Permeable Reactive Barrier Work Plan

BCP No. C360227

Location:

Warburton Dry Cleaners Site
Site No. C360227
305-321 Warburton Avenue,
32 Point Street, and 247-262A
Woodworth Avenue
Yonkers, New York 10701

Prepared for:

Warburton Avenue Apartments, LLC
1000 University Avenue
Rochester, NY 14607

LaBella Project No. 2221378

December 2025

LaBella
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Certification

I Daniel Noll certify that I am currently a (NYS registered professional engineer or Qualified Environmental Professional as defined in 6 NYCRR Part 375) and that this Permeable Reactive Barrier Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

December 12, 2025
Date

If you have any questions, please contact me at (585) 295-6611.
Respectfully submitted,
LaBella Associates, D.P.C.

Dan Noll, PE
Vice President

1.0 INTRODUCTION

This Permeable Reactive Barrier (PRB) Work Plan has been prepared by LaBella Associates, D.P.C (LaBella) on behalf of the Volunteer, Warburton Avenue Apartments, LLC, to support the implementation of remedial activities for the Warburton Dry Cleaners Site (Site), located at 305-321 Warburton Avenue, 32 Point Street, and 247-262A Woodworth Avenue in the City of Yonkers, Westchester County, New York. Details related to the remedial activities are presented in the Remedial Action Work Plan (RAWP) dated May 2024. The Site is enrolled in the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) (Site No. C360227).

The objective of this PRB Work Plan is to provide details on the anticipated extent, depth, injectant material and initial monitoring plan for the PRB. Continued management of the PRB will be defined as part of the Site Management Plan (SMP).

2.0 BACKGROUND

2.1 Site Description

The BCP Site is a (±)1.1145-acre property and comprised of 13 tax lots located in a mixed residential and commercial area of Yonkers, New York. The 13 tax lots were merged into one following closing. The Site is currently under active construction. Site redevelopment includes the construction of a new residential affordable housing building and a parking lot. Prior uses of the Site include residential housing and commercial auto repair.

The Site is located in a mixed residential and commercial area of Yonkers, New York. A site plan is included as **Figure 1**.

2.2 Site History

The Site has historically been a mixed-use property with both residential and commercial occupants. Commercial occupants included grocers, auto repair, a clothing store, a tailor, a restaurant, a pharmacy, a hardware store, a security service, and a barber shop.

2.3 Surrounding Properties

Adjacent properties include residential dwellings, commercial storefronts, undeveloped lots, and two former dry-cleaning facilities, which were historically located adjacent to the Site, including the Former Rappaport Plaza Cleaners, located across the street to the east at 322 Warburton Avenue, and the Former Glenwood Cleaners, located across the street to the north at 323 Warburton Avenue.

2.4 Topography

According to the United States Geological Survey (USGS), the topographic elevation ranges from approximately 50 feet above mean sea level (amsl) in the western portion of the Site to 80 feet amsl in the eastern portion of the Site. The Site slopes west towards the Hudson River.

2.5 Geology and Hydrogeology

2.5.1 Regional Geology/Hydrogeology

According to the NYSDOT Geotechnical Design Manual Chapter 3 NYS Geology, the region is located within the Manhattan Prong, a subdivision of the Hudson Highlands.

The geologic setting consists of intensely metamorphosed sediments. The rocks extend in parallel ridges; and folding has steeply upturned them so that differential erosion has developed the ridges. Resistant rocks of schist, gneiss, and granodiorite form the ridges, while less resistant marble is the valley maker. According to the USGS NYC Region Geologic Map, the area is underlain by Precambrian gneisses.

2.5.2 Site Geology/Hydrogeology

The Site's bedrock is mapped on the Geologic Map of New York as Precambrian-Middle Proterozoic-aged rocks consisting of Fordham gneiss, biotite, and granite. A review of the Surficial Geologic Map of New York (Lower Hudson Sheet, 1989) indicates that surficial soils in the area are mapped as till.

On-Site soil generally consists of historic fill material from the surface to up to approximately 12 feet below ground surface (ft bgs), varying throughout the Site. The non-native contaminated historic fill material (CHFM) generally appears to consist of fine brown sand, asphalt, brick, wood, glass, ash, and other construction debris. The CHFM is underlain by glacial till consisting dense brown medium-fine sand, with varying amounts of silt and gravel and small to large boulders which overlies bedrock which is present at approximately 71 ft bgs in the vicinity of MW-1D in the northwestern portion of the Site and approximately 92 to 95 ft bgs in the vicinity of MW-2 Nested and MW-6 Nested, along the eastern boundary of the Site, based upon field observations.

Site-specific groundwater contour maps indicate that the general groundwater flow direction is to the west/northwest and may vary seasonally; however, overall regionally it is west towards the Hudson River. Municipal water supply is provided by the Water Bureau of Yonkers.

Based on measurements taken in December 2023 as part of the Remedial Investigation (RI), depth to groundwater at monitoring wells MW-1 through MW-4 was observed to be approximately 35.9 (MW-3) ft bgs to 64.8 (MW-2) ft bgs. Groundwater elevation at monitoring wells MW-1 through MW-4 was observed to be approximately 29.6 to 32.8 ft (assumed datum) at monitoring wells MW-1 through MW-4.

Based on measurements taken in March 2025 as part of the upgradient PRB nested monitoring well sampling the table below shows the depth to water summary for nested monitoring wells MW-2 and MW-6. Each nested monitoring well has four zones with varying screened intervals.

Well	Well Depth	Date of Installation	Approximate Screened Interval	Depth to Groundwater (03/21/2025)	Depth to Groundwater (03/24/25)	Depth to Groundwater (03/25/2025)	Depth to Groundwater (03/26/2025)	Depth to Groundwater (04/15/2025)
	(ft bgs)	(mm/dd/yyyy)	(ft bgs)	(ft bgs)	(ft bgs)	(ft bgs)	(ft bgs)	(ft bgs)
MW-2-Nested A	65.55	3/19/2025	60.55-65.55	64.56	64.53	64.55	64.53	64.55
MW-2-Nested B	75.07	3/19/2025	70.70-75.70	66.84	66.85	66.84	66.95	66.80
MW-2-Nested C	87.05	3/19/2025	82.05-87.05	67.19	67.18	67.15	67.13	66.94
MW-2-Nested D	96.80	3/19/2025	91.80-96.80	67.37	67.33	67.30	67.25	66.85
MW-6-Nested A	62.30	3/20/2025	57.30-62.30	64.39	64.46	64.39	64.39	Dry
MW-6-Nested B	72.52	3/20/2025	70.52-75.52	69.22	66.13	69.22	69.20	66.04
MW-6-Nested C	82.48	3/20/2025	77.48-82.48	69.23	66.14	69.23	69.15	66.05
MW-6-Nested D	92.60	3/20/2025	87.60-92.60	69.47	66.48	69.47	69.45	66.40

The installation of the upgradient nested monitoring wells took place in April 2025. Each upgradient nested monitoring well was drilled to the top of bedrock, which was encountered at 95 ft bgs at MW-2 Nested and 92 ft bgs at MW-6 Nested. To confirm that bedrock was encountered the driller over-drilled an additional 5 ft at MW-2 Nested (down to 100 ft bgs) and 3 ft (down to 95 ft bgs) at MW-6 to confirm bedrock.

3.0 REMEDIAL INVESTIGATION FINDINGS

This section is limited to the information in the RI Report.

The June 13, 2025, Pre-Design Investigation Report – Upgradient PRB Monitoring Wells is summarized in **Section 6.0**. The RI consisted of collecting/analyzing 185 soil samples from 23 boring and 4 groundwater monitoring wells, Pursuant to receipt of RI comments and subsequent discussions with NYSDEC, LaBella performed an additional investigation of the suspect fuel oil tank fill port and a groundwater data gap investigation as part of the first phase of a Pre-Design Investigation (PDI), documented in the revised RI Report dated July 2024. MW-5 was installed downgradient of wells MW-1/1D to further evaluate the nature and extent of the groundwater contamination. MW-6 was also installed adjacent to the sidewalk on Warburton Ave in Block 2116, Lot 28.

The objective was to further delineate groundwater contamination encountered during the RI and further refine the Conceptual Site Model (CSM). RI findings pertaining to groundwater contamination is summarized in this section.

3.1 Groundwater Results

Tetrachloroethene (PCE) is likely migrating onto the Site from an off-site source. The presence of PCE in groundwater at MW-2 (screened interval elev. 20 to 40 ft amsl) and MW-6 (screened interval elev. 20 to 40 ft amsl), which are located at the most upgradient/northeastern portions of the Site, indicates that PCE is potentially migrating onto the site from an off-site source. Although the concentration of PCE at MW-6 (720 µg/L) is slightly lower than at MW-4 (1500 µg/L), the third upgradient well screened at an elevation of 12 to 32 ft amsl, this may be attributable to variations in source strength, release duration and/or frequency, and/or other source term factors in connection with the release of PCE.

The presence of Trichloroethylene (TCE) at MW-4 is attributable to the degradation of PCE and does not reflect the presence of a source of TCE. In addition, the concentration of PCE in groundwater at MW-5, screened interval elev. -1.5 to 11 ft amsl, is only 1 µg/L, which is below the Ambient Water Quality Standard of 5 µg/L. MW-5 is located at the western edge of the Site along Point Street, down gradient of both MW-1 (160 µg/L PCE), screened at an elevation of 20 to 30 ft amsl, and MW-1D (1600 µg/L PCE), screened from 8 to 17 ft amsl.

This data suggests that the extent of the probable off-site migration of Chlorinated Volatile Organic Compounds (CVOCs) in groundwater is limited. Locations of the monitoring wells, MW-5 and MW-6 and analytical results for all of the wells are included in **Figure 2A.** Groundwater detections of PCE and TCE are included in **Figure 2B.** Additional details regarding the extent of groundwater contamination are also included in Section 6.0, which includes data obtained after completion of the RI Report.

3.2 Soil Results

A total of 185 soil grab samples were analyzed for VOCs from 23 soil borings as part of the RI, 25 soil grab samples analyzed for VOCs from 40 soil borings as part of the waste characterization effort, and 24 soil grab samples collected from 18 soil borings (out of the 40 previously noted) as part of the sampling effort for approval of soil targeted for on-site re-use. LaBella also advanced 3 borings in the basement of the former building located at 321 Warburton Ave on March 29, 2024 to determine if there is a source under this building. The borings were advanced to a depth of 6 feet below the basement surface, which was approximately 9.5 ft bgs. Sample results from the borings did not contain VOCs in exceedance of Restricted Residential Soil Cleanup Objectives (RRSCOs).

PCE was detected at estimated values at 29 RI samples from approximately 0.0004 to 0.0068 mg/kg (Unrestricted Use Soil Cleanup Objective 1.3 mg/kg; PGSCO 1.3mg/kg). TCE was detected at estimated values at 6 RI samples from approximately 0.00012 to 0.00062 mg/kg (UUSCO 0.47 mg/kg; PGSCO 0.47 mg/kg). PCE was detected at 6 RI samples from 0.00069 to 0.002 mg/kg (UUSCO 1.3 mg/kg; PGSCO 1.3 mg/kg).

In addition, VOCs were not detected in exceedance of RRSCOs in any of the 91 post-excavation confirmation samples analyzed to date, including the samples collected immediately beneath the former building at 321 Warburton Ave. Of the samples collected from beneath 321 Warburton Avenue, PCE was detected in one sample at an estimated concentration of 0.00026 mg/kg (UUSCO 1.3 mg/kg; PGSCO 1.3mg/kg).

The data collected during the Remedial Action further supports the conclusion that there is no evidence of a PCE source on-Site.

4.0 CONCEPTUAL SITE MODEL

Pursuant to DER-10 Section 3.2.2, a conceptual site model (CSM) was developed as part of the 2024 Remedial Action Work Plan based on Remedial Investigation findings and previous investigations to produce a simplified framework for understanding the distribution of impacted materials, probable migration pathways, and potentially complete exposure pathways. The CSM considers Site history and context, including the factors that influence distribution, fate and transport of remedy-relevant constituents, as well as potential receptors and pathways for exposure. These factors include potential sources and release mechanisms, the physical-chemical mechanisms that control constituent fate and transport, and the likely exposure pathways that govern the potential for adverse effects to human and ecological receptors.

Certain off-site and upgradient investigations, including sidewalk well sampling collection, have been completed and support a probable off-site contribution to groundwater impacts at the Site. However, a dedicated Remedial Investigation (RI) of the off-site property has not yet been completed within that property's own Brownfield Cleanup Program (BCP) project.

A summary of the CSM pertaining to CVOC contamination is included below.

4.1 Environmental Fate and Transport

Chemicals are transported or transformed in the environment through physical and kinetic processes. Physical processes including dissolution, vaporization, and adsorption result in the transfer of substances across media and phases. Kinetic processes, which include biotic and abiotic chemical transformations, decrease the concentration of a chemical by degrading it into other products. The current understanding of the fate and transport of Contaminants of Potential Concern (COPCs), specifically CVOCs, is summarized below for each of the environmental media of interest at the Site.

Soil

There is no evidence of the presence of CVOCs in soil at the Site.

Groundwater

Depth to groundwater varies from approximately 35 to 65 ft bgs, subject to topographic variations across the Site. The fate and transport mechanisms that affect groundwater include advection, dispersion, dissolution, and natural degradation, which may work to reduce the concentration of any dissolved-phase constituents. The general groundwater flow direction is to the west/northwest and may vary seasonally; however, overall, it is west towards the Hudson River. Groundwater sampling results indicate that the concentrations of CVOCS in groundwater are greatest along the upgradient boundary, indicating probable

migration onto the Site from an off-site source. Therefore, an off-site source of PCE may exist and has not yet been identified.

4.2 Potential Exposure Pathways – On-Site

4.2.1 Current Conditions

The Site is currently under active construction. The Site remedy includes excavation to remove soil at concentrations that exceed restricted residential soil cleanup objectives. An SSDS will be installed to address potential exposure from contaminated groundwater and soil vapor. Groundwater is not expected to be used for any purposes in the foreseeable future.

During future subsurface investigations and remediation where human exposure to contaminated soil, groundwater, and soil vapor is possible, the potential exposure pathways (dermal absorption, inhalation, and ingestion) will be controlled through implementation of a Health and Safety Plan (HASP) or Construction Health and Safety Plan (CHASP).

In the absence of engineering and institutional controls, potential exposure pathways exist for dermal absorption, ingestion, and/or inhalation during construction/remediation. Construction and remedial activities include demolition, excavation, and off-Site disposal of impacted soil, potential localized dewatering of contaminated groundwater, and construction of foundation components. These exposure pathways will be controlled through the implementation of a CHASP, Community Air Monitoring Plan (CAMP), and use of vapor and dust suppression techniques. In addition, any future excavation work will be completed under an Excavation Work Plan.

4.3 Potential Exposure Pathways – Off-Site

The probable off-Site migration of Site contaminants in soil is not expected to result in a complete exposure pathway for current, construction, and remediation, or future conditions for the following reasons:

- The Site is located in an urban area with continuous and relatively impervious surface covering (i.e. building foundations and concrete and asphalt paving),
- During Site redevelopment and remediation, the following protective measures will be implemented:
    - Air monitoring will be conducted for particulates (i.e., dust) and VOCs during all intrusive activities as part of a CAMP. Dust and/or vapor suppression techniques will be employed to limit potential for probable off-Site migration of soil and vapors.
    - Vehicle tires and undercarriages will be washed as necessary prior to leaving the Site to prevent tracking material off-Site.

4.4 Evaluation of Human Health Exposure

Based upon the CSM and the review of environmental data, complete on-Site and off-Site exposure pathways do not appear to be present under current conditions. During construction and remediation, there is a risk of exposure to humans from Site contaminants via exposure to soil. The HASP will mitigate this risk.

Complete exposure pathways have the following five elements: 1) a contaminant source; 2) a contaminant release and transport mechanism; 3) a point of exposure; 4) a route of exposure; and 5) a receptor population. A discussion of the five elements comprising a complete pathway as they pertain to the Site is provided below.

Contaminant release and transport mechanisms include contaminated soil transported as dust, contaminated groundwater flow, and volatilization of contaminants from the soil and groundwater matrices to the soil vapor phase, and transport of existing soil vapor contaminants. Under current Site conditions, the likelihood of exposure to humans is limited, as the Site is vacant and potable water is obtained from an off-

Site source. Subsurface investigations were conducted in accordance with a HASP to minimize exposure risk.

4.4.1 Construction/Remediation Activities

During development and remediation, points of exposure include disturbed and exposed soil during excavation, dust and organic vapors generated during excavation, and contaminated groundwater that may be encountered during excavation and/or localized dewatering operations. Potential routes of exposure include ingestion and dermal absorption of contaminated soil. The receptor population includes construction and remediation workers and, to a lesser extent, the public adjacent to the Site.

The potential for completed exposure pathways is present since all five elements exist; however, the risk will be minimized by the implementation of appropriate health and safety measures during construction and remediation, such as monitoring the air for organic vapors and dust, using vapor and dust suppression measures, cleaning truck undercarriages prior to exiting the Site to prevent off-Site soil tracking, maintaining site security, and wearing the appropriate personal protective equipment (PPE).

In accordance with the NYSDEC-approved 2024 Remedial Action Work Plan (RAWP), which includes a CHASP, a Soil/Materials Management Plan (SMMP), and a CAMP, measures such as conducting an air monitoring program, donning PPE, covering soil stockpiles, altering work sequencing, maintaining a secure construction entrance, proper housekeeping, and applying vapor and dust suppression measures to prevent the probable off-Site migration of contaminants during construction will be implemented. Such measures will prevent the completion of these potential exposure pathways.

4.4.2 Human Health Exposure Assessment Conclusions

Human exposure to Site contaminants is limited under current conditions on the Site. The primary exposure pathways are for dermal contact, ingestion, and inhalation of soil, soil vapor, and groundwater by Site investigation workers. The exposure risks can be avoided or minimized by following the appropriate health and safety and vapor and dust suppression measures outlined in the site-specific HASP during investigation activities.

The COPCs detected at the Site have the potential to have adverse effects on human health and may be absorbed after ingestion, inhalation, or dermal exposure. Acute exposure symptoms may include headache, dizziness, unconsciousness, abdominal pain, nausea, diarrhea, and skin and eye irritation, among other effects. Chronic exposure may cause harm to the central nervous system, liver, kidneys, and dermatitis, among other effects. Many of the compounds are known or probable human carcinogens.

In the absence of institutional and engineering controls, there is potential for exposure during construction and remediation activities. The primary exposure pathways are:

- Dermal contact, ingestion, and inhalation of contaminated soil and groundwater soil vapor by construction workers.
- Dermal contact, ingestion, and inhalation of soil (dust) and inhalation of soil vapor by the community in the vicinity of the Site.

These exposure risks can be avoided or minimized by performing community air monitoring and by following the appropriate health and safety, vapor and dust suppression, and Site security measures outlined in a site-specific CHASP.

The existence of a complete exposure pathway for Site contaminants to human receptors during proposed future conditions, both on and off-site, is unlikely. Contaminated soil has been excavated and transported to off-Site disposal facilities, and any residual soil that remains will be below a cover system and / or below

RRUSCOs. The potable use of groundwater is prohibited, and an SSDS will mitigate the potential for soil vapor intrusion as outlined in the SMP.

Monitoring and control measures will be used during future remedial investigation and construction activities to mitigate the potential for community exposure to contaminated dust and/or vapors.

5.0 PRE-DESIGN INVESTIGATION – GROUNDWATER TREATMENT DESIGN

As part of the design process for the PRB, a pre-design investigation was conducted pursuant to the NYSDEC-approved work plan dated August 6, 2024. Specifically, the investigation included hydraulic conductivity testing and passive diffusion bag sampling. A supplemental pre-design investigation was also conducted pursuant to the NYSDEC-approved work plan dated February 5, 2025, including the installation and sampling of two upgradient PRB monitoring wells.

5.1 Hydraulic Conductivity Testing

LaBella conducted slug testing to assess the hydraulic conductivity of the aquifer in the treatment zone and the groundwater velocity, such that residence time (contact time) between the contaminated groundwater and the PRB could be assessed. Slug tests were performed on June 20, 2024, through June 24, 2024 on three (3) monitoring wells (MW-2, MW-4, and MW-6) that are closest in proximity to the planned PRB. Due to suspect results for MW-6, an additional slug testing event was conducted on July 30th to re-test MW-6 and perform tests on wells MW-1D and MW-5 to obtain additional data and utilize averages across the site. The slug testing was consistent with the USEPA Standard Operating Procedures: Slug Tests dated April 29, 2020, included as an attachment to the PDI Work Plan dated August 6, 2024.

The methods for conducting the slug tests were as follows:

- Initially, the static water level was measured/recorded prior to initiating the test.
- A pressure transducer was placed into the wells listed above, one well at a time, to record water level measurements over time.
- A PVC slug of known volume was dropped into the well to quickly displace a volume of water.
- Pressure transducer measurements were collected throughout; however, periodic manual static water level meter readings were also collected.
- Subsequent to allowing water levels to return to pre-test levels, the slug was rapidly removed to conduct a 'slug out' (i.e., negative displacement) test.
- The above procedures were repeated for each well to assess repeatability of the test/results.
- The above testing results were utilized to calculate hydraulic conductivity for each well tested using the Hvorslev Method, and this information was utilized along with groundwater gradients to develop a groundwater velocity across the Site/PRB area.

During the additional slug testing event on June 20, 2024, the wells MW-1D, MW-5, and MW-6 were tested by utilizing a slug of potable water. Specifically, the following water slugs were utilized:

Well	5-Gallon	10-Gallon
MW-1D	1 test	--
MW-5	2 tests	--
MW-6	2 tests	1 test

The slug testing results were assessed utilizing AQTESOLVE version 4.5.002 to graph and interpret the results and obtain a range of hydraulic conductivity estimates for each well. A table summarizing the results of the slug testing is included in **Appendix A**. As shown conductivities ranged from 1.12×10^{-2} cm/sec to 6.29×10^{-4} cm/sec.

The estimated hydraulic conductivities for each well were utilized to assess groundwater velocity across the Site. This was determined by utilizing the groundwater contours developed from static water levels collected on December 19, 2023 and obtaining the hydraulic gradient for the site. A range of hydraulic gradients was calculated between 2 sets of wells: MW-4 to MW-3 along the southern portion of the site and MW-2 to MW-1 along the northern portion of the site. This resulted in a range of groundwater flow velocities between 0.18 to 0.46 ft/day. The groundwater velocity calculations are summarized in **Appendix B.**

5.2 Groundwater Sampling

Passive Diffusion Bag (PDB) sampling was conducted to assess the vertical profile of contamination and evaluate any significant variations in PCE concentration with depth to determine if placement of additional PRB treatment chemical is warranted in different vertical zones. The sampling also included the collection of geochemical parameters in order to evaluate existing conditions (e.g., anaerobic vs. aerobic, reductive state, etc.) with respect to the potential for Monitored Natural Attenuation (MNA).

Passive Diffusion Bag Sampling

A PDI work plan was implemented to investigate activities to support the design of a groundwater treatment system. As part of the PDI work plan, PDBs were deployed in three (3) wells (MW-2, MW-4, and MW-6) that are closest in proximity to the planned PRB. The PDBs were deployed at the following depths in each well (i.e. at the top, middle, and bottom of the water column). Prior to deployment the depths were confirmed based on the depth-to-water measurements at the time the PDB was deployed.

Monitoring Well	Well Screen Depth (FT BGS)	Depth of PDB (FT BGS – Center of PDB)	Approximate Sample Elevation (ft NAD83)
MW-2	56 - 76	60	36
		66	42
		73.5	49.5
MW-4	56 - 76	59	35
		66.5	42.5
		73.5	49.5
MW-6	56 - 76	65	41
		70	46
		73.5	49.5

The PDBs were deployed on May 21, 2024 (MW-2 & MW-4) and May 28, 2024 (MW-6) and sampled on June 11, 2024. The PDBs were left in the well for a minimum of 2 weeks for the PDB to equilibrate with the water in the well and allow for diffusion of contaminants into the PDB such that a sample representative of the groundwater column/depth is obtained. The PDBs were deployed and sampled in accordance with the EON Standard Operating Procedure for Groundwater Sampling Using Passive Diffusion Samplers which was included as an attachment with the PDI Work Plan. The groundwater removed from each well was sampled for Volatile Organic Compounds (VOCs) via EPA Method 8260.

The results of the PDB sampling are provided on **Table 1,** which is included in **Appendix C**. PDB sampling results are also included on **Figure 2A and 4.** The data is further summarized below to indicate only significant detections pertaining to the site-specific COCs, PCE and TCE. All other VOCs were either non-detect or estimated concentrations and below the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 groundwater standards and/or guidance values.

Well	Sample Depth (ft. bgs)	Sample Elevation (ft. amsl)	VOCs (ppb) PCE	TCE	Acetone
MW-2	60	36	**6,000**	< 25	< 250
	66	30	**7,800**	< 25	**82 J**
	73.5	22.5	**8,400**	< 50	< 500
MW-4	59	36	**79**	2.3	**80**
	66.5	28.5	**38**	0.94	**99**
	73.5	21.5	**170**	3.6	**110**
MW-6	56	36	**160**	0.45 J	9.4
	65	30	**2,200**	< 10	<100
	73.5	22.5	**2,400**	< 12	< 120

Notes:

- < denotes contaminant not detected above detection limit shown.
- J denotes estimated concentration.
- Bold denotes concentration exceeds NYSDEC TOGS 1.1.1 Groundwater Standard.

As shown in the above table, PCE was the most significant constituent detected, which is consistent with prior groundwater testing data. Acetone was also detected in each well at varying concentrations. PCE concentrations generally increased with depth; however, the concentrations for each bottom sample were similar to concentrations in the middle samples (i.e., did not increase by orders of magnitude). The bottom sample concentrations for each well are not representative of free product/dense non-aqueous phase liquid. NYSDEC requested additional vertical delineation of COCs, and that work was completed under a Supplemental PDI and is summarized in **Section 6.4**.

Degradation products of PCE (e.g., TCE, cis/trans 1,2-dichloroethylene (1,2-DCE), and vinyl chloride (VC) were limited to some low-level detections of TCE. Based on the VOC sampling data, there does not appear to be any significant degradation/natural attenuation of PCE occurring (further discussed in the MNA parameter assessment below).

MNA Parameters Assessment

All of the monitoring wells on-site (MW-1, MW-1D, MW-2, MW-3, MW-4, MW-5, and MW-6) were sampled for baseline conditions prior to the installation of the PRB. The wells were sampled via low-flow sampling techniques consistent with the procedures utilized during the Remedial Investigation. Purge water was containerized and run through a carbon filter and discharged to the ground surface. During sampling, the following parameters were measured and recorded at three (3) to five (5) minute intervals:

- Water level drawdown (<0.3')
- Temperature (+/- 3%)
- pH (+/- 0.1 unit)
- Dissolved oxygen (+/- 10%)
- Specific conductance (+/- 3%)
- Oxidation reduction potential (+/- 10 millivolts)
- Turbidity (+/- 10%, <50 NTU for metals)

Samples were also collected when the parameters were stabilized within the specified range for three (3) consecutive intervals. The following samples were also collected and transported to an ELAP-certified laboratory under standard chain of custody procedures for analysis of:

- Alkalinity, EPA Method 031.2
- Chloride, EPA Method 0300
- Hardness, EPA Method 130.1

- nitrate/nitrite, EPA Method 353.2
- sulfate/sulfide, EPA Method 300/376.1
- Ferrous iron, EPA Method 3010
- Total Organic Carbon (TOC), EPA Method 9060

Additionally, samples were also collected from the wells without PDBs deployed (MW-1, MW-1D, MW-3, and MW-5) for TCL VOCs by USEPA Method 8260. This sampling was completed to confirm that prior results have not significantly changed.

5.3 Pre-Design Investigation Results

The results of this sampling are summarized in **Table 2** included in **Attachment C**. This sampling was not conducted to evaluate a full site wide MNA approach, but rather to assess existing conditions and if natural attenuation could be expected to contribute to degradation based on groundwater conditions. To assess this, the United States Environmental Protection Agency (USEPA) Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, September 1998 was utilized to compare the values with MNA scoring parameters. It should be noted that a full MNA assessment/scoring was not completed, rather, the values listed were utilized for comparison purposes only as part of a general assessment. Specifically, Table 2.3 (Analytical Parameters and Weighting for Preliminary Screening for Anaerobic Biodegradation Processes) was utilized to assess the indicator parameters. A background sample was not collected. The results of the comparisons are summarized in the below table. A summary of monitored natural attenuation parameter analytical results is also shown on **Figure 2C.**

Analysis	Concentration Indicating Favorable Anaerobic Biodegradation Processes	Site Concentration Range	Interpretation
Alkalinity	>2x Background	Background samples were not collected. Alkalinity in 'clean' wells (MW-3 and MW-5, where PCE/TCE were not detected at significant levels) the same range as the impacted wells	May not be favorable for MNA
Nitrate	<1 mg/L	2.6 – 6.5 mg/L, except for MW-1 (0.151 mg/)	May not be favorable for MNA
Total Organic Carbon (TOC)	>20 mg/L	0.33 – 2.1 mg/L	May not be favorable for MNA
Ferrous Iron (Iron II)	>1 mg/L	0.08 – 0.16 mg/L	May not be favorable for MNA
Sulfate	<20 mg/L	26.8 – 55.7 mg/L, except MW-1 (7.44 mg/L)	May not be favorable for MNA
Chloride	>2x background	Background samples were not collected. Chloride in 'clean' wells (MW-3 (4.06 mg/L) and MW-5 (347 mg/L), where PCE/TCE were not detected at significant levels) the same range as impacted wells	May not be favorable for MNA

Dissolved Oxygen (DO)	<0.5 mg/L	0.6 to 5.3 mg/L	Conditions are not anaerobic
Oxidation Reduction Potential (ORP)	<50 mV	-104 mV (MW-3) to +120 mV (MW-2)	Reducing conditions only present in some locations

Based on the above, MNA via anaerobic reductive dichlorination does not appear to be contributing to any significant degradation of PCE in groundwater at the Site, which is consistent with a lack of degradation products as indicated by the VOC testing data.

The findings from the Remedial Investigation (**Section 3.0**) and PDI (**Section 5.0**) were the basis of the initial PRB design to achieve Remedial Action Objectives. However, as noted above, the NYSDEC requested further vertical delineation of COCs in groundwater as part of comments on the initial PRB Work Plan (December 20, 2024 NYSDEC letter). LaBella, on behalf of the Volunteer, submitted a PDI Work Plan – Upgradient PRB Monitoring Wells dated February 5, 2025, which was approved by NYSDEC in a letter dated February 14, 2025. **Section 6.4** below summarizes the results of that work.

5.4 Upgradient PRB Monitoring Wells

Two multi-level nested upgradient monitoring wells MW-2 Nested and MW-6 Nested were installed in the right-of-way (sidewalk) on the west side of Warburton Avenue, immediately upgradient of the Warburton Dry Cleaners Site, between April 17 and April 25, 2025. The wells were installed using Sonic drilling methodology and sampled according to the Revised PDI Work Plan approved on February 14, 2025. (**Figure 3**). A summary of the results from this additional investigation are provided below. For additional detail, please refer to the PDI Report – Upgradient PRB Monitoring Wells dated June 13, 2025 (approved by NYSDEC in a July 1, 2025 letter).

A total of four piezometers were installed at each location varying between 60 to 95 ft bgs. Water was not encountered in the shallowest piezometers at each well. The wells were developed, purged, sampled, and analyzed for 8260 VOCs. The purpose of the upgradient monitoring wells was to complete the vertical delineation of CVOCs in order to finalize planned PRB details, as well as to allow for long-term monitoring of dissolved-phase CVOCs in groundwater upgradient of the PRB. The Upgradient PRB Monitoring Wells Report is included as **Attachment D**. The upgradient monitoring wells investigation is summarized below.

Upgradient Well Construction

The well screens at MW-2 Nested and MW-6 Nested are located at the following depths:

Well ID	Well Depth (ft bgs)	Screen Interval (ft bgs)	Screen Interval (ft amsl)
MW-2 Nested A	65.55	60.55 – 65.55	31.45 – 36.45
MW-2 Nested B	75.7	70.7 – 75.7	21.3 – 26.3
MW-2 Nested C	87.05	82.05 – 87.05	9.95 – 14.95
MW-2 Nested D	96.8	91.8 – 96.8	0.2 – 5.2
MW-6 Nested A	62.3	57.3 – 62.3	34.7- 39.7
MW-6 Nested B	75.52	70.52 – 75.52	21.48 - 27
MW-6 Nested C	82.48	77.48 – 82.48	19.52 – 21.48
MW-6 Nested D	92.6	87.6 – 92.6	9.4 - 14.52

Bedrock was confirmed to be present at MW-2 Nested at 95 ft bgs and at MW-6 Nested at 92 ft bgs. The deepest screened interval at both wells extends slightly below the apparent top of bedrock based on depth-to-bottom measurements at each well (refer to PDI Report for more details).

Soil

Soil at both well locations consisted of medium-fine brown sand with gravel, with little silty clay between 5 and 60 ft bgs. Soils below 60 ft consisted of fine brown silty clay, and some medium fine to fine compact sand with gravel, with intervals of highly compacted cementitious sand. Based on observations of saturated soil, it was estimated that depth-to-water at both locations was between 55 and 60 ft bgs. LaBella screened drill cuttings for the presence of VOCs using a PID. A total of five (5) soil samples were collected and analyzed for VOCs based on the highest PID readings or other indications of potential impacts (odors). The table below summarizes the soil samples collected:

Up-Gradient Well Soil Sampling			
Location	Depth (ft. bgs)	Basis for sample collection	Sample ID
MW-2 Nested	23	PID - 27.4 ppm	MW-2 Nested (23)
	59	PID - 181.6 ppm & Odor	MW-2 Nested (59)
	97	PID – 1.2 ppm & Top of Rock	MW-2 Nested (97)
MW-6 Nested	50	PID – 58 ppm	MW-6 Nested (50)
	92	Top of Rock	MW-6 Nested (92)

Soil samples contained VOCs, including PCE, Benzene, Toluene, Ethylbenzene, Acetone, Isopropyl benzene, Naphthalene, and Xylenes at trace concentrations that were below NYSDEC Unrestricted Use Soil Cleanup Objectives (UUSCOs). One sample (MW-2 Nested (23' bgs)) contained several non-site related VOCs (Acetone, Methylene Chloride & 2-Butanone) that exceeded NYSDEC Unrestricted Use Soil Cleanup Objectives but were below the NYSDEC RRSCOs. The relatively low concentrations of VOCs in soil are consistent with the probable migration of VOCs in groundwater impacting the soils from an upgradient source. The VOCs in the sample from above the water table (MW-2 Nested (23' bgs)) may be due to discharges/leakage from the sanitary sewer or through the bedding material surrounding the sewer line.

Groundwater

PCE at all sampled piezometers was detected in exceedance of New York TOGS 1.1.1. Ambient Water Quality Standards and Guidance Values (AWQS) which is 5 µg/l. A summary of the PCE results is provided in the table below.

Summary of Groundwater Results					
Location	Sampling (Screened) Interval (ft bgs)	Sample Elev. (ft above msl)	PCE (µg/l)	TCE (µg/l)	cis-1,2-DCE (µg/l)
MW-2 Nested B	70.7 – 75.7	25	3,500	Non Detect	Non Detect
MW-2 Nested C	82.05 – 87.05	12.5	5,300	Non Detect	Non Detect
MW-2 Nested D	91.8 – 96.8	2.5	820	Non Detect	Non Detect
MW-6 Nested B	70.52 – 75.52	26	19	Non Detect	Non Detect

Summary of Groundwater Results					
Location	Sampling (Screened) Interval (ft bgs)	Sample Elev. (ft above msl)	PCE (µg/l)	TCE (µg/l)	cis-1,2-DCE (µg/l)
MW-6 Nested C	77.48 – 82.48	16	470	Non Detect	Non Detect
MW-6 Nested D	87.6 – 92.6	6.5	810	Non Detect	Non Detect

Concentrations of PCE appear to be decreasing with depth. Furthermore, the deepest samples in both MW-2 Nested and MW-6 Nested indicate that significant contaminant mass is limited to the overburden, and further vertical delineation is not warranted. Although the concentration of PCE identified in MW-6 Nested D (deepest sample) was higher than the B and C interval, the concentrations were not significantly higher with depth.

Former well MW-6 (approximately 10 ft. west) contained significantly higher concentrations at shallower depths, indicating that PCE concentrations decrease with depth overall. Specifically, former well MW-6 contained 2,400 µg/l PCE at elevation of 22.5 ft. while MW-6 Nested C (elevation 16 ft) and Nested D (elevation 6.5 ft) contained PCE at significantly lower concentrations, 470 µg/l and 810 µg/l, respectively. In addition to PCE, Chloroform, Methylene Chloride, Acetone, and Toluene were the only other detected compounds. Of these, only Chloroform was present at concentrations in exceedance of its applicable AWQS (7 µg/l) at piezometers MW-6 Nested B and MW-6 Nested C. In all samples, detection limits for TCE and cis-1,2-DCE were elevated above the AWQS, indicating that these compounds could still be present at concentrations exceeding regulatory limits.

6.0 MONITORING WELL INSTALLATION AND SAMPLING

6.1 Monitoring Well Network

The PRB monitoring network will include the existing upgradient wells (MW-2 Nested and MW-6 Nested) and two new downgradient wells (MW-7 Nested and MW-8 Nested). The upgradient wells will measure contaminant levels entering the site, and the downgradient wells will track how groundwater changes after passing through the PRB. These will replace the previous network decommissioned during redevelopment. The new downgradient wells will be installed west of the future building, as shown on Figure 5. Based on groundwater flow and the PRB location, groundwater improvements at the downgradient wells are expected within 3 to 6 months.

6.1.1 Upgradient Wells

Upgradient wells were installed as part of the Upgradient PRB Monitoring Wells Investigation in April 2025 (**Section 6.4**). Two multi-level nested upgradient monitoring wells were installed in the sidewalk of Warburton Avenue, immediately upgradient of the Site. A total of four piezometers were installed at each location varying between 60 to 95 ft bgs. These wells will be utilized for monitoring the PRB.

6.1.2 Downgradient Well Installation and Construction

Two downgradient wells will be installed downgradient of the PRB, directly west of the future building. The locations are shown on **Figure 5**. The downgradient wells will be constructed to monitor similar elevations/intervals as the upgradient wells and also to monitor elevated media conditions based on field observations, to the extent practicable.

The downgradient monitoring wells will be installed at locations that are hydraulically downgradient of the PRB to demonstrate whether the PRB is intercepting the groundwater plume and to assess if any contamination detected downgradient indicates a potential on-site contribution or incomplete capture. Access and constructability constraints related to the building footprint are recognized, and final downgradient well locations will be confirmed with NYSDEC during a technical coordination call.

The downgradient monitoring wells will be installed via sonic drilling. Soil cores will be retrieved and logged from the ground surface to the terminal depth of the well (top of bedrock). The soil cores will be screened with a PID and documented in boring logs for each location. A minimum of three soil samples will be collected at each of the two downgradient well locations for TCL/CP-51 VOCs analysis via USEPA 5025. One sample will be collected from the interval with the highest PID reading, one from the top of the water table, and one from the bottom of the boring (soil immediately above bedrock).

The well construction is proposed to be similar to the upgradient wells (i.e., nested multi-level wells) in order to monitor similar groundwater elevations vertically. However, it should be noted that the actual well screen intervals may vary based on the significant drop in topography and drop in groundwater elevations to the west. In addition, the depth of the top of bedrock is uncertain and may vary by location. The downgradient nested monitoring wells will be advanced with a sonic drill rig with a minimum 6-inch diameter borehole to the top of bedrock, which is assumed to be present at approximately 95 ft. The intent will be to construct three to four individual 1" piezometers within each nested well containing 5 feet of screen with a 5-foot interval between screens to allow for the placement of 1-ft. of sand pack above and below the screen section and a 3-foot bentonite seal between screens/sand pack to mitigate the potential for cross-contamination. The final well construction details, including depth, number, and placement of well screens, will be determined in the field based on the actual, observed top of bedrock and real-time discussions with the NYSDEC. The table below summarizes the anticipated well construction. Only three wells may be installed if the top of water and depth of bedrock do not allow construction of four wells.

Location	Anticipated Screened Intervals (ft amsl)
MW-7 Nested A	37.5 – 32.5
MW-7 Nested B	27.5 – 22.5
MW-7 Nested C	15.0 – 10.0
MW-7 Nested D	5.0 – 0.0
MW-8 Nested A	37.5 – 32.5
MW-8 Nested B	27.5 – 22.5
MW-8 Nested C	15.0 – 10.0
MW-8 Nested D	5.0 – 0.0

The wells will be developed immediately after construction with a downhole submersible pump. Water quality parameters including temperature, pH, conductivity, oxidation-reduction potential (ORP), dissolved oxygen, and turbidity, will be collected and recorded at a frequency of not less than once per well volume removed. Well development will cease subsequent to readings stabilizing and turbidity of less than 50 NTUs; however, if a total of ten well volumes are removed and it does not appear that readings will stabilize or turbidity will drop below 50 NTUs, then after 20 well volumes are removed, development will cease.

Based on the current construction schedule, the PRB may be installed prior to the installation of the downgradient monitoring wells. Although wells would typically be installed, developed and sampled prior to PRB installation to confirm baseline conditions, the construction sequencing will not currently allow that typical approach. However, based on the groundwater flow velocities and the distance of the PRB to the

downgradient wells, it is not anticipated that the downgradient wells will be influenced by the PRB for at least 3-6 months and thus, installation, development and sampling of the downgradient wells post PRB installation is not expected to be a concern. Downgradient monitoring wells will be installed within four weeks of the PRB wall installation.

After completion of the well installations, all the monitoring well locations and top of casing elevations will be surveyed by a licensed surveyor.

6.2 Groundwater Sampling

The groundwater sampling procedures will be conducted in accordance with NYSDEC DER-10 and the previously approved RI Work Plan. Specifically, each nested monitoring well will be sampled via low flow methodologies. Groundwater samples will be analyzed for TCL/CP-51 VOCs via EPA Method 8260, and samples will be transferred to laboratory supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to a NYSDOH ELAP certified laboratory for analysis individually following NYSDEC ASP - Category B Deliverables. QA/QC samples such as trip blanks, duplicate samples, matrix spike/matrix spike duplicate samples (MS/MSDS), and field blanks will be collected per the previously NYSDEC approved RI Work Plan and associated Quality Control Plan. A data usability summary report (DUSR) will also be completed and the NYSDEC required electronic data deliverable (EDD) will be submitted to NYSDEC.

