-05-Z09-12-Q	RPD	RPD Rating	Sample Qual

6010C	Arsenic	mg/kg	SO	2.6	14.2	13.7	3.6%	Good	None
6010C	Lead	mg/kg	SO	1.3	1250	1550	21.4%	Good	None

Acronym List and Table Key:

COC = chain of custody
DUSR = data usability summary report
FD = Field duplicate
LCS = laboratory control sample
LR = Laboratory replicate
MB = method blank
MS = matrix spike
MSD = matrix spike duplicate
N = Normal sample
ND = not detected
NYSDEC = New York State Department of Environmental Conservation
PDS = Post-digestion spike
PQL = practical quantitation limit
QA = quality assurance
QAPP = quality assurance project plan
QC = quality control
RB = Rinsate blank
RPD = relative percent difference
SDG = sample delivery group

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The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Laboratory	Sample Delivery Group	Task Code
Test America, Edison	460-171842-1 480-171846-1	Remedial Design

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
460-171842-1	SO	853BAILEY-01-Z00-03	480-171843-19	06/25/2020 16:30			
460-171842-1	SO	853BAILEY-01-Z03-06	480-171843-20	06/25/2020 16:30		MS/MSD	
460-171842-1	SO	853BAILEY-01-Z06-09	480-171843-21	06/25/2020 16:30			
460-171842-1	SO	853BAILEY-01-Z06-09-Q	480-171842-1	06/25/2020 16:30			
460-171842-1	SO	853BAILEY-01-Z09-12	480-171843-22	06/25/2020 16:30			
460-171842-1	SO	853BAILEY-01-Z12-18	480-171843-23	06/25/2020 16:30			
460-171842-1	SO	853BAILEY-01-Z18-24	480-171843-24	06/25/2020 16:30			
460-171842-1	SO	853BAILEY-02-Z00-03	480-171843-25	06/25/2020 11:25		MS/MSD	
460-171842-1	SO	853BAILEY-02-Z03-06	480-171843-26	06/25/2020 11:25			
460-171842-1	SO	853BAILEY-02-Z03-06-Q	480-171842-2	06/25/2020 11:25			
460-171842-1	SO	853BAILEY-02-Z06-09	480-171843-27	06/25/2020 11:25			
460-171842-1	SO	853BAILEY-02-Z09-12	480-171843-28	06/25/2020 11:25			
460-171842-1	SO	853BAILEY-02-Z12-18	480-171843-29	06/25/2020 11:25			
460-171842-1	SO	853BAILEY-02-Z18-24	480-171843-30	06/25/2020 11:25			
460-171842-1	SO	853BAILEY-03-Z00-03	480-171843-31	06/25/2020 11:35			
460-171842-1	SO	853BAILEY-03-Z03-06	480-171843-32	06/25/2020 11:35			
460-171842-1	SO	853BAILEY-03-Z06-09	480-171843-33	06/25/2020 11:35			
460-171842-1	SO	853BAILEY-03-Z09-12	480-171843-34	06/25/2020 11:35			
460-171842-1	SO	853BAILEY-03-Z12-18	480-171843-35	06/25/2020 11:35			
460-171842-1	SO	853BAILEY-03-Z18-24	480-171843-36	06/25/2020 11:35			
460-171842-1	SO	853BAILEY-04-Z00-03	480-171843-37	06/25/2020 11:40			
460-171842-1	SO	853BAILEY-04-Z03-06	480-171843-38	06/25/2020 11:40			
460-171842-1	SO	853BAILEY-04-Z06-09	480-171843-39	06/25/2020 11:40			
460-171842-1	SO	853BAILEY-04-Z09-12	480-171843-40	06/25/2020 11:40			
460-171842-1	SO	853BAILEY-04-Z12-18	480-171843-41	06/25/2020 11:40			
460-171842-1	SO	853BAILEY-04-Z18-24	480-171843-42	06/25/2020 11:40			
460-171842-1	SO	853BAILEY-05-Z00-03-Q	480-171842-3	06/25/2020 11:45			

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Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
460-171842-1	SO	853BAILEY-08-Z18-24-Q	480-171842-4	06/25/2020 12:00			
460-171842-1	SO	853BAILEY-11-Z12-18-Q	480-171842-5	06/25/2020 13:25			
480-171846-1	SO	853BAILEY-05-Z00-03	480-171846-1	06/25/2020 11:45			
480-171846-1	SO	853BAILEY-05-Z03-06	480-171846-2	06/25/2020 11:45			
480-171846-1	SO	853BAILEY-05-Z06-09	480-171846-3	06/25/2020 11:45		MS/MSD	
480-171846-1	SO	853BAILEY-05-Z09-12	480-171846-4	06/25/2020 11:45			
480-171846-1	SO	853BAILEY-05-Z12-18	480-171846-5	06/25/2020 11:45			
480-171846-1	SO	853BAILEY-05-Z18-24	480-171846-6	06/25/2020 11:45			
480-171846-1	SO	853BAILEY-06-Z00-03	480-171846-7	06/25/2020 11:55			
480-171846-1	SO	853BAILEY-06-Z03-06	480-171846-8	06/25/2020 11:55			
480-171846-1	SO	853BAILEY-06-Z06-09	480-171846-9	06/25/2020 11:55			
480-171846-1	SO	853BAILEY-06-Z09-12	480-171846-10	06/25/2020 11:55			
480-171846-1	SO	853BAILEY-06-Z12-18	480-171846-11	06/25/2020 11:55			
480-171846-1	SO	853BAILEY-06-Z18-24	480-171846-12	06/25/2020 11:55			
480-171846-1	SO	853BAILEY-07-Z00-03	480-171846-13	06/25/2020 12:15			
480-171846-1	SO	853BAILEY-07-Z03-06	480-171846-14	06/25/2020 12:15			
480-171846-1	SO	853BAILEY-07-Z06-09	480-171846-15	06/25/2020 12:15			
480-171846-1	SO	853BAILEY-07-Z09-12	480-171846-16	06/25/2020 12:15			
480-171846-1	SO	853BAILEY-07-Z12-18	480-171846-17	06/25/2020 12:15			
480-171846-1	SO	853BAILEY-07-Z18-24	480-171846-18	06/25/2020 12:15			
480-171846-1	SO	853BAILEY-08-Z00-03	480-171846-19	06/25/2020 12:00			
480-171846-1	SO	853BAILEY-08-Z03-06	480-171846-20	06/25/2020 12:00			
480-171846-1	SO	853BAILEY-08-Z06-09	480-171846-21	06/25/2020 12:00			
480-171846-1	SO	853BAILEY-08-Z09-12	480-171846-22	06/25/2020 12:00			
480-171846-1	SO	853BAILEY-08-Z12-18	480-171846-23	06/25/2020 12:00		MS/MSD	
480-171846-1	SO	853BAILEY-08-Z18-24	480-171846-24	06/25/2020 12:00			
480-171846-1	SO	853BAILEY-09-Z03-06	480-171846-25	06/25/2020 12:10			
480-171846-1	SO	853BAILEY-09-Z06-09	480-171846-26	06/25/2020 12:10			
480-171846-1	SO	853BAILEY-09-Z09-12	480-171846-27	06/25/2020 12:10			
480-171846-1	SO	853BAILEY-09-Z12-18	480-171846-28	06/25/2020 12:10			
480-171846-1	SO	853BAILEY-09-Z18-24	480-171846-29	06/25/2020 12:10			
480-171846-1	SO	853BAILEY-10-Z00-03	480-171846-30	06/25/2020 13:15			
480-171846-1	SO	853BAILEY-10-Z03-06	480-171846-31	06/25/2020 13:15			
480-171846-1	SO	853BAILEY-10-Z06-09	480-171846-32	06/25/2020 13:15			
480-171846-1	SO	853BAILEY-10-Z09-12	480-171846-33	06/25/2020 13:15			
480-171846-1	SO	853BAILEY-10-Z12-18	480-171846-34	06/25/2020 13:15			
480-171846-1	SO	853BAILEY-10-Z18-24	480-171846-35	06/25/2020 13:15			
480-171846-1	SO	853BAILEY-11-Z00-03	480-171846-36	06/25/2020 13:25			
480-171846-1	SO	853BAILEY-11-Z03-06	480-171846-37	06/25/2020 13:25			
480-171846-1	SO	853BAILEY-11-Z06-09	480-171846-38	06/25/2020 13:25			
480-171846-1	SO	853BAILEY-11-Z09-12	480-171846-39	06/25/2020 13:25		MS/MSD	
480-171846-1	SO	853BAILEY-11-Z12-18	480-171846-40	06/25/2020 13:25			