In addition to sampling of the downgradient monitoring wells, the upgradient monitoring wells will also be sampled. The following procedures will be used to complete the sampling:

- Prior to sampling, LaBella field staff will collect headspace readings and static water level measurements from each well. Headspace readings will be collected by measuring VOC concentrations with a photo ionization detector (PID) immediately after removing the cap from each well. The PID will be capable of measuring VOCs in the parts per billion (PPB) range and utilize an a 10.6 eV lamp. Static water level readings will be collected using an oil-water interface probe. The probe will also be extended to the bottom of each well to gauge for non-aqueous phase liquid (NAPL).
- A submersible pump will be utilized for low flow sampling. The pump intake will be set to the middle of each screen.
- Pumping rates will be used to ensure water level stabilization in accordance with EPA low-flow procedures. Water quality parameters including turbidity, pH, temperature, specific conductivity, dissolved oxygen, oxidation reduction potential, and depth to water will be recorded at 5-minute intervals. If 5-minute intervals are not sufficient to ensure one flow-through cell volume is “turned over,” or the volume of the flow-through cell has been completely purged out of the cell, between measurements based on the flow rate required to achieve water level stabilization, the measurement interval will be extended appropriately. Samples will be collected when the parameters have stabilized for three (3) consecutive monitoring intervals to within the specified ranges below:
    - Turbidity (+/- 10%, <50 NTU for metals)
    - pH (+/-0.1)
    - Temperature (+/- 3%)
    - Specific conductivity (+/- 3%)
    - Dissolved Oxygen (+/- 10%)
    - Oxidation reduction potential (+/- 10 millivolts)

Flow rates used to achieve water level stabilization will remain constant throughout purging, indicator parameter monitoring, and during sample collection. Based on prior groundwater sampling events, the wells may not adequately stabilize. If wells do not stabilize after 1 hour of low-flow purging, the wells will be sampled.

The following will apply to all the wells for sampling, which includes:

- MW-2 Nested A*
- MW-2 Nested B
- MW-2 Nested C
- MW-2 Nested D
- MW-6 Nested A*
- MW-6 Nested B
- MW-6 Nested C
- MW-6 Nested D
- MW-7 Nested A
- MW-7 Nested B
- MW-7 Nested C
- MW-7 Nested D
- MW-8 Nested A
- MW-8 Nested B
- MW-8 Nested C
- MW-8 Nested D

* MW-2 Nested A and MW-6 Nested A previously did not contain adequate water for sampling and may not be sampled if adequate water is not present again.

The proposed sampling is further summarized below to provide the information indicated in NYSDEC DER-10 (a)2.v. This information is applicable to all the wells.

Category	Details
Matrix Type	Groundwater
Number/Frequency of Samples per Matrix	1 groundwater sample per well per event (except QA/QC samples)
Wells to be Sampled	MW-2 Nested A*, B, C, D
	MW-6 Nested A*, B, C, D
	MW-7 Nested A, B, C, D
	MW-8 Nested A, B, C, D
Special Notes	*MW-2 Nested A and MW-6 Nested A previously did not contain adequate water for sampling and may not be sampled again if insufficient water is present.*
Field & Trip Blanks	1 field blank and 1 trip blank sample per shipment
Analytical Parameters	TCL and CP-51 VOCs
Analytical Method	USEPA Method 8260
Matrix Spike / Matrix Spike Duplicate (MS/MSD)	1 per 20 samples (1 per event based on max. of 8 samples)

Duplicate Samples	1 per 20 samples (1 per event based on max. of 8 samples)
Sample Preservation	Ice (≤4 °C) and hydrochloric acid
Sample Container Type/Volume	Three (3) 40-mL glass vials with Teflon-sealed lids
Hold Time	14 days

6.3 Post-PRB Installation Monitoring

To assess the efficacy of the treatment chemical and the installation of the PRB, groundwater sampling will be performed within 30 days after the completion of installation and subsequent sampling will be performed as per the SMP. The SMP will provide the long-term monitoring schedule.

7.0 IN-SITU CHEMICAL TREATMENT / PERMEABLE REACTIVE BARRIER INSTALLATION

The findings from the Remedial Investigation and PDI, and Supplemental PDI were the basis of the PRB design to achieve Remedial Action Objectives. Per the July 23, 2024 NYSDEC Decision Document, the selected remedy for groundwater includes in-situ chemical reduction (ISCR) to treat PCE, TCE, and other PCE breakdown compounds in groundwater as it passes through the PRB. The PRB will be installed generally perpendicular to groundwater flow in the approximate location shown in **Figure 3**. The general groundwater flow direction is to the west/northwest and may vary seasonally; however, overall it is west towards the Hudson River.

Bench-scale testing was not performed for this project. Instead, LaBella contacted various reputable and experienced remediation chemical vendors and requested recommendations on their product lines. LaBella provided all site-specific data including: contaminant concentrations/locations (vertical and horizontal), groundwater flow direction and velocity, geological observations, and groundwater chemistry data (dissolved oxygen, oxidation-reduction potential, etc.). The chemical vendors provided several options based on their product lines and provided a recommended product and dosing (quantity per injection point) based on the site specific information. The list of treatment chemicals assessed is provided in the list below with the recommended product by each vendor underlined.

- **Hepure Technologies**
  - Ferox PRB – ZVI (avg. micron size 325), no carbon source
  - Ferox Flow– ZVI (avg. micron size 125), no carbon source
  - Ferox Target– ZVI (avg. micron size 44), no carbon source
- **Provectus Environmental Products**
  - Provect IR-60 (w/AMR) – ZVI (avg. micron size 50), with carbon source and anti-methanogenic reagent (AMR)
  - Provect IR-60 (w/o AMR) – ZVI (avg. micron size 50), with carbon source
- **Evonik Industries**
  - GEOFORM – ZVI (avg. micron size 50-250)
  - EHC Reagent – ZVI (avg. micron size 50-250)
- **Regenesis**
  - S-Micro ZVI – ZVI (avg. micron size <5)

- 3-D Microemulsion – No ZVI, electron donors providing enhanced biodegradation
- Plume Stop – No ZVI, colloidal activated carbon.

After receiving the recommended product and dosing from each chemical vendor, LaBella conducted a comparison of the materials based on material type, compliance with the NYSDEC Decision Document, longevity, ability to inject, LaBella's experience with the material and discussions with the potential injection contractors based on their experience with the products and tooling available to ensure it is compatible with the products assessed. This assessment is summarized below:

- Hepure – Ferox Flow
  - Pros
    - Medium particle size allows for injecting and longer efficacy compared to smaller particles
  - Cons
    - Injection issues can occur with clogging in tooling and particle size may still be too big depending on geologic formation.
    - Potential for methane generation.
    - Does not include a carbon source and thus only provides direct reaction and does not further enhance biodegradation/natural attenuation.
- Provect IR-60 (w/AMR)
  - Pros
    - Smaller micron size allows for easier injection.
    - Anti-methanogenic reagent (AMR) reduces potential for methane generation.
    - Carbon source provides long-term enhanced biodegradation.
  - Cons
    - Duration of efficacy for ZVI is not as long-lived as larger micron particle; however, carbon source promotes natural attenuation and provides sustained long-term treatment.
- Evolink Industries - GEOFORM
  - Pros
    - ZVI particle size range provides short-term and longer-term direct treatment.
  - Cons
    - Larger sized ZVI could be a concern for clogging of tooling and may limit radius of influence. Some potential for methane generation.
- Regenesis – S-Micro ZVI
  - Pros
    - Small micron size allows for easier injection and increased radius of influence.
  - Cons
    - Small micron size reduces longevity of ZVI efficacy; however, carbon source would provide enhanced biodegradation.

Based on this evaluation, LaBella's experience and the discussions with contractors, Provect IR-60 with AMR was selected as the injectant material. The proposed material is well-documented to be effective at promoting reductive dechlorination of CVOCs, PCE, and TCE, has been successfully utilized by LaBella and the potential injection contractors on other remedial sites and also meets the requirements of the NYSDEC Decision Document. This technical basis supported the decision to proceed without bench-scale testing.

7.1 Injectant Material

Provect-IR60® is proposed for an injectant to create the PRB. Provect-IR60® is a zero-valent iron (ZVI) with fermentable carbon sources. This product was selected to provide a two-fold treatment. Specifically, the ZVI will provide direct chemical dichlorination via alpha-elimination pathways. The ZVI also supports in-situ formation of reactive ferrous materials and can also provide reactive iron sulfides to provide abiotic reductive dechlorination. Furthermore, the fermentable carbon sources provide an organic substrate (electron donor source) and generates hydrogen through fermentation reactions. The carbon source and hydrogen production provide enhanced reductive dichlorination. Additional details on Provect-IR60® including – Safety Data Sheet, handling procedures, and a technical data sheet are included in Appendix F.

The quantity of material for injection is based on a number of factors, including: estimated pore volume space (i.e., available space for material placement in the subsurface), contaminant concentrations and associated mass flux, and estimated radius of influence/residence time. Based on the area of injection (see below) of approximately 200 ft. by 20 ft. wide and an injection interval of 40 ft. vertically, the volume of the PRB treatment zone is approximately 172,000 ft^3. Based on an effective porosity of 0.25 (estimated base on the soil types in the injection zone) and an estimated displacement of 4%, it is estimated that approximately 1,600 ft^3 of material can be injected. This equates to approximately 11,970 gallons or about 100,000 lbs.

Discussions with the treatment chemical vendor, Provectus, indicate that this amount of material is more than adequate to treat the contaminant mass that is moving through the area. Provectus indicated a minimum quantity of 88,000 lbs. of material. Based on the groundwater velocity range of up to 0.46 ft/day, a 20-ft. wide PRB will allow for a minimum of 43 days or residence time for groundwater passing through the PRB. This is more than adequate time to allow for chemical reactions between the iron and COCs, in addition to creating a zone of enhanced reductive dichlorination which will emanate from the PRB initial injection zone.

Based on discussions with Provectus and the estimated ability to inject, 100,000 lbs of Provect-IR60® is proposed for use to create the PRB.

7.2 Injection Locations & Methodologies

Provect-IR60® is proposed to be direct injected into the subsurface to create a PRB across an approximate 200-ft linear distance (approximately 155-ft. north-south along Warburton Ave and 45-ft. east-west along Point St.). The northern end of the proposed PRB will initiate at the northern site boundary adjacent to Point Street along the sidewalk. Vertically, the PRB will extend from approximately 55 to 95 ft bgs. The western end of the PRB will consist of approximately four points in the sidewalk parallel to Point Street. The estimated radius of influence is 10-ft., which provides a conservative radius of influence (i.e., it is likely the radius of influence will be greater). The PRB injection points are designed to be placed every 15-ft. on center, which will allow for an anticipated 5-ft. of overlap between injections points to ensure the injectant is adequately distributed between points.

The injections will be initiated from the bottom of each location, starting at approximately 2.5 ft. above top of bedrock (estimated at 95 ft. below ground surface (bgs)) to 55 ft. bgs (i.e., 40 ft. PRB height). Injections will occur at a minimum of 5-ft. intervals vertically in each location for a total of 9 injection intervals. For example, if bedrock is encountered at 95 ft. bgs, injections will occur at 92.5, 87.5, 82.5, 77.5, 72.5, 67.5, 62.5, 57.5, and 52.5 ft bgs. Based on an estimated 100,000 total lbs., the injections are targeted to provide approximately 7,143 lbs per injection point with approximately 793 lbs per injection interval.

There are 10 vertical injection points and 4 injection points that may require to be drilled at a slight angle (approximately 8-10°); however, the need for angled drilling locations will depend on available space at the time of work and distance from upgradient monitoring wells. The intent will be to maintain a distance of at least 10 feet laterally from the injection locations to monitoring wells.

The PRB location has been determined by the following:

- The PRB is most effective when installed perpendicular to groundwater flow;
- Plume mapping generated during the RI further confirms groundwater flow direction and logical placement of the barrier to address impacts migrating from upgradient onto the Site;
- The barrier spans the apparent width and depth of the plume; and,
- The terminal depth of the barrier is at the depth where equipment refusal was encountered during investigation drilling activities, and groundwater impacts were documented to be decreasing in concentration.

Figure 3 illustrates the lateral extent of the PRB, including estimated injection point locations and area of direct influence (i.e., injection points are shown as circles having 10' radius). **Figure 4** includes a cross section of the subsurface soil profile and illustrates the vertical extent of the PRB. **Figure 5** illustrates the PRB injection locations on the site plan.

The Provect-IR60® will be received at the Site in a dry form (2,000 lb supersacks) and mixed with water obtained from the local municipal source via a fire hydrant (permit through City of Yonkers). The material will be mixed with water on-site to an approximate 30% slurry (i.e., 30 lbs Provect-IR® and 70 lbs water) for injection. The slurry percentage will be adjusted as needed based on field conditions; however, the Provect-IR60® mass per point will be the objective for injection regardless of final slurry percentage per point. The table below illustrates the mixing ratios based on 2,000 lb supersacks.

Provect-IR60® (lbs)	Water (lbs)	Water (Gal.)	Slurry %
2,000	4,667	554	30

Manufacturer handling and application guidelines are provided in Appendix F. Provect-IR handling and application guidelines note that Provect-IR is non-hazardous and safe to handle and only requires standard level D protection. Dust masks are recommended under certain conditions and will be utilized by employees actively working with the dry material. After mixing with water, there is no dust concern.

Injection Derived Waste

All cuttings generated from the injection work will be moved from the drilling/injection location to a secure area (within fencing) on the Site or within the Right-of-Way (ROW). Cuttings will not be left in the ROW unless they are within a fenced in area to prevent access from the public. All cuttings will either be placed on poly and covered with poly sheeting in a pile or will be placed in a lined roll-off container. The cuttings material will be covered at the end of each workday. The cuttings will be characterized and profiled for waste disposal. After disposal facility approval, the material will be transported off-site to an appropriately permitted facility for disposal. The final report will include waste characterization data, facility profile/approval, manifests and weigh tickets documenting proper disposal.

In addition to the soils, liquids from drilling operations will be containerized (e.g., 20,000 gallon frac tank) for subsequent characterization and profiling for waste disposal. After disposal facility approval, the material will be transported off-site (or discharged to the local sanitary sewer if approved for discharge under a permit with the local sewer authority) for disposal. The final report will include waste characterization data, facility profile/approval and any associated manifests or weigh tickets documenting proper disposal.

7.3 Injection Oversight / Monitoring

At each injection point, LaBella will monitor and record injection pressure and approximate flow rate of each injection (elapsed time divided by injection volume). Each injection point will include an injection log that includes the mass and volume of material injected at each interval.

Based on the depth of injections, daylighting is not anticipated to be a concern; however, during injection

activities, LaBella will monitor the surrounding area for evidence of daylighting a minimum of three times per day. Specifically, the following locations will be monitored:

- Catch basins adjacent to the Site, specifically:
    - Catch basin along Warburton Ave near the southern edge of the PRB.
    - Catch basin at the corner of Woodworth Ave. & Point St. (southeast corner of intersection)
- Warburton Ave., Point St., and associated sidewalks within 20 ft. of any PRB injection location.
- Any open excavations within the site boundary.

If daylighting is observed, response actions will include:

- Pausing injection activities;
- Taking steps to stop the material from free-flowing (i.e., spill containment materials will be on-site and readily available next to the injection area);
- Recovering and appropriately containerizing the material to the maximum extent feasible using spill containment materials (i.e. pads, booms, berms, etc.), buckets, drum vacuums, etc.;
- Considering the use of injection wells;
- Sealing completed injection points with grout; and,
- Reassessing the injection plan (i.e. reducing the quantity of material to be injected at each location/depth, adding/removing/relocating injection points, etc.).

If the injected material daylights at the surface, it will be treated as a spill. An uncontained release outside the intended injection zone will result in standard spill reporting procedures. If such a release occurs, Caroline Jalanti will be assigned as Project Manager, and the incident may be administratively closed once documented.

The NYSDEC will be contacted for approval prior to making any significant changes to the injection plan (i.e., adding, removing, or relocating injection points).

7.3.1 Daily Reporting

Daily reports will be submitted to the NYSDEC and NYSDOH per the NYSDEC-approved RAWP. The daily report will include a description of activities performed, CAMP data, photos, issues encountered, and planned activities.

7.3.2 Community Air Monitoring Program

The Community Air Monitoring Plan (CAMP) will be implemented and executed in accordance with 29 Code of Federal Regulations (CFR) 1910.120(h) and Site-Specific CAMP. Upwind and downwind CAMP will be conducted during all ground intrusive activities. The Site-Specific CAMP dated July 2024 will be adhered to for all PRB work. At a minimum, one upwind and two downwind air monitoring stations will be deployed during site activities.

7.4 Permitting

Prior to any injection activities occurring, an Underground Injection Control Program permit from the USEPA shall be obtained. The permit shall be shared with the NYSDEC and kept on-site during injection activities. The permit will also be included as an attachment in the Final Engineering Report. Dedicated machinery (including excavation equipment, soil loading equipment, and other equipment that would contact soils) will be utilized in the hazardous and non-hazardous areas, to the degree practicable. Therefore, it is anticipated that decontamination of equipment between hazardous and non-hazardous areas will not be necessary routinely, but will be completed any time equipment moves between hazardous and non-hazardous areas.

Equipment will be decontaminated by removing all soils from excavator tracks and buckets via shovels and brooms and the soil will be disposed of with the appropriate material (i.e., soil removed from equipment that

handled hazardous waste will be disposed of as hazardous waste). In the event that material can be removed and the equipment can be visually deemed clean (i.e., only de minimis amounts of soil remain), then the equipment can be removed from the excavation area for use in other areas and/or demobilized from the Site. However, in the event that the equipment is muddy or can't be thoroughly decontaminated via dry methods, additional decontamination will be completed via power washing or other methods to remove soils until only de minimis amounts remain. Any wash waters will be containerized and properly disposed off-Site.

7.5 Decontamination

Dedicated machinery (including excavation equipment, soil loading equipment, and other equipment that would contact soils) will be utilized in the hazardous and non-hazardous areas, to the degree practicable. Therefore, it is anticipated that decontamination of equipment between hazardous and non-hazardous areas will not be necessary routinely, but will be completed any time equipment moves between hazardous and non-hazardous areas.

Equipment will be decontaminated by removing all soils from excavator tracks and buckets via shovels and brooms, and the soil will be disposed of with the appropriate material (i.e., soil removed from equipment that handled hazardous waste will be disposed of as hazardous waste). In the event that material can be removed and the equipment can be visually deemed clean (i.e., only de minimis amounts of soil remain), then the equipment can be removed from the excavation area for use in other areas and/or demobilized from the Site. However, in the event that the equipment is muddy or can't be thoroughly decontaminated via dry methods, additional decontamination will be completed via power washing or other methods to remove soils until only de minimis amounts remain. Any wash waters will be containerized and properly disposed off-Site.

8.0 SCHEDULE

The proposed schedule for the work outlined in this PRB Work Plan is noted below.

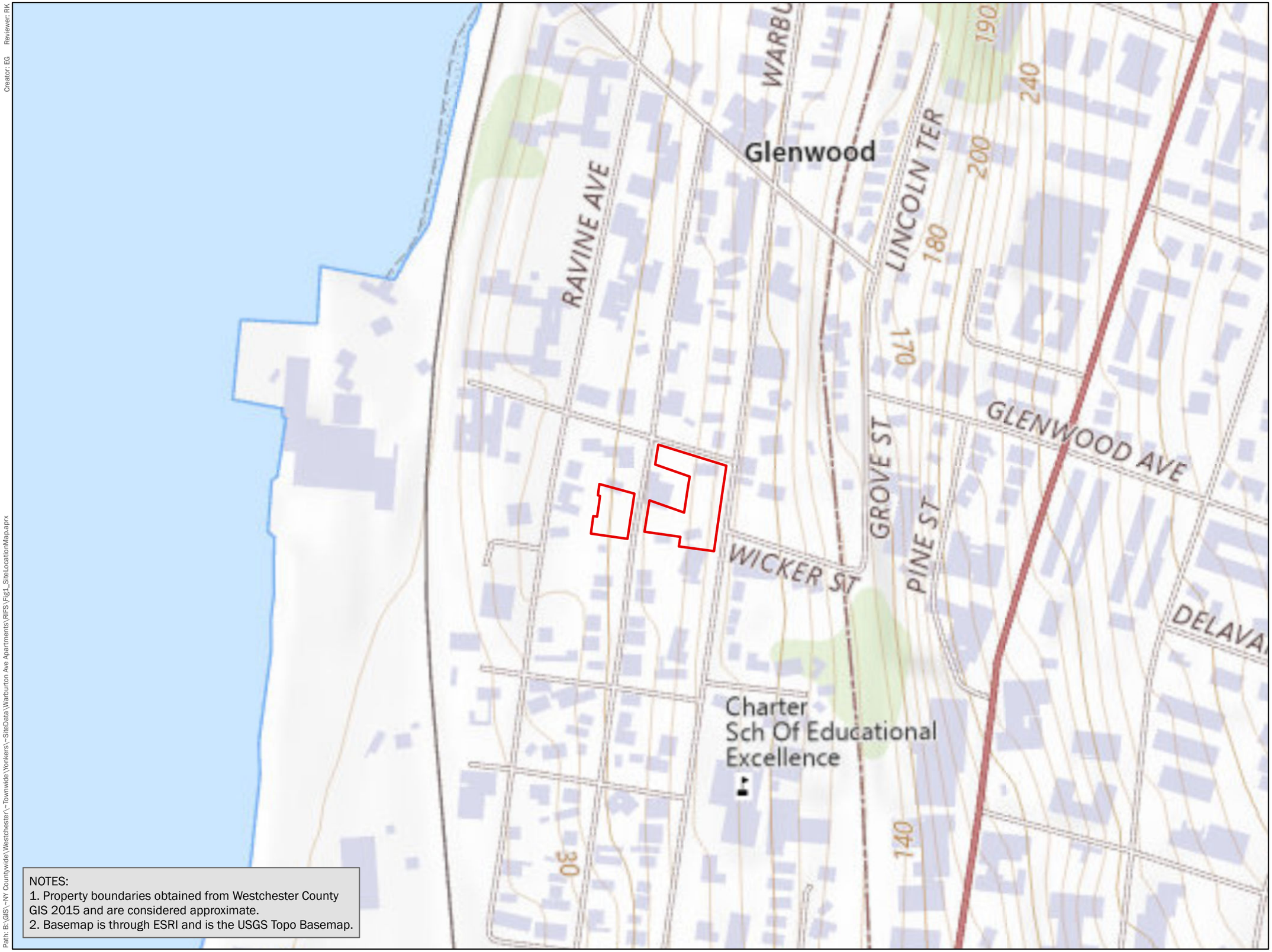
Field Work:

- PRB performance and the need for continued operation will be evaluated at specified intervals through the SMP. Future decisions, including modification, continuation, or decommissioning, will be based on monitoring data and off-site remedial progress.
- PRB installation will commence end of Winter 2026 and will be completed in mid Spring 2026.

Deliverables:

The PRB installation, all associated monitoring wells and baseline sampling will be documented in the Final Engineering Report (FER).

FIGURES



NOTES:
1. Property boundaries obtained from Westchester County GIS 2015 and are considered approximate.
2. Basemap is through ESRI and is the USGS Topo Basemap.

LaBella
Powered by partnership.

Warburton Avenue Apartments, LLC

Warburton Dry Cleaners Site
City of Yonkers,
Westchester County, NY

Remedial Investigation Report

N

0 125 250 ft

1 inch = 250 feet

Legend

Site Boundary

Site Location Map

FIGURE 1

LaBella Project No: 2221378
Date: November 2025

Creator: EG Reviewer: RK

Path: B:\GIS\~NY Countywide\Westchester\~Townwide\Yonkers\~SiteData\Warburton Ave Apartments\RIFS\Fig1_SiteLocationMap.aprx

MW-5	(µg/L)	
Benzo(a)anthracene	0.04	J
Benzo(a)pyrene	0.02	J
Benzo(b)fluoranthene	0.03	J
Benzo(k)fluoranthene	0.02	J
Chrysene	0.04	J
Magnesium, Total	42,700	
Manganese, Total	1,885	
Sodium, Total	170,000	
PFOS	0.0219	
PFOA	0.0513	

MW-1D	(µg/L)
Tetrachloroethene	1,600
Magnesium, Total	41,600
Manganese, Total	514
Sodium, Total	55,900
Magnesium, Dissolved	43,200
Manganese, Dissolved	497
Sodium, Dissolved	79,000
Chloride	330,000
PFOS	0.0255
PFOA	0.0574

MW-2	(µg/L)
Tetrachloroethene	16,000
Aroclor 1242	0.18
Chromium, Total	82.7
Iron, Total	28,400
Lead, Total	29.87
Manganese, Total	809.5
Selenium, Total	13.4
Sodium, Total	32,700
Manganese, Dissolved	573.9
Sodium, Dissolved	42,000
PFOS	0.0128
PFOA	0.0731

MW-1	(µg/L)	
Tetrachloroethene	160	
Benzo(a)anthracene	0.03	J
Benzo(a)pyrene	0.02	J
Benzo(b)fluoranthene	0.03	J
Benzo(k)fluoranthene	0.01	J
Chrysene	0.02	J
Iron, Total	1,380	
Magnesium, Total	43,000	
Manganese, Total	1,297	
Sodium, Total	122,000	
Iron, Dissolved	654	
Magnesium, Dissolved	43,400	
Manganese, Dissolved	2,410	
Sodium, Dissolved	170,000	
Chloride	440,000	
PFOS	0.0108	
PFOA	0.0469	

MW-6	(µg/L)	
Tetrachloroethene	720	
Chloroform	9.2	J
Benzo(a)anthracene	0.03	J
Benzo(b)fluoranthene	0.02	J
Benzo(k)fluoranthene	0.02	J
Chrysene	0.03	J
Indeno(1,2,3-cd)pyrene	0.02	J
Iron, Total	303	
Manganese, Total	811	
Sodium, Total	91,700	
PFOS	0.0118	
PFOA	0.0474	

MW-3	(µg/L)	
Tetrachloroethene	8	
Benzo(a)anthracene	0.05	J
Benzo(a)pyrene	0.05	J
Benzo(b)fluoranthene	0.07	J
Benzo(k)fluoranthene	0.02	J
Chrysene	0.04	J
Indeno(1,2,3-cd)pyrene	0.04	J
Iron, Total	4870	
Lead, Total	50.41	
Manganese, Total	2190	
Manganese, Dissolved	2,236	
PFOS	0.0571	
PFOA	0.0333	

MW-4	(µg/L)	
Tetrachloroethene	1,500	
Trichloroethene	8.7	
Benzo(a)anthracene	0.02	J
Iron, Total	4,770	
Magnesium, Total	43,200	
Manganese, Total	1,855	
Sodium, Total	52,500	
Magnesium, Dissolved	48,200	
Manganese, Dissolved	2,249	
Sodium, Dissolved	69,900	
Chloride	260,000	
PFOS	0.0259	
PFOA	0.0651	

MW-5
MW-1D
MW-7 NESTED
MW-1
MW-8 NESTED
MW-2
MW-2 NESTED
MW-4
MW-6
MW-6 NESTED
SM #52110
SM #52109
Point Street
Former Rappaport Plaza Cleaners
Woodworth Avenue
Wicker Street
20" VIT
20" VIT

NOTES:
1. Property boundaries obtained from Westchester County GIS 2015 and are considered approximate.
2. Aerial Image obtained from New York State GIS Clearinghouse and may not represent current conditions.
3. Monitoring well locations measured from site features and are considered approximate.
4. Municipal sewer maps provided by the City of Yonkers.

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Warburton Avenue Apartments, LLC

Warburton Dry Cleaners Site
City of Yonkers, Westchester County, NY

PRB Design Work Plan

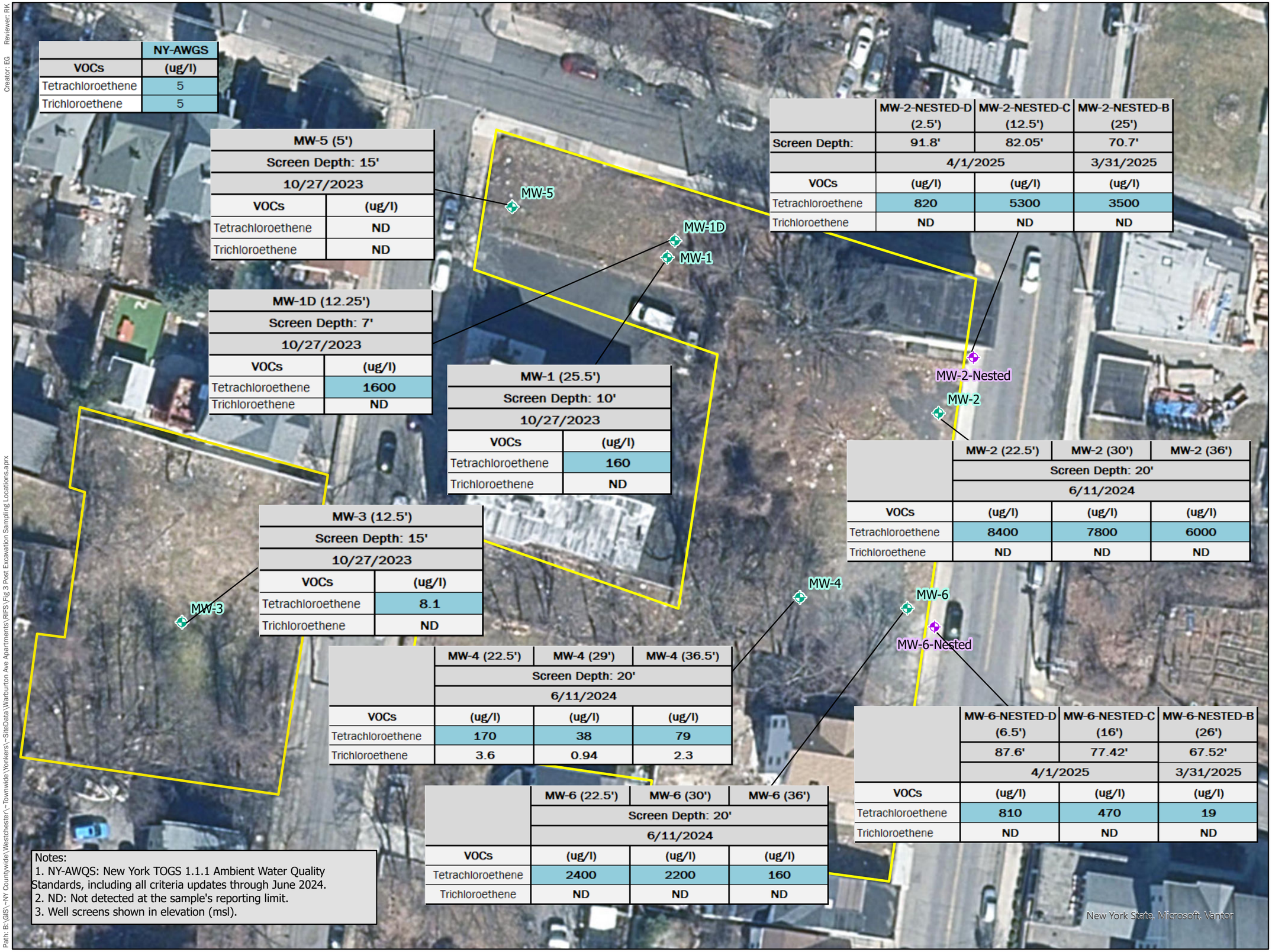
N
0 20 40 Feet
1 inch equals 40 feet

- Site Boundary
- Approximate Location of Sewer Line
- Former Monitoring Well Location
- Sewer Manhole
- Upgradient Monitoring Well Location
- Proposed Area for Downgradient Monitoring Well

Groundwater Sampling Locations with AWQS Exceedances

FIGURE 2

LaBella Project No: 2221378
Date: November 2025



	NY-AWGS
VOCs	(ug/l)
Tetrachloroethene	5
Trichloroethene	5

MW-5 (5')	
Screen Depth: 15'	
10/27/2023	
VOCs	(ug/l)
Tetrachloroethene	ND
Trichloroethene	ND

MW-1D (12.25')	
Screen Depth: 7'	
10/27/2023	
VOCs	(ug/l)
Tetrachloroethene	1600
Trichloroethene	ND

MW-1 (25.5')	
Screen Depth: 10'	
10/27/2023	
VOCs	(ug/l)
Tetrachloroethene	160
Trichloroethene	ND

MW-3 (12.5')	
Screen Depth: 15'	
10/27/2023	
VOCs	(ug/l)
Tetrachloroethene	8.1
Trichloroethene	ND

	MW-2-NESTED-D (2.5')	MW-2-NESTED-C (12.5')	MW-2-NESTED-B (25')
Screen Depth:	91.8'	82.05'	70.7'
	4/1/2025		3/31/2025
VOCs	(ug/l)	(ug/l)	(ug/l)
Tetrachloroethene	820	5300	3500
Trichloroethene	ND	ND	ND

	MW-2 (22.5')	MW-2 (30')	MW-2 (36')
	Screen Depth: 20'		
	6/11/2024		
VOCs	(ug/l)	(ug/l)	(ug/l)
Tetrachloroethene	8400	7800	6000
Trichloroethene	ND	ND	ND

	MW-4 (22.5')	MW-4 (29')	MW-4 (36.5')
	Screen Depth: 20'		
	6/11/2024		
VOCs	(ug/l)	(ug/l)	(ug/l)
Tetrachloroethene	170	38	79
Trichloroethene	3.6	0.94	2.3

	MW-6 (22.5')	MW-6 (30')	MW-6 (36')
	Screen Depth: 20'		
	6/11/2024		
VOCs	(ug/l)	(ug/l)	(ug/l)
Tetrachloroethene	2400	2200	160
Trichloroethene	ND	ND	ND

	MW-6-NESTED-D (6.5')	MW-6-NESTED-C (16')	MW-6-NESTED-B (26')
	87.6'	77.42'	67.52'
	4/1/2025		3/31/2025
VOCs	(ug/l)	(ug/l)	(ug/l)
Tetrachloroethene	810	470	19
Trichloroethene	ND	ND	ND

Notes:
1. NY-AWQS: New York TOGS 1.1.1 Ambient Water Quality Standards, including all criteria updates through June 2024.
2. ND: Not detected at the sample's reporting limit.
3. Well screens shown in elevation (msl).

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Warburton Avenue Apartments, LLC

305-321 Warburton Ave, 32 Point St, and 247-262A Woodworth Ave, Yonkers, NY 10701

PRB Design Work Plan

N

0 35

1 inch = 35 feet

- Site Boundary
- Historic Monitoring Wells
- Upgradient Nested Monitoring Wells

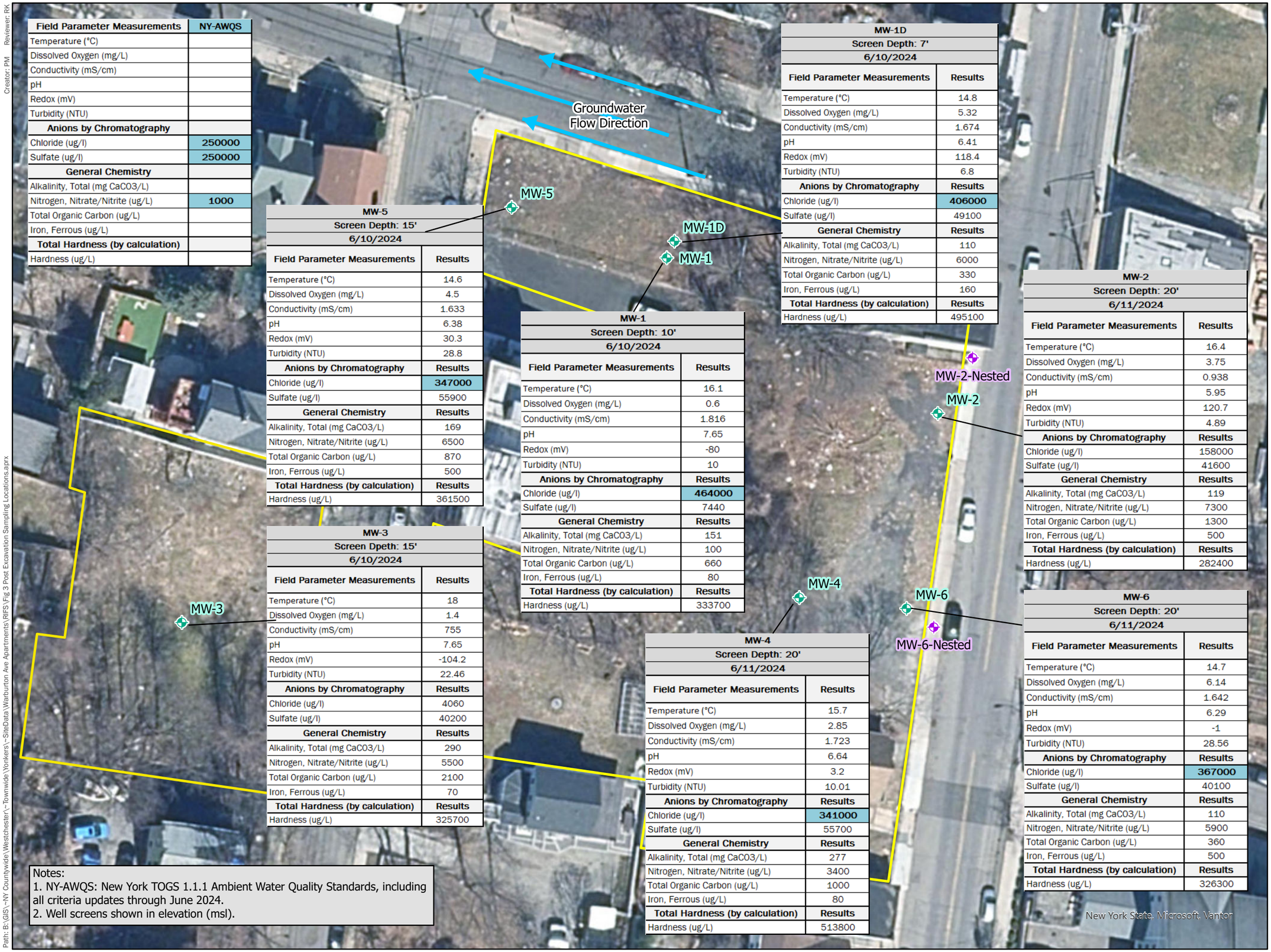
Groundwater PCE and TCE Results

FIGURE 2B

LaBella Project No: 2221378
Date: November 2025

Creator: EG Reviewer: RK

Path: B:\GIS\~NY Countywide\Westchester\~Townwide\Yonkers\~SiteData\Warburton Ave Apartments\RIFS\Fig 3 Post Excavation Sampling Locations.aprx



Field Parameter Measurements	NY-AWQS
Temperature (°C)	
Dissolved Oxygen (mg/L)	
Conductivity (mS/cm)	
pH	
Redox (mV)	
Turbidity (NTU)	
Anions by Chromatography	
Chloride (ug/l)	250000
Sulfate (ug/l)	250000
General Chemistry	
Alkalinity, Total (mg CaCO3/L)	
Nitrogen, Nitrate/Nitrite (ug/L)	1000
Total Organic Carbon (ug/L)	
Iron, Ferrous (ug/L)	
Total Hardness (by calculation)	
Hardness (ug/L)	

MW-5
Screen Depth: 15'
6/10/2024

Field Parameter Measurements	Results
Temperature (°C)	14.6
Dissolved Oxygen (mg/L)	4.5
Conductivity (mS/cm)	1.633
pH	6.38
Redox (mV)	30.3
Turbidity (NTU)	28.8
Anions by Chromatography	**Results**
Chloride (ug/l)	347000
Sulfate (ug/l)	55900
General Chemistry	**Results**
Alkalinity, Total (mg CaCO3/L)	169
Nitrogen, Nitrate/Nitrite (ug/L)	6500
Total Organic Carbon (ug/L)	870
Iron, Ferrous (ug/L)	500
Total Hardness (by calculation)	**Results**
Hardness (ug/L)	361500

MW-1D
Screen Depth: 7'
6/10/2024

Field Parameter Measurements	Results
Temperature (°C)	14.8
Dissolved Oxygen (mg/L)	5.32
Conductivity (mS/cm)	1.674
pH	6.41
Redox (mV)	118.4
Turbidity (NTU)	6.8
Anions by Chromatography	**Results**
Chloride (ug/l)	406000
Sulfate (ug/l)	49100
General Chemistry	**Results**
Alkalinity, Total (mg CaCO3/L)	110
Nitrogen, Nitrate/Nitrite (ug/L)	6000
Total Organic Carbon (ug/L)	330
Iron, Ferrous (ug/L)	160
Total Hardness (by calculation)	**Results**
Hardness (ug/L)	495100

MW-1
Screen Depth: 10'
6/10/2024

Field Parameter Measurements	Results
Temperature (°C)	16.1
Dissolved Oxygen (mg/L)	0.6
Conductivity (mS/cm)	1.816
pH	7.65
Redox (mV)	-80
Turbidity (NTU)	10
Anions by Chromatography	**Results**
Chloride (ug/l)	464000
Sulfate (ug/l)	7440
General Chemistry	**Results**
Alkalinity, Total (mg CaCO3/L)	151
Nitrogen, Nitrate/Nitrite (ug/L)	100
Total Organic Carbon (ug/L)	660
Iron, Ferrous (ug/L)	80
Total Hardness (by calculation)	**Results**
Hardness (ug/L)	333700

MW-2
Screen Depth: 20'
6/11/2024

Field Parameter Measurements	Results
Temperature (°C)	16.4
Dissolved Oxygen (mg/L)	3.75
Conductivity (mS/cm)	0.938
pH	5.95
Redox (mV)	120.7
Turbidity (NTU)	4.89
Anions by Chromatography	**Results**
Chloride (ug/l)	158000
Sulfate (ug/l)	41600
General Chemistry	**Results**
Alkalinity, Total (mg CaCO3/L)	119
Nitrogen, Nitrate/Nitrite (ug/L)	7300
Total Organic Carbon (ug/L)	1300
Iron, Ferrous (ug/L)	500
Total Hardness (by calculation)	**Results**
Hardness (ug/L)	282400

MW-3
Screen Dpeth: 15'
6/10/2024

Field Parameter Measurements	Results
Temperature (°C)	18
Dissolved Oxygen (mg/L)	1.4
Conductivity (mS/cm)	755
pH	7.65
Redox (mV)	-104.2
Turbidity (NTU)	22.46
Anions by Chromatography	**Results**
Chloride (ug/l)	4060
Sulfate (ug/l)	40200
General Chemistry	**Results**
Alkalinity, Total (mg CaCO3/L)	290
Nitrogen, Nitrate/Nitrite (ug/L)	5500
Total Organic Carbon (ug/L)	2100
Iron, Ferrous (ug/L)	70
Total Hardness (by calculation)	**Results**
Hardness (ug/L)	325700

MW-4
Screen Depth: 20'
6/11/2024

Field Parameter Measurements	Results
Temperature (°C)	15.7
Dissolved Oxygen (mg/L)	2.85
Conductivity (mS/cm)	1.723
pH	6.64
Redox (mV)	3.2
Turbidity (NTU)	10.01
Anions by Chromatography	**Results**
Chloride (ug/l)	341000
Sulfate (ug/l)	55700
General Chemistry	**Results**
Alkalinity, Total (mg CaCO3/L)	277
Nitrogen, Nitrate/Nitrite (ug/L)	3400
Total Organic Carbon (ug/L)	1000
Iron, Ferrous (ug/L)	80
Total Hardness (by calculation)	**Results**
Hardness (ug/L)	513800

MW-6
Screen Depth: 20'
6/11/2024

Field Parameter Measurements	Results
Temperature (°C)	14.7
Dissolved Oxygen (mg/L)	6.14
Conductivity (mS/cm)	1.642
pH	6.29
Redox (mV)	-1
Turbidity (NTU)	28.56
Anions by Chromatography	**Results**
Chloride (ug/l)	367000
Sulfate (ug/l)	40100
General Chemistry	**Results**
Alkalinity, Total (mg CaCO3/L)	110
Nitrogen, Nitrate/Nitrite (ug/L)	5900
Total Organic Carbon (ug/L)	360
Iron, Ferrous (ug/L)	500
Total Hardness (by calculation)	**Results**
Hardness (ug/L)	326300

Notes:
1. NY-AWQS: New York TOGS 1.1.1 Ambient Water Quality Standards, including all criteria updates through June 2024.
2. Well screens shown in elevation (msl).