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Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171846-1	SO	853BAILEY-11-Z18-24	480-171846-41	06/25/2020 13:25			
480-171846-1	SO	853BAILEY-12-Z00-03	480-171846-42	06/26/2020 09:50			
480-171846-1	SO	853BAILEY-12-Z03-06	480-171846-43	06/26/2020 09:50			
480-171846-1	SO	853BAILEY-12-Z06-09	480-171846-44	06/26/2020 09:50			
480-171846-1	SO	853BAILEY-12-Z09-12	480-171846-45	06/26/2020 09:50			
480-171846-1	SO	853BAILEY-12-Z12-18	480-171846-46	06/26/2020 09:50			
480-171846-1	SO	853BAILEY-12-Z18-24	480-171846-47	06/26/2020 09:50			

SDG	Matrix	Test Method	Number of Samples	Sample Type
480-171842-1	SO	6010C	24	N
480-171842-1	SO	6010C	5	FD
480-171842-1	SO	6010C	2	MS/MSD
480-171846-1	SO	6010C	47	N
480-171846-1	SO	6010C	3	MS/MSD

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Sample 853BAILEY-05-Z18-24 was incorrectly marked for MS/MSD on the COC. Sample 853BAILEY-11-Z09-12 was intended for MS/MSD analysis. Correction was made by the laboratory upon communication with E & E.
Did coolers arrive at lab between 2 and 6ºC and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	The frequency of field QC will be evaluated at the end of project. 5 FD per 71 samples. 5 MS/MSD per 71 samples. 0 rinsate blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2, 2A, and 2B)
- MS/MSD Outside Limits (Table 3 and 3A)
- LCS Outside Limits (Table 4)
- Serial Dilution Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

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Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	No.
For samples, if results are < 5 times the blank then "U" flag data.	N/A
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 3)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	Lead was recovered below acceptance criteria in the MSD for sample 853BAILEY-05-Z06-09. The spike amount was less than 4 times the native concentration; therefore, no qualification was made. Lead was recovered below acceptance criteria in the MS and MSD for sample 853BAILEY-08-Z12-18. The associated PDS was within acceptance criteria; therefore, the sample result was J qualified as estimated. Lead was recovered above acceptance criteria in the MSD for sample 853BAILEY-11-Z09-12. The spike amount was less than 4 times the spike amount; therefore, no qualification was made. Lead was recovered below acceptance criteria in the MS and MSD for sample 853BAILEY-01-Z03-06MS/MSD. The spike amount was less than 4 times the native concentration; therefore, no qualification was made. Lead was recovered above acceptance criteria in the MS and MSD for sample 853BAILEY-02-Z00-03MS/MSD. The associated PDS was recovered below acceptance criteria. The spike amount was less than 4 times the native concentration; therefore, no qualification was made.
Were elements recovered ≤30%? If so, "R" flag associated NDs.	Lead was recovered below 30% in the MS and MSD for sample 853BAILEY-01-Z03-06. The spike amount was less than 4 times the native concentration; therefore, no qualification was made.
Is LCS within QC criteria (see Table 4)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an "E" as "J".	Yes.
Are serial dilution within QC criteria? (see Table 5)	Arsenic exhibited poor precision in the serial dilution for samples 853BAILEY-05-Z06-09 and 853BAILEY-02-Z00-03. The sample results were J qualified as estimated.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.

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Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Spot check CCV 90-110%. Contact lab if unacceptable.	Yes.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Were samples re-analyzed or diluted? (see Table 6)	No.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Summary of Potential Impacts on Data Usability
Concerns
• Lead was J qualified in sample 853BAILEY-11-Z09-12 due to low MS and MSD recoveries. • Arsenic was J qualified in samples 853BAILEY-05-Z06-09 and 853BAILEY-02-Z00-03 due to poor precision in the serial dilution.

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 – List of MS/MSD Recoveries outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	MS	MSD	Low Limit	High Limit	Sample Qualifier
6010C	853BAILEY-05-Z06-09	MSD	Lead	207	50.1	88	41	75	125	None – 4X
6010C	853BAILEY-08-Z12-18	MS/MSD	Lead	39.9	47.5	63	63	75	125	J Flag
6010C	853BAILEY-11-Z09-12	MSD	Lead	494	49.8	112	325	75	125	None – 4X
6010C	853BAILEY-01-Z03-06	MS/MSD	Lead	424	44.7	-106	7	75	125	None – 4X
6010C	853BAILEY-02-Z00-03	MS/MSD	Lead	257	46	288	271	75	125	None – 4X

Table 3A – List of RPDs outside Control Limits
None.

Table 4 - List of LCS Recoveries outside Control Limits
None.

Table 5 - List of Serial Dilution Recoveries outside Control Limits

Method	Sample ID	Analyte	Orig. Result	Serial Dilution Result	MDL	%D	Sample Qualifier
6010C	853BAILEY-05-Z06-09	Arsenic	14.5	16.69	0.51	15	J Flag
6010C	853BAILEY-02-Z00-03	Arsenic	16.5	18.55	0.47	12	J Flag

Table 6 –Samples that were Re-analyzed or Diluted
None.

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Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	853BAILEY-01-Z06-09	853BAILEY-01-Z06-09-Q	RPD	RPD Rating	Sample Qual
SW6010C	Arsenic	mg/kg	Solid	2.3	11.6	12.7	9.1%	Good	None
SW6010C	Lead	mg/kg	Solid	1.1	243	253	4.0%	Good	None

Method	Analyte	Unit	Matrix	PQL	853BAILEY-02-Z03-06	853BAILEY-02-Z03-06-Q	RPD	RPD Rating	Sample Qual
SW6010C	Arsenic	mg/kg	Solid	2.3	24.2	25.5	5.2%	Good	None
SW6010C	Lead	mg/kg	Solid	1.2	298	317	6.2%	Good	None

Method	Analyte	Unit	Matrix	PQL	853BAILEY-05-Z00-03	853BAILEY-05-Z00-03-Q	RPD	RPD Rating	Sample Qual
SW6010C	Arsenic	mg/kg	Solid	2.9	12.4	12.1	2.4%	Good	None
SW6010C	Lead	mg/kg	Solid	1.4	230	230	0.0%	Good	None

Method	Analyte	Unit	Matrix	PQL	853BAILEY-08-Z18-24	853BAILEY-08-Z18-24-Q	RPD	RPD Rating	Sample Qual
SW6010C	Arsenic	mg/kg	Solid	2.3	9.7	8.9	8.6%	Good	None
SW6010C	Lead	mg/kg	Solid	1.2	22.4	21.4	4.6%	Good	None

Method	Analyte	Unit	Matrix	PQL	853BAILEY-11-Z12-18	853BAILEY-11-Z12-18-Q	RPD	RPD Rating	Sample Qual
SW6010C	Arsenic	mg/kg	Solid	2.5	9.4	11.7	21.8%	Good	None
SW6010C	Lead	mg/kg	Solid	1.3	234	247	5.4%	Good	None

Acronym List and Table Key:

COC	=	chain of custody
DUSR	=	data usability summary report
FD	=	Field duplicate
LCS	=	laboratory control sample
LR	=	Laboratory replicate
MB	=	method blank
MS	=	matrix spike
MSD	=	matrix spike duplicate
N	=	Normal sample
ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
PDS	=	Post-digestion spike
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RB	=	Rinsate blank
RPD	=	relative percent difference
SDG	=	sample delivery group

Data Usability Summary Report	Project: 837 Bailey Offsite – 861 Bailey Ave
Date Completed: July 10, 2020	Completed by: Eridania Marte

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Laboratory	Sample Delivery Group	Task Code
Test America, Buffalo Test America, Edison	480-171676-3 460-212080-1	Remedial Design

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171676-3	SO	861BAILEY-03-Z00-03	480-171676-73	06/24/2020 14:00			
480-171676-3	SO	861BAILEY-03-Z03-06	480-171676-74	06/24/2020 14:00			
480-171676-3	SO	861BAILEY-03-Z06-09	480-171676-75	06/24/2020 14:00			
480-171676-3	SO	861BAILEY-03-Z09-12	480-171676-76	06/24/2020 14:00			
480-171676-3	SO	861BAILEY-03-Z12-18	480-171676-77	06/24/2020 14:00			
480-171676-3	SO	861BAILEY-03-Z18-24	480-171676-78	06/24/2020 14:00			
480-171676-3	SO	861BAILEY-04-Z00-03	480-171676-79	06/24/2020 14:10			
480-171676-3	SO	861BAILEY-04-Z00-03-Q	480-171676-89	06/24/2020 14:10			
480-171676-3	SO	861BAILEY-04-Z03-06	480-171676-80	06/24/2020 14:10			
480-171676-3	SO	861BAILEY-04-Z06-09	480-171676-81	06/24/2020 14:10		MS/MSD	
480-171676-3	SO	861BAILEY-04-Z09-12	480-171676-82	06/24/2020 14:10			
480-171676-3	SO	861BAILEY-04-Z12-18	480-171676-83	06/24/2020 14:10			
480-171676-3	SO	861BAILEY-04-Z18-24	480-171676-84	06/24/2020 14:10			
480-171676-3	SO	RB-20200624	480-171676-90	06/24/2020 17:00			
460-212080-1	SO	861BAILEY-01-Z00-03	460-212080-1	06/25/2020 11:15			