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Warburton Avenue Apartments, LLC

305-321 Warburton Ave, 32 Point St, and 247-262A Woodworth Ave, Yonkers, NY 10701

PRB Design Work Plan

N

0 35

1 inch = 35 feet

- Site Boundary
- Historic Monitoring Wells
- Upgradient Nested Monitoring Wells

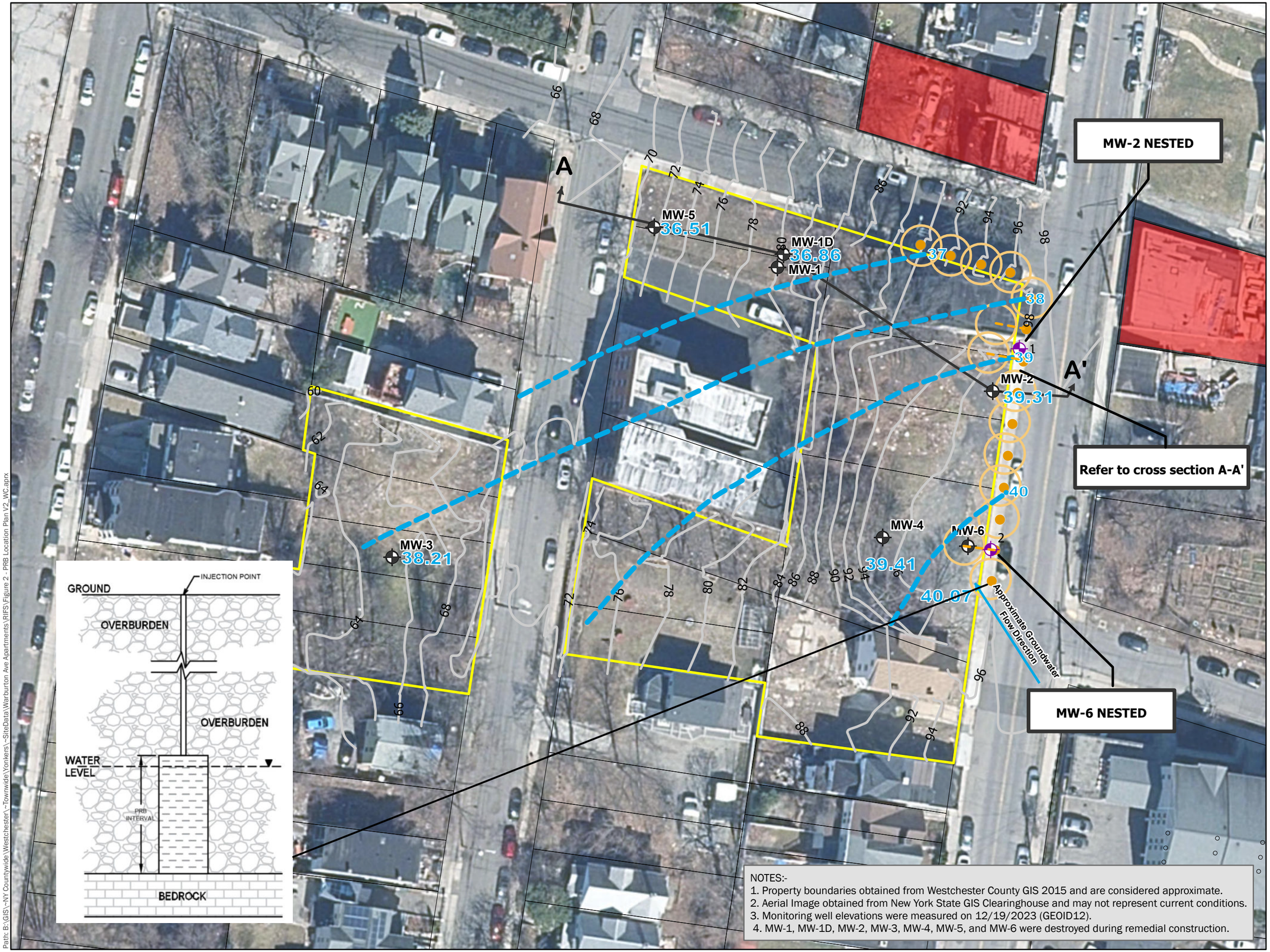
Groundwater Analytical Results - Monitored Natural Attenuation Parameters

FIGURE 2C

LaBella Project No: 2221378
Date: November 2025

Creator: PM Reviewer: RK

Path: B:\GIS\~NY Countywide\Westchester\~Townwide\Yonkers\~SiteData\Warburton Ave Apartments\RIFS\Fig 3 Post Excavation Sampling Locations.aprx



NOTES:-
1. Property boundaries obtained from Westchester County GIS 2015 and are considered approximate.
2. Aerial Image obtained from New York State GIS Clearinghouse and may not represent current conditions.
3. Monitoring well elevations were measured on 12/19/2023 (GEOID12).
4. MW-1, MW-1D, MW-2, MW-3, MW-4, MW-5, and MW-6 were destroyed during remedial construction.

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Warburton Avenue Apartments, LLC

305-321 Warburton Ave, 32 Point St, and 247-262A Woodworth Ave, Yonkers, NY 10701

PRB Upgradient Well Monitoring Report

N

0 35

1 inch = 35 feet

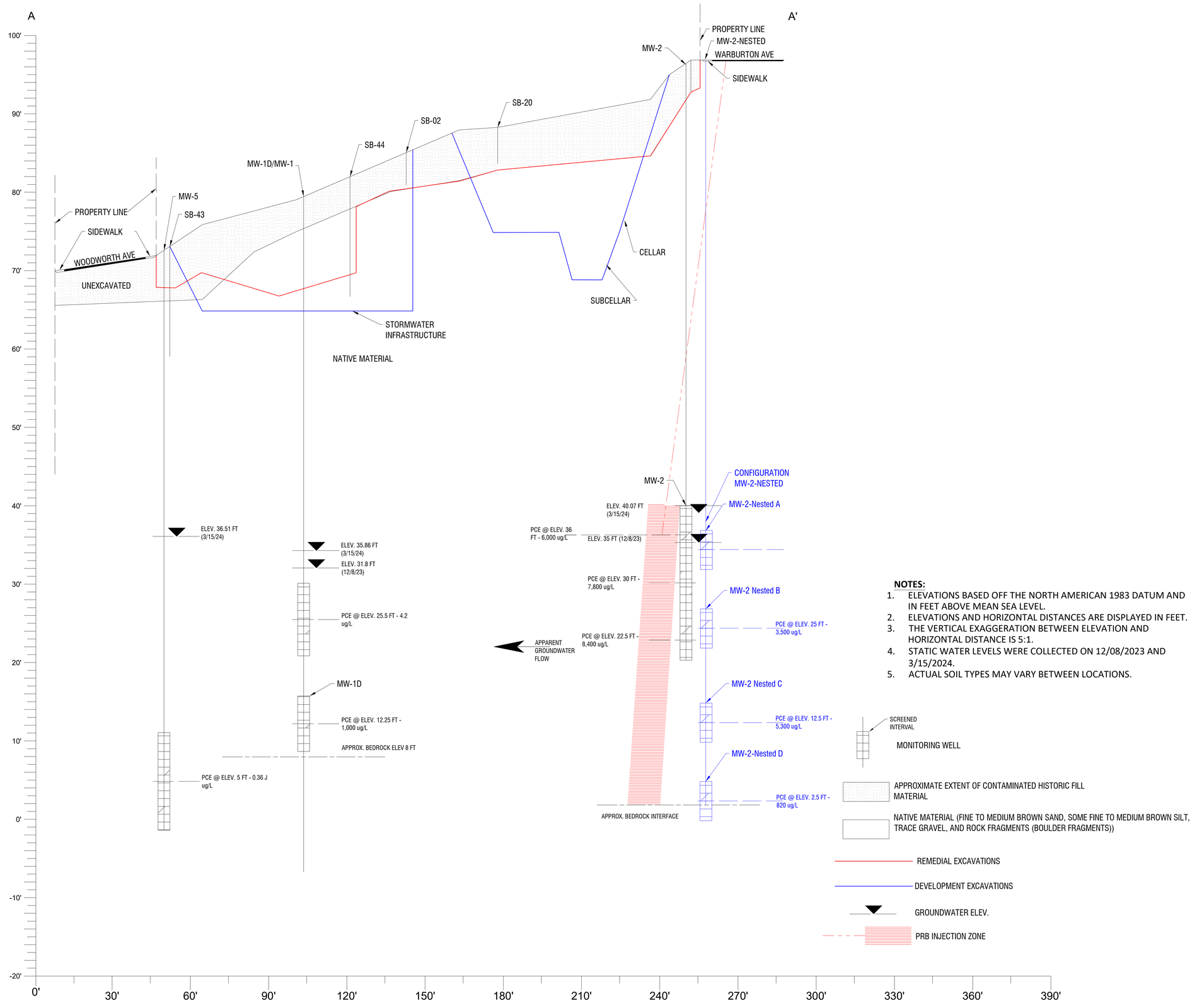
- Site Boundary
- Approximate Parcel Boundaries
- Upgradient Monitoring Well Location
- Former Monitoring Well Location
- PRB Injection Location
- Estimated 10ft Radius of Influence
- Topographic Elevation Contour Line
- AOC-3: Former Dry Cleaners

PRB Location Plan

FIGURE 3

LaBella Project No: 2221378
Date: August 2025

Path: B:\GIS\~NY Countywide\Westchester\~Townwide\Yonkers\~SiteData\Warburton Ave Apartments\RIFS\Figure 2 - PRB Location Plan V2_WC.aprx



NOTES:

1. ELEVATIONS BASED OFF THE NORTH AMERICAN 1983 DATUM AND IN FEET ABOVE MEAN SEA LEVEL.
2. ELEVATIONS AND HORIZONTAL DISTANCES ARE DISPLAYED IN FEET.
3. THE VERTICAL EXAGGERATION BETWEEN ELEVATION AND HORIZONTAL DISTANCE IS 5:1.
4. STATIC WATER LEVELS WERE COLLECTED ON 12/08/2023 AND 3/15/2024.
5. ACTUAL SOIL TYPES MAY VARY BETWEEN LOCATIONS.

NO. | REVISION | BY | DATE

S:\ENV\GIS\Logo new.jpg

PROJECT/CLIENT

PRB DESIGN WORK PLAN
WARBURTON AVE APARTMENTS
WARBURTON DRY CLEANERS SITE
CITY OF YONKERS NY

DRAWING TITLE

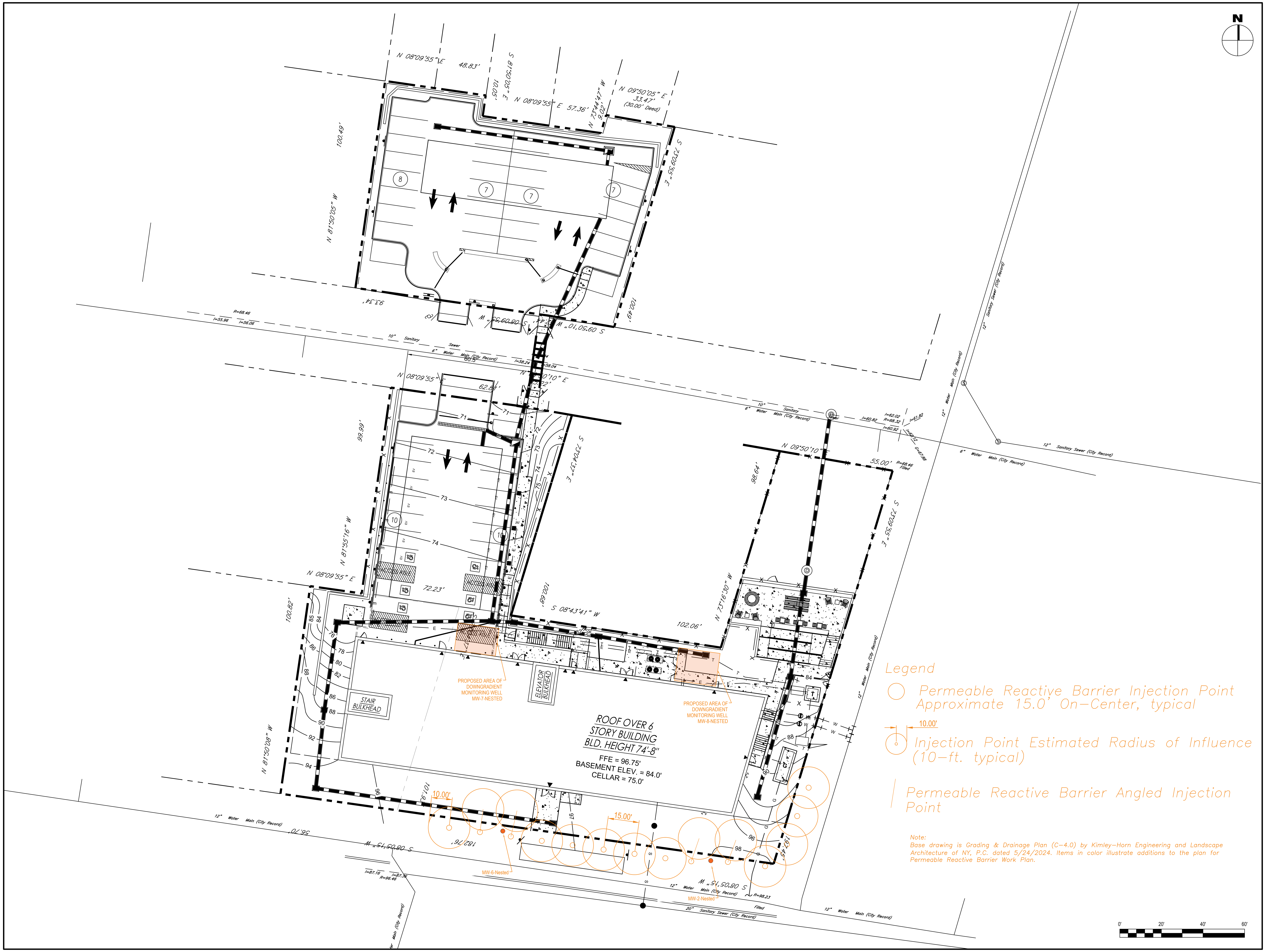
CROSS SECTION A-A'

DESIGNED BY: DN
DRAWN BY: CC
REVIEWED BY: DN
ISSUED FOR: FINAL
DATE: JULY 28, 2025

PROJECT/DRAWING NUMBER

2221378

FIGURE X



LaBella
Powered by partnership.
300 State Street, Suite 201
Rochester, NY 14614
585-454-6110
labellapc.com

NOT FOR CONSTRUCTION

Conifer, LLC
56 Railroad Avenue, Suite B
Copiague, NY 117

James Lindburgh
Senior Apartment
305 Warnurton Avenue
Yonkers, NY 10
Block 2116 Lot: 16, 17, 18, 21, 22, 24, 26, 27, 28, 32

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2221378
DRAWN BY: D. Noll
REVIEWED BY: D. Noll
ISSUED FOR: Review
DATE: 08/22/2025
DRAWING NAME:

PRB DIRECT INJECTION PLAN

DRAWING NUMBER:

5

Drawing Name: B:\GLOBAL\Projects\Conifer Realty\2221378 - Multiple Sites in Yonkers\06_Drawings\Civil\RECD\2022-10-07_XBASE_KHSW_DN_Version.dwg
Xref's Attached: EH email - xSITE - 112606000; xBASE - 112606000; X-Border-ArchD
Date Printed: Aug 22, 2025, 12:00pm

APPENDIX A

Slug Testing Summary

AQTESOLV Data Interpretation

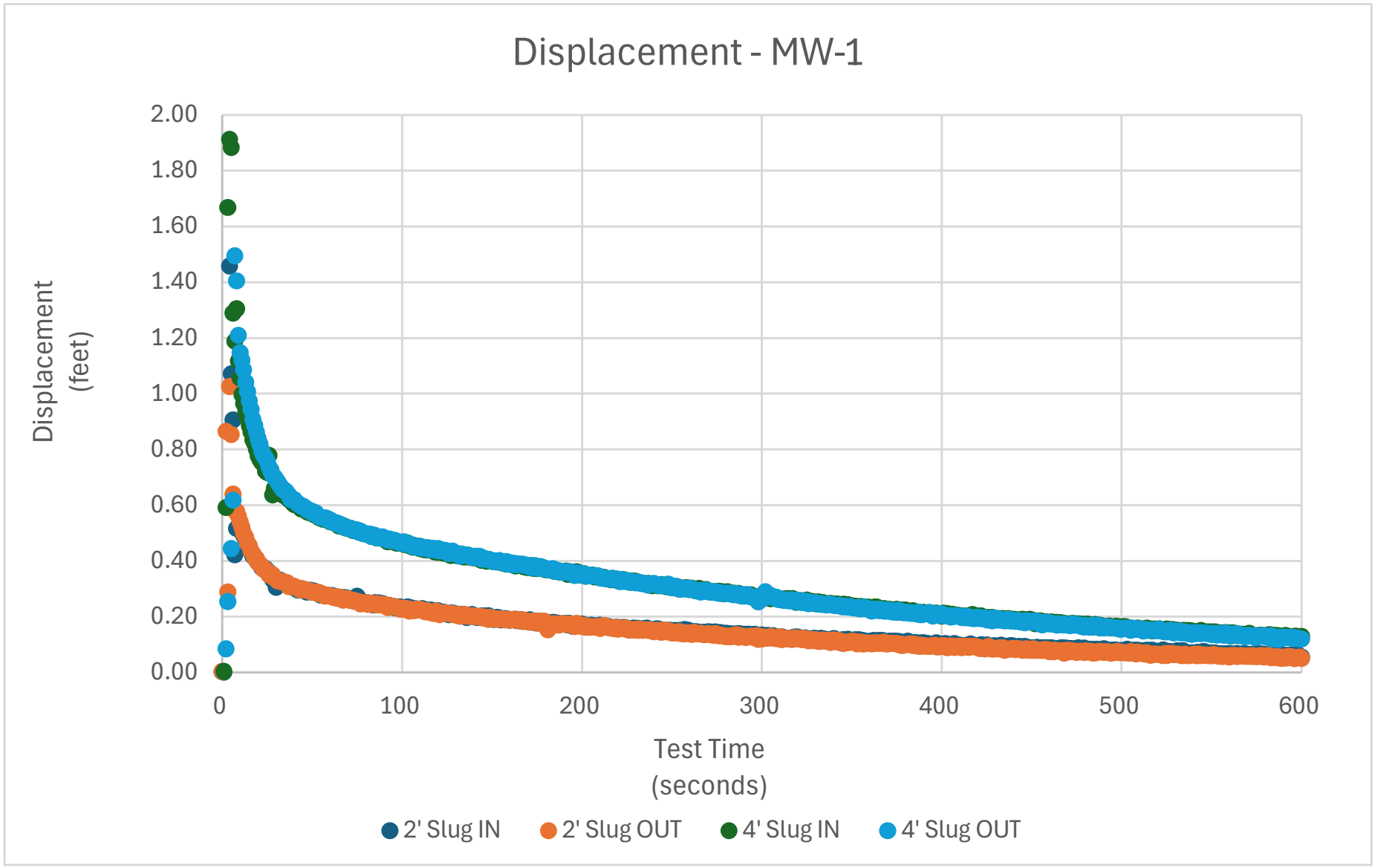
Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

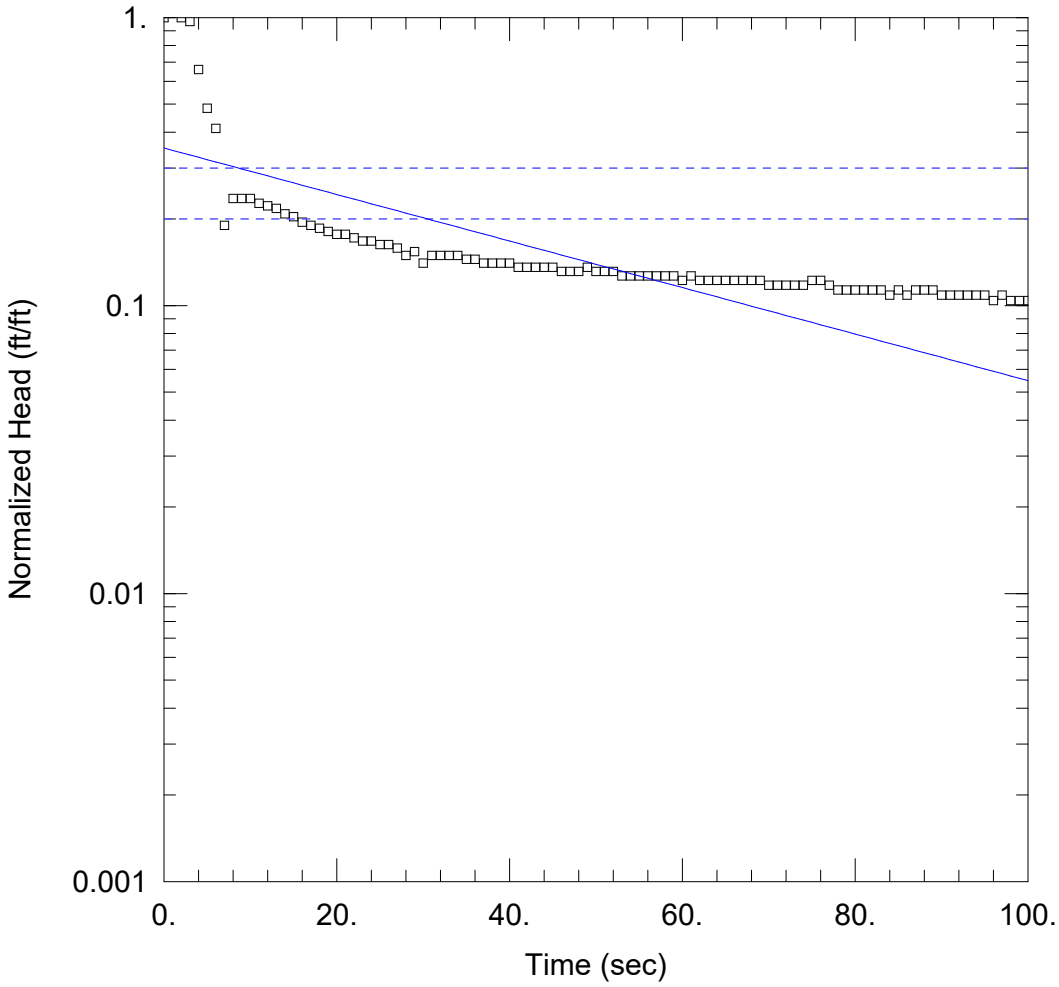
Well ID	Slug Length	Slug IN/OUT	Test	June, 2024				July, 2024							
				AQTESOLVE SOLUTION				AQTESOLVE SOLUTION				VISUAL SOLUTION			
				Hydraulic Conductivity*		Average Hydraulic Conductivity		Hydraulic Conductivity*		Average Hydraulic Conductivity		Hydraulic Conductivity*		Average Hydraulic Conductivity	
				cm/sec	ft/day	cm/sec	ft/day	cm/sec	ft/day	cm/sec	ft/day	cm/sec	ft/day	cm/sec	ft/day
MW-1	2.0	IN	1	NOT TESTED				2.02E-03	5.72	1.24E-03	3.52	2.73E-03	7.73	2.87E-03	8.14
		OUT	1					1.06E-03	3.01			3.29E-03	9.32		
	4.0	IN	1					1.07E-03	3.02			2.22E-03	6.29		
		OUT	1					8.22E-04	2.33			3.26E-03	9.23		
MW-1D	2.0	IN	1	NOT TESTED				4.53E-03	12.84	4.96E-03	14.06	6.82E-03	19.32	6.77E-03	19.17
		OUT	1					5.56E-03	15.75			7.33E-03	20.77		
	4.0	IN	1					5.40E-03	15.31			7.01E-03	19.87		
		OUT	1					5.04E-03	14.28			7.49E-03	21.23		
	5 Gallon	IN	1					4.27E-03	12.10			5.18E-03	14.68		
MW-2	2.0	IN	1	6.84E-04	1.94	6.19E-04	1.75	NOT TESTED							
		OUT	1	6.06E-04	1.72										
	4.0	IN	1	6.54E-04	1.85										
		OUT	1	5.33E-04	1.51										
MW-4	2.0	IN	1	2.13E-04	0.60	2.26E-04	0.64	NOT TESTED							
			2	2.01E-04	0.57										
		OUT	1	2.50E-04	0.71										
			2	2.58E-04	0.73										
	4.0	IN	1	1.71E-04	0.48										
		OUT	1	2.66E-04	0.75										
MW-5	2.0	IN		NOT TESTED				9.89E-03	28.02	8.01E-03	22.70	1.34E-02	37.92	1.38E-02	39.01
		OUT						1.20E-02	33.95			2.25E-02	63.68		
	4.0	IN						6.04E-03	17.12			9.99E-03	28.31		
		OUT						9.17E-03	26.00			1.99E-02	56.40		
	5 Gallon	IN	TEST-1					6.18E-03	17.52			8.85E-03	25.08		
		IN	TEST-2					4.81E-03	13.62			8.00E-03	22.67		
MW-6**	2.0	IN	1	1.29E-02	36.42	1.12E-02	31.78	NOT TESTED							
		OUT	1	1.35E-02	38.37										
	4.0	IN	1	2.03E-02	57.59										
			2	6.00E-03	16.99										
		OUT	1	1.02E-02	28.82										
			2	4.42E-03	12.52										
	5 Gallon	IN	TEST-1	NOT TESTED				1.30E-03	3.68	1.50E-03	4.25	3.42E-03	9.68	1.54E-03	4.36
		IN	TEST-2					1.89E-03	5.34			3.26E-03	9.23		
	10 Gallon	IN	TEST-1					1.32E-03	3.74			2.56E-03	7.25		

Notes:
Slug tests conducted June 20, 2024 Through June 24, 2024 and July 30,2024
* Hydraulic conductivity given in centimeters per second and feet per day
** MW-6 results from June, 2024 testing are considered questionable

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

WELL MW-1
(July, 2024)


Displacement - MW-1
Displacement (feet)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0
100
200
300
400
500
600
Test Time (seconds)
2' Slug IN
2' Slug OUT
4' Slug IN
4' Slug OUT



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 2' SLUG IN AUTO.aqt
Date: 08/08/24 Time: 13:21:22

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft Anisotropy Ratio (Kz/Kr): 1.

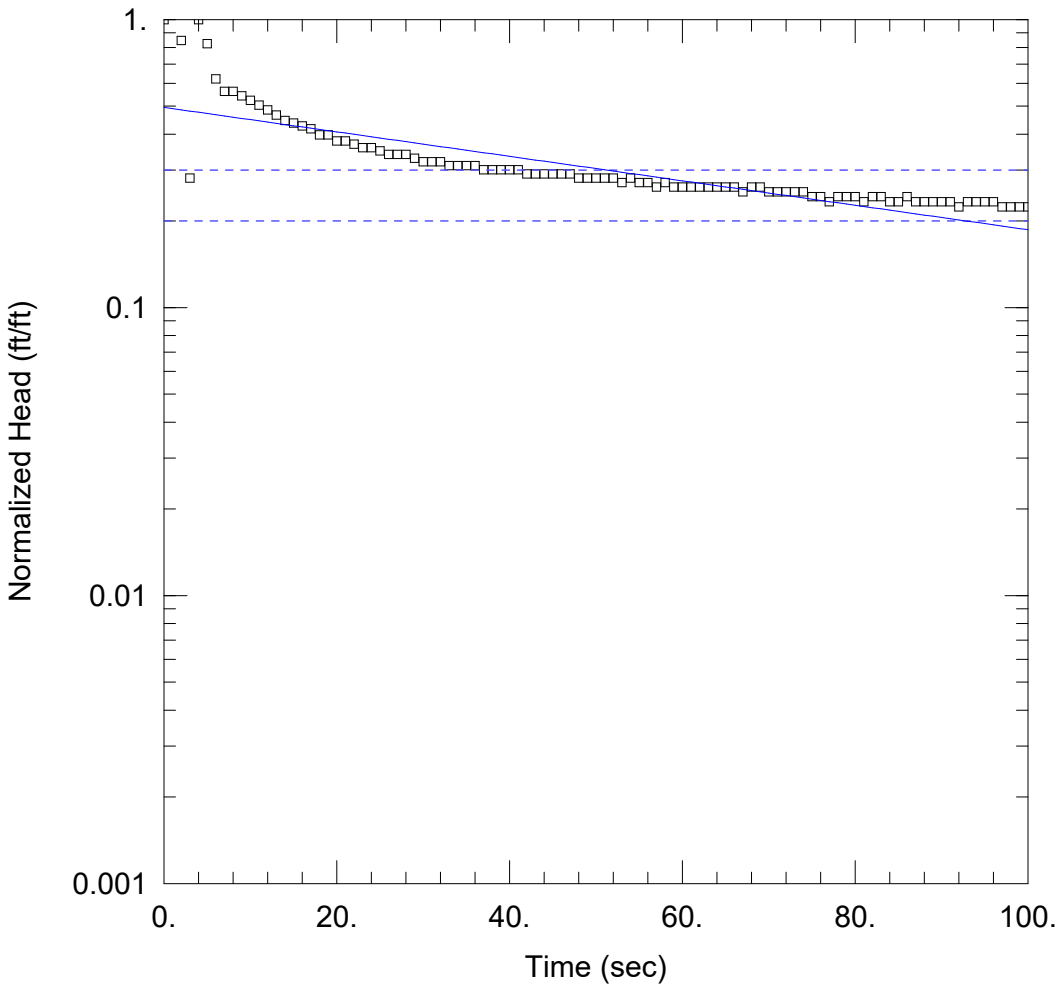
WELL DATA (MW-1 - 2' Slug IN (AUTO))

Initial Displacement: 2.21 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.97 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002019 cm/sec y0 = 0.7787 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 2' SLUG OUT AUTO.aqt
Date: 08/08/24 Time: 13:20:59

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft Anisotropy Ratio (Kz/Kr): 1.

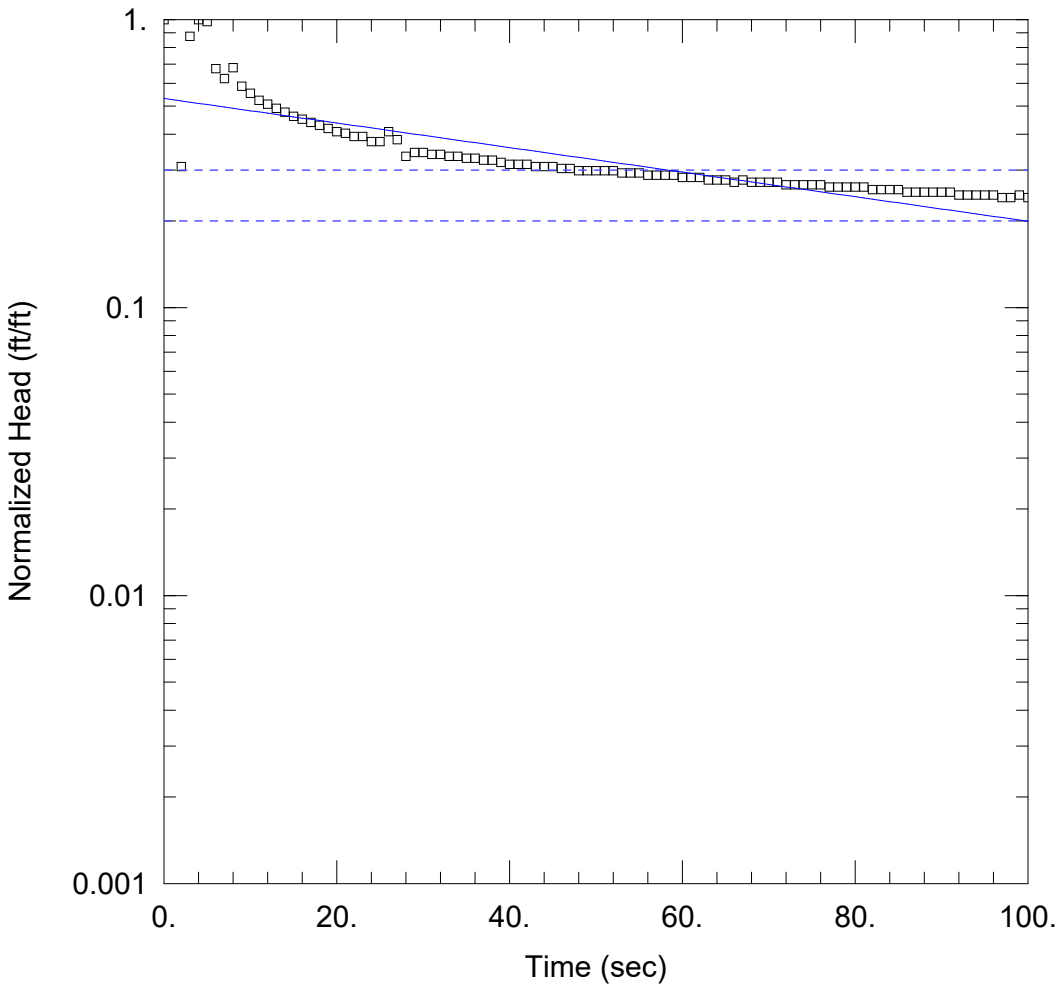
WELL DATA (MW-1 - 2' Slug OUT (AUTO))

Initial Displacement: 1.03 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.03 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001062 cm/sec y0 = 0.5101 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 4' SLUG IN AUTO.aqt
Date: 08/08/24 Time: 13:20:12

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft Anisotropy Ratio (Kz/Kr): 1.

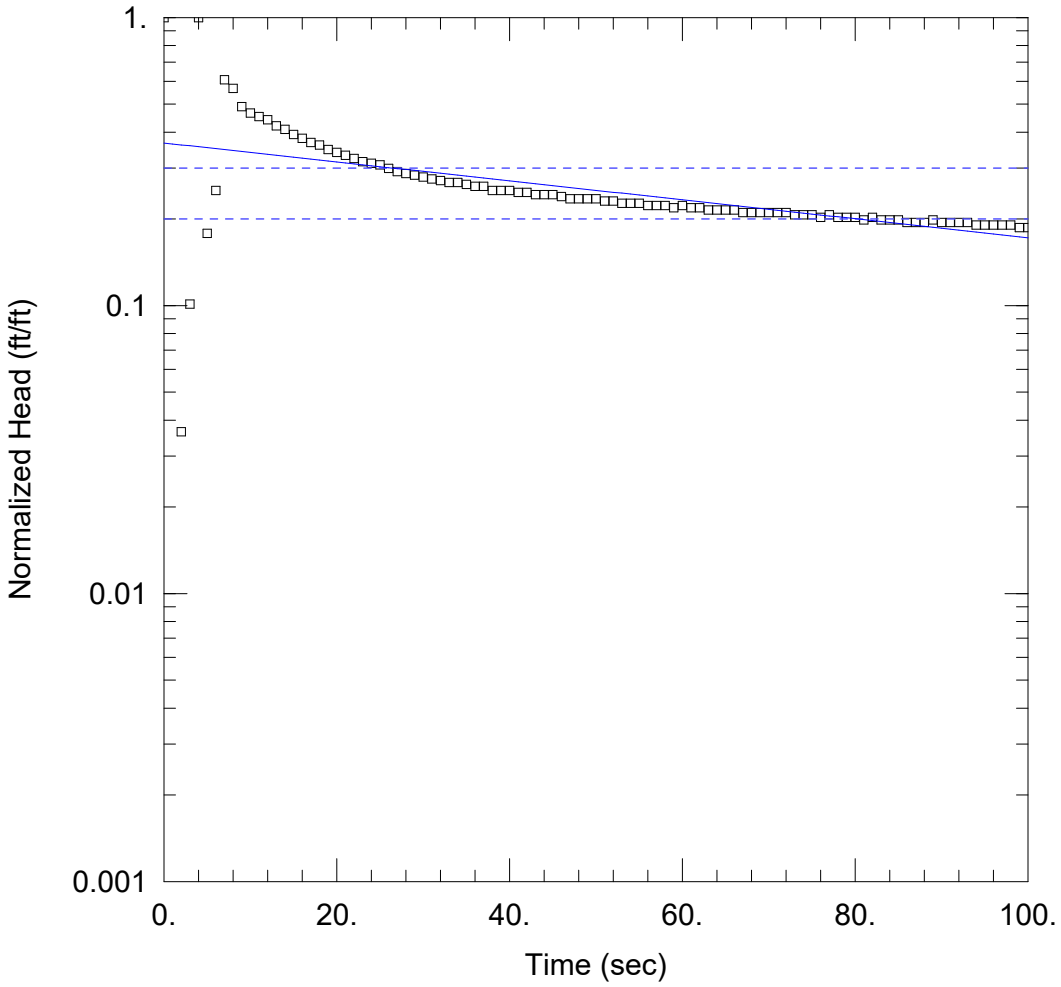
WELL DATA (MW-1 - 4' Slug IN (AUTO))

Initial Displacement: 1.91 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.97 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001066 cm/sec y0 = 1.016 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 4' SLUG OUT AUTO.aqt
Date: 08/08/24 Time: 13:21:37

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1 - 4' Slug OUT (AUTO))

Initial Displacement: 2.47 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.97 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

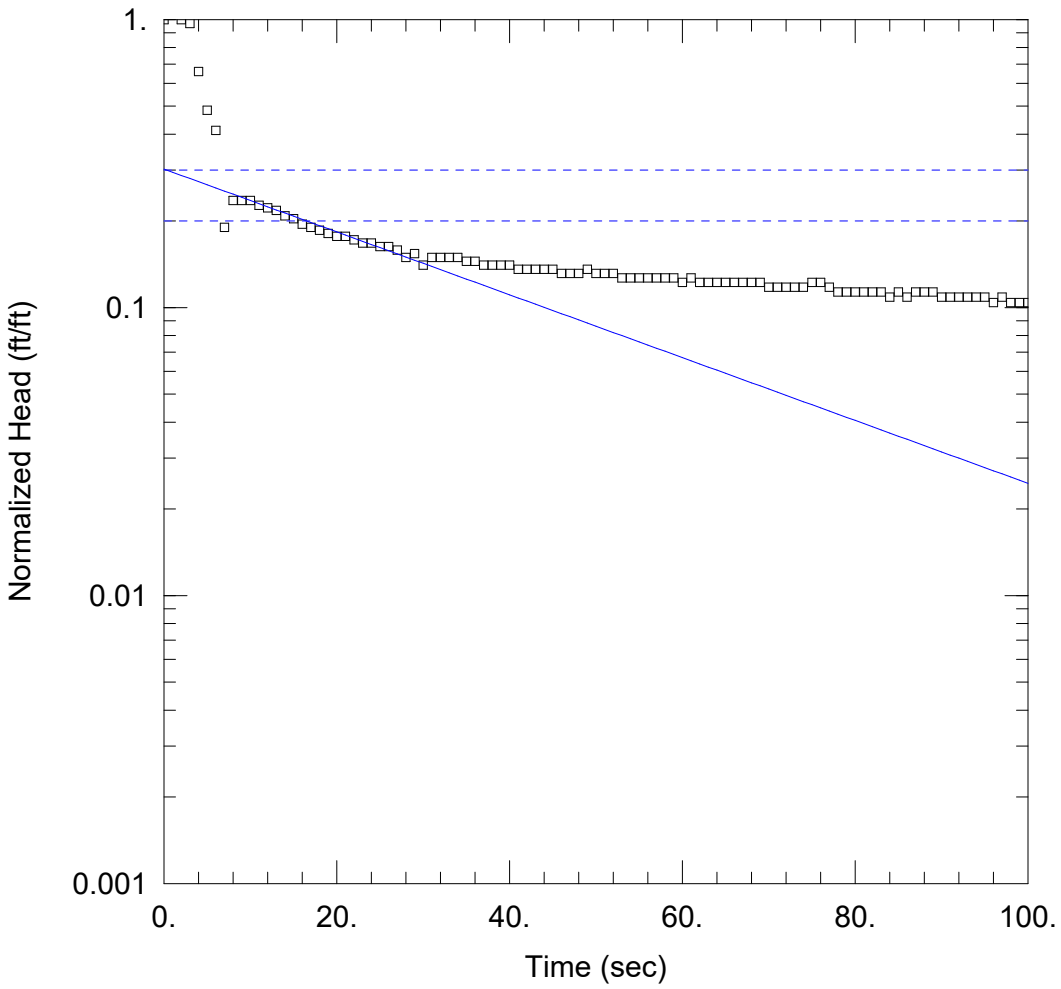
SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0008222 cm/sec y0 = 0.9058 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

AQTESOLVE - VISUAL SOLUTION



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 2' SLUG IN VISUAL.aqt
Date: 08/08/24 Time: 13:29:37

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft Anisotropy Ratio (Kz/Kr): 1.