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
460-212080-1	SO	861BAILEY-01-Z03-06	460-212080-2	06/25/2020 11:15			
460-212080-1	SO	861BAILEY-01-Z06-09	460-212080-3	06/25/2020 11:15		MS/LR	
460-212080-1	SO	861BAILEY-01-Z09-12	460-212080-4	06/25/2020 11:15			
460-212080-1	SO	861BAILEY-01-Z09-12-Q	460-212080-82	06/25/2020 11:15			
460-212080-1	SO	861BAILEY-01-Z12-18	460-212080-5	06/25/2020 11:15			
460-212080-1	SO	861BAILEY-01-Z18-24	460-212080-6	06/25/2020 11:15			
460-212080-1	SO	861BAILEY-02-Z00-03	460-212080-7	06/24/2020 13:45			
460-212080-1	SO	861BAILEY-02-Z03-06	460-212080-8	06/24/2020 13:45			
460-212080-1	SO	861BAILEY-02-Z06-09	460-212080-9	06/24/2020 13:45			
460-212080-1	SO	861BAILEY-02-Z09-12	460-212080-10	06/24/2020 13:45			
460-212080-1	SO	861BAILEY-02-Z12-18	460-212080-11	06/24/2020 13:45			
460-212080-1	SO	861BAILEY-02-Z18-24	460-212080-12	06/24/2020 13:45			
460-212080-1	SO	861BAILEY-05-Z00-03	460-212080-13	06/24/2020 14:05			
460-212080-1	SO	861BAILEY-05-Z03-06	460-212080-14	06/24/2020 14:05			
460-212080-1	SO	861BAILEY-05-Z06-09	460-212080-15	06/24/2020 14:05			
460-212080-1	SO	861BAILEY-05-Z09-12	460-212080-16	06/24/2020 14:05			
460-212080-1	SO	861BAILEY-05-Z12-18	460-212080-17	06/24/2020 14:05			
460-212080-1	SO	861BAILEY-05-Z18-24	460-212080-18	06/24/2020 14:05			

SDG	Matrix	Test Method	Number of Samples	Sample Type
480-171676-3	SO	6010C	12	N
480-171676-3	SO	6010C	1	FD
480-171676-3	SO	6010C	1	RB
460-212080-1	SO	6010D	18	N
460-212080-1	SO	6010D	1	FD

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes.
Did coolers arrive at lab between 2 and 6ºC and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	The frequency of field QC will be evaluated at the end of project. 2 FD per 30 samples. 2 MS/MSD per 30 samples. 1 rinsate blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2, 2A, and 2B)
- MS/MSD Outside Limits (Table 3 and 3A)
- LCS Outside Limits (Table 4)
- Serial Dilution Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

Go to List

Data Usability Summary Report	Project: 837 Bailey Offsite – 861 Bailey Ave
Date Completed: July 10, 2020	Completed by: Eridania Marte

Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	No.
For samples, if results are < 5 times the blank then "U" flag data.	N/A
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 3)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	No. Lead was recovered outside of the acceptance criteria in the MS and/or MSD for samples 861BAILEY-04-Z06-09 and 861BAILEY-01-Z06-09. The parent sample results were greater than 4X the spike amount. No qualification was made.
Were elements recovered ≤30%? If so, "R" flag associated NDs.	No.
Is LCS within QC criteria (see Table 4)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an "E" as "J".	Yes.
Are serial dilution within QC criteria? (see Table 5)	Yes.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.
Spot check CCV 90-110%. Contact lab if unacceptable.	Yes.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Were samples re-analyzed or diluted? (see Table 6)	Yes. Samples associated with SDG 460-212080-1 were exhibited a 2-folds dilution. No data usability concerns.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Summary of Potential Impacts on Data Usability
Concerns
• None

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 – List of MS/MSD Recoveries outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	MS	MSD	Low Limit	High Limit	Sample Qualifier
6010C	861BAILEY-04-Z06-09	MS/MSD	Lead	910	50.2	-345	-588	75	125	None – 4X
6010D	861BAILEY-01-Z06-09	MS	Lead	301	47.5	116	--	75	125	None – 4X

Table 3A – List of RPDs outside Control Limits
None.

Table 4 - List of LCS Recoveries outside Control Limits
None.

Table 5 - List of Serial Dilution Recoveries outside Control Limits
None.

Table 6 –Samples that were Re-analyzed or Diluted

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	861BAILEY-01-Z09-12	861BAILEY-01-Z09-12-Q	RPD	RPD Rating	Sample Qual
6010D	Arsenic	mg/kg	SO	2.8	14	15.1	7.6%	Good	None
6010D	Lead	mg/kg	SO	1.9	130	119	8.8%	Good	None

Method	Analyte	Unit	Matrix	PQL	861BAILEY-04-Z00-03	861BAILEY-04-Z00-03-Q	RPD	RPD Rating	Sample Qual
6010C	Arsenic	mg/kg	SO	2.3	15.8	15.7	0.6%	Good	None
6010C	Lead	mg/kg	SO	2.8	761	770	1.2%	Good	None

Acronym List and Table Key:

COC	=	chain of custody
DUSR	=	data usability summary report
FD	=	Field duplicate
LCS	=	laboratory control sample
LR	=	Laboratory replicate
MB	=	method blank
MS	=	matrix spike
MSD	=	matrix spike duplicate
N	=	Normal sample
ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
PDS	=	Post-digestion spike
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RB	=	Rinsate blank
RPD	=	relative percent difference
SDG	=	sample delivery group

Data Usability Summary Report	Project: 837 Bailey Offsite – 863 Bailey Ave
Date Completed: July 29, 2020	Completed by: Shawn Kowal

The analytical data provided by the laboratory were reviewed for precision, accuracy, and completeness based on applicable sections of the following guidelines.

- NYSDEC Division of Environmental Remediation Guidance for Data Deliverables and the Development of Data Usability Summary Reports (in DER-10, May 2010)
- EPA Region 2 Data Validation SOPs

Specific criteria for QC limits were obtained from the master QAPP. Compliance with the project QA program is indicated in the checklist and tables below. Any major or minor concerns affecting data usability are listed below. The checklist and tables also indicate whether data qualification is required and/or the type of qualifier assigned.

Reference:

Laboratory	Sample Delivery Group	Task Code
Test America, Buffalo Test America, Edison	480-171842-3	Remedial Design

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171842-3	SO	863BAILEY-01-Z00-03	480-171842-28	06/25/2020 10:15			
480-171842-3	SO	863BAILEY-01-Z03-06	480-171842-29	06/25/2020 10:15			
480-171842-3	SO	863BAILEY-01-Z06-09	480-171842-30	06/25/2020 10:15			
480-171842-3	SO	863BAILEY-01-Z09-12	480-171842-31	06/25/2020 10:15			
480-171842-3	SO	863BAILEY-01-Z12-18	480-171842-32	06/25/2020 10:15			
480-171842-3	SO	863BAILEY-01-Z18-24	480-171842-33	06/25/2020 10:15			
480-171842-3	SO	863BAILEY-02-Z00-03	480-171842-34	06/25/2020 10:35			
480-171842-3	SO	863BAILEY-02-Z03-06	480-171842-35	06/25/2020 10:35			
480-171842-3	SO	863BAILEY-02-Z06-09	480-171842-36	06/25/2020 10:35			
480-171842-3	SO	863BAILEY-02-Z09-12	480-171842-37	06/25/2020 10:35			
480-171842-3	SO	863BAILEY-02-Z12-18	480-171842-38	06/25/2020 10:35			
480-171842-3	SO	863BAILEY-02-Z18-24	480-171842-39	06/25/2020 10:35		MS/MSD	
480-171842-3	SO	863BAILEY-03-Z00-03	480-171843-1	06/25/2020 14:30			
480-171842-3	SO	863BAILEY-03-Z03-06	480-171843-2	06/25/2020 14:30			
480-171842-3	SO	863BAILEY-03-Z06-09	480-171843-3	06/25/2020 14:30			
480-171842-3	SO	863BAILEY-03-Z09-12	480-171843-4	06/25/2020 14:30			
480-171842-3	SO	863BAILEY-03-Z12-18	480-171843-5	06/25/2020 14:30			
480-171842-3	SO	863BAILEY-03-Z18-24	480-171843-6	06/25/2020 14:30			
480-171842-3	SO	863BAILEY-04-Z00-03	480-171843-7	06/25/2020 11:00			
480-171842-3	SO	863BAILEY-04-Z03-06	480-171843-8	06/25/2020 11:00			
480-171842-3	SO	863BAILEY-04-Z06-09	480-171843-9	06/25/2020 11:00			
480-171842-3	SO	863BAILEY-04-Z09-12	480-171843-10	06/25/2020 11:00			
480-171842-3	SO	863BAILEY-04-Z12-18	480-171843-11	06/25/2020 11:00			
480-171842-3	SO	863BAILEY-04-Z18-24	480-171843-12	06/25/2020 11:00			
480-171842-3	SO	863BAILEY-05-Z00-03	480-171848-25	06/25/2020 15:10			