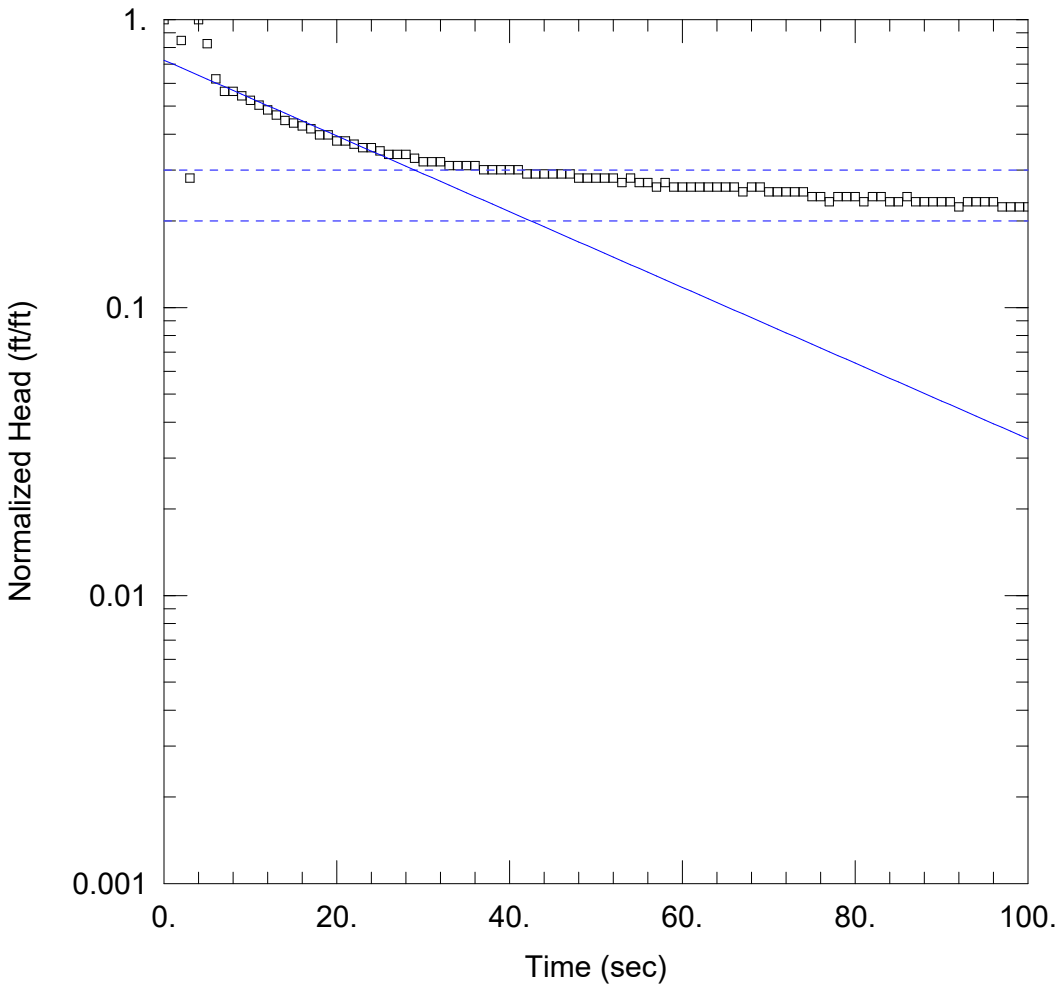
WELL DATA (MW-1 - 2' Slug IN (VISUAL))

Initial Displacement: 2.21 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.97 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.002728 cm/sec y0 = 0.6685 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 2' SLUG OUT VISUAL.aqt
Date: 08/08/24 Time: 13:29:22

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft Anisotropy Ratio (Kz/Kr): 1.

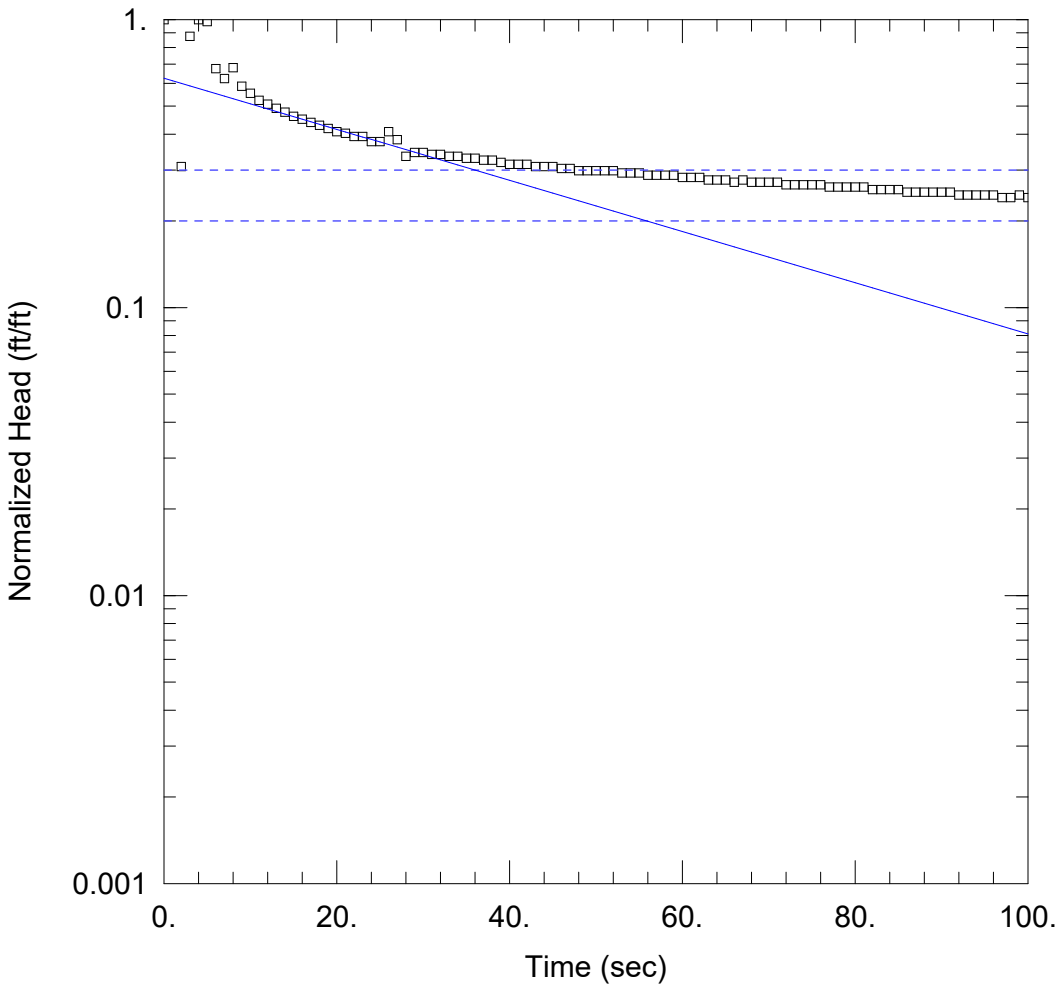
WELL DATA (MW-1 - 2' Slug OUT (VISUAL))

Initial Displacement: 1.03 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 11.03 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.003288 cm/sec y0 = 0.7441 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 4' SLUG IN VISUAL.aqt
Date: 08/08/24 Time: 13:30:15

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft Anisotropy Ratio (Kz/Kr): 1.

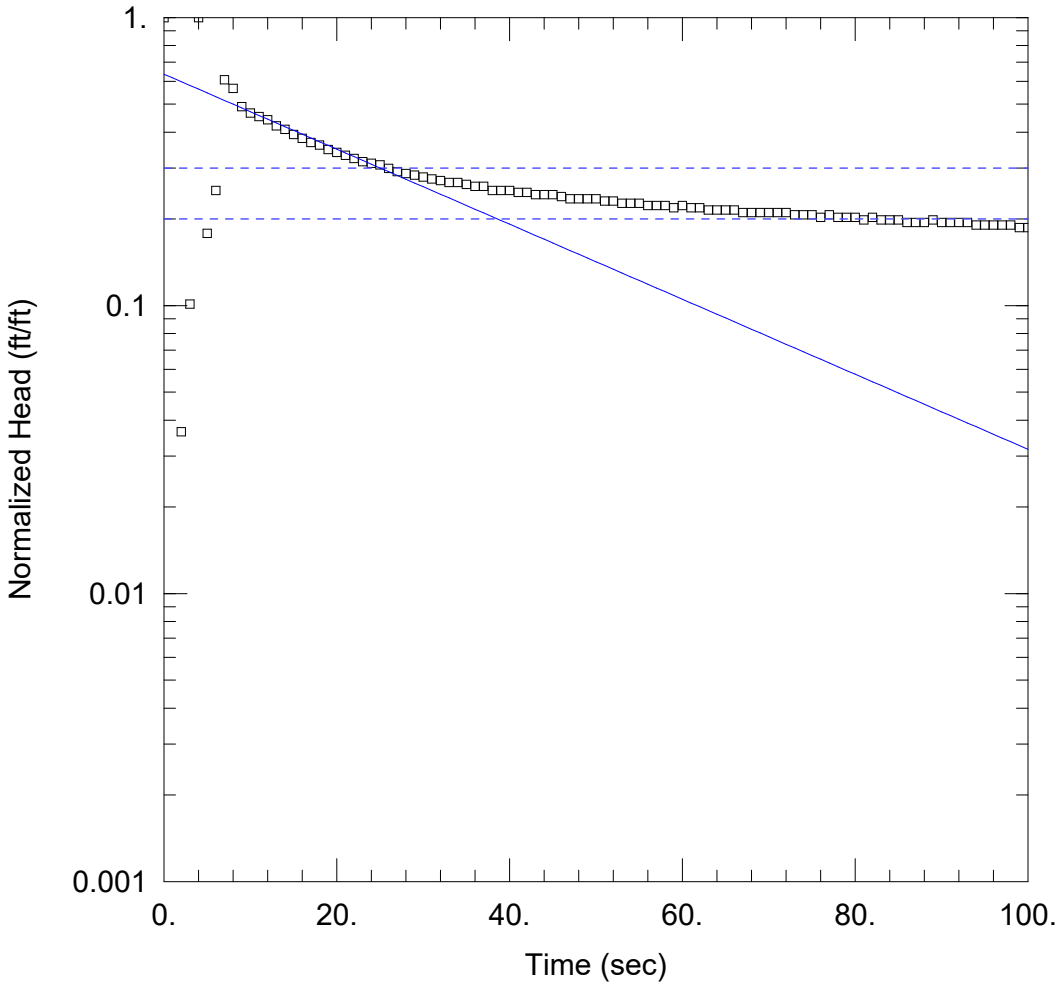
WELL DATA (MW-1 - 4' Slug IN (VISUAL))

Initial Displacement: 1.91 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.97 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.00222 cm/sec y0 = 1.195 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1 4' SLUG OUT VISUAL.aqt
Date: 08/08/24 Time: 13:29:53

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 13.97 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1 - 4' Slug OUT (VISUAL))

Initial Displacement: 2.47 ft
Total Well Penetration Depth: 13.97 ft
Casing Radius: 0.083 ft
Static Water Column Height: 13.97 ft
Screen Length: 10. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

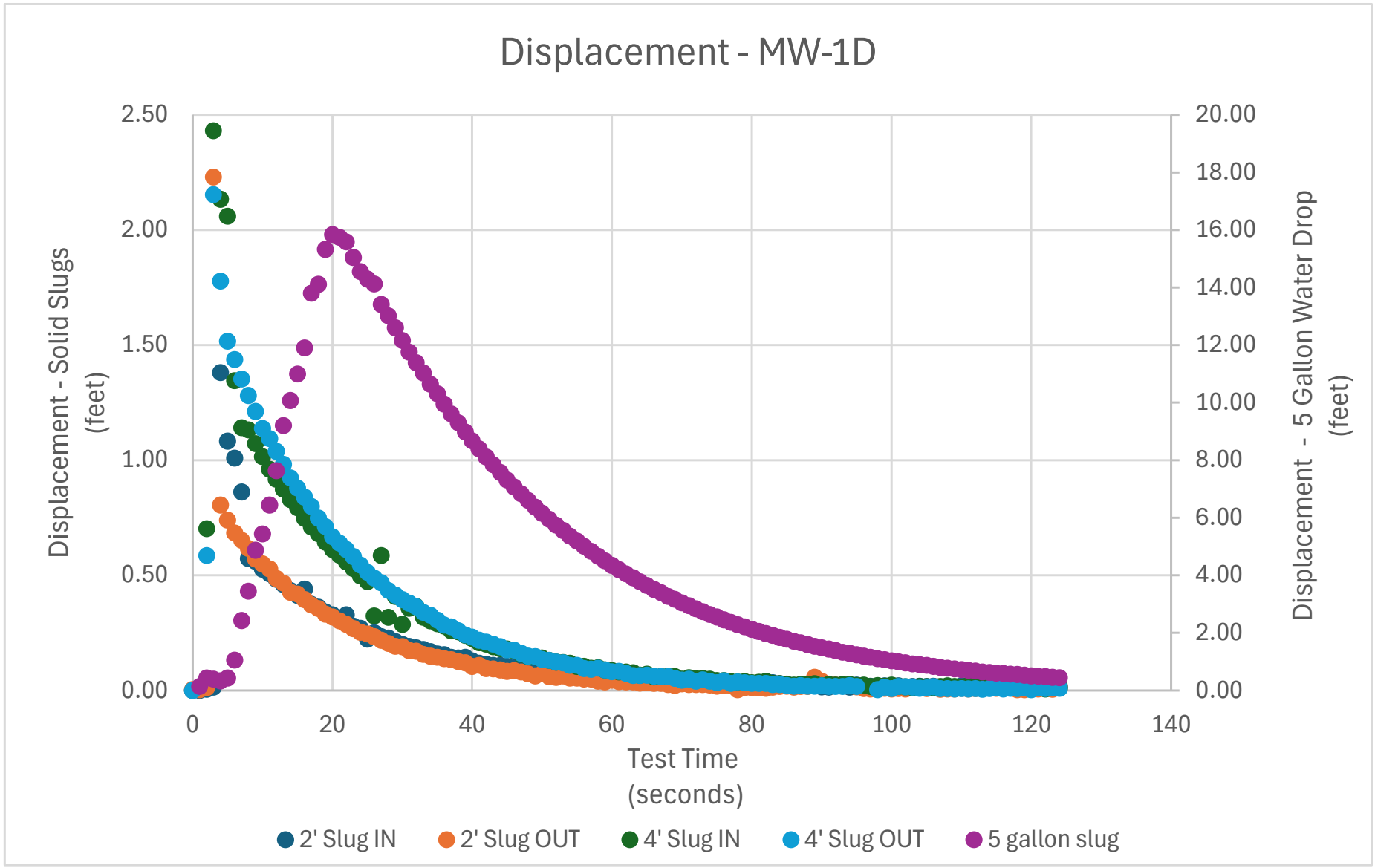
SOLUTION

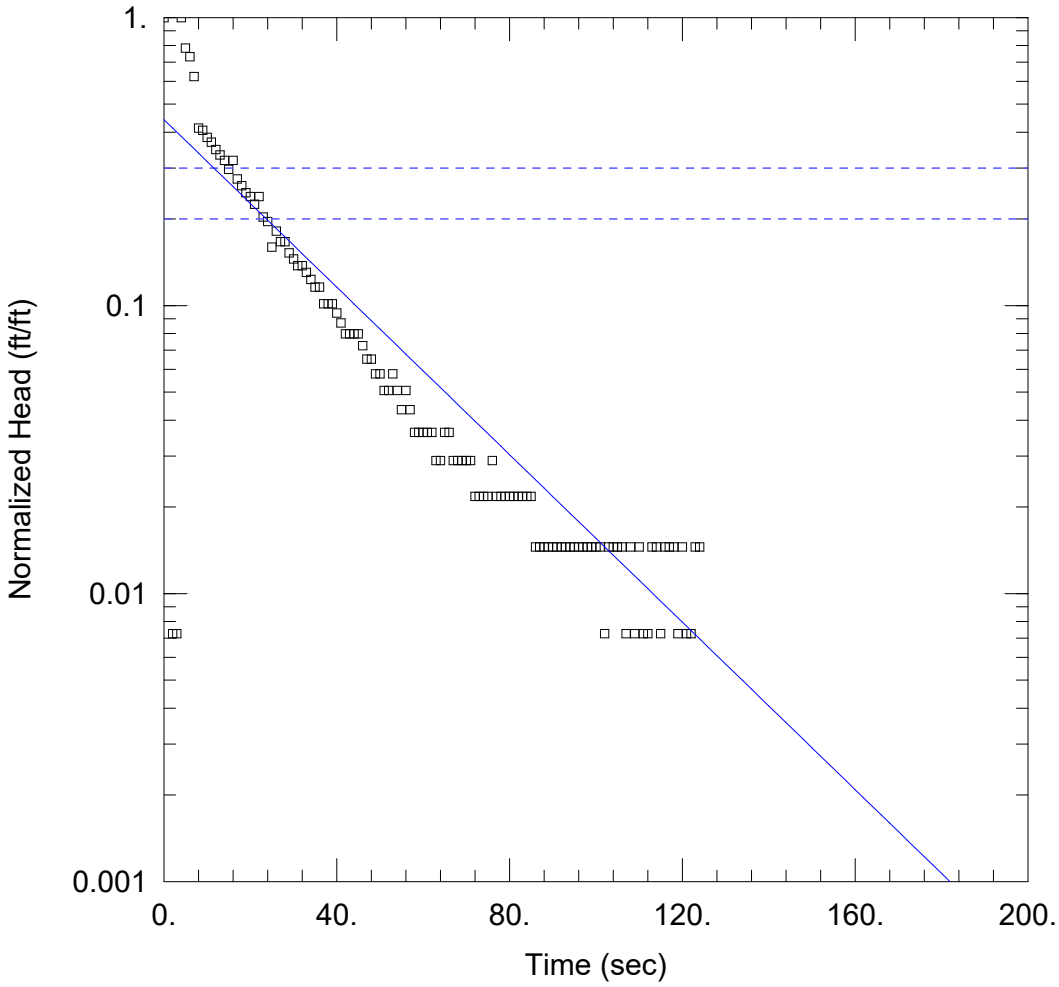
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.003257 cm/sec
y0 = 1.57 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

WELL MW-1D

(July, 2024)


Displacement - MW-1D
Displacement - Solid Slugs (feet)
Displacement - 5 Gallon Water Drop (feet)
2.50
2.00
1.50
1.00
0.50
0.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0
20
40
60
80
100
120
140
Test Time (seconds)
2' Slug IN
2' Slug OUT
4' Slug IN
4' Slug OUT
5 gallon slug



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 2' SLUG IN AUTO.aqt
Date: 08/08/24 Time: 13:23:00

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 27. ft Anisotropy Ratio (Kz/Kr): 1.

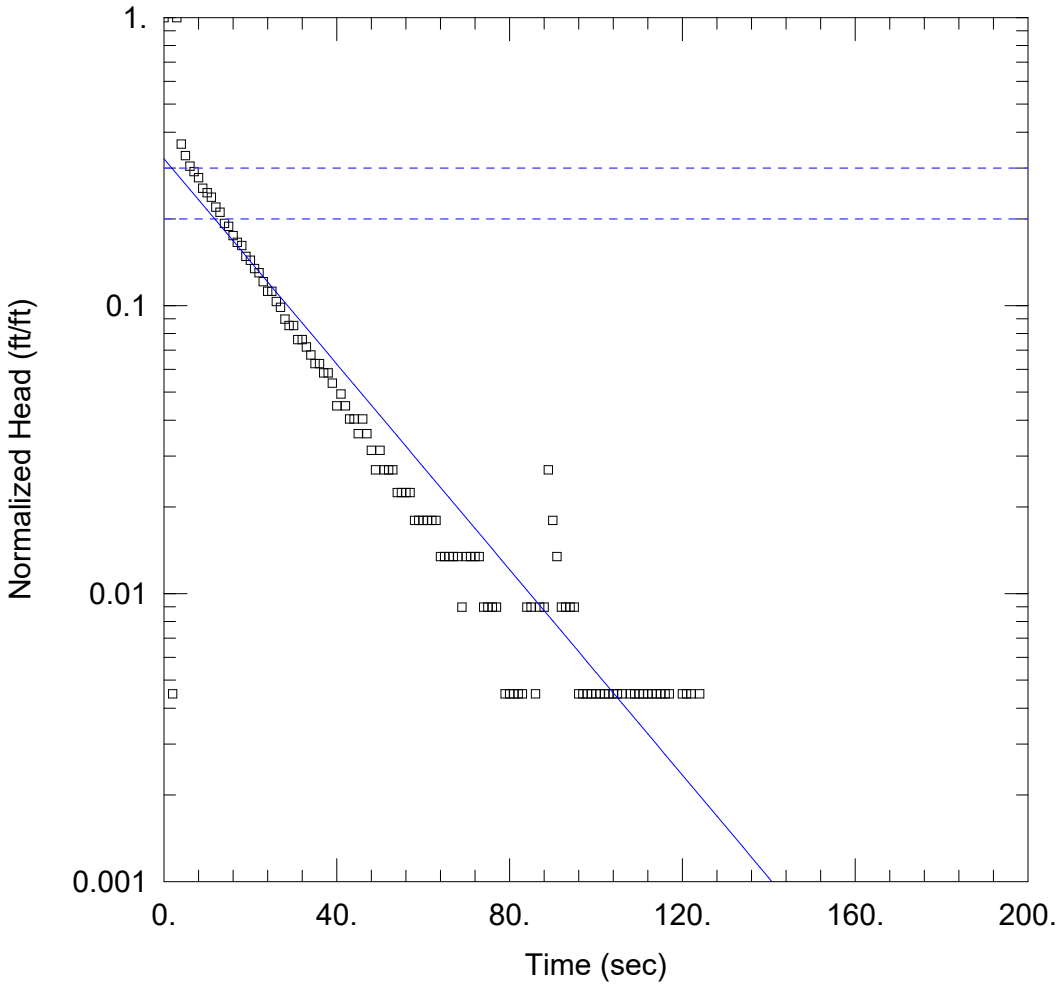
WELL DATA (MW-1D - 2' Slug IN (AUTO))

Initial Displacement: 1.38 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.00453 cm/sec y0 = 0.6097 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 2' SLUG OUT AUTO.aqt
Date: 08/08/24 Time: 13:22:44

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 27. ft Anisotropy Ratio (Kz/Kr): 1.

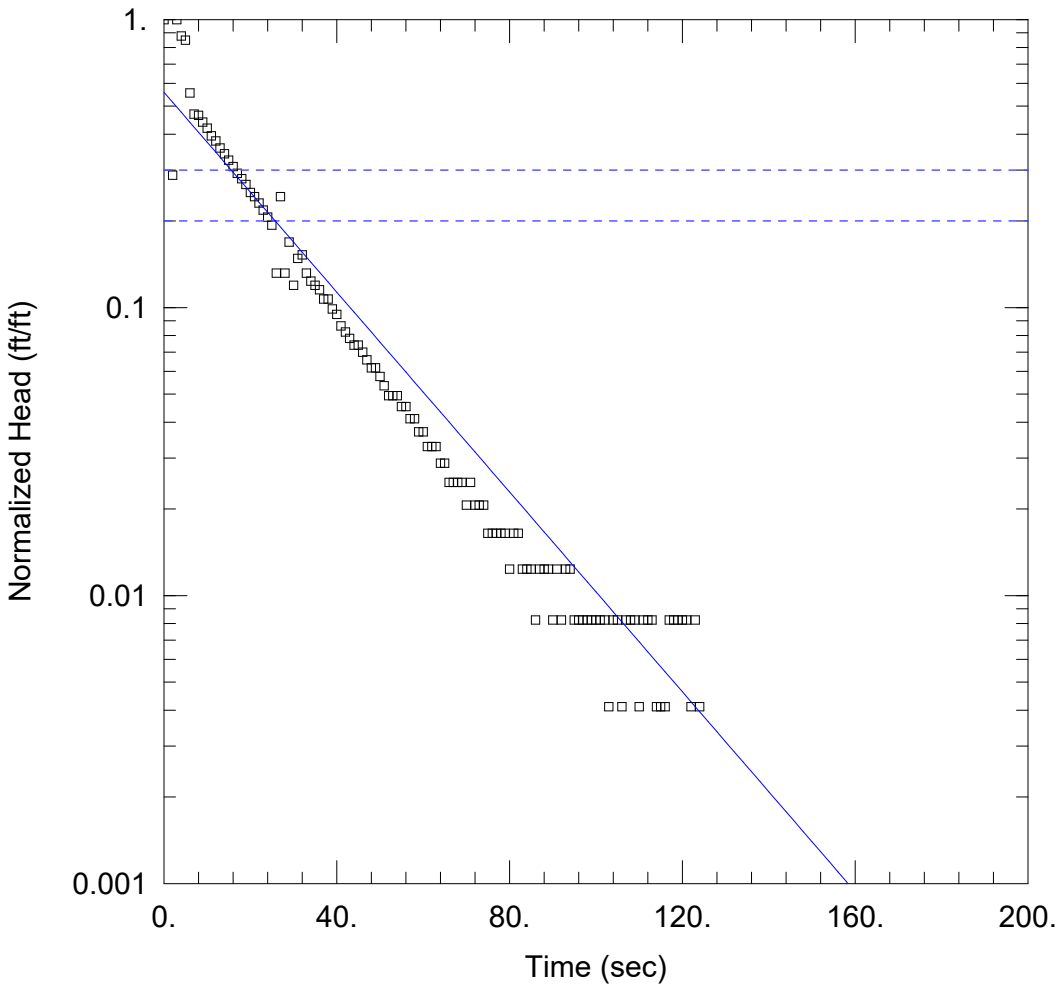
WELL DATA (MW-1D - 2' Slug OUT (AUTO))

Initial Displacement: 2.23 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.005556 cm/sec y0 = 0.7216 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 4' SLUG IN AUTO.aqt
Date: 08/08/24 Time: 13:22:28

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

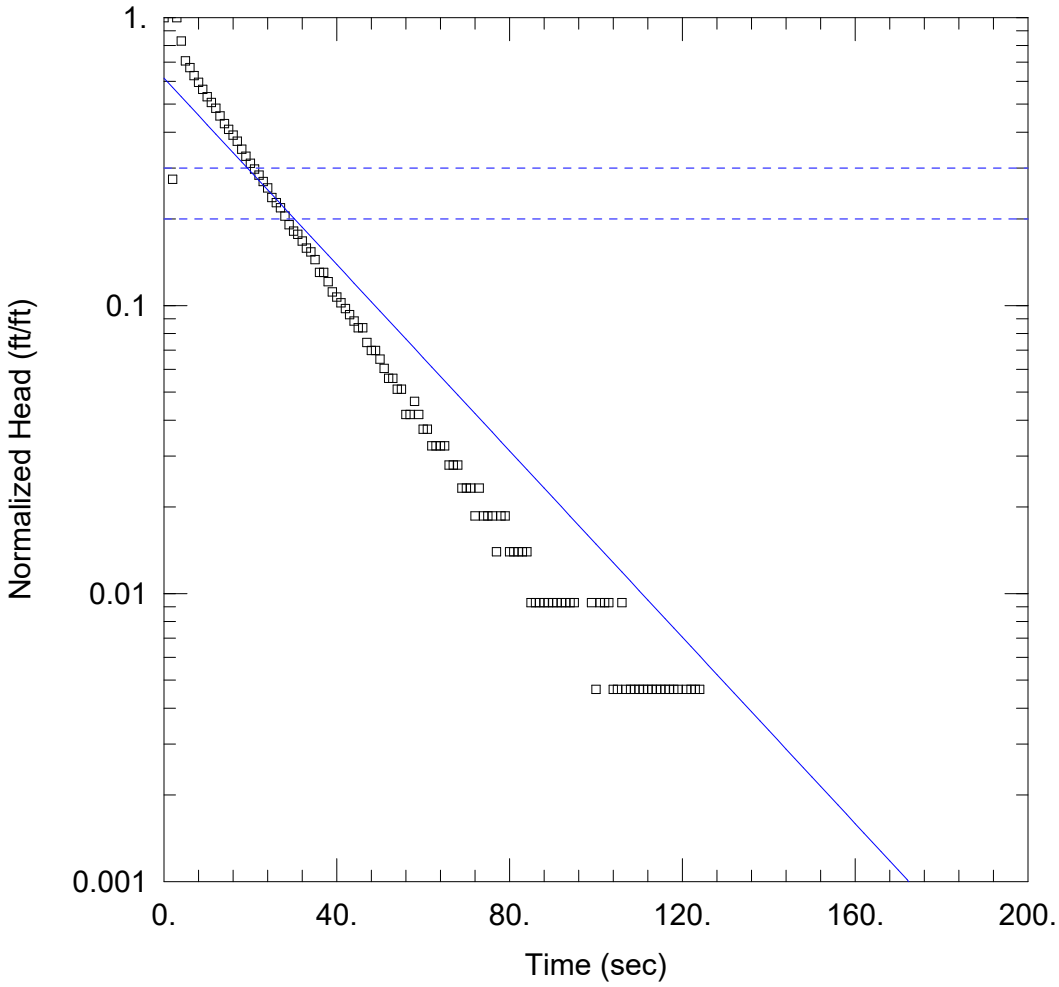
Saturated Thickness: 27. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1D - 4' Slug IN (AUTO))

Initial Displacement: 2.43 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.005404 cm/sec
y0 = 1.358 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 4' SLUG OUT AUTO.aqt
Date: 08/08/24 Time: 13:22:13

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

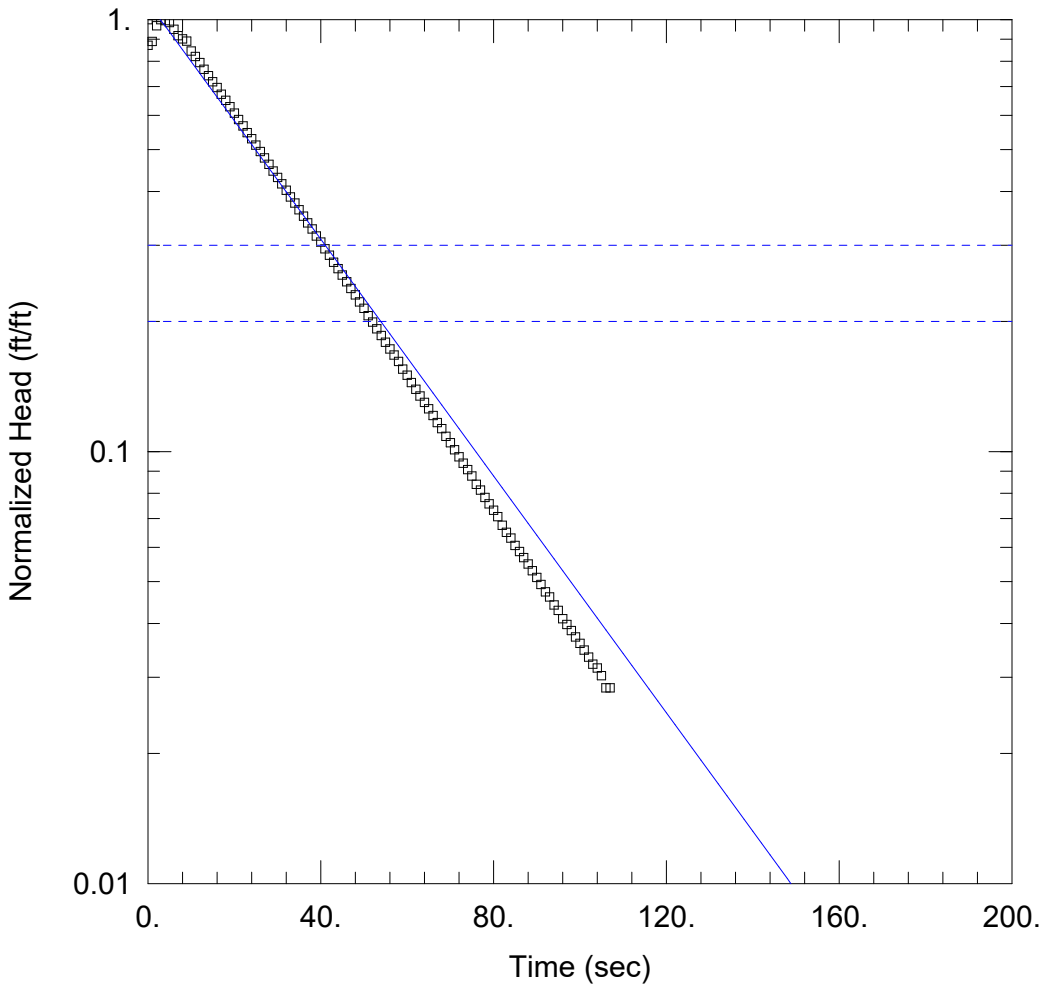
Saturated Thickness: 27. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1D - 4' Slug OUT (AUTO))

Initial Displacement: 2.15 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.00504 cm/sec
y0 = 1.324 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 5 Gallon AUTO.aqt
Date: 08/08/24 Time: 13:23:16

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 27. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1D - 5 Gallon (AUTO))

Initial Displacement: 15.85 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

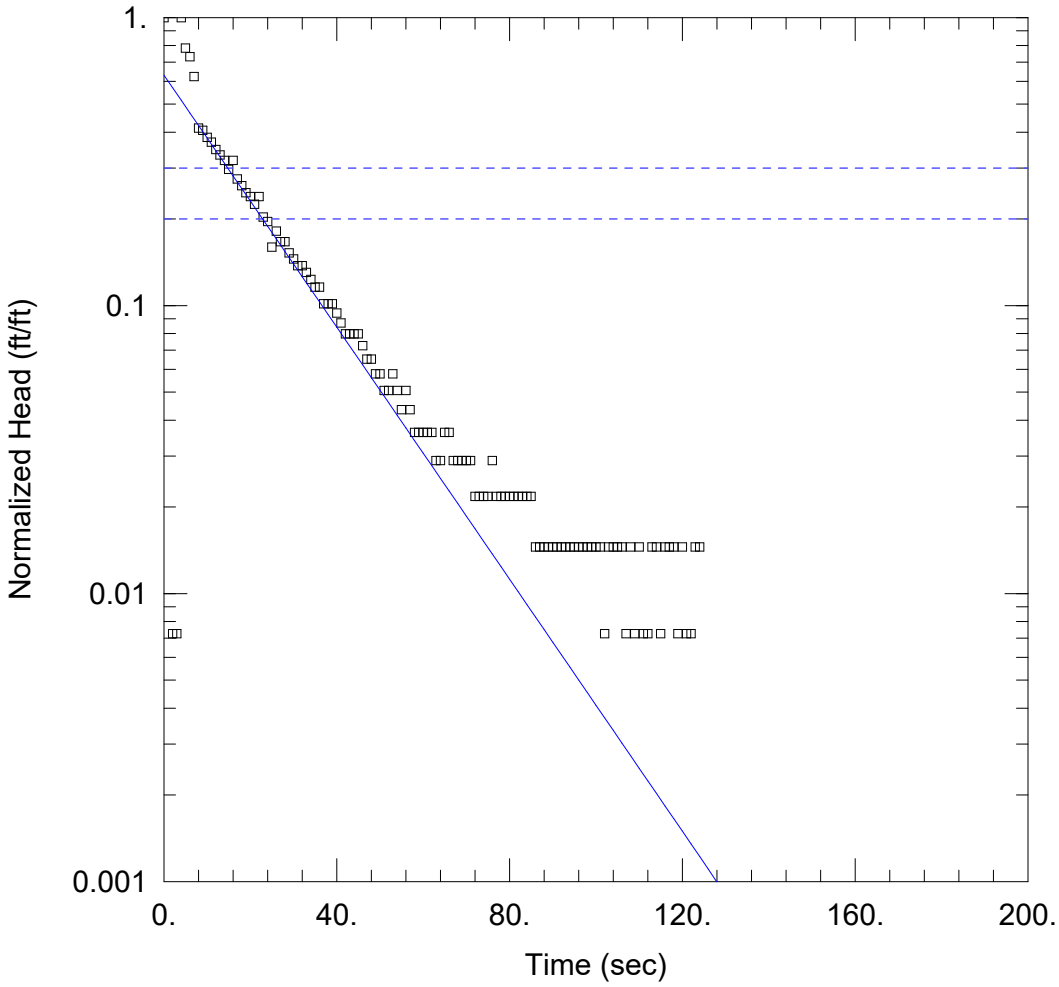
SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004268 cm/sec y0 = 17.36 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

AQTESOLVE - VISUAL SOLUTION



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 2' SLUG IN VISUAL.aqt
Date: 08/08/24 Time: 13:31:41

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

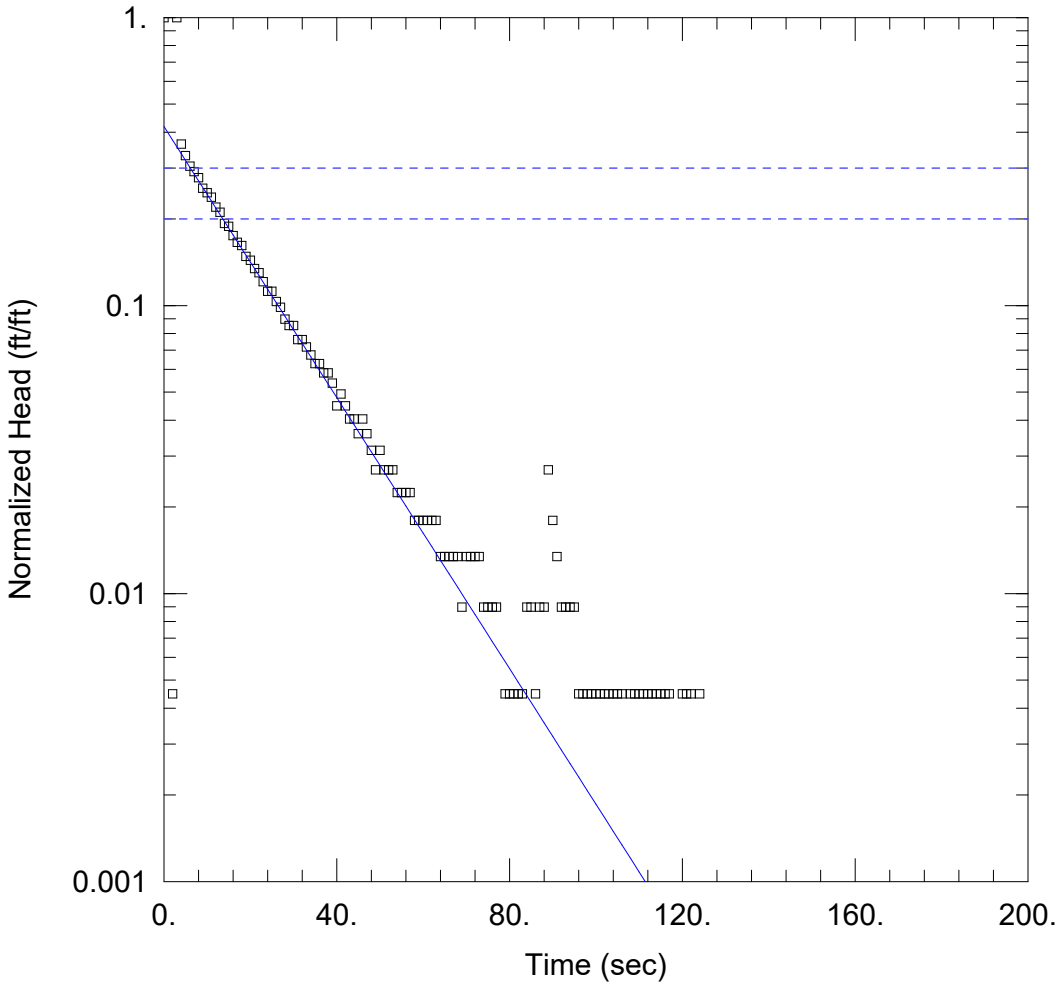
Saturated Thickness: 27. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1D - 2' Slug IN (VISUAL))

Initial Displacement: 1.38 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.006816 cm/sec
y0 = 0.8707 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 2' SLUG OUT VISUAL.aqt
Date: 08/08/24 Time: 13:31:25

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

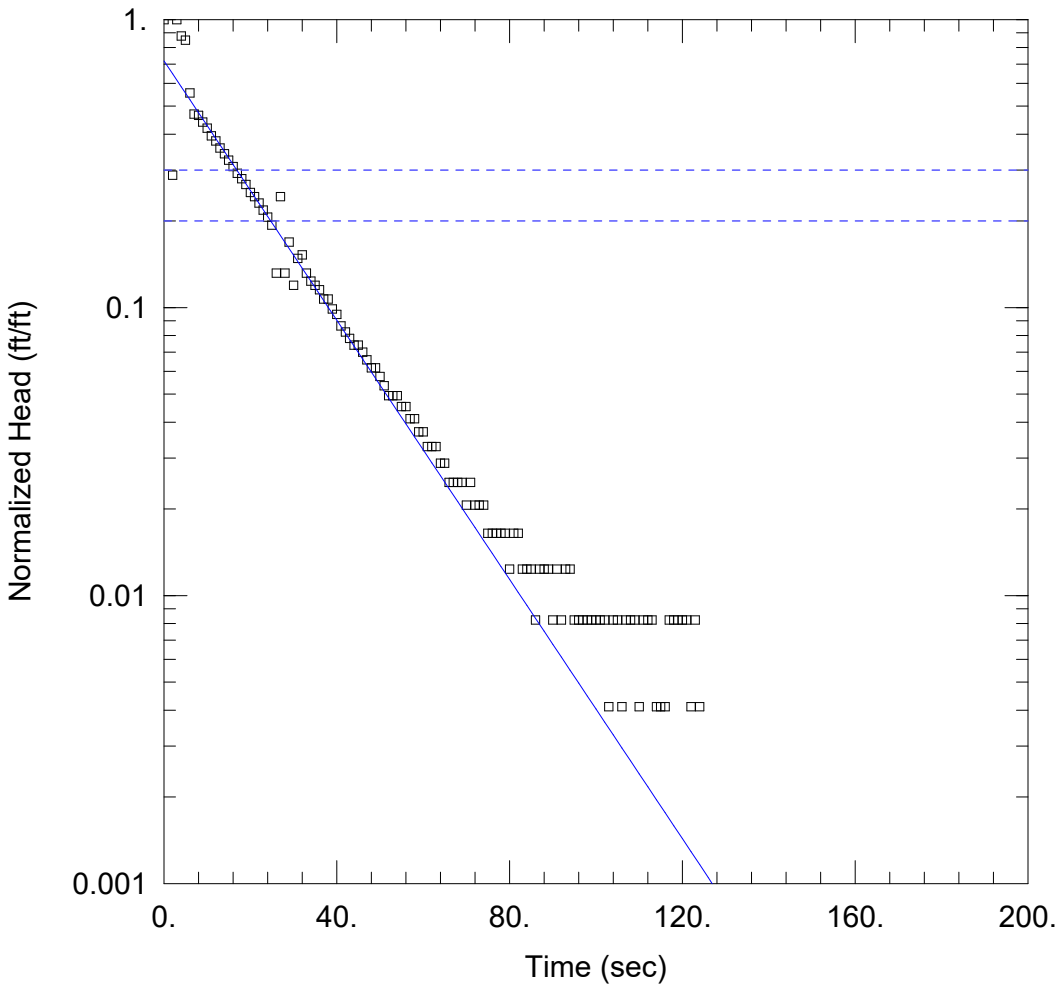
Saturated Thickness: 27. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1D - 2' Slug OUT (VISUAL))

Initial Displacement: 2.23 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.007329 cm/sec
y0 = 0.932 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 4' SLUG IN VISUAL.aqt
Date: 08/08/24 Time: 13:31:11

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 27. ft Anisotropy Ratio (Kz/Kr): 1.

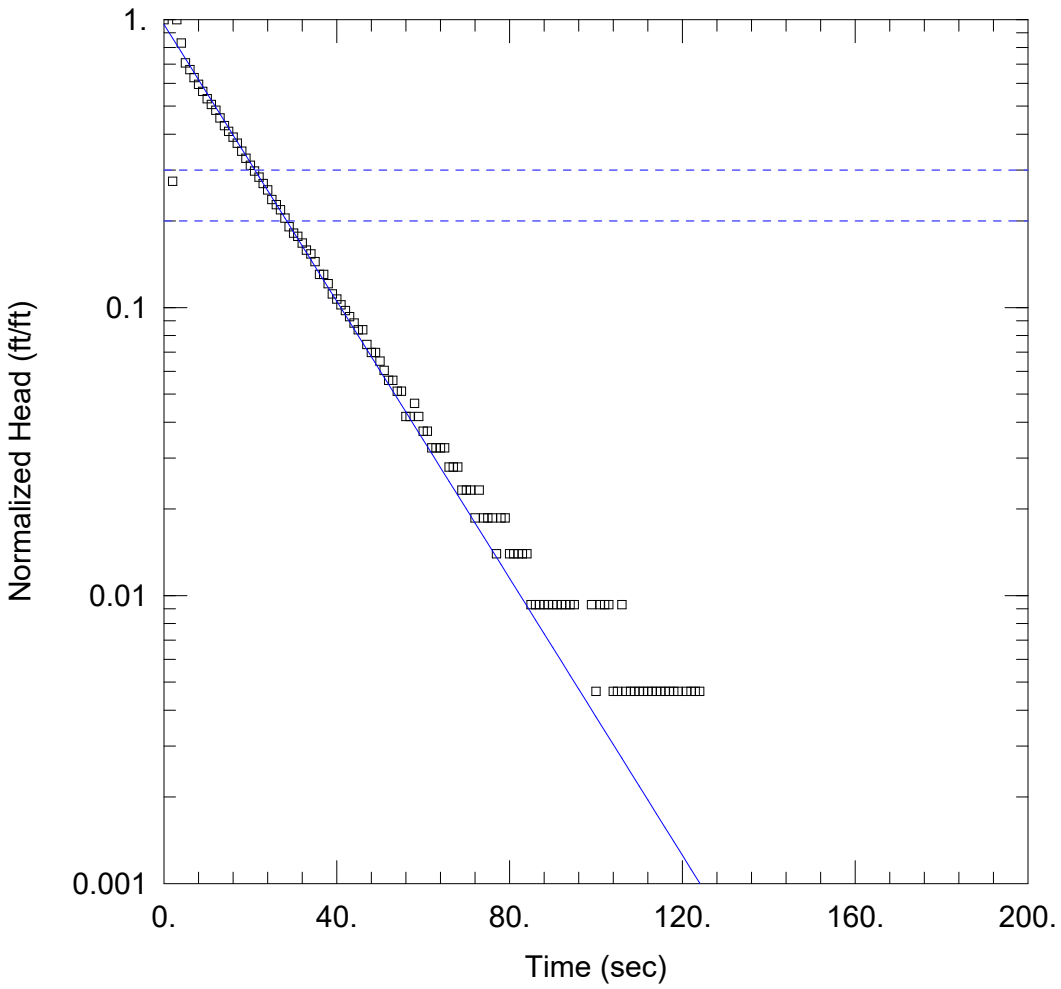
WELL DATA (MW-1D - 4' Slug IN (VISUAL))

Initial Displacement: 2.43 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.007011 cm/sec y0 = 1.745 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 4' SLUG OUT VISUAL.aqt
Date: 08/08/24 Time: 13:30:56

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

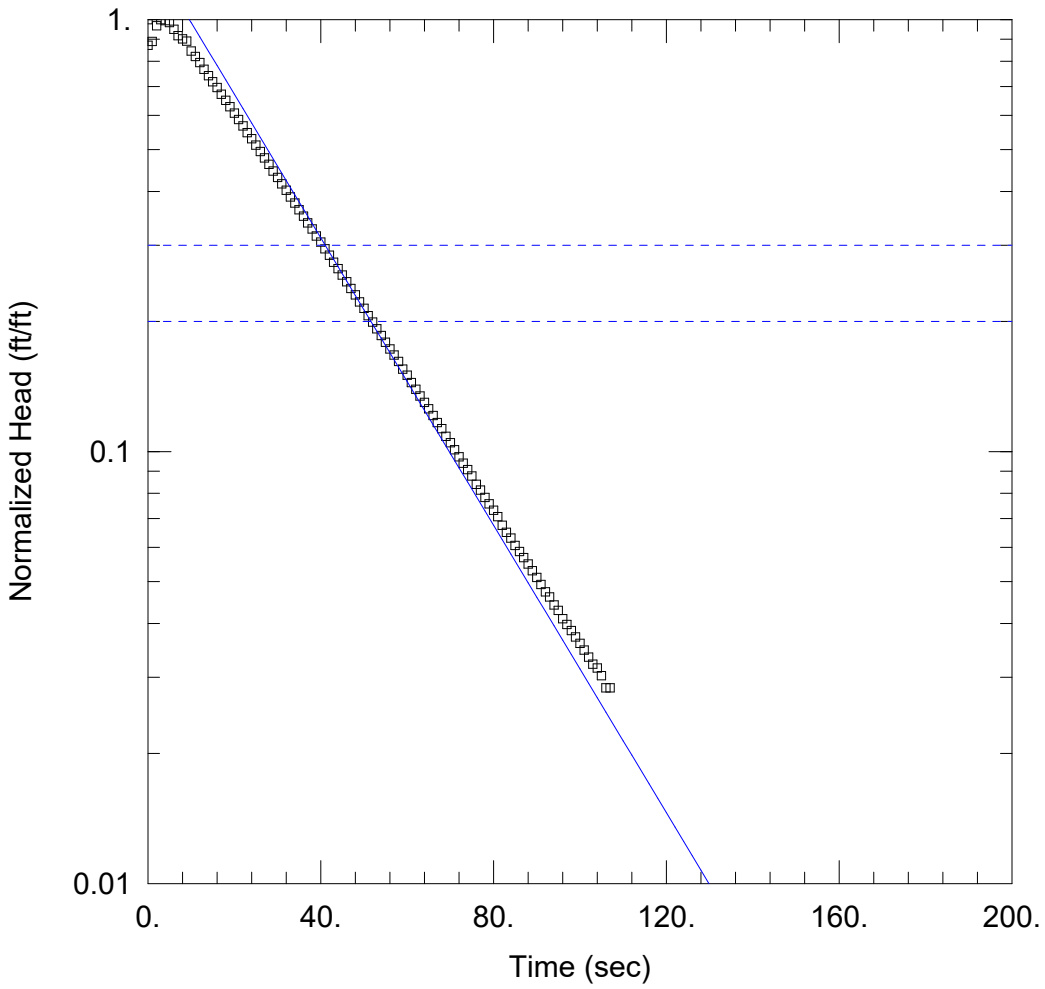
Saturated Thickness: 27. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1D - 4' Slug OUT (VISUAL))

Initial Displacement: 2.15 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.007491 cm/sec
y0 = 2.069 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-1D 5 Gallon VISUAL.aqt
Date: 08/08/24 Time: 13:32:06

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-1D (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 27. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1D - 5 Gallon (VISUAL))

Initial Displacement: 15.85 ft
Total Well Penetration Depth: 27. ft
Casing Radius: 0.083 ft
Static Water Column Height: 27. ft
Screen Length: 9. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

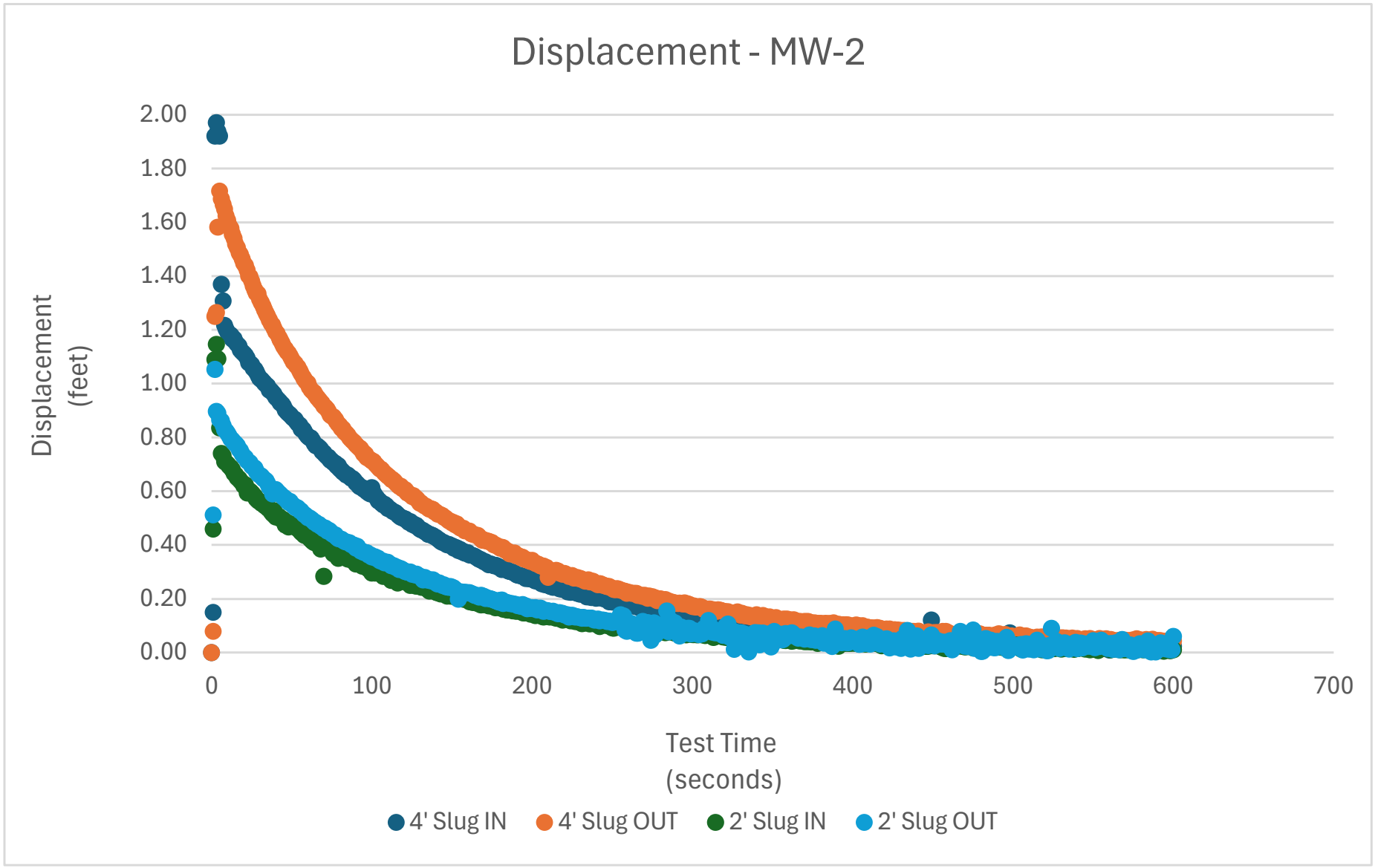
SOLUTION

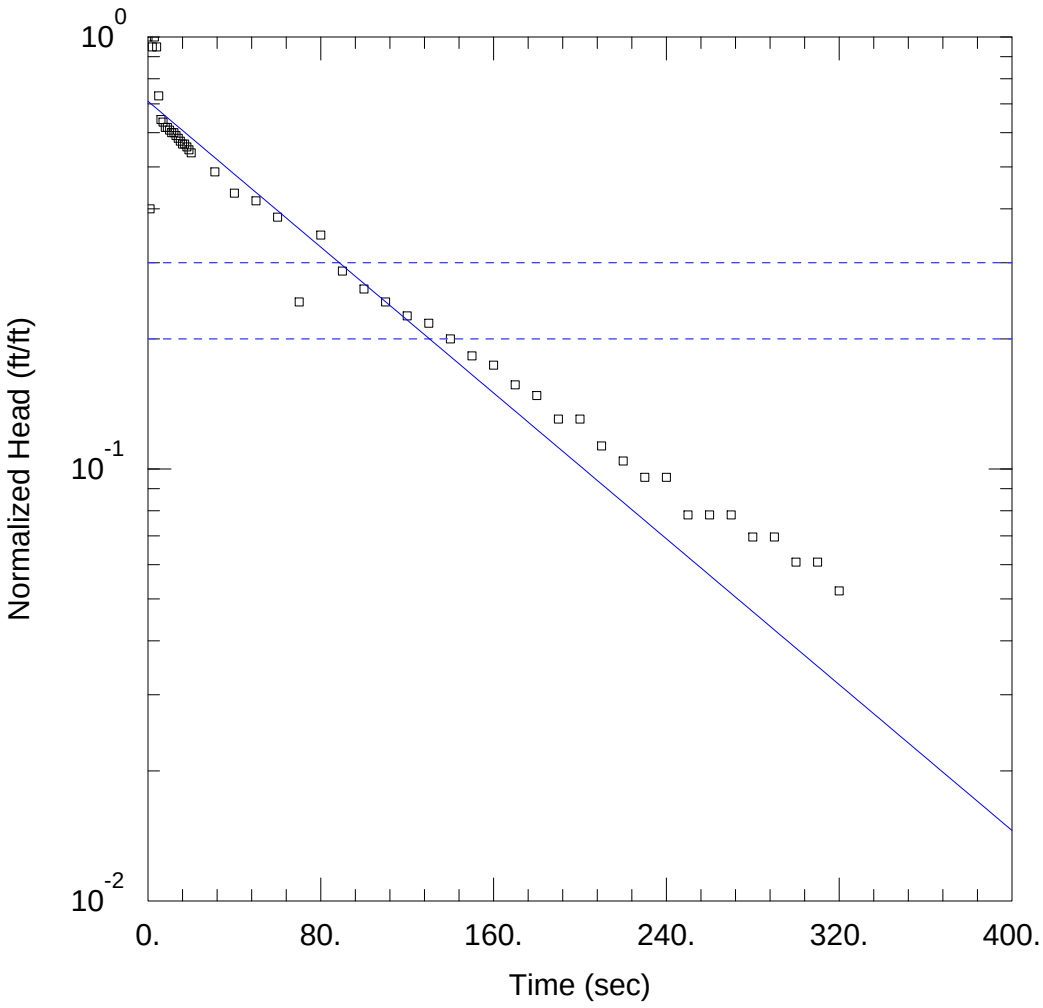
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.00518 cm/sec
y0 = 22.88 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

WELL MW-2

(June, 2024)


Displacement - MW-2
Displacement (feet)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0
100
200
300
400
500
600
700
Test Time (seconds)
4' Slug IN
4' Slug OUT
2' Slug IN
2' Slug OUT



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-2 2' SLUG IN.aqt
Date: 06/27/24 Time: 10:32:13

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-2
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.39 ft Anisotropy Ratio (Kz/Kr): 1.

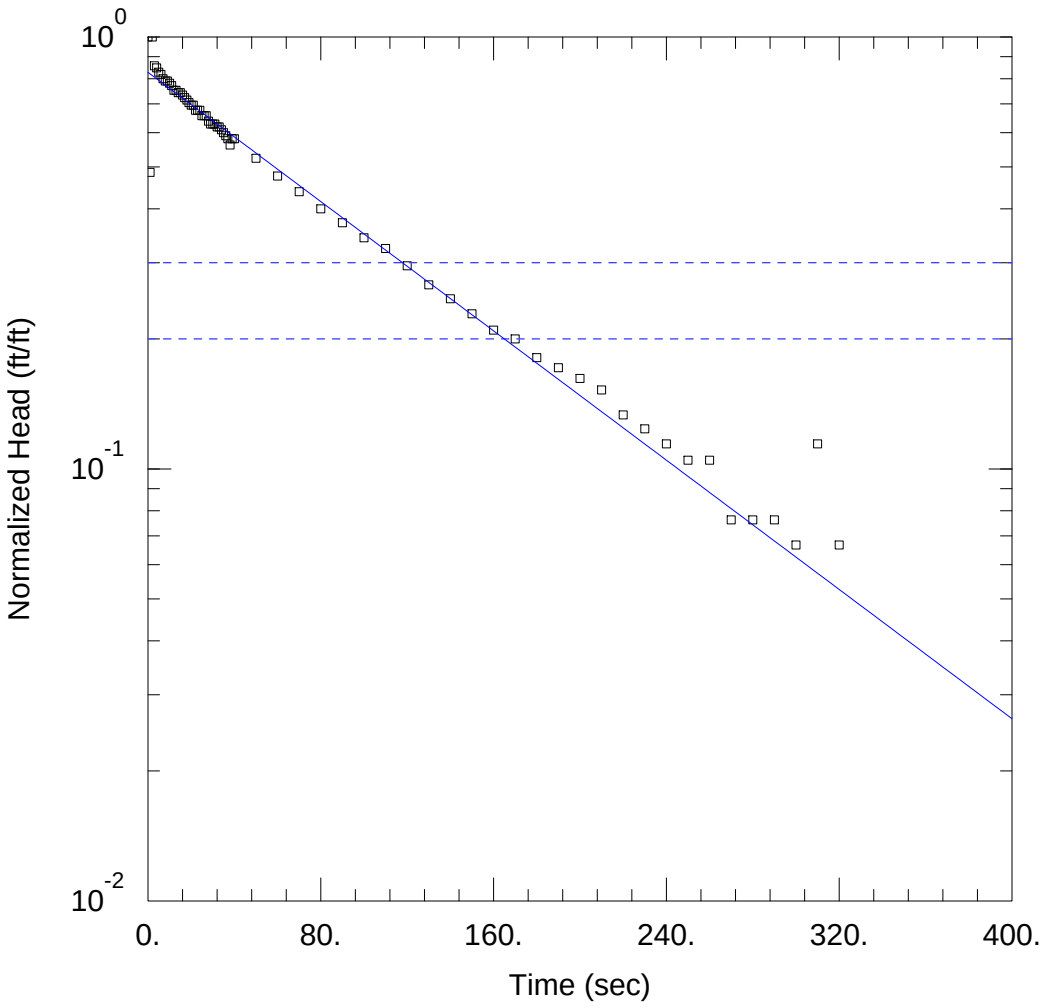
WELL DATA (MW-2 - 2' Slug IN)

Initial Displacement: 1.15 ft
Total Well Penetration Depth: 16.39 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.39 ft
Screen Length: 16.39 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006836 cm/sec y0 = 0.816 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-2 2' SLUG OUT.aqt
Date: 06/27/24 Time: 10:37:04

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-2
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.39 ft Anisotropy Ratio (Kz/Kr): 1.

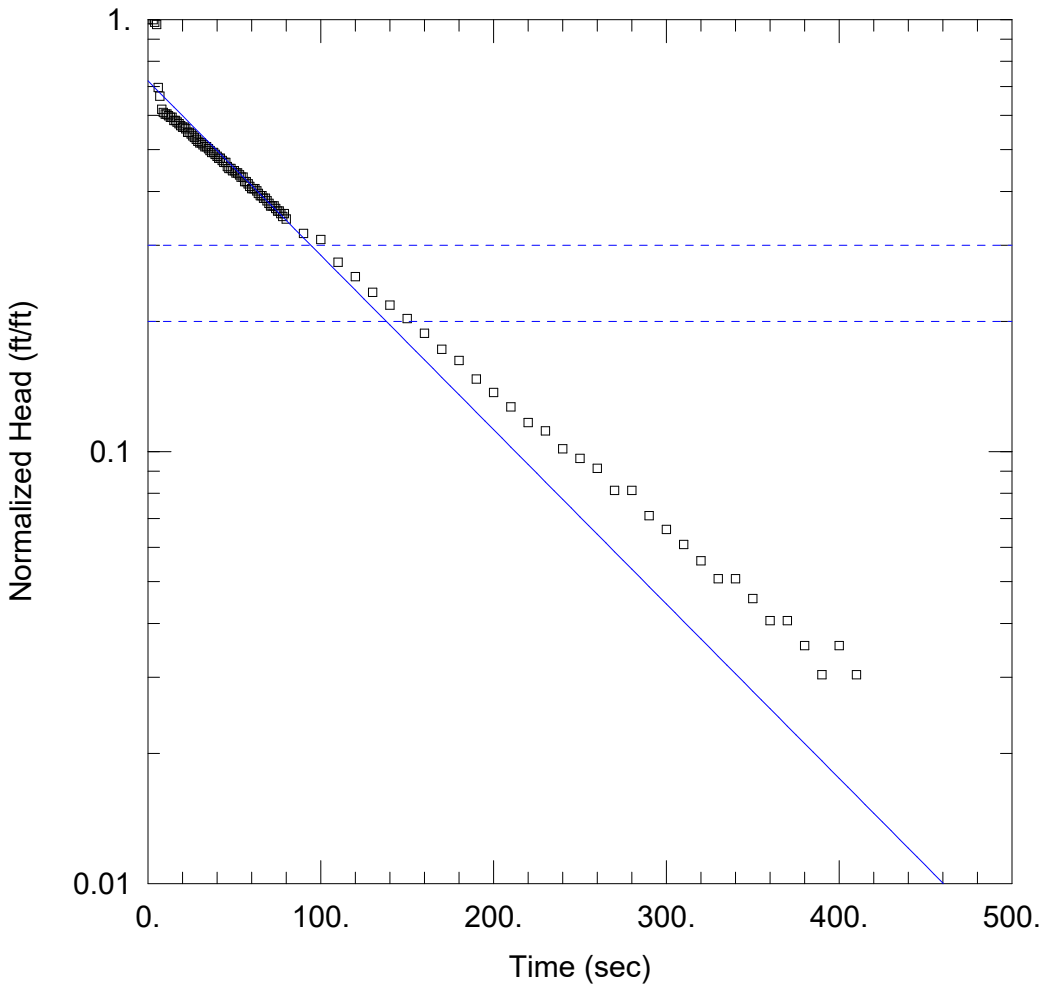
WELL DATA (MW-2 - 2' Slug OUT)

Initial Displacement: 1.05 ft
Total Well Penetration Depth: 16.39 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.39 ft
Screen Length: 16.39 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.000606 cm/sec y0 = 0.8695 ft



MW-2 4.0-SLUG - IN

Data Set: \...\MW-2 4' SLUG IN.aqt
Date: 08/08/24 Time: 10:01:53

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-2
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.39 ft Anisotropy Ratio (Kz/Kr): 1.

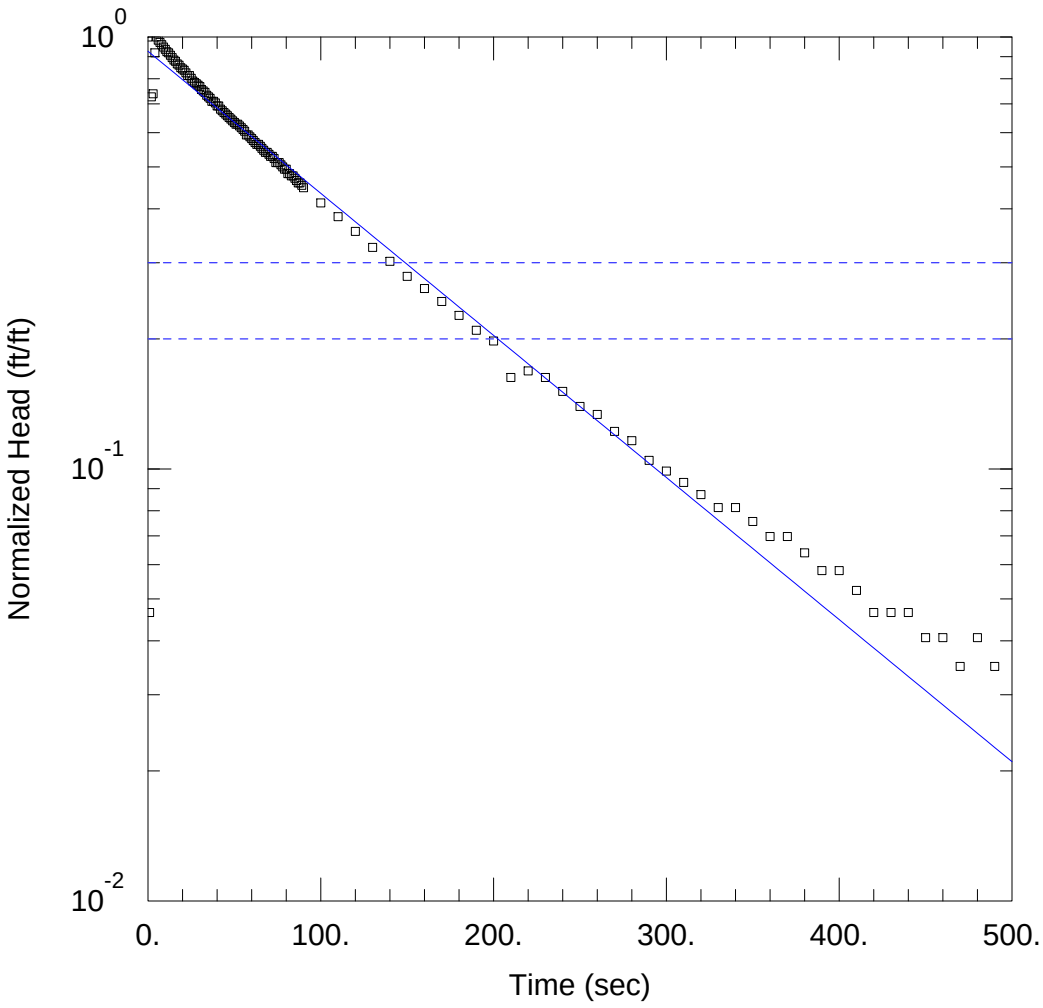
WELL DATA (MW-2 (4.0' SLUG IN))

Initial Displacement: 1.97 ft
Total Well Penetration Depth: 16.39 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.39 ft
Screen Length: 16.39 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0006539 cm/sec y0 = 1.42 ft



JUNE, 2024 SLUG TESTING

Data Set:
Date: 06/27/24 Time: 10:25:43

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-2
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.39 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2 - 4' Slug OUT)

Initial Displacement: 1.72 ft
Total Well Penetration Depth: 16.39 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.39 ft
Screen Length: 16.39 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

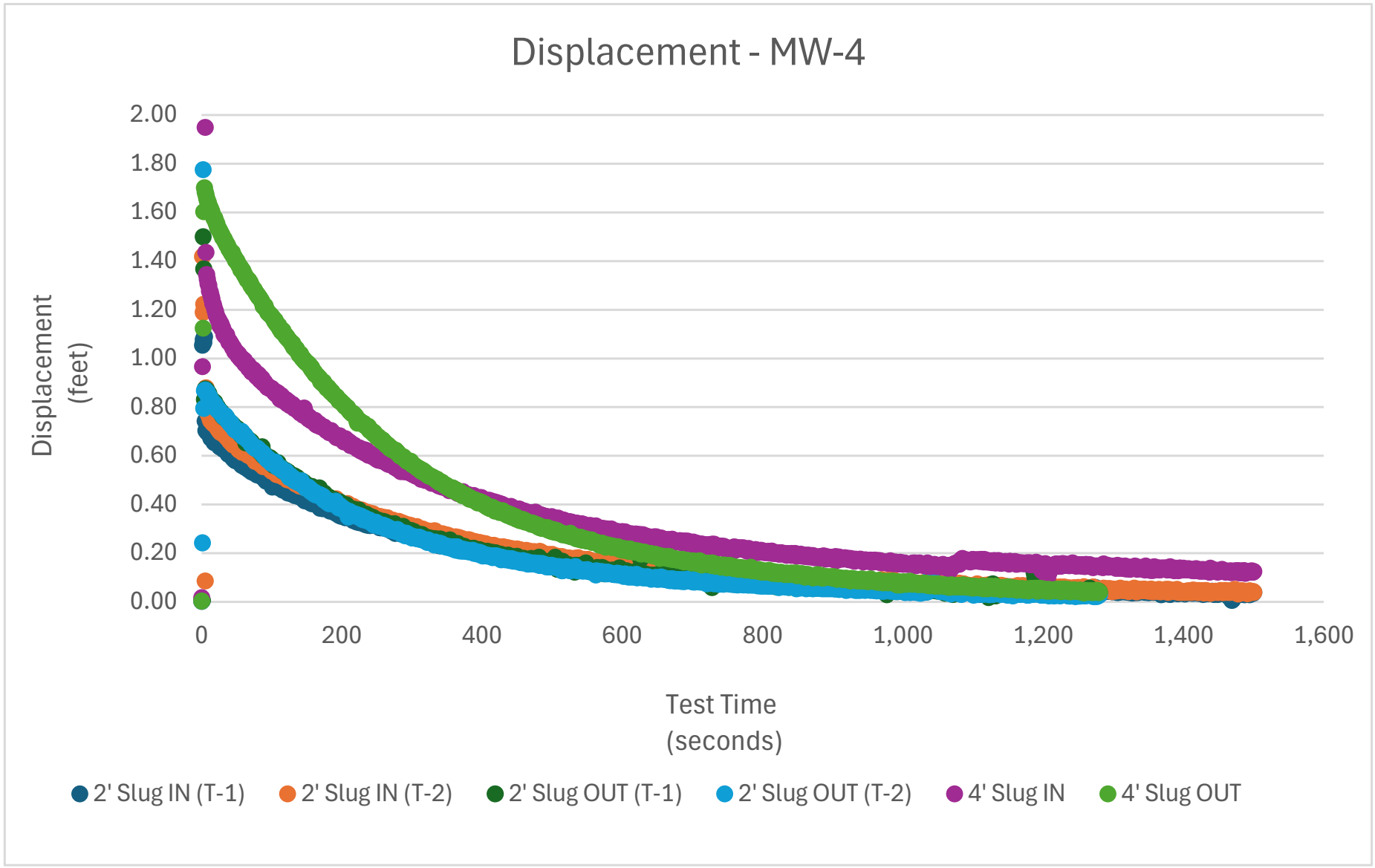
SOLUTION

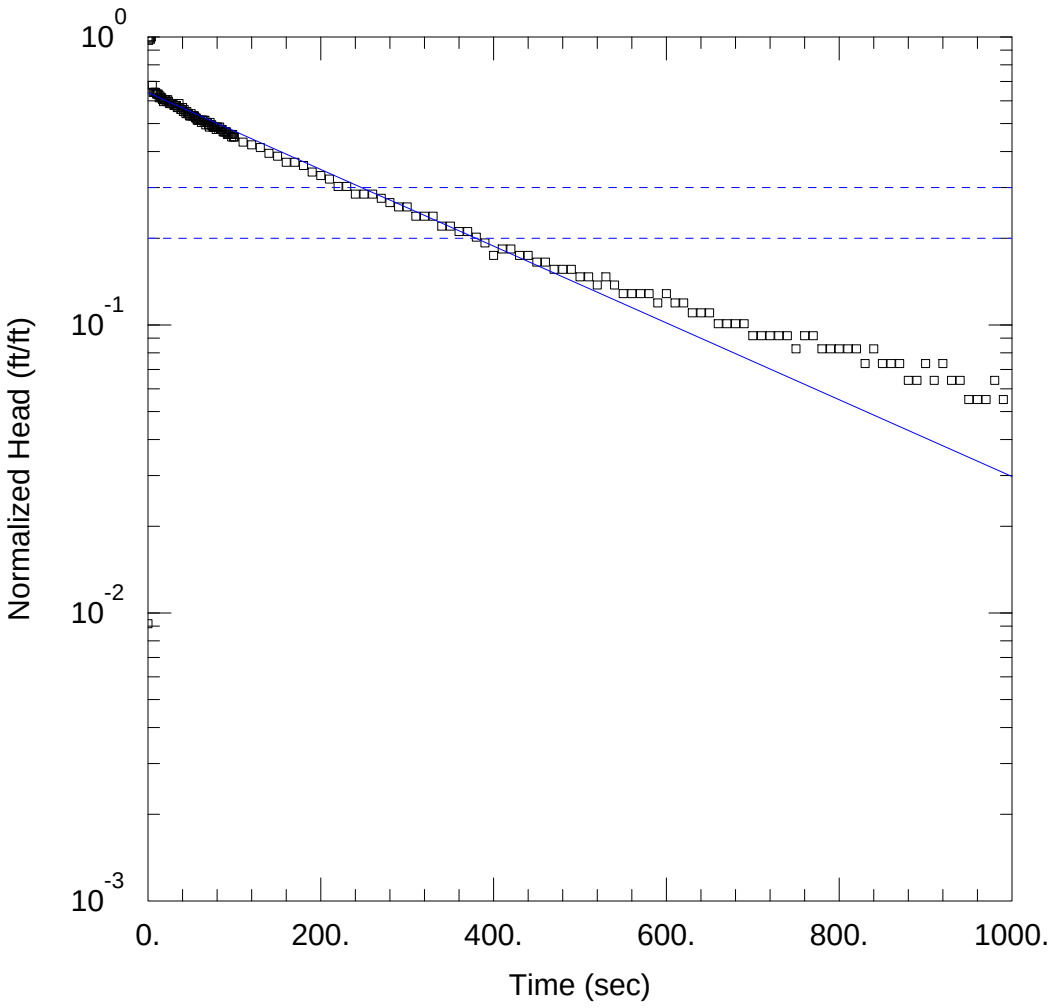
Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.0005329 cm/sec
y0 = 1.593 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

WELL MW-4

(June, 2024)


Displacement - MW-4
Displacement (feet)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0
200
400
600
800
1,000
1,200
1,400
1,600
Test Time (seconds)
2' Slug IN (T-1)
2' Slug IN (T-2)
2' Slug OUT (T-1)
2' Slug OUT (T-2)
4' Slug IN
4' Slug OUT



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-4 2' SLUG IN (T-1).aqt
Date: 06/27/24 Time: 11:46:35

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-4
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.73 ft Anisotropy Ratio (Kz/Kr): 1.

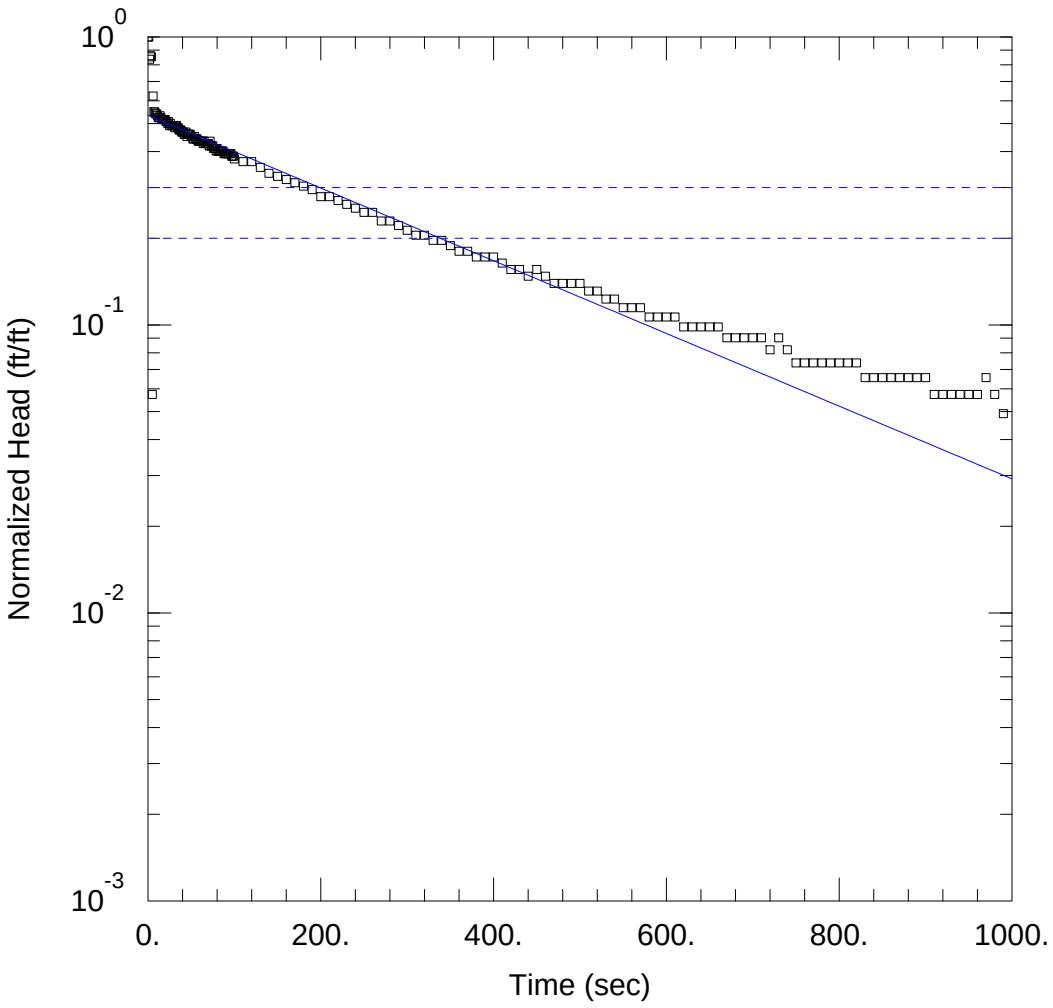
WELL DATA (MW-4 - 2' Slug IN (T-1))

Initial Displacement: 1.09 ft
Total Well Penetration Depth: 16.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.73 ft
Screen Length: 16.73 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0002126 cm/sec y0 = 0.6982 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-4 2' SLUG IN (T-2).aqt
Date: 06/27/24 Time: 11:45:45

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-4
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.73 ft Anisotropy Ratio (Kz/Kr): 1.

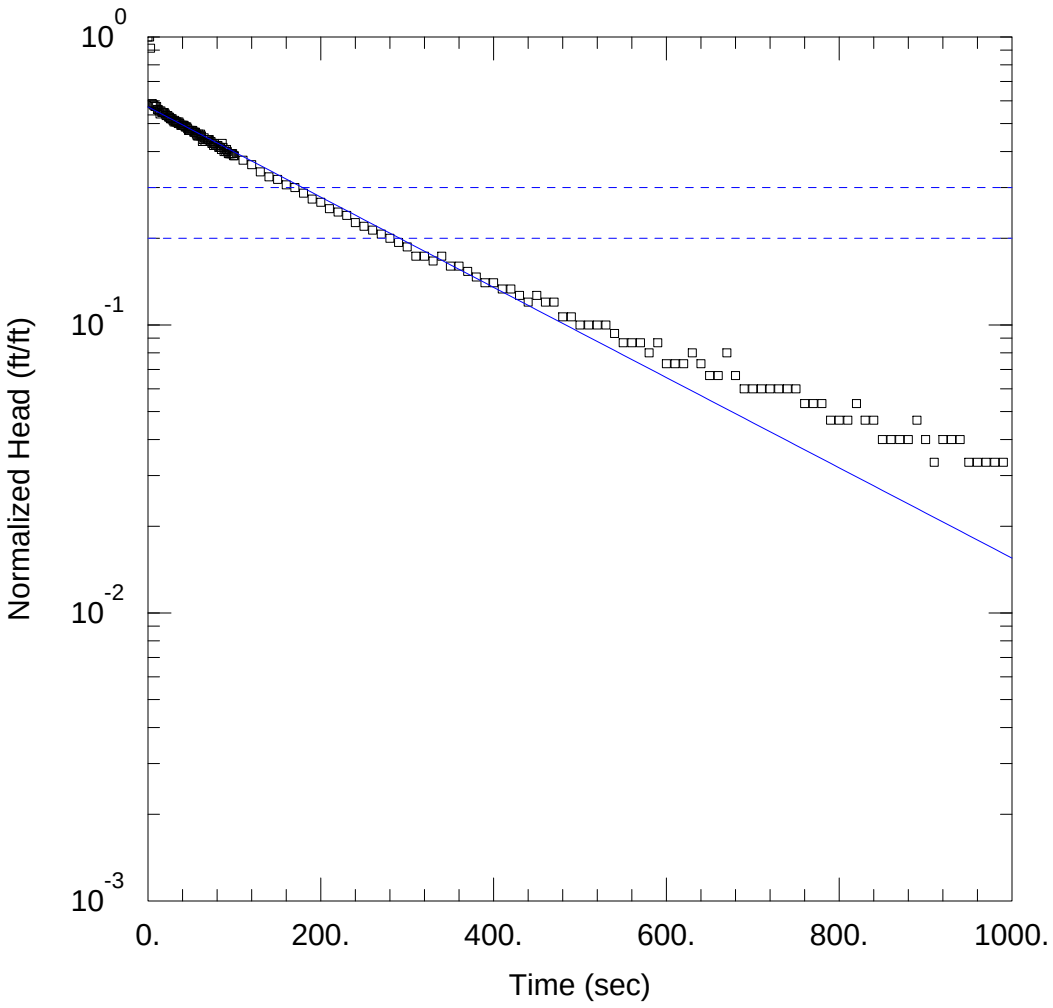
WELL DATA (MW-4 - 2' Slug IN (T-2))

Initial Displacement: 1.22 ft
Total Well Penetration Depth: 16.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.73 ft
Screen Length: 16.73 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0002014 cm/sec y0 = 0.6519 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-4 2' SLUG OUT (T-1).aqt
Date: 06/27/24 Time: 11:52:51

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-4
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.73 ft Anisotropy Ratio (Kz/Kr): 1.

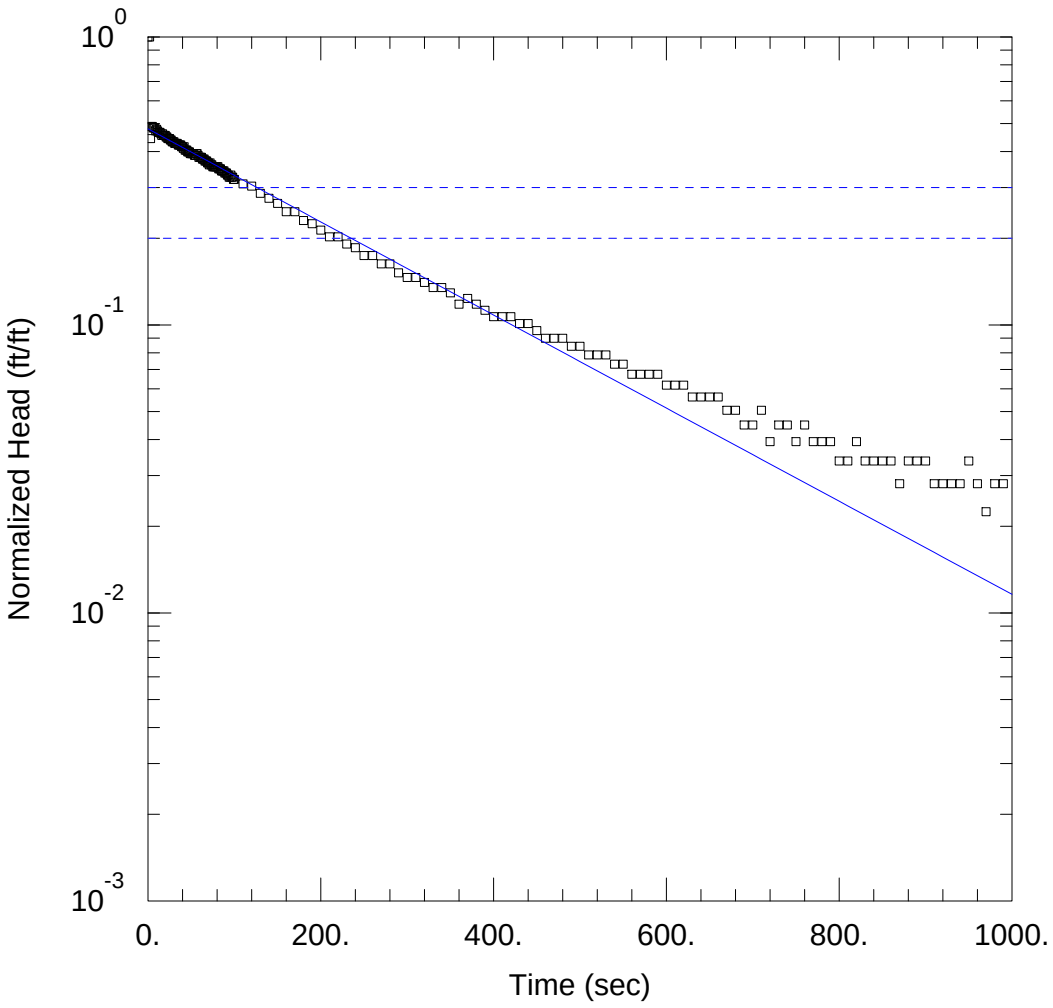
WELL DATA (MW-4 - 2' Slug OUT (T-1))

Initial Displacement: 1.5 ft
Total Well Penetration Depth: 16.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.73 ft
Screen Length: 16.73 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0002499 cm/sec y0 = 0.8576 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-4 2' SLUG OUT (T-2).aqt
Date: 06/27/24 Time: 11:51:52

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-4
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.73 ft Anisotropy Ratio (Kz/Kr): 1.

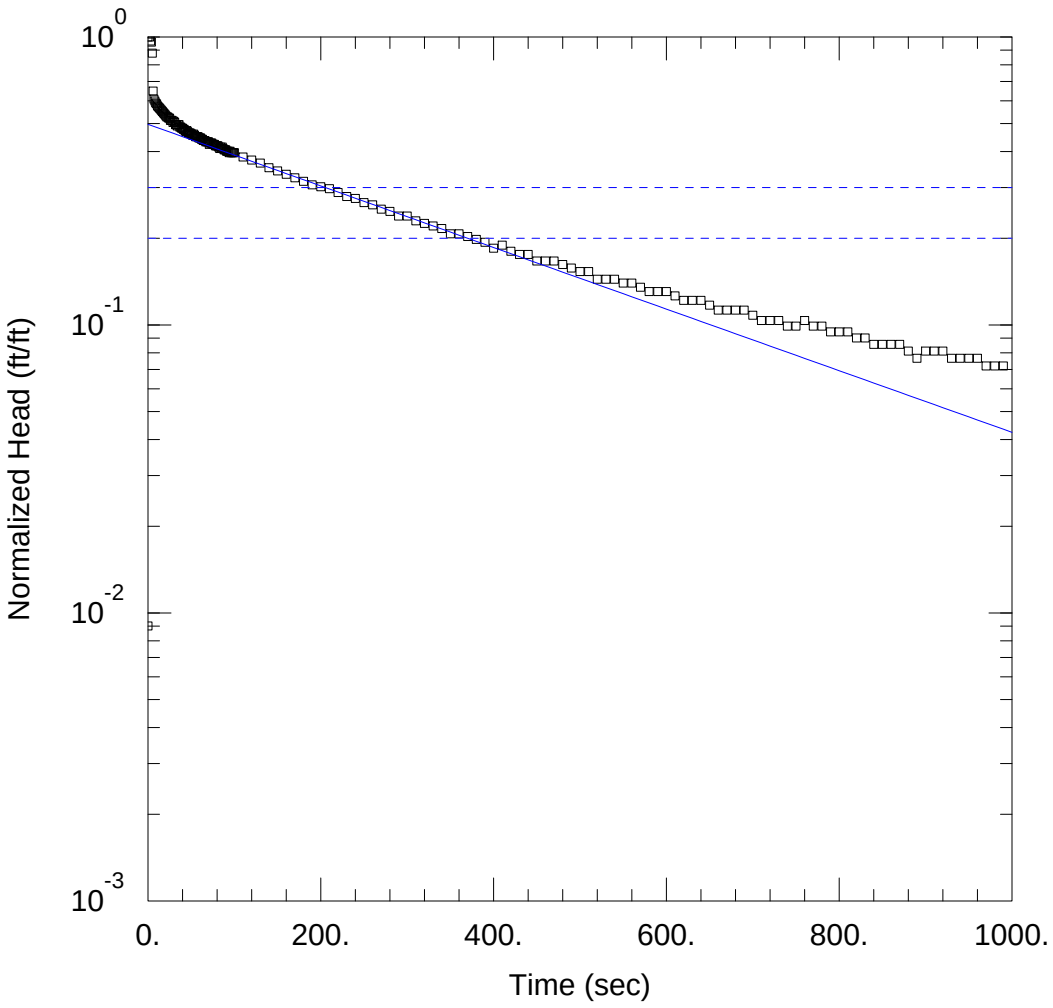
WELL DATA (MW-4 - 2' Slug OUT (T-2))

Initial Displacement: 1.78 ft
Total Well Penetration Depth: 16.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.73 ft
Screen Length: 16.73 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0002579 cm/sec y0 = 0.8539 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-4 4' SLUG IN.aqt
Date: 06/27/24 Time: 11:48:40

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-4
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.73 ft Anisotropy Ratio (Kz/Kr): 1.

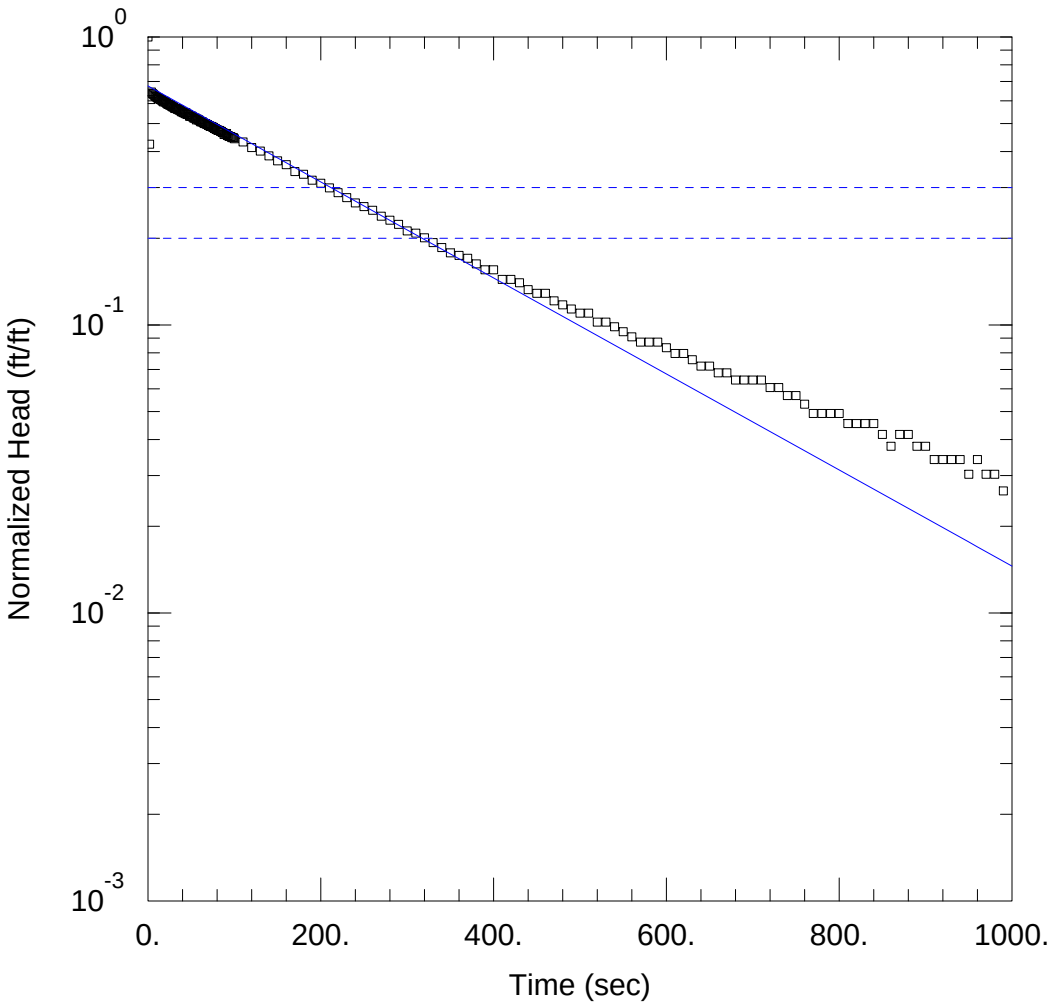
WELL DATA (MW-4 - 4' Slug IN)

Initial Displacement: 2.22 ft
Total Well Penetration Depth: 16.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.73 ft
Screen Length: 16.73 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0001706 cm/sec y0 = 1.104 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-4 4' SLUG OUT.aqt
Date: 06/27/24 Time: 11:49:45

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-4
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 16.73 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4 - 4' Slug OUT)

Initial Displacement: 2.64 ft
Total Well Penetration Depth: 16.73 ft
Casing Radius: 0.083 ft
Static Water Column Height: 16.73 ft
Screen Length: 16.73 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

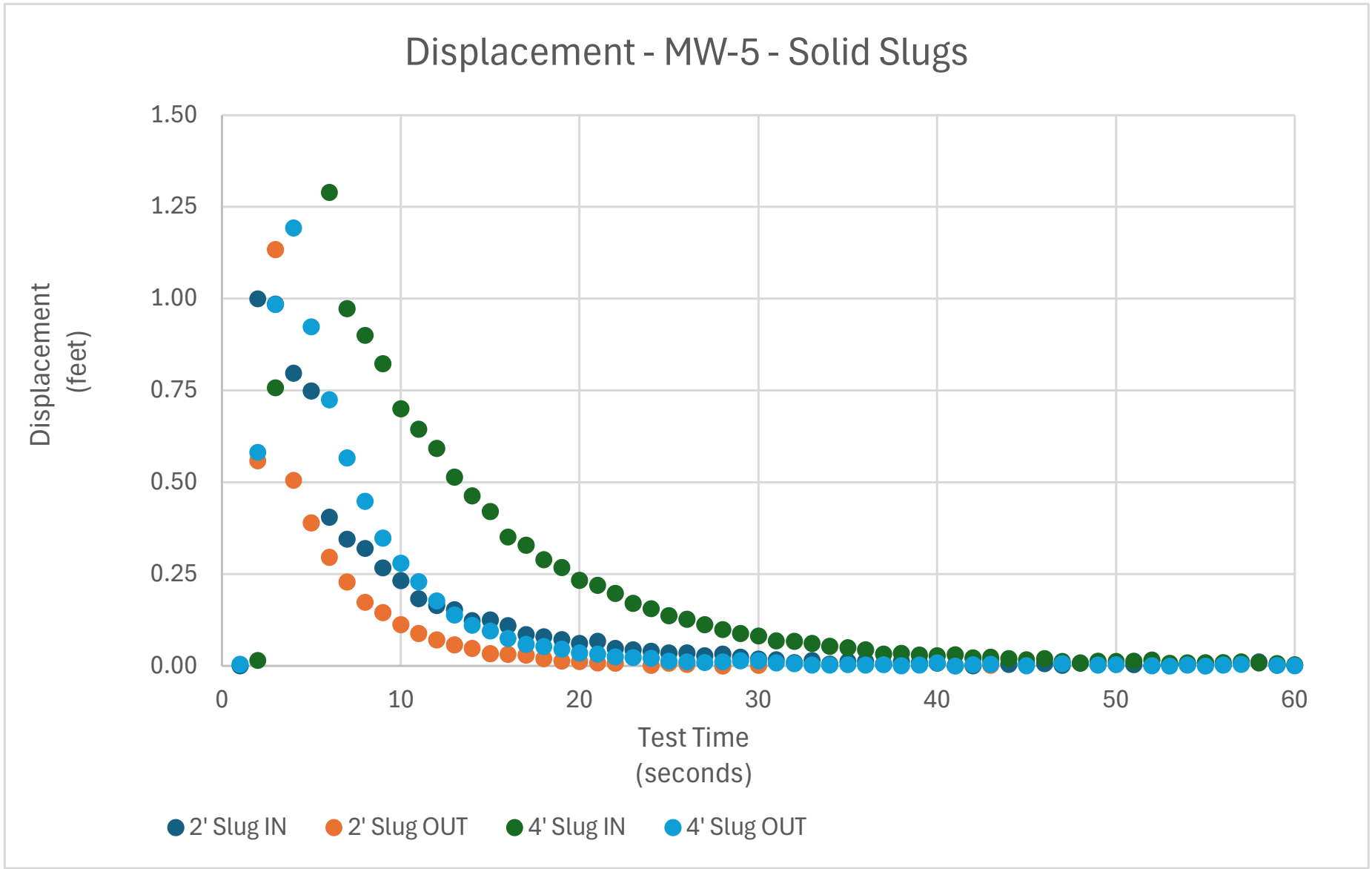
SOLUTION

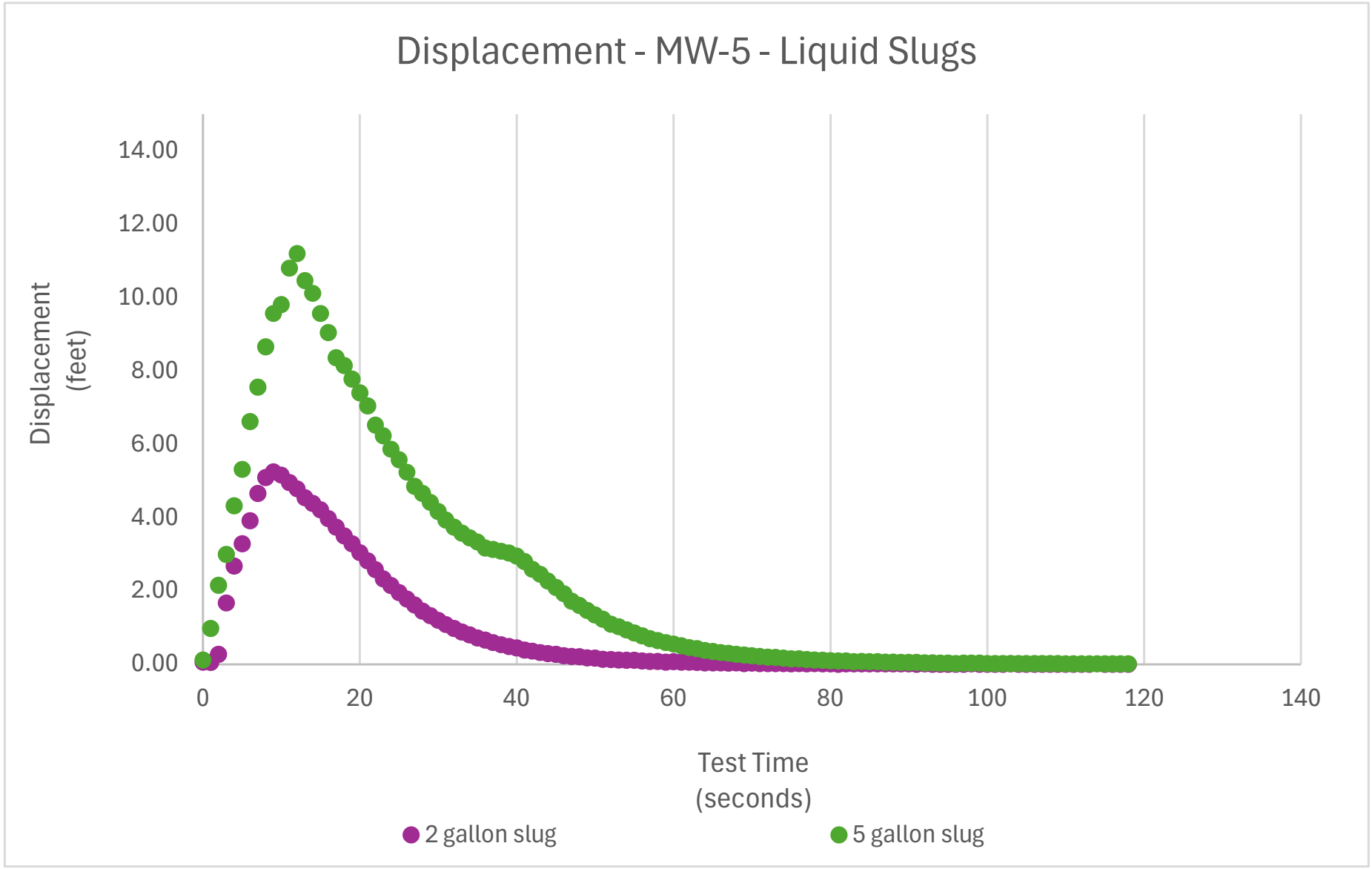
Aquifer Model: Unconfined Solution Method: Bouwer-Rice

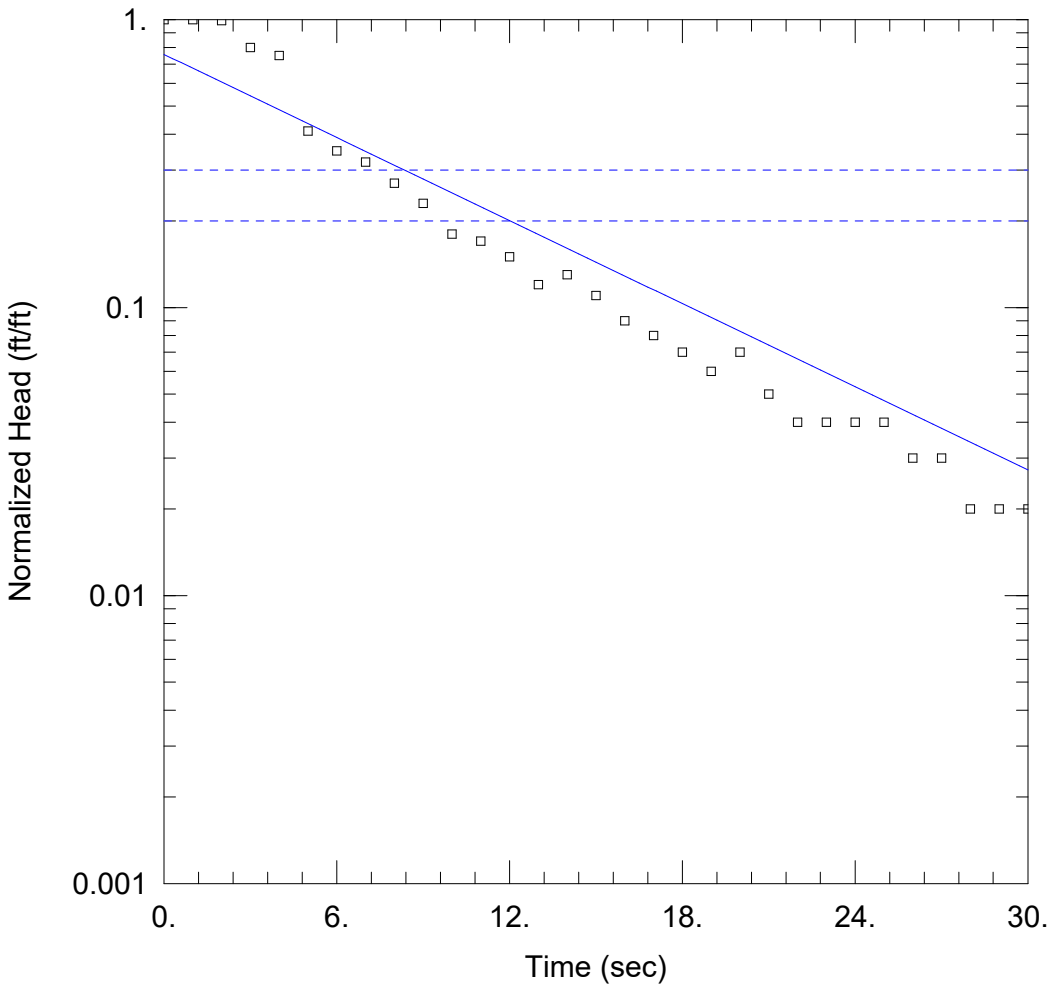
K = 0.0002659 cm/sec y0 = 1.784 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

WELL MW-5
(July, 2024)


Displacement - MW-5 - Solid Slugs
Displacement (feet)
1.50
1.25
1.00
0.75
0.50
0.25
0.00
0
10
20
30
40
50
60
Test Time (seconds)
2' Slug IN
2' Slug OUT
4' Slug IN
4' Slug OUT


Displacement - MW-5 - Liquid Slugs
Displacement (feet)
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
0
20
40
60
80
100
120
140
Test Time (seconds)
2 gallon slug
5 gallon slug



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 2' SLUG IN AUTO.aqt
Date: 08/08/24 Time: 13:25:08

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

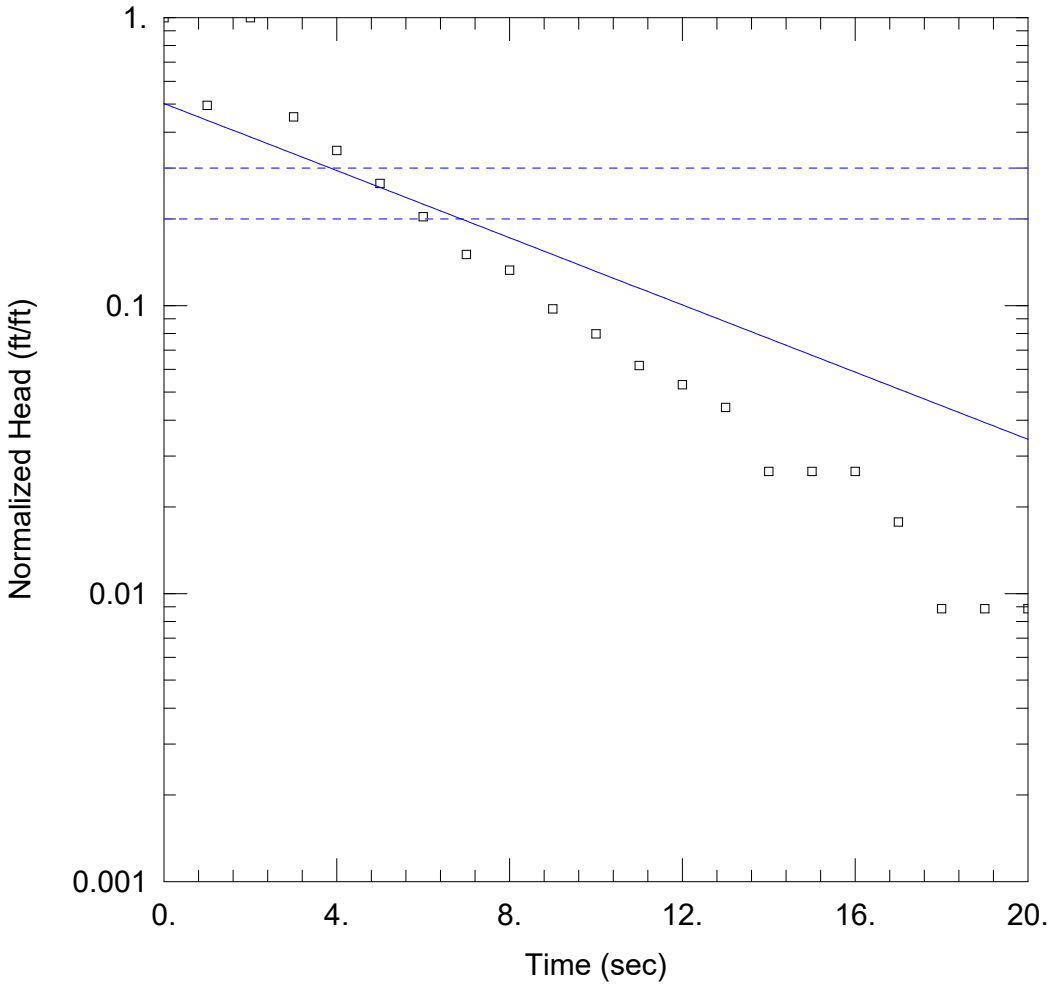
WELL DATA (MW-5 - 2' SLUG IN (AUTO))

Initial Displacement: 1. ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.009888 cm/sec y0 = 0.7566 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 2' SLUG OUT AUTO.aqt
Date: 08/08/24 Time: 13:24:49

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

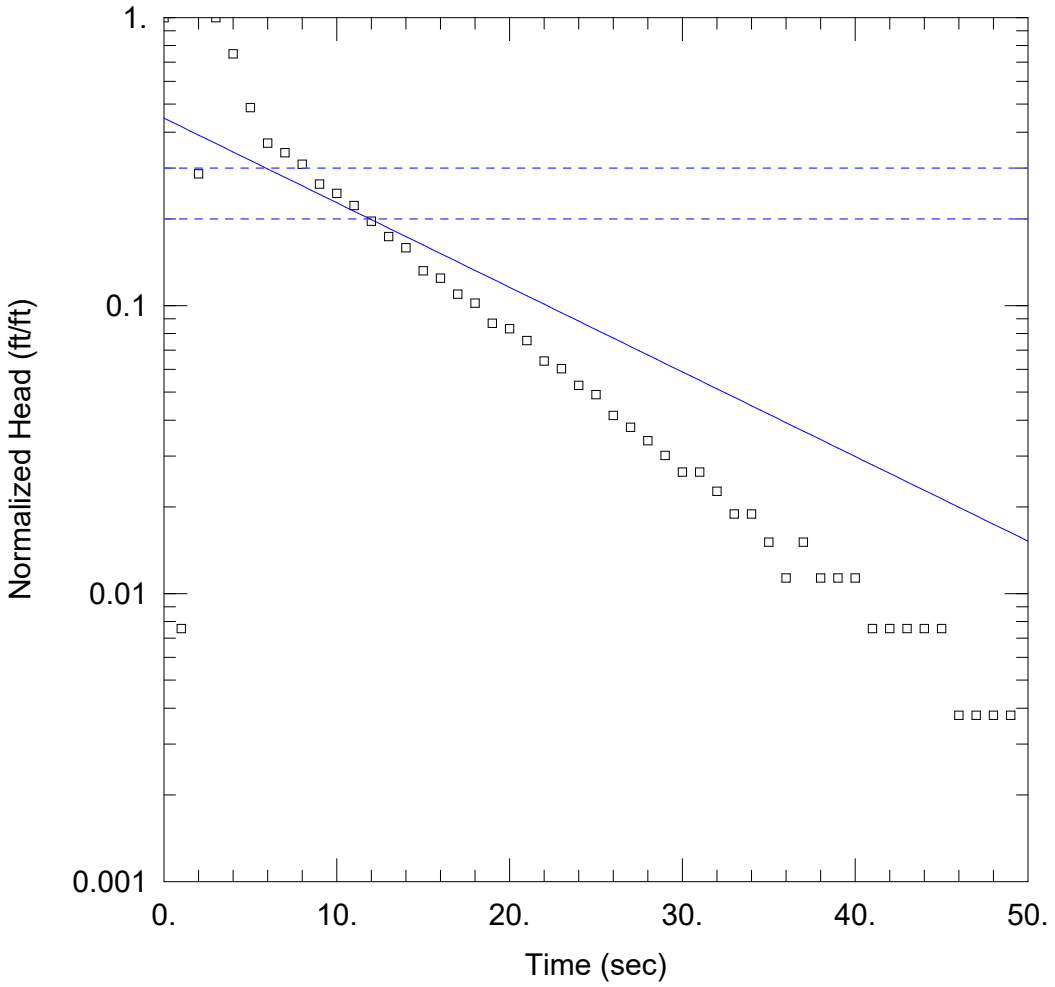
WELL DATA (MW-5 - 2' SLUG OUT (AUTO))

Initial Displacement: 1.13 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.01198 cm/sec y0 = 0.5684 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 4' SLUG IN AUTO.aqt
Date: 08/08/24 Time: 13:24:07

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

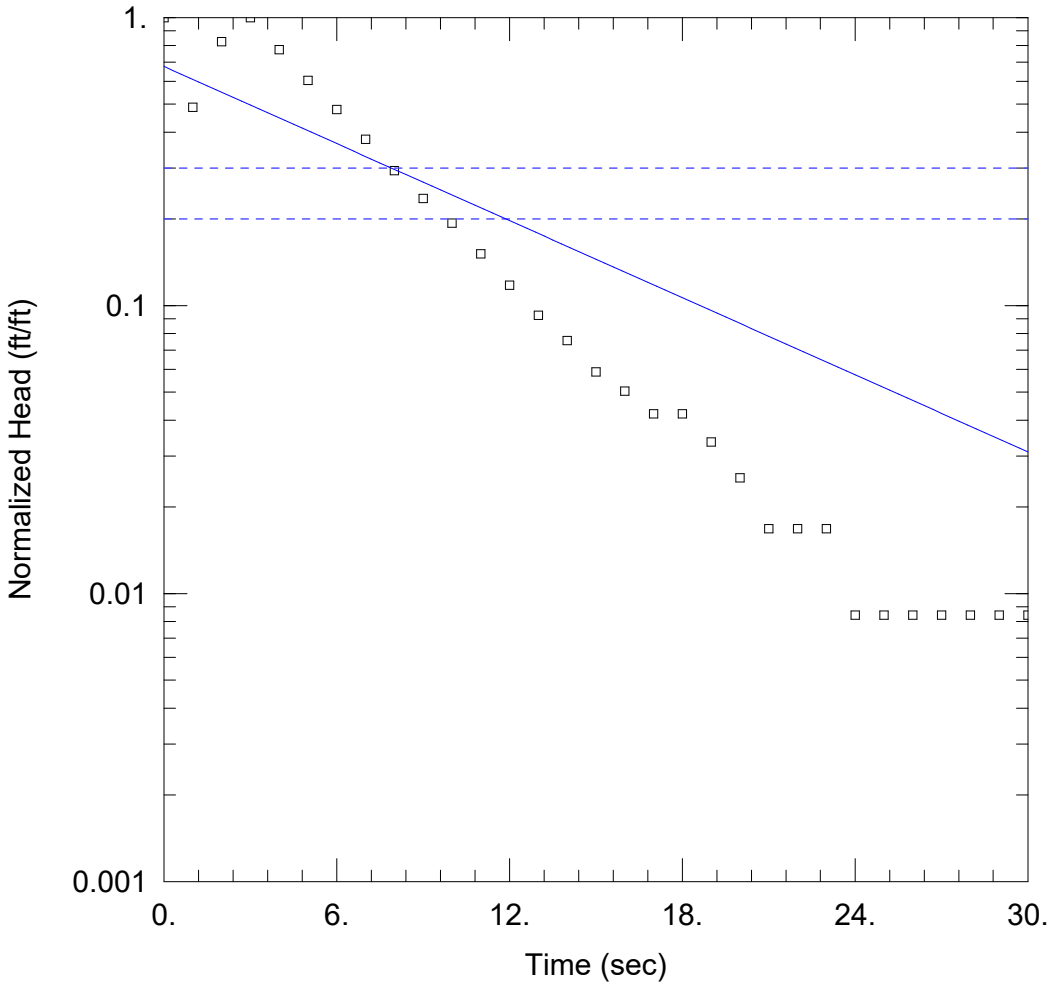
WELL DATA (MW-5 - 4' SLUG IN (AUTO))

Initial Displacement: 2.65 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.00604 cm/sec y0 = 1.185 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 4' SLUG OUT AUTO.aqt
Date: 08/08/24 Time: 13:23:48

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

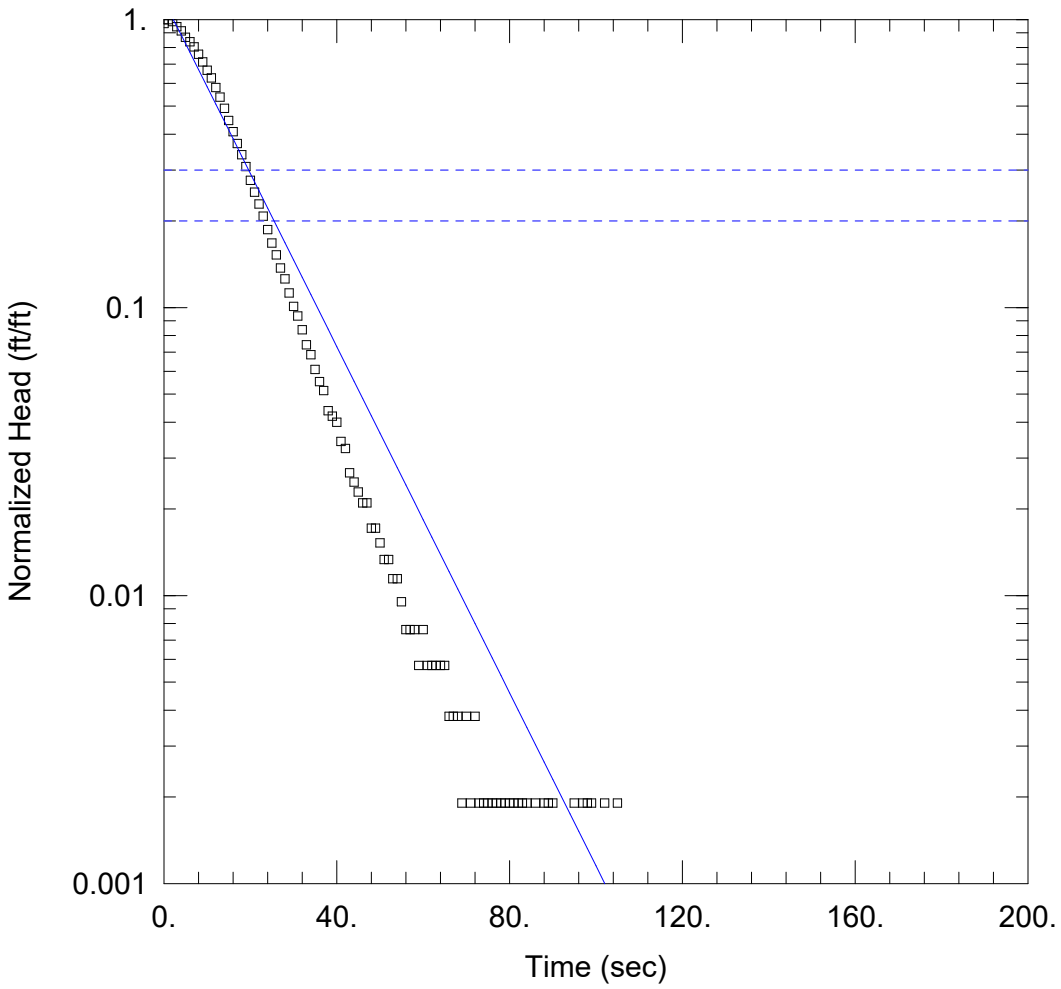
WELL DATA (MW-5 - 4' SLUG OUT (AUTO))

Initial Displacement: 1.19 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.009174 cm/sec y0 = 0.8046 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 2-Gallon AUTO.aqt
Date: 08/08/24 Time: 13:24:28

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

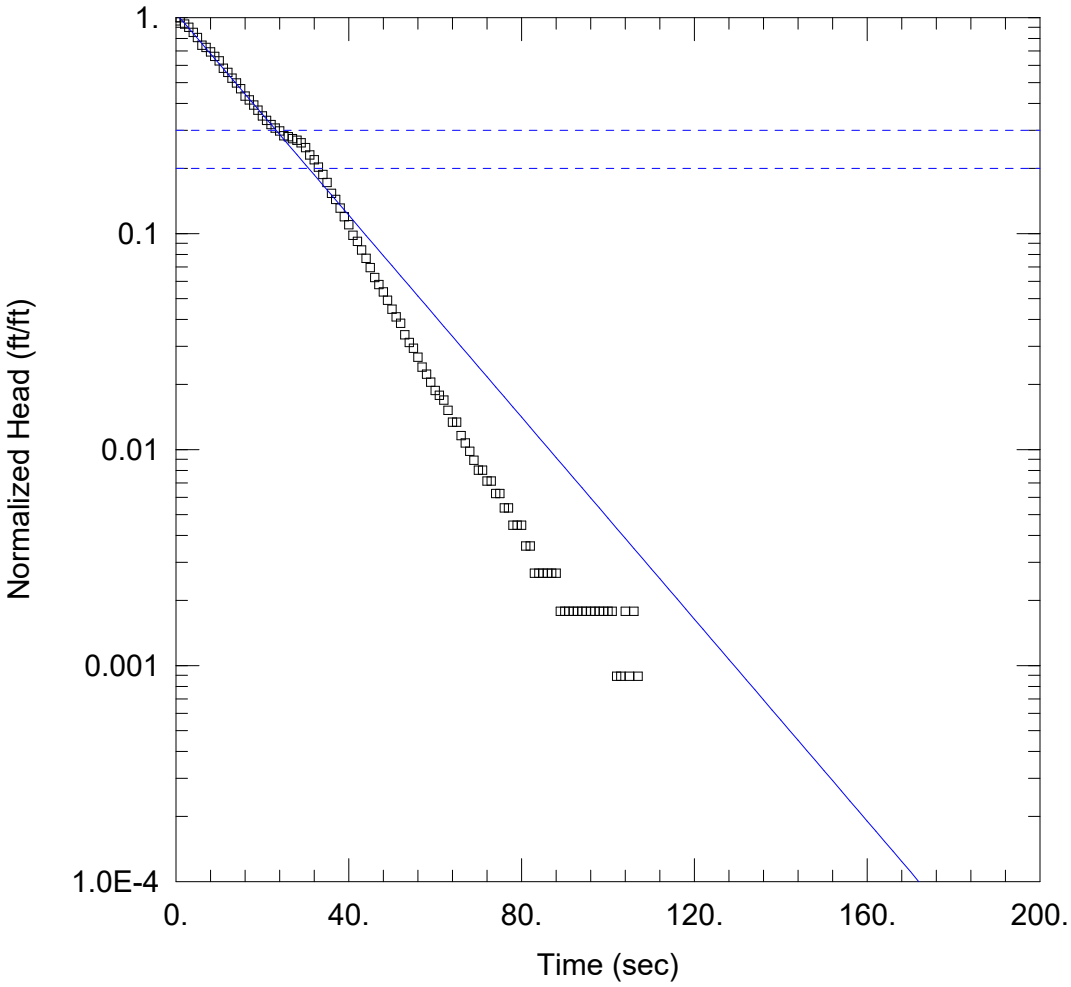
WELL DATA (MW-5 - 2 Gallon (AUTO))

Initial Displacement: 5.25 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.006181 cm/sec y0 = 6.119 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 5 Gallon AUTO.aqt
Date: 08/08/24 Time: 13:25:24

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5 - 5 Gallon (AUTO))

Initial Displacement: 11.2 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

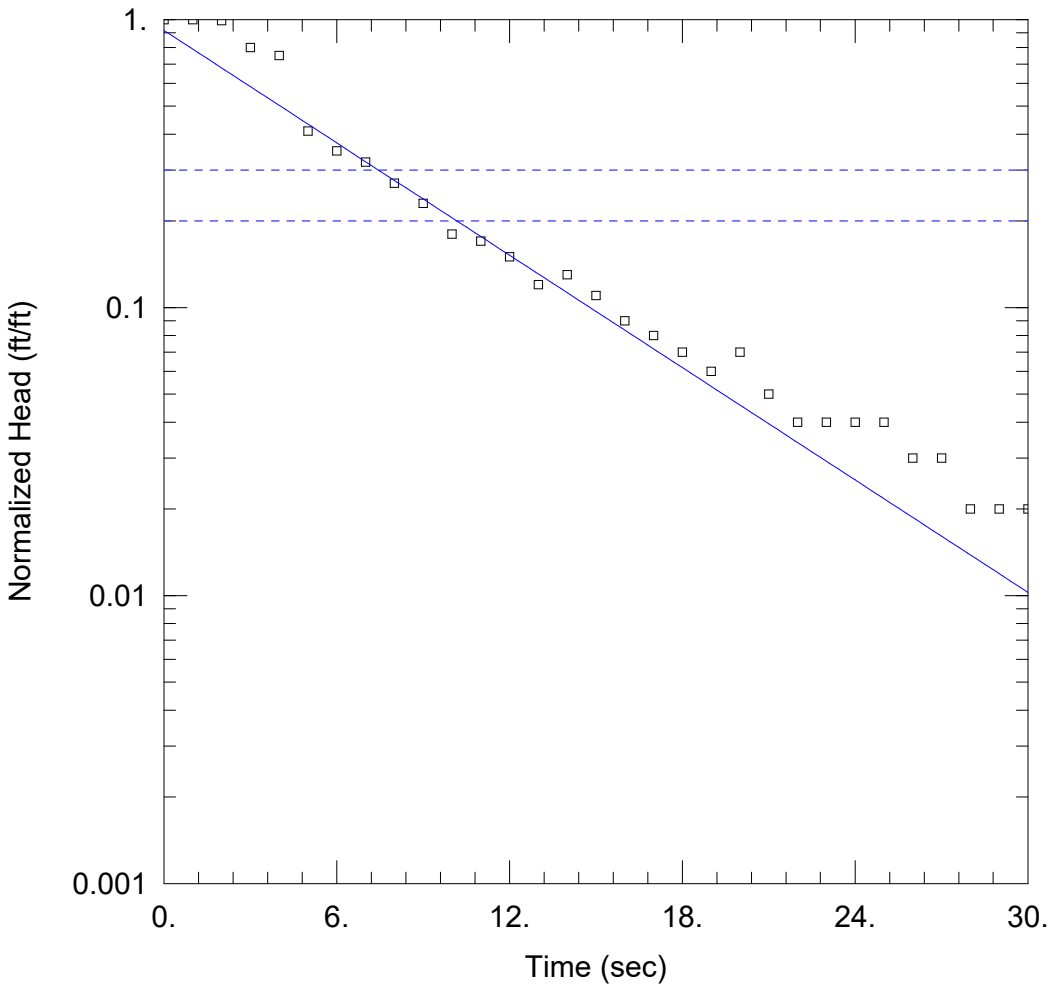
SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004807 cm/sec y0 = 11.72 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

AQTESOLVE - VISUAL SOLUTION



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 2' SLUG IN VISUAL.aqt
Date: 08/08/24 Time: 13:33:36

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

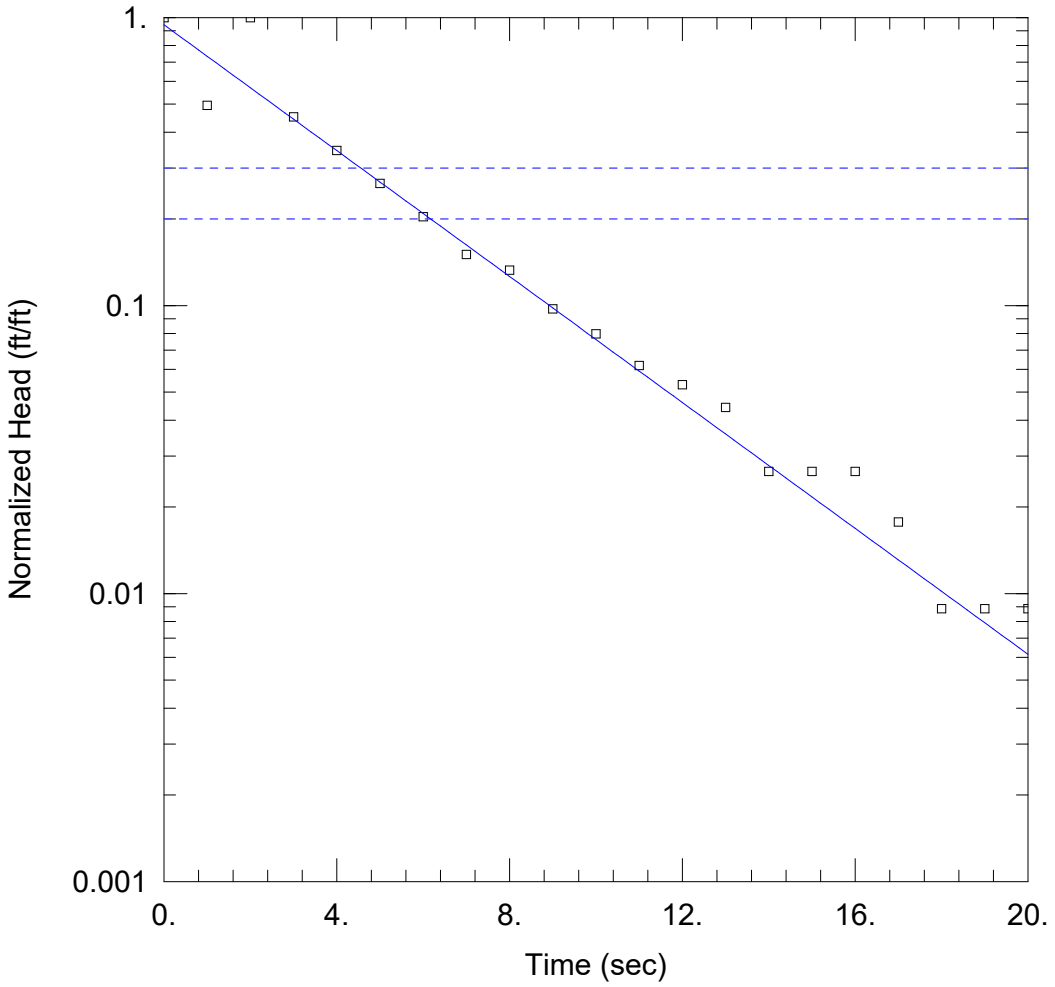
WELL DATA (MW-5 - 2' SLUG IN (VISUAL))

Initial Displacement: 1. ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.01338 cm/sec y0 = 0.9164 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 2' SLUG OUT VISUAL.aqt
Date: 08/08/24 Time: 13:33:23

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

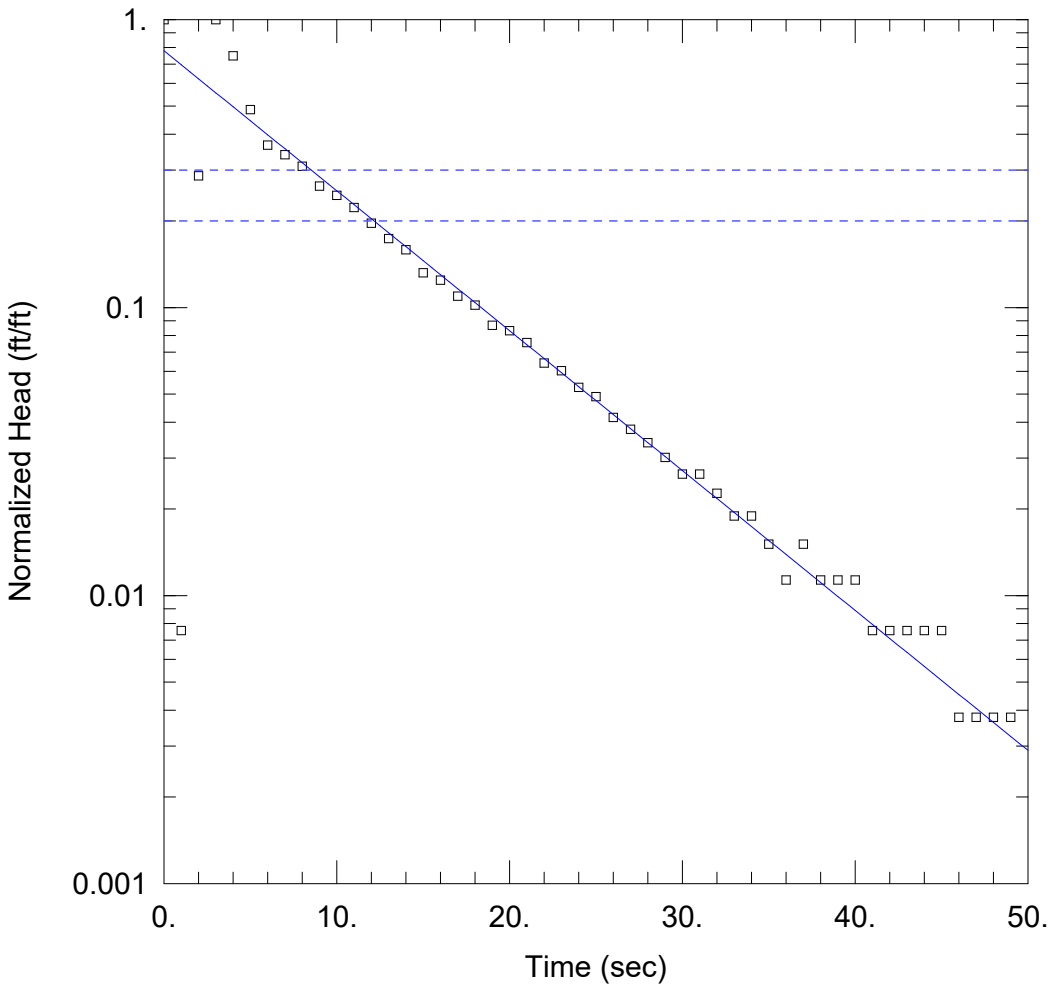
WELL DATA (MW-5 - 2' SLUG OUT (VISUAL))

Initial Displacement: 1.13 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.02247 cm/sec y0 = 1.066 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 4' SLUG IN VISUAL.aqt
Date: 08/08/24 Time: 13:32:53

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

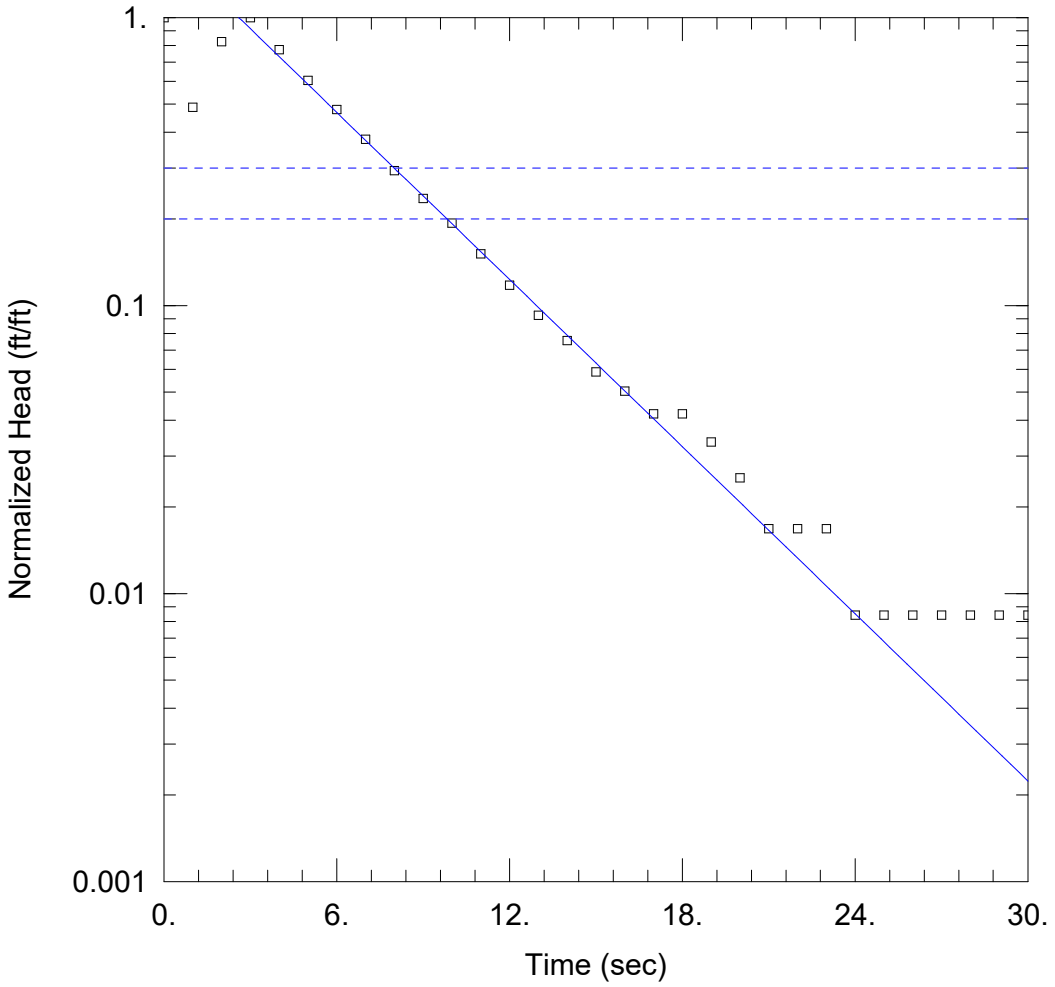
WELL DATA (MW-5 - 4' SLUG IN (VISUAL))

Initial Displacement: 2.65 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.009991 cm/sec y0 = 2.063 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 4' SLUG OUT VISUAL.aqt
Date: 08/08/24 Time: 13:32:36

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

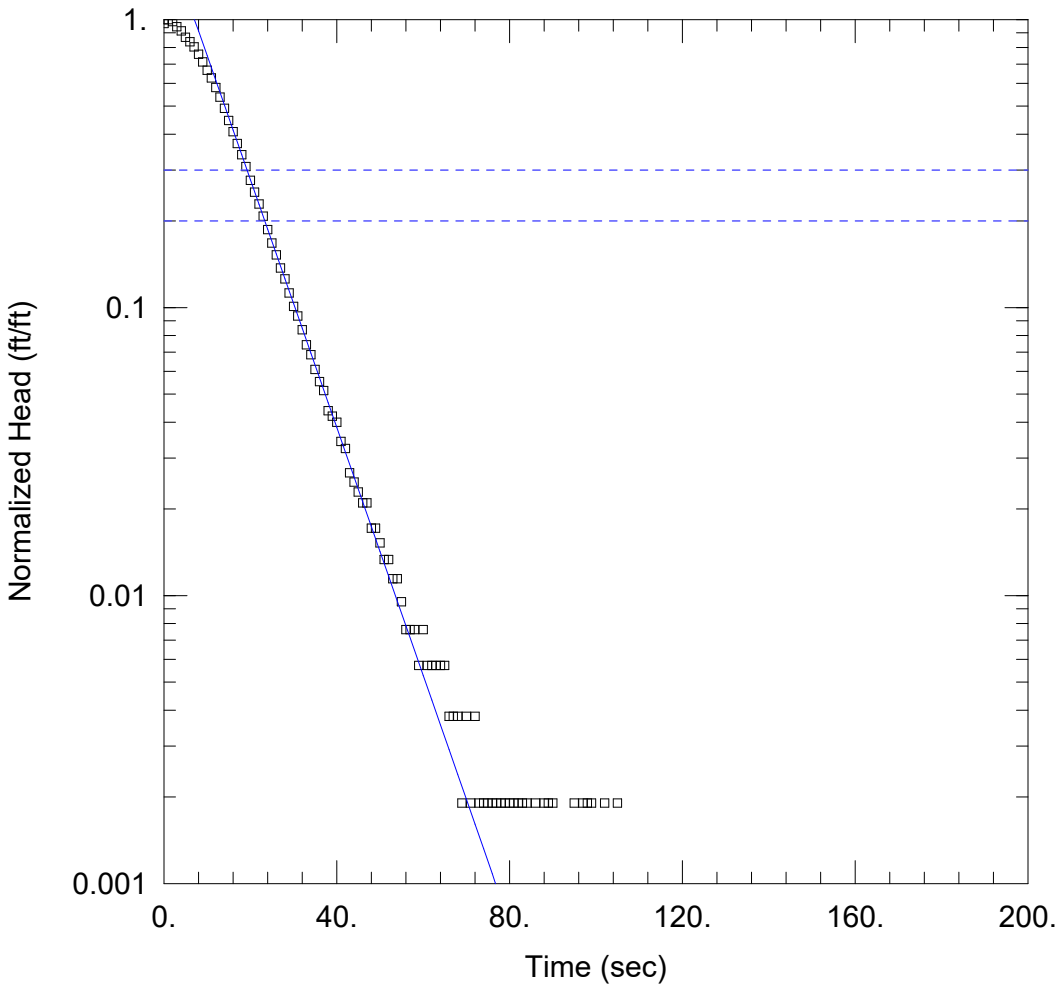
WELL DATA (MW-5 - 4' SLUG OUT (VISUAL))

Initial Displacement: 1.19 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0199 cm/sec y0 = 2.123 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 2-Gallon VISUAL.aqt
Date: 08/08/24 Time: 13:33:07

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

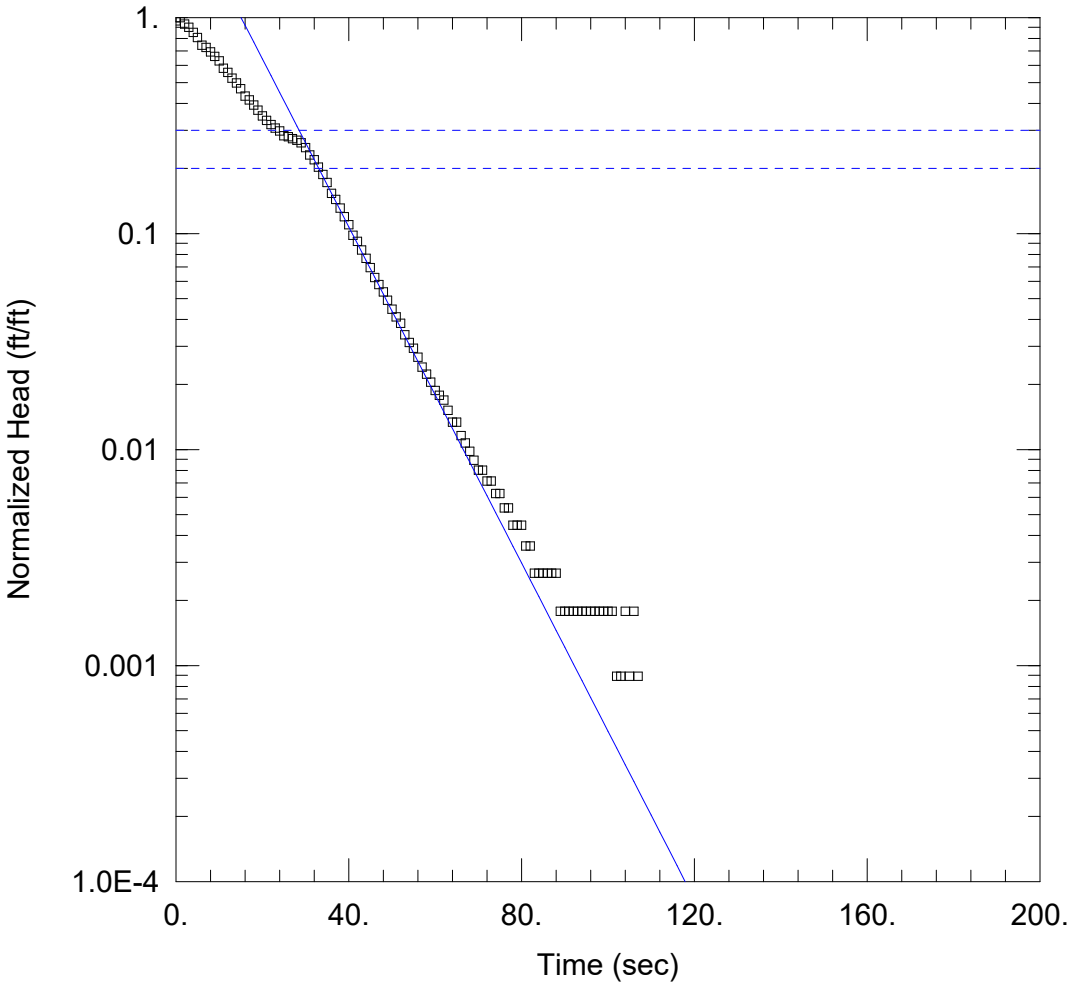
WELL DATA (MW-5 - 2 Gallon (VISUAL))

Initial Displacement: 5.25 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.00885 cm/sec y0 = 10.59 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-5 5 Gallon VISUAL.aqt
Date: 08/08/24 Time: 13:33:48

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-5 (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 38.55 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5 - 5 Gallon (VISUAL))

Initial Displacement: 11.2 ft
Total Well Penetration Depth: 38.55 ft
Casing Radius: 0.083 ft
Static Water Column Height: 38.55 ft
Screen Length: 15. ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

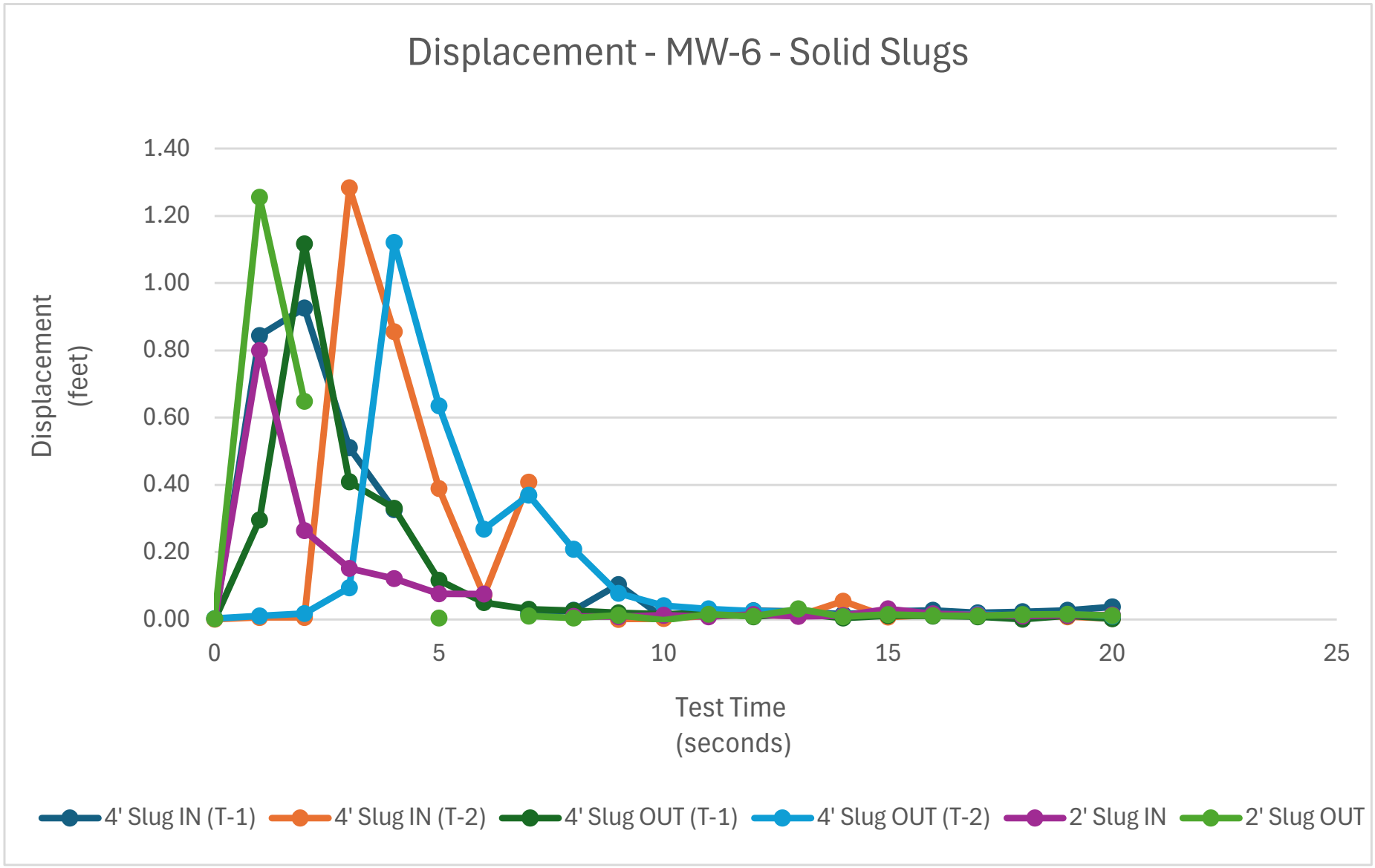
Aquifer Model: Unconfined Solution Method: Bouwer-Rice

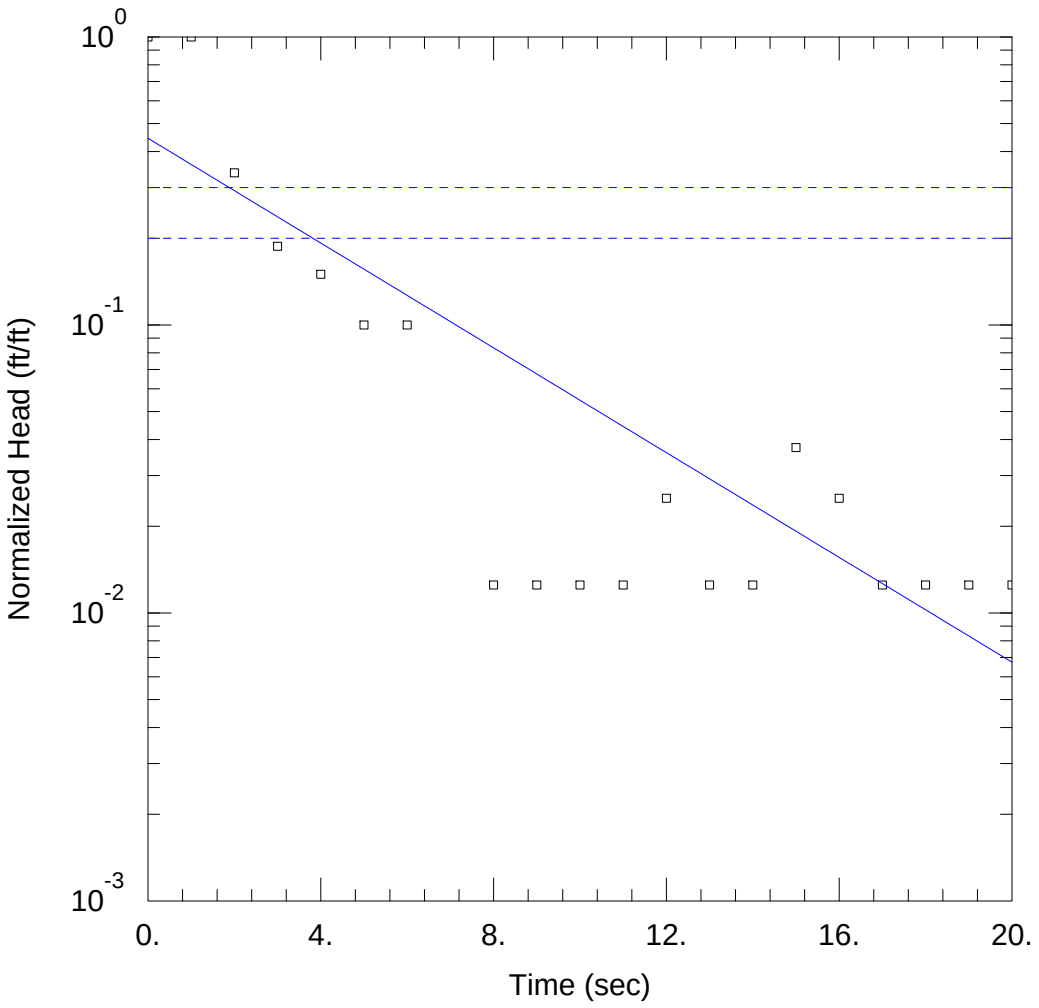
K = 0.008001 cm/sec y0 = 43.25 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

WELL MW-6

(June, 2024)


Displacement - MW-6 - Solid Slugs
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Displacement (feet)
0
5
10
15
20
25
Test Time (seconds)
4' Slug IN (T-1)
4' Slug IN (T-2)
4' Slug OUT (T-1)
4' Slug OUT (T-2)
2' Slug IN
2' Slug OUT



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-6 2' SLUG IN.aqt
Date: 06/27/24 Time: 12:00:22

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 19.63 ft Anisotropy Ratio (Kz/Kr): 1.

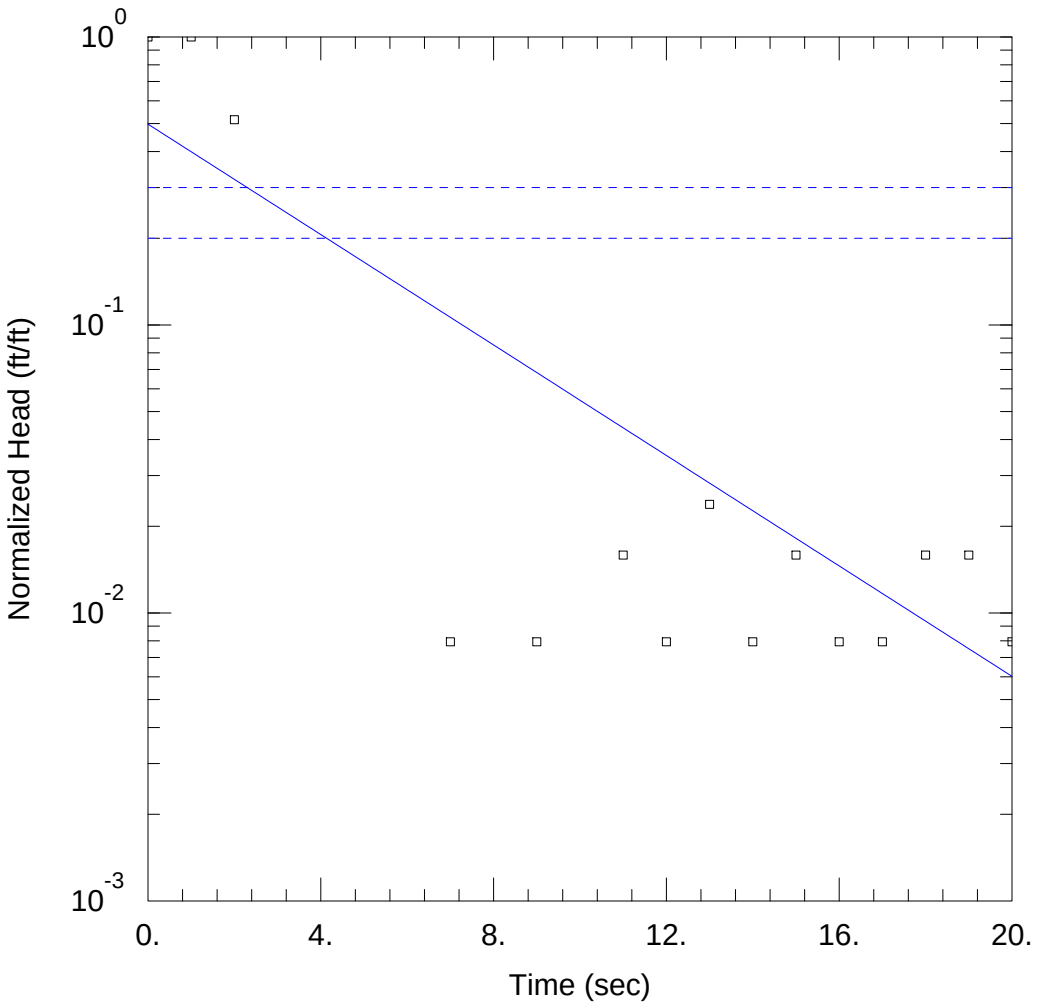
WELL DATA (MW-6 - 2' Slug IN)

Initial Displacement: 0.8 ft
Total Well Penetration Depth: 19.63 ft
Casing Radius: 0.083 ft
Static Water Column Height: 19.63 ft
Screen Length: 19.63 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.01285 cm/sec y0 = 0.3557 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-6 2' SLUG OUT.aqt
Date: 06/27/24 Time: 11:59:33

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 19.63 ft Anisotropy Ratio (Kz/Kr): 1.

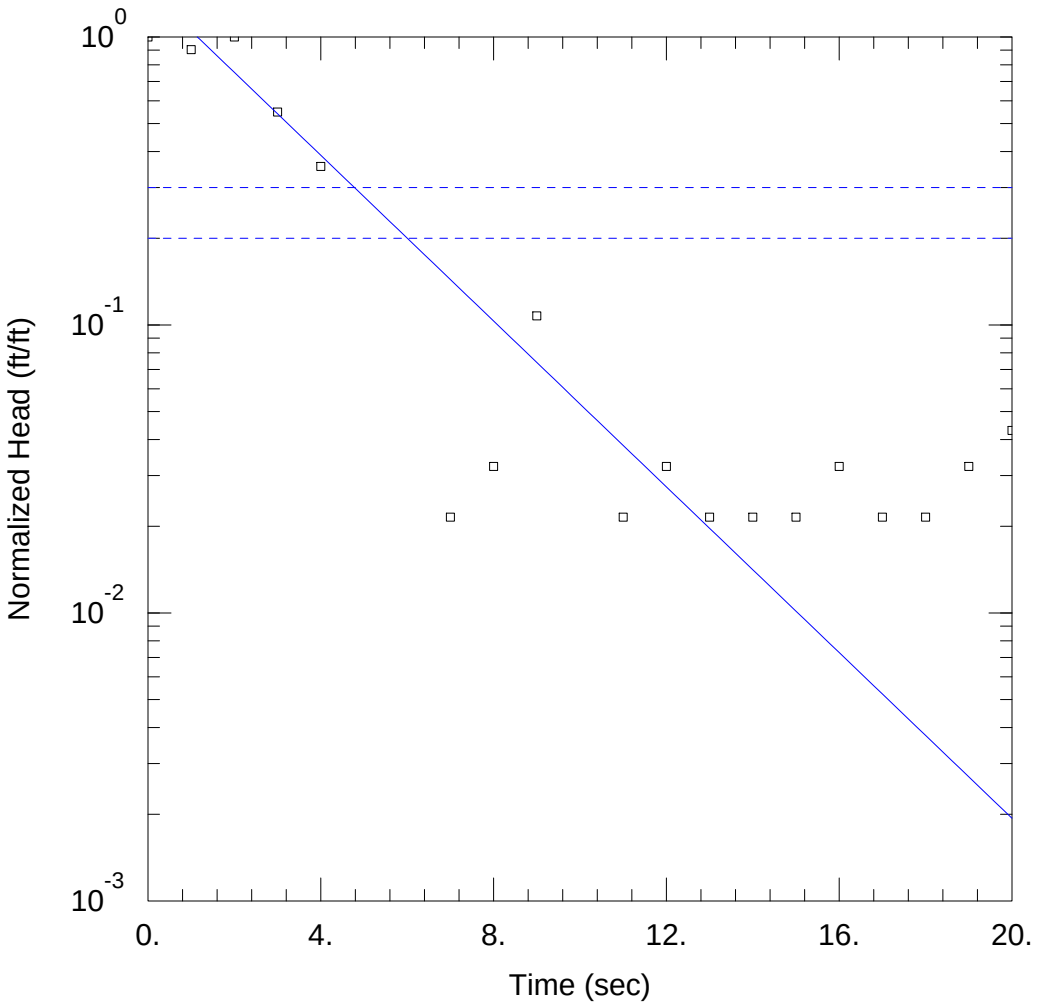
WELL DATA (MW-6 - 2' Slug OUT)

Initial Displacement: 1.26 ft
Total Well Penetration Depth: 19.63 ft
Casing Radius: 0.083 ft
Static Water Column Height: 19.63 ft
Screen Length: 19.63 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.01354 cm/sec y0 = 0.6274 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-6 4' SLUG IN (T-1).aqt
Date: 06/27/24 Time: 12:01:10

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 19.63 ft Anisotropy Ratio (Kz/Kr): 1.

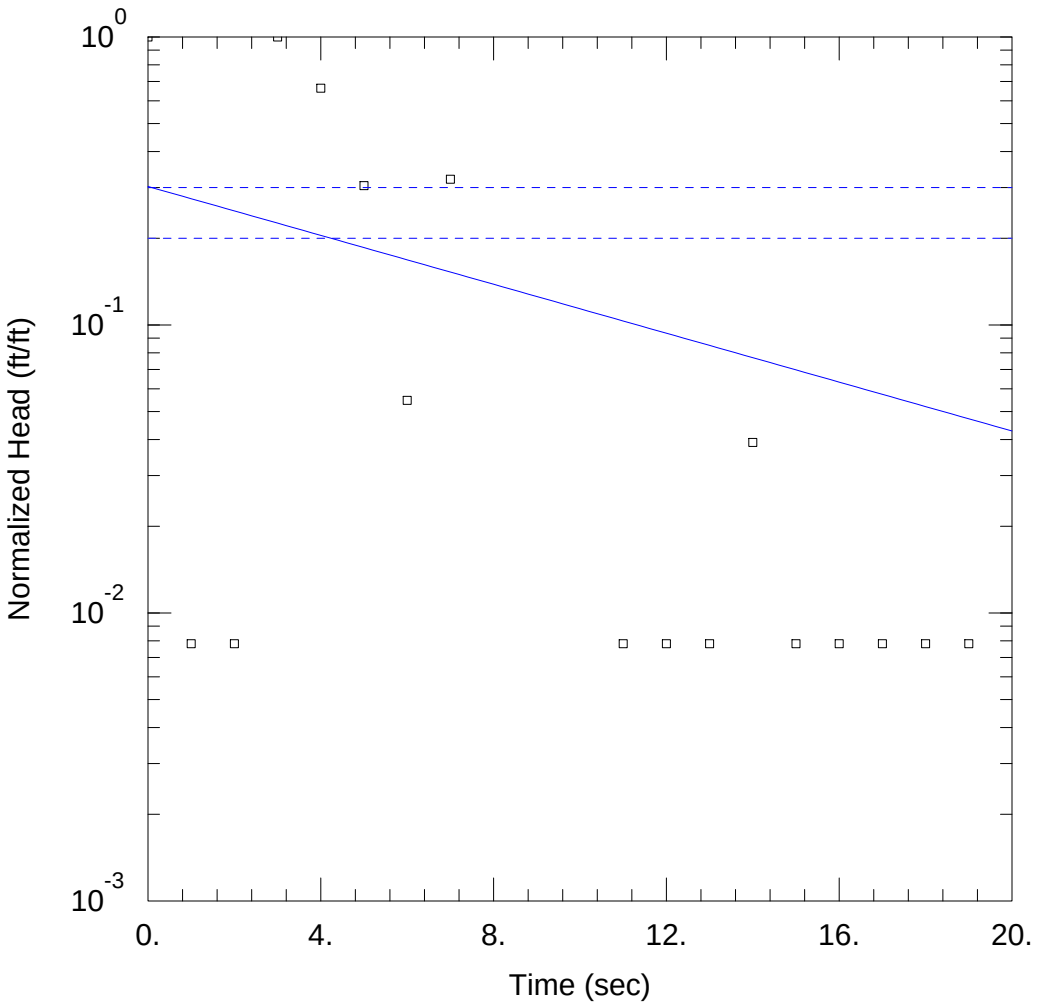
WELL DATA (MW-6 - 4' Slug IN (T-1))

Initial Displacement: 0.93 ft
Total Well Penetration Depth: 19.63 ft
Casing Radius: 0.083 ft
Static Water Column Height: 19.63 ft
Screen Length: 19.63 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.02032 cm/sec y0 = 1.358 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-6 4' SLUG IN (T-2).aqt
Date: 06/27/24 Time: 12:01:54

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 19.63 ft Anisotropy Ratio (Kz/Kr): 1.

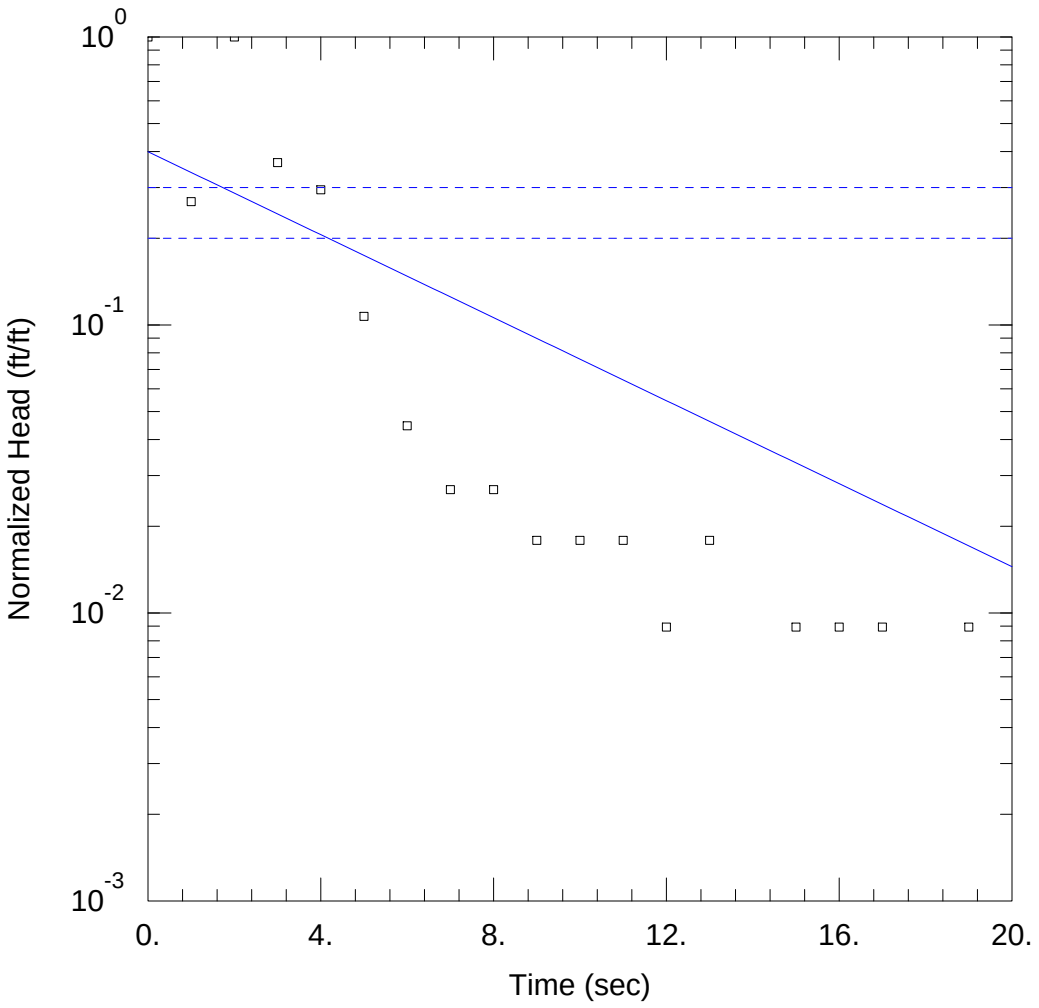
WELL DATA (MW-6 - 4' Slug IN (T-2))

Initial Displacement: 1.28 ft
Total Well Penetration Depth: 19.63 ft
Casing Radius: 0.083 ft
Static Water Column Height: 19.63 ft
Screen Length: 19.63 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.005996 cm/sec y0 = 0.3872 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-6 4' SLUG OUT (T-1).aqt
Date: 06/27/24 Time: 12:02:47

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6
Test Date: June 20-24, 2024

AQUIFER DATA

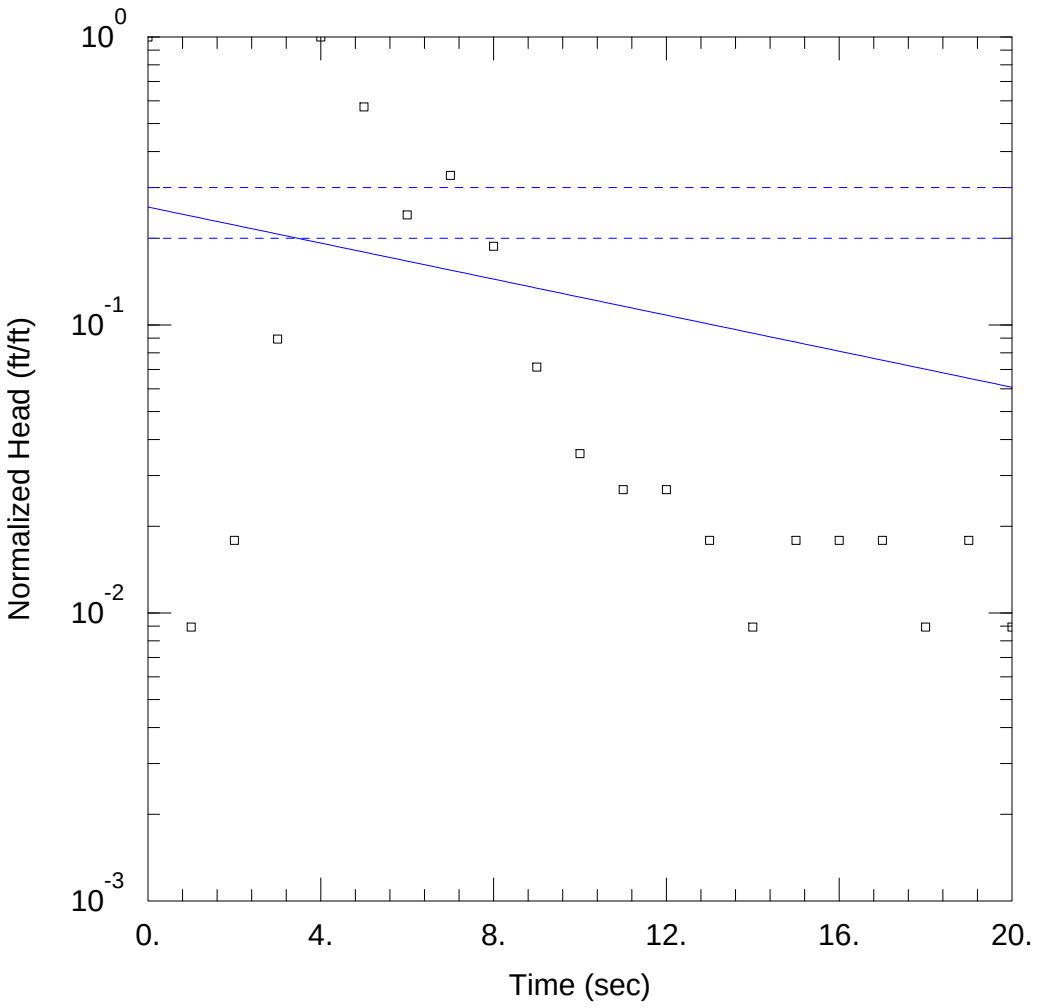
Saturated Thickness: 19.63 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6 - 4' Slug OUT (T-1))

Initial Displacement: 1.12 ft
Total Well Penetration Depth: 19.63 ft
Casing Radius: 0.083 ft
Static Water Column Height: 19.63 ft
Screen Length: 19.63 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 0.01017 cm/sec
y0 = 0.4473 ft



JUNE, 2024 SLUG TESTING

Data Set: C:\...\MW-6 4' SLUG OUT (T-2).aqt
Date: 06/27/24 Time: 12:03:26

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6
Test Date: June 20-24, 2024

AQUIFER DATA

Saturated Thickness: 19.63 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6 - 4' Slug OUT (T-2))

Initial Displacement: 1.12 ft
Total Well Penetration Depth: 19.63 ft
Casing Radius: 0.083 ft
Static Water Column Height: 19.63 ft
Screen Length: 19.63 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

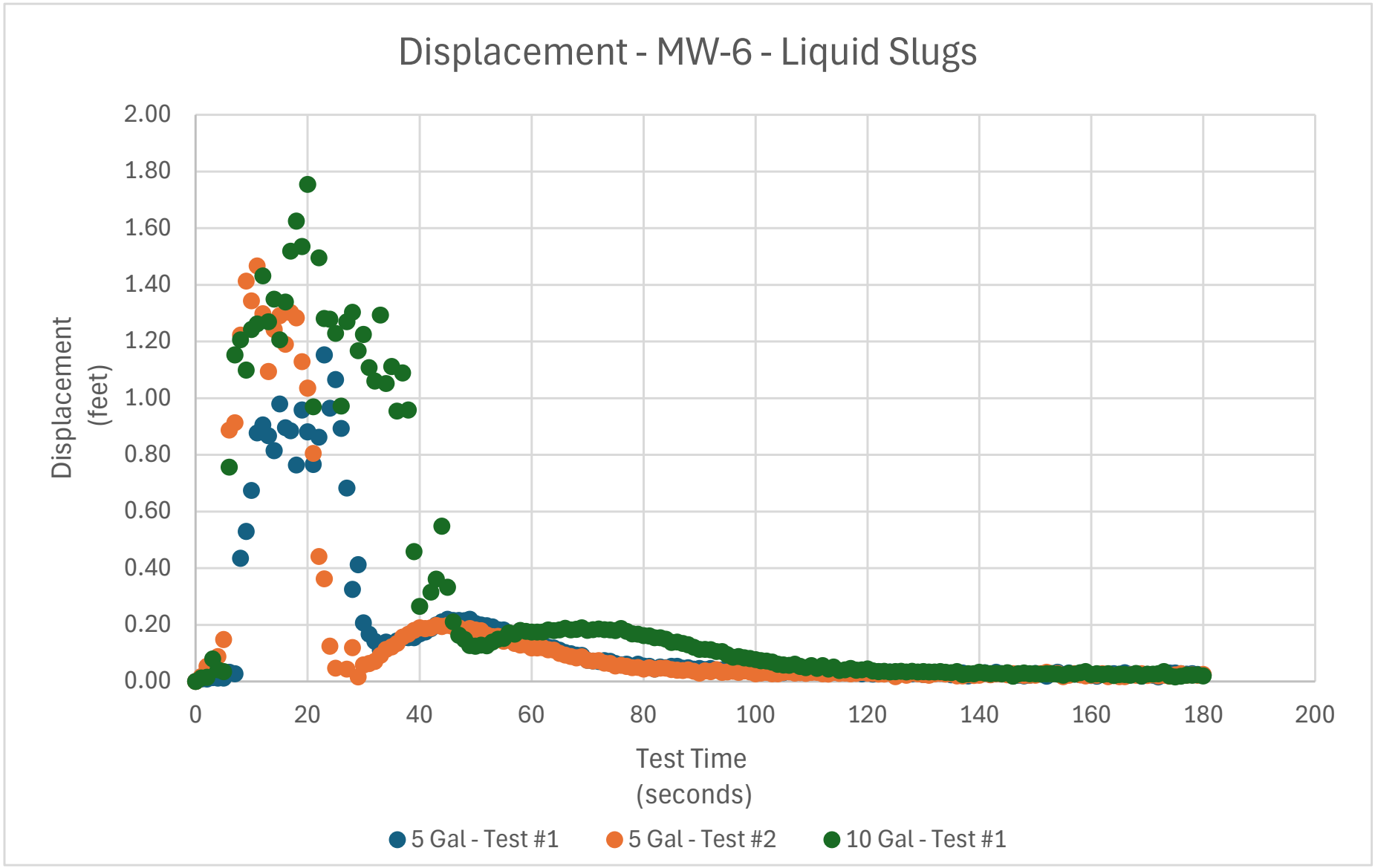
SOLUTION

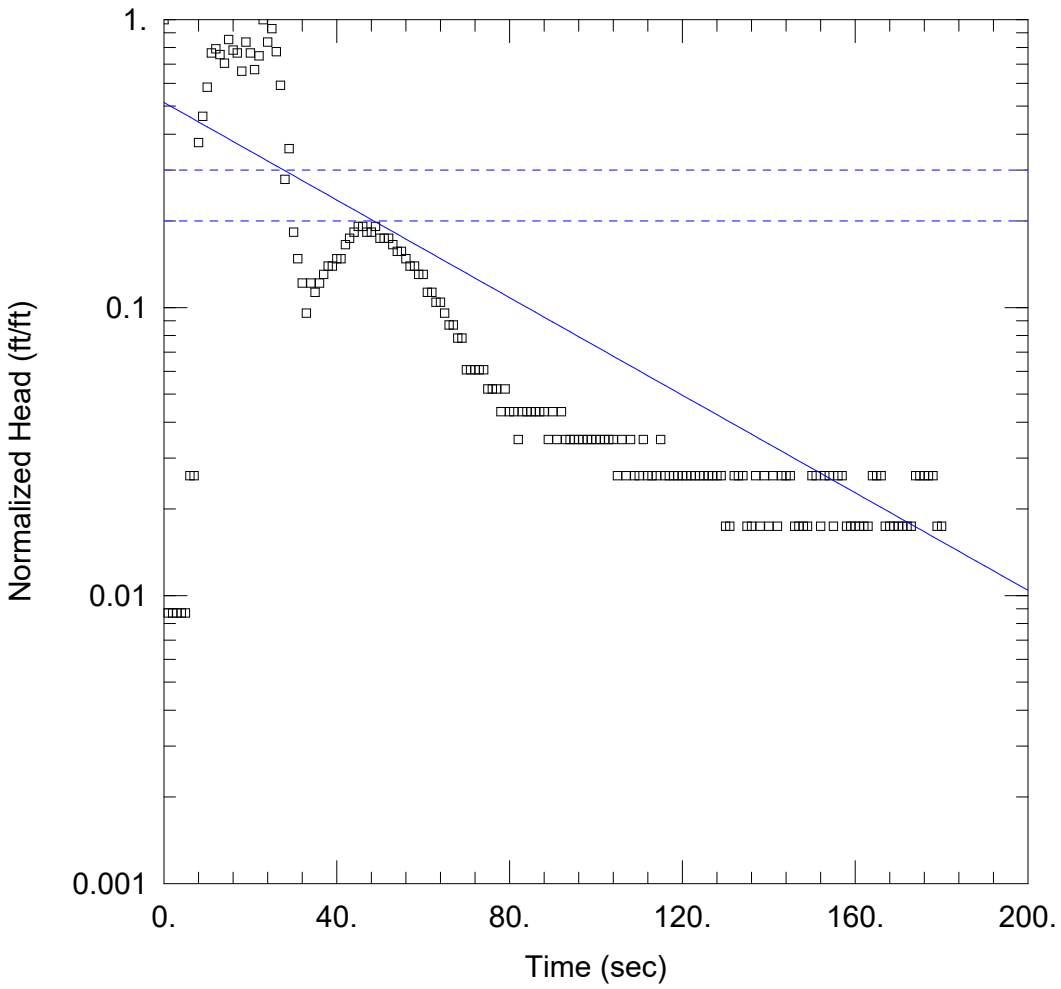
Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.004418 cm/sec y0 = 0.2874 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

WELL MW-6
(July, 2024)


Displacement - MW-6 - Liquid Slugs
Displacement (feet)
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
0
20
40
60
80
100
120
140
160
180
200
Test Time (seconds)
5 Gal - Test #1
5 Gal - Test #2
10 Gal - Test #1



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-6 5 Gallon - TEST #1 AUTO.aqt
Date: 08/08/24 Time: 13:26:17

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6 LIQUID SLUGS (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 17.6 ft Anisotropy Ratio (Kz/Kr): 1.

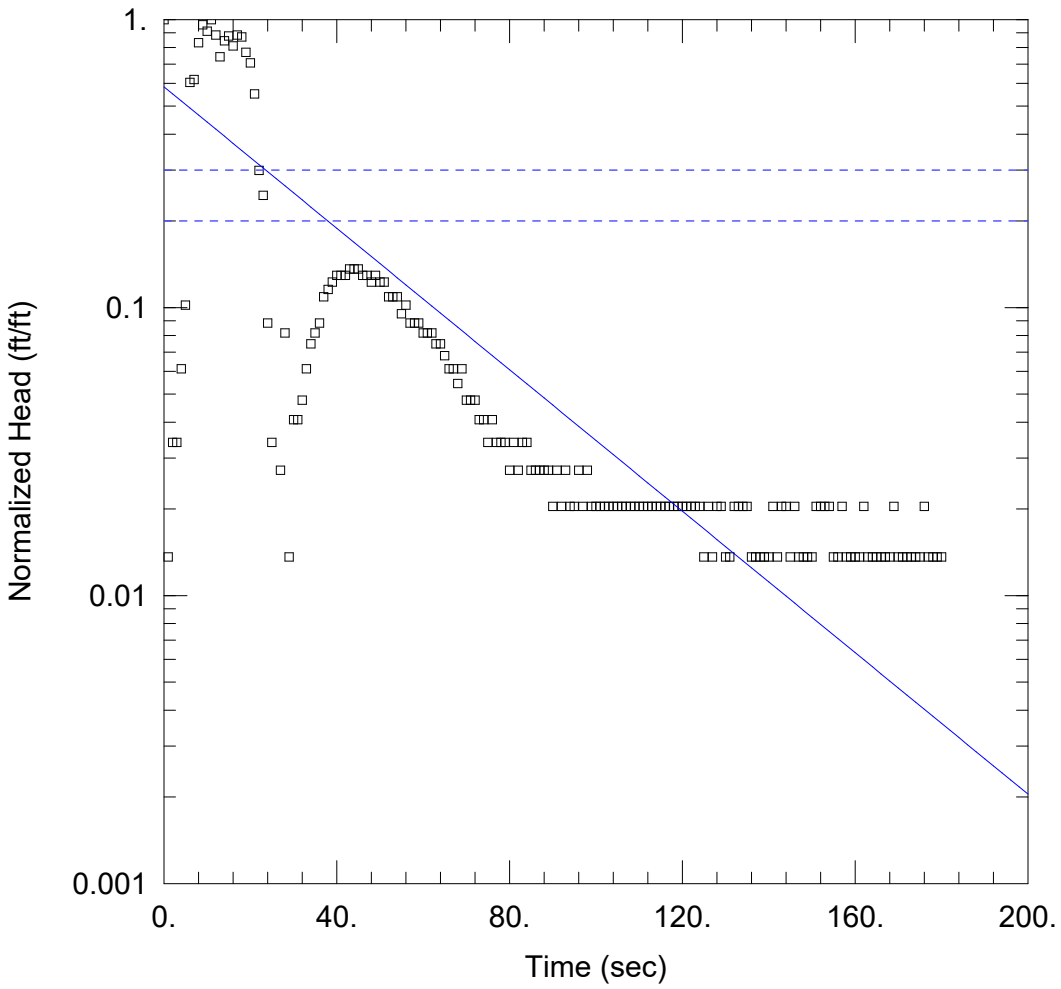
WELL DATA (MW-6 - 5 Gallon TEST #1)

Initial Displacement: 1.15 ft
Total Well Penetration Depth: 17.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.6 ft
Screen Length: 17.6 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.0013 cm/sec y0 = 0.5924 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-6 5 Gallon - TEST #2 AUTO.aqt
Date: 08/08/24 Time: 13:26:01

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6 LIQUID SLUGS (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 17.6 ft Anisotropy Ratio (Kz/Kr): 1.

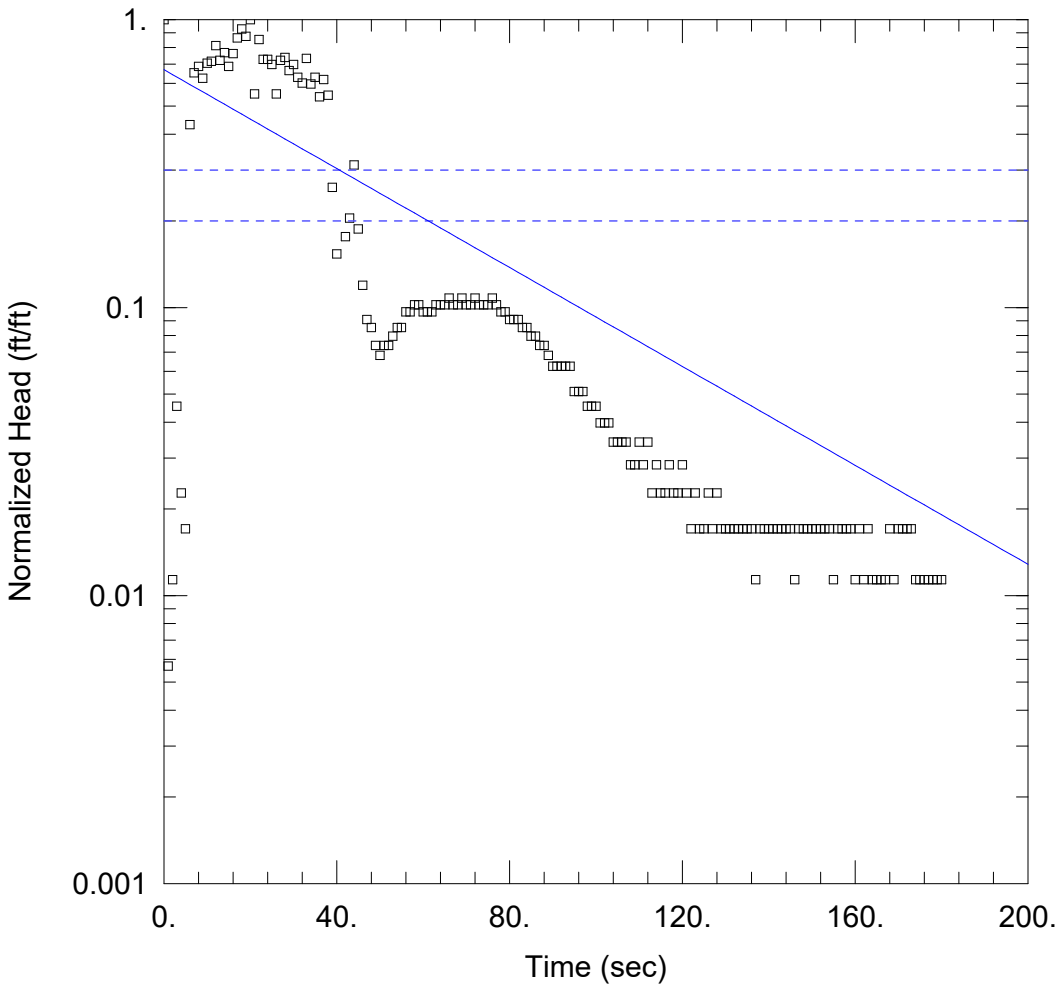
WELL DATA (MW-6 - 5 Gallon TEST #2 (AUTO))

Initial Displacement: 1.47 ft
Total Well Penetration Depth: 17.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.6 ft
Screen Length: 17.6 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001885 cm/sec y0 = 0.8585 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-6 10 Gallon AUTO.aqt
Date: 08/08/24 Time: 13:26:45

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6 LIQUID SLUGS (AUTO)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 17.6 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6 - 10 Gallon (AUTO))

Initial Displacement: 1.76 ft
Total Well Penetration Depth: 17.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.6 ft
Screen Length: 17.6 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

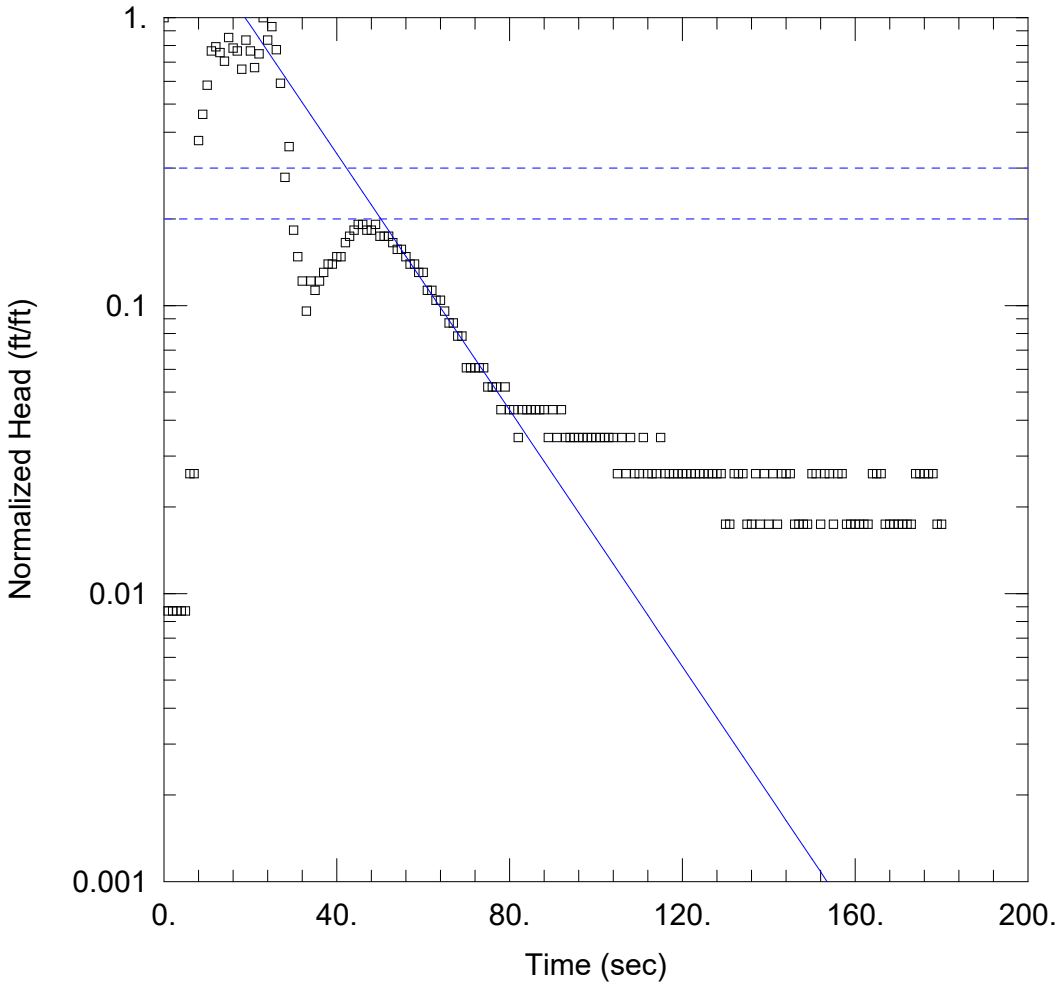
SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.001318 cm/sec y0 = 1.179 ft

Summary of Hydraulic Conductivity Testing Results
June-July, 2024
Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

AQTESOLVE - VISUAL SOLUTION



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-6 5 Gallon - TEST #1 VISUAL.aqt
Date: 08/08/24 Time: 13:34:41

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6 LIQUID SLUGS (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 17.6 ft Anisotropy Ratio (Kz/Kr): 1.

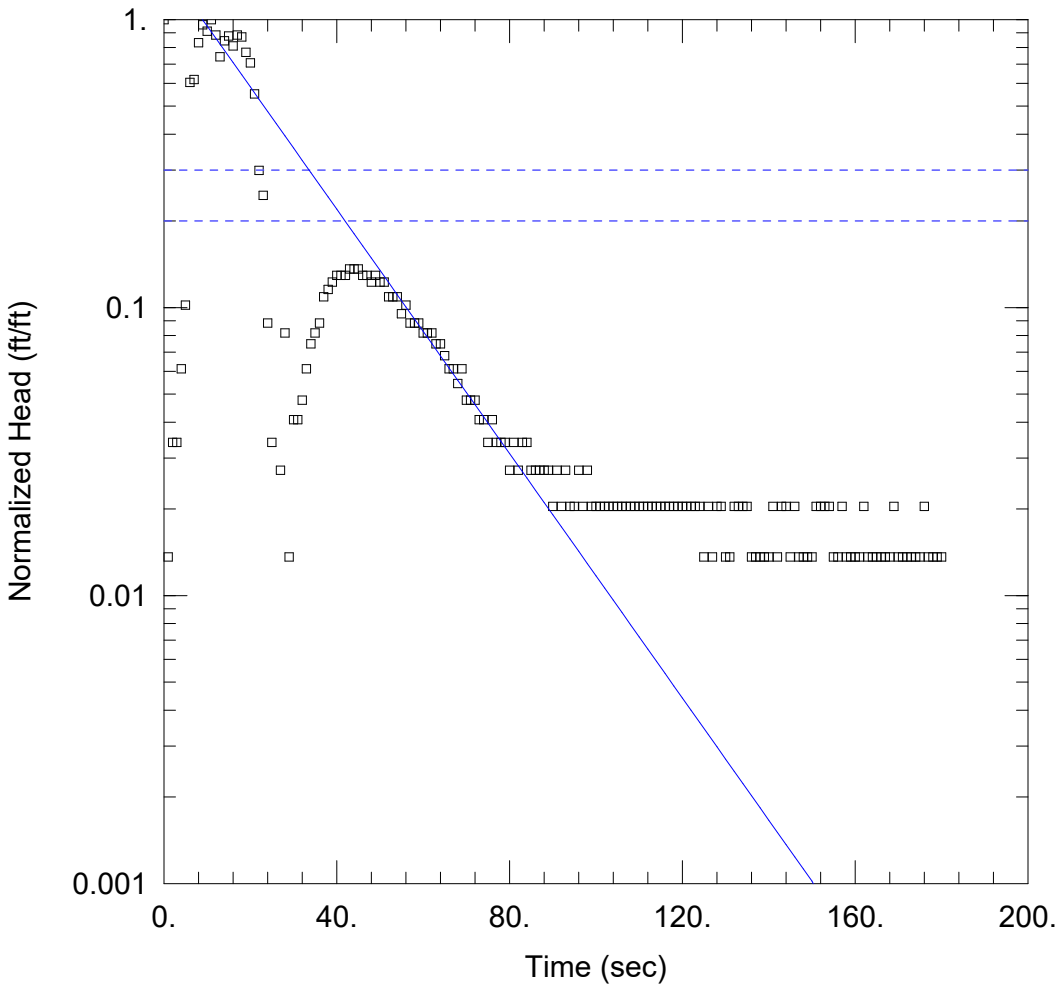
WELL DATA (MW-6 - 5 Gallon TEST #1 (VISUAL))

Initial Displacement: 1.15 ft
Total Well Penetration Depth: 17.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.6 ft
Screen Length: 17.6 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.003417 cm/sec y0 = 3.008 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-6 5 Gallon - TEST #2 VISUAL.aqt
Date: 08/08/24 Time: 13:34:27

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6 LIQUID SLUGS (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 17.6 ft Anisotropy Ratio (Kz/Kr): 1.

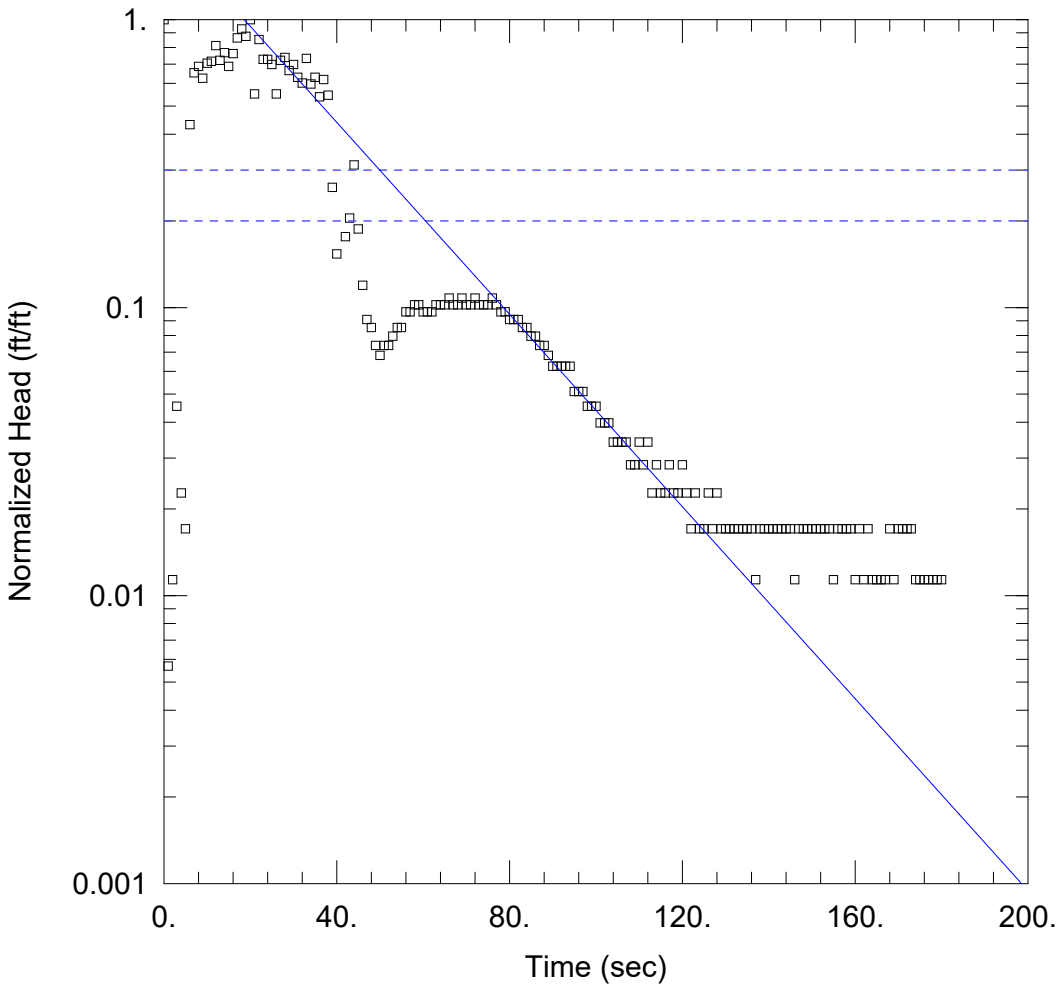
WELL DATA (MW-6 - 5 Gallon TEST #2 (VISUAL))

Initial Displacement: 1.47 ft
Total Well Penetration Depth: 17.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.6 ft
Screen Length: 17.6 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.003257 cm/sec y0 = 2.276 ft



JULY, 2024 SLUG TESTING (2ND ROUND)

Data Set: \...\MW-6 10 Gallon VISUAL.aqt
Date: 08/08/24 Time: 13:34:54

PROJECT INFORMATION

Company: LaBella Associates, D.P.C.
Client: Conifer Realty
Project: 2221378 TASK 39
Location: 321 Warburton Ave, Yonkers, NY
Test Well: MW-6 LIQUID SLUGS (VISUAL)
Test Date: July 30, 2024

AQUIFER DATA

Saturated Thickness: 17.6 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6 - 10 Gallon (VISUAL))

Initial Displacement: 1.76 ft
Total Well Penetration Depth: 17.6 ft
Casing Radius: 0.083 ft
Static Water Column Height: 17.6 ft
Screen Length: 17.6 ft
Well Radius: 0.25 ft
Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice

K = 0.00256 cm/sec y0 = 3.593 ft

APPENDIX B

Groundwater Velocity Calculations

Warburton Dry Cleaners Site
321 Warburton Avenue
Yonkers, New York

Sitewide Geo. Mean K =	2.16E-03	cm/sec
Sitewide Geo. Mean K =	6.13	ft/day
Site hydraulic gradient (i)	0.006 - 0.015	ft/ft
Assumed effective porosity (n_e)	0.2	
Average groundwater velocity (v)	0.18 - 0.46	ft/day

$v = K \cdot i / n_e$

Lower value of range: $v = 6.13 \text{ ft/day} \cdot 0.006 \text{ ft/ft} / 0.2 = 0.18 \text{ ft/day}$

Higher value of range: $v = 6.13 \text{ ft/day} \cdot 0.015 \text{ ft/ft} / 0.2 = 0.46 \text{ ft/day}$

APPENDIX C

Groundwater Sampling Results
Summary Tables

Table 1
Groundwater Analytical Results - VOCs
Permeable Reactive Barrier Work Plan
BCP No. C360227

LOCATION	NY-AWQS		MW-1-20240610		MW-1D-20240610		MW-3-20240610		MW-5-20240610		DUP-20240610		MW-2 (60')		MW-2 (66')		MW-2 (73.5')		MW-4 (59')		MW-4 (66.5')		MW-4 (73.5')		MW-6 (56')		MW-6 (65')		MW-6 (73.5')	
SAMPLING DATE			6/10/2024		6/10/2024		6/10/2024		6/10/2024		6/10/2024		6/11/2024		6/11/2024		6/11/2024		6/11/2024		6/11/2024		6/11/2024		6/11/2024		6/11/2024		6/11/2024	
LAB SAMPLE ID			L2432304-01		L2432304-02		L2432304-03		L2432304-04		L2432304-05		L2432795-01		L2432795-02		L2432795-03		L2432795-04		L2432795-05		L2432795-06		L2432795-07		L2432795-08		L2432795-09	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
		Units	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Volatile Organics by GC/MS																														
Methylene chloride	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,1-Dichloroethane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Chloroform	7	ug/l	2.5	U	25	U	2.5	U	2.5	U	0.91	J	120	U	120	U	250	U	2.5	U	2.5	U	5	U	3		50	U	62	U
Carbon tetrachloride	5	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
1,2-Dichloropropane	1	ug/l	1	U	10	U	1	U	1	U	1	U	50	U	50	U	100	U	1	U	1	U	2	U	1	U	20	U	25	U
Dibromochloromethane	50	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
1,1,2-Trichloroethane	1	ug/l	1.5	U	15	U	1.5	U	1.5	U	1.5	U	75	U	75	U	150	U	1.5	U	1.5	U	3	U	1.5	U	30	U	38	U
Tetrachloroethene	5	ug/l	4.2		1000		0.5	U	0.36	J	2.8		6000		7800		8400		79		38		170		160		2200		2400	
Chlorobenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Trichlorofluoromethane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,2-Dichloroethane	0.6	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
1,1,1-Trichloroethane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Bromodichloromethane	50	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
trans-1,3-Dichloropropene	0.4	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
cis-1,3-Dichloropropene	0.4	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
1,3-Dichloropropene, Total		ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
1,1-Dichloropropene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Bromoform	50	ug/l	2	U	20	U	2	U	2	U	2	U	100	U	100	U	200	U	2	U	2	U	4	U	2	U	40	U	50	U
1,1,2,2-Tetrachloroethane	5	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
Benzene	1	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
Toluene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Ethylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Chloromethane		ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Bromomethane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Vinyl chloride	2	ug/l	1	U	10	U	1	U	1	U	1	U	50	U	50	U	100	U	1	U	1	U	2	U	1	U	20	U	25	U
Chloroethane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,1-Dichloroethene	5	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	0.5	U	0.5	U	1	U	0.5	U	10	U	12	U
trans-1,2-Dichloroethene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Trichloroethene	5	ug/l	0.5	U	5	U	0.5	U	0.5	U	0.5	U	25	U	25	U	50	U	2.3		0.94		3.6		0.45	J	10	U	12	U
1,2-Dichlorobenzene	3	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,3-Dichlorobenzene	3	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,4-Dichlorobenzene	3	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Methyl tert butyl ether	10	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
p/m-Xylene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
o-Xylene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Xylenes, Total		ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
cis-1,2-Dichloroethene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,2-Dichloroethene, Total		ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Dibromomethane	5	ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	5	U	5	U	10	U	5	U	100	U	120	U
1,2,3-Trichloropropane	0.04	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Acrylonitrile	5	ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	5	U	5	U	10	U	5	U	100	U	120	U
Styrene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Dichlorodifluoromethane	5	ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	5	U	5	U	10	U	5	U	100	U	120	U
Acetone	50	ug/l	5	U	50	U	5	U	5	U	5	U	250	U	82	J	500	U	80		99		110		9.4		100	U	120	U
Carbon disulfide	60	ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	5	U	5	U	10	U	5	U	100	U	120	U
2-Butanone	50	ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	2.1	J	2.5	J	10	U	4	J	100	U	120	U
Vinyl acetate		ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	5	U	5	U	10	U	5	U	100	U	120	U
4-Methyl-2-pentanone		ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	5	U	5	U	10	U	5	U	100	U	120	U
2-Hexanone	50	ug/l	5	U	50	U	5	U	5	U	5	U	250	U	250	U	500	U	5	U	5	U	10	U	5	U	100	U	120	U
Bromochloromethane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
2,2-Dichloropropane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,2-Dibromoethane	0.0006	ug/l	2	U	20	U	2	U	2	U	2	U	100	U	100	U	200	U	2	U	2	U	4	U	2	U	40	U	50	U
1,3-Dichloropropane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,1,1,2-Tetrachloroethane	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Bromobenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
n-Butylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
sec-Butylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
tert-Butylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
o-Chlorotoluene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
p-Chlorotoluene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,2-Dibromo-3-chloropropane	0.04	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Hexachlorobutadiene	0.5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Isopropylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
p-Isopropyltoluene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
Naphthalene	10	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
n-Propylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,2,3-Trichlorobenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,2,4-Trichlorobenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,3,5-Trimethylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,2,4-Trimethylbenzene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
1,4-Dioxane		ug/l	250	U	2500	U	250	U	250	U	250	U	12000	U	12000	U	25000	U	250	U	250	U	500	U	250	U	5000	U	6200	U
p-Diethylbenzene		ug/l	2	U	20	U	2	U	2	U	2	U	100	U	100	U	200	U	2	U	2	U	4	U	2	U	40	U	50	U
p-Ethyltoluene		ug/l	2	U	20	U	2	U	2	U	2	U	100	U	100	U	200	U	2	U	2	U	4	U	2	U	40	U	50	U
1,2,4,5-Tetramethylbenzene	5	ug/l	2	U	20	U	2	U	2	U	2	U	100	U	100	U	200	U	2	U	2	U	4	U	2	U	40	U	50	U
Ethyl ether		ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U
trans-1,4-Dichloro-2-butene	5	ug/l	2.5	U	25	U	2.5	U	2.5	U	2.5	U	120	U	120	U	250	U	2.5	U	2.5	U	5	U	2.5	U	50	U	62	U

* Comparison is not performed on parameters with non-numeric criteria.
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.
Highlighted cells exceed NY-AWQS.
U - Not detected at the reported detection limit for the sample.
J - Estimated value.

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Table 2
Groundwater Analytical Results
Monitored Natural Attenuation Parameters
Permeable Reactive Barrier Work Plan
BCP No. C360227

LOCATION			MW-1-20240610		MW-1D-20240610		MW-3-20240610		MW-5-20240610		DUP-20240610		MW-2-20240611		MW-4-20240611		MW-6-20240611	
SAMPLING DATE			6/10/2024		6/10/2024		6/10/2024		6/10/2024		6/10/2024		6/11/2024		6/11/2024		6/11/2024	
LAB SAMPLE ID			L2432304-01		L2432304-02		L2432304-03		L2432304-04		L2432304-05		L2432795-11		L2432795-12		L2432795-13	
SAMPLE TYPE			WATER		WATER		WATER		WATER		WATER		WATER		WATER		WATER	
	NY-AWQS	Units	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q	Results	Q
Field Parameter Measurements																		
Temperature		°C	16.1		14.8		18		14.6		-		16.4		15.7		14.7	
Dissolved Oxygen		mg/L	0.6		5.32		1.4		4.5		-		3.75		2.85		6.14	
Conductivity		mS/cm	1.816		1.674		755		1.633		-		0.938		1.723		1.642	
pH			7.65		6.41		7.65		6.38		-		5.95		6.64		6.29	
Redox		mV	-80		118.4		-104.2		30.3		-		120.7		3.2		-1	
Turbidity		NTU	10		6.8		22.46		28.8		-		4.89		10.01		28.56	
Anions by Ion Chromatography																		
Chloride	250000	ug/l	464000		406000		4060		347000		457000		158000		341000		367000	
Sulfate	250000	ug/l	7440		49100		40200		55900		26800		41600		55700		40100	
General Chemistry																		
Alkalinity, Total		mg CaCO3	151		110		290		169		152		119		277		110	
Nitrogen, Nitrate/Nitrite	10000	ug/l	100	U	6000		5500		6500		2600		7300		3400		5900	
Total Organic Carbon		ug/l	660		330	J	2100		870		620		1300		1000		360	J
Iron, Ferrous		ug/l	80	J	160	J	70	J	500	U	130	J	500	U	80	J	500	U
Total Hardness (by calculation)																		
Hardness		ug/l	333700		495100		325700		361500		367500		282400		513800		326300	

* Comparison is not performed on parameters with non-numeric criteria.
NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.
Highlighted cells exceed NY-AWQS.
U - Not detected at the reported detection limit for the sample.
J - Estimated value.

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APPENDIX D

Groundwater Sampling Laboratory Results

ANALYTICAL REPORT

Lab Number:	L2432304
Client:	LaBella Associates 45 Main Street Brooklyn, NY 11201
ATTN:	Cynthia Chu
Phone:	(917) 280-6364
Project Name:	WARBURTON DRY CLEANERS SITE
Project Number:	2221378
Report Date:	06/20/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378

Lab Number: L2432304
Report Date: 06/20/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2432304-01	MW-1-20240610	WATER	YONKERS, NY	06/10/24 10:57	06/10/24
L2432304-02	MW-1D-20240610	WATER	YONKERS, NY	06/10/24 10:07	06/10/24
L2432304-03	MW-3-20240610	WATER	YONKERS, NY	06/10/24 11:45	06/10/24
L2432304-04	MW-5-20240610	WATER	YONKERS, NY	06/10/24 12:20	06/10/24
L2432304-05	DUP-20240610	WATER	YONKERS, NY	06/10/24 12:00	06/10/24
L2432304-06	TRIP BLANK	WATER	YONKERS, NY	06/10/24 00:00	06/10/24

Project Name:	WARBURTON DRY CLEANERS SITE	**Lab Number:**	L2432304
Project Number:	2221378	**Report Date:**	06/20/24

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	WARBURTON DRY CLEANERS SITE	**Lab Number:**	L2432304
Project Number:	2221378	**Report Date:**	06/20/24

Case Narrative (continued)

Report Submission

June 20, 2024: This final report includes the results of all requested analyses.

June 19, 2024: This is a preliminary report.

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

The analysis of Sulfide was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

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

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 06/20/24

ORGANICS

VOLATILES

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-01
Client ID: MW-1-20240610
Sample Location: YONKERS, NY

Date Collected: 06/10/24 10:57
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/14/24 00:11
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	4.2		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-01 Date Collected: 06/10/24 10:57

Client ID: MW-1-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-01 Date Collected: 06/10/24 10:57

Client ID: MW-1-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	98		70-130

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-02 D
Client ID: MW-1D-20240610
Sample Location: YONKERS, NY

Date Collected: 06/10/24 10:07
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/14/24 00:35
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	1000		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-02 D
Client ID: MW-1D-20240610
Sample Location: YONKERS, NY

Date Collected: 06/10/24 10:07
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	1.7	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	ND		ug/l	25	7.0	10
1,2-Dichloroethene, Total	ND		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	ND		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	ND		ug/l	25	7.0	10
sec-Butylbenzene	ND		ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	ND		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	ND		ug/l	25	7.0	10

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-02 D
Client ID: MW-1D-20240610
Sample Location: YONKERS, NY

Date Collected: 06/10/24 10:07
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	ND		ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	ND		ug/l	20	7.0	10
p-Ethyltoluene	ND		ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	ND		ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	97		70-130

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-03
Client ID: MW-3-20240610
Sample Location: YONKERS, NY

Date Collected: 06/10/24 11:45
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/14/24 00:59
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-03 Date Collected: 06/10/24 11:45

Client ID: MW-3-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-03 Date Collected: 06/10/24 11:45

Client ID: MW-3-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	97		70-130

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-04
Client ID: MW-5-20240610
Sample Location: YONKERS, NY

Date Collected: 06/10/24 12:20
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/14/24 01:22
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.36	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-04 Date Collected: 06/10/24 12:20

Client ID: MW-5-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-04 Date Collected: 06/10/24 12:20

Client ID: MW-5-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	98		70-130

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-05
Client ID: DUP-20240610
Sample Location: YONKERS, NY

Date Collected: 06/10/24 12:00
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/14/24 01:46
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.91	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.8		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-05 Date Collected: 06/10/24 12:00

Client ID: DUP-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-05 Date Collected: 06/10/24 12:00

Client ID