Data Usability Summary Report	Project: 837 Bailey Offsite – 863 Bailey Ave
Date Completed: July 29, 2020	Completed by: Shawn Kowal

Work Order	Matrix	Sample ID	Lab ID	Sample Date	Lab QC	MS/ MSD	ID Corrections
480-171842-3	SO	863BAILEY-05-Z03-06	480-171848-26	06/25/2020 15:10			
480-171842-3	SO	863BAILEY-05-Z06-09	480-171848-27	06/25/2020 15:10		MS/MSD	
480-171842-3	SO	863BAILEY-05-Z09-12	480-171848-28	06/25/2020 15:10			
480-171842-3	SO	863BAILEY-05-Z12-18	480-171848-29	06/25/2020 15:10			
480-171842-3	SO	863BAILEY-05-Z18-24	480-171848-30	06/25/2020 15:10		MS/MSD	
480-171842-3	SO	863BAILEY-06-Z00-03	480-171848-31	06/25/2020 15:40			
480-171842-3	SO	863BAILEY-06-Z03-06	480-171848-32	06/25/2020 15:40			
480-171842-3	SO	863BAILEY-06-Z06-09	480-171848-33	06/25/2020 15:40		MS/MSD	
480-171842-3	SO	863BAILEY-06-Z09-12	480-171848-34	06/25/2020 15:40			
480-171842-3	SO	863BAILEY-06-Z09-12-Q	480-171842-7	06/25/2020 14:30			
480-171842-3	SO	863BAILEY-06-Z12-18	480-171848-35	06/25/2020 15:40			
480-171842-3	SO	863BAILEY-06-Z18-24	480-171848-36	06/25/2020 15:40			
480-171842-3	SO	863BAILEY-07-Z00-03	480-171843-13	06/25/2020 11:05			
480-171842-3	SO	863BAILEY-07-Z03-06	480-171843-14	06/25/2020 11:05			
480-171842-3	SO	863BAILEY-07-Z06-09	480-171843-15	06/25/2020 11:05		MS/MSD	
480-171842-3	SO	863BAILEY-07-Z09-12	480-171843-16	06/25/2020 11:05			
480-171842-3	SO	863BAILEY-07-Z12-18	480-171843-17	06/25/2020 11:05			
480-171842-3	SO	863BAILEY-07-Z18-24	480-171843-18	06/25/2020 11:05			
480-171842-3	SO	RB-20200626	480-171842-8	06/25/2020 10:15			

SDG	Matrix	Test Method	Number of Samples	Sample Type
480-171842-3	SO	6010C	42	N
480-171842-3	SO	6010C	1	FD
480-171842-3	SO	6010C	5	MS/MSD
480-171842-3	SO	6010C	1	RB

General Sample Information	
Do Samples and Analyses on COC check against Lab Sample Tracking Form?	Yes.
Did coolers arrive at lab between 2 and 6°C and in good condition as indicated on COC and Cooler Receipt Form?	Yes.
Frequency of Field QC Samples Correct? Field Duplicate - 1/20 samples Trip Blank - Every cooler with VOCs waters only Equipment Blank - 1/ set of samples per day?	The frequency of field QC will be evaluated at the end of project. 1 FD per 42 samples. 5 MS/MSD per 42 samples. 1 rinsate blank.
Case narrative present and complete?	Yes.
Any holding time violations?	No.

The following tables are presented at the end of this DUSR and provide summaries of results outside QC criteria:

- Method Blanks Results (Table 2, 2A, and 2B)

- MS/MSD Outside Limits (Table 3 and 3A)
- LCS Outside Limits (Table 4)
- Serial Dilution Outside Limits (Table 5)
- Reanalysis Results (Table 6)
- Field Duplicate Results (Table 7)

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Arsenic/Lead by Method 6010C	
Description	**Notes and Qualifiers**
Are any compounds present in method and field blanks as noted on Table 2?	No.
For samples, if results are < 5 times the blank then "U" flag data.	N/A
Is laboratory QC frequency one blank and LCS with each batch and one set of MS/MSD per 20 samples?	Yes.
Are MS/MSD within QC criteria (see Table 3)? QC limits are not applicable to sample results greater than 4 times spike amount. All N flagged data for MS are flagged J as estimated.	Lead was recovered below acceptance criteria in the MSD for sample 863BAILEY-05-Z06-09. In addition, RPD between the MS and MSD was above acceptance. The native sample concentration was greater than 4 time the spike amount; therefore, no qualification was made. Lead was recovered above acceptance criteria in the MSD for sample 863BAILEY-06-Z06-09. In addition, RPD between the MS and MSD was above acceptance. The native sample concentration was greater than 4 time the spike amount; therefore, no qualification was made. The post digestion spike was recovered below acceptance criteria in samples 863BAILEY-07-Z06-09 and 863BAILEY-05-Z06-09. Associated MS and MSD results were within acceptance criteria therefore, no qualification was made.
Were elements recovered ≤30%? If so, “R” flag associated NDs.	No.
Is LCS within QC criteria (see Table 4)? If out, and the recovery high with no positive values, then no data qualification is required.	Yes.
Is there one serial dilution per 20 samples? Flag all data reported with an “E” as “J”.	Yes.
Are serial dilution within QC criteria? (see Table 5)	Arsenic exhibited poor precision in the serial dilution for sample 863BAILEY-07-Z06-09. The sample result was J qualified as estimated.
Spot check ICS recoveries 80-120%. Contact lab if unacceptable.	Yes.
Spot check ICV 90-110%. Contact lab if unacceptable.	Yes.
Spot check CCV 90-110%. Contact lab if unacceptable.	Yes.
Spot check ICVL/CCVL 70-130%. Contact lab if unacceptable.	Yes.
Were samples re-analyzed or diluted? (see Table 6)	No.
Do field duplicate results show good precision for all compounds (see Table 7)?	Yes.

Data Usability Summary Report	Project: 837 Bailey Offsite – 863 Bailey Ave
Date Completed: July 29, 2020	Completed by: Shawn Kowal

Summary of Potential Impacts on Data Usability
Concerns
• Arsenic was J qualified in sample 863BAILEY-07-Z06-09 due to poor precision in the serial dilution.

Table 2 - List of Positive Results for Blank Samples
None.

Table 2A - List of Samples Qualified for Method Blank Contamination
None.

Table 2B - List of Samples Qualified for Field Blank Contamination
None.

Table 3 – List of MS/MSD Recoveries outside Control Limits

Method	Sample ID	Sample Type	Analyte	Orig. Result	Spike Amount	MS	MSD	Low Limit	High Limit	Sample Qualifier
6010C	863BAILEY-05-Z06-09	MSD	Lead	344	41.4	114	-75	75	125	None – 4X
6010C	863BAILEY-06-Z06-09	MSD	Lead	618	46.6	92	1043	75	125	None – 4X

Table 3A – List of RPDs outside Control Limits

Method	Sample ID	Analyte	RPD	RPD Limit	Sample Qualifier
6010C	863BAILEY-05-Z06-09	Lead	22	20	None – 4X
6010C	863BAILEY-06-Z06-09	Lead	50	20	None – 4X

Table 4 - List of LCS Recoveries outside Control Limits
None.

Table 5 - List of Serial Dilution Recoveries outside Control Limits

Method	Sample ID	Analyte	Orig. Result	Serial Dilution Result	MDL	%D	Sample Qualifier
6010C	863BAILEY-07-Z06-09	Arsenic	18.1	20.92	0.49	16	J Flag

Table 6 –Samples that were Re-analyzed or Diluted
None.

Table 7 – Summary of Field Duplicate Results

Method	Analyte	Unit	Matrix	PQL	863BAILEY-06-Z09-12	863BAILEY-06-Z09-12-Q	RPD	RPD Rating	Sample Qual
SW6010C	Arsenic	mg/kg	Solid	2.4	13.6	15.2	11.1%	Good	None
SW6010C	Lead	mg/kg	Solid	1.2	562	669	17.4%	Good	None

Acronym List and Table Key:

COC	=	chain of custody
DUSR	=	data usability summary report
FD	=	Field duplicate
LCS	=	laboratory control sample
LR	=	Laboratory replicate
MB	=	method blank
MS	=	matrix spike
MSD	=	matrix spike duplicate
N	=	Normal sample
ND	=	not detected
NYSDEC	=	New York State Department of Environmental Conservation
PDS	=	Post-digestion spike
PQL	=	practical quantitation limit
QA	=	quality assurance
QAPP	=	quality assurance project plan
QC	=	quality control
RB	=	Rinsate blank
RPD	=	relative percent difference
SDG	=	sample delivery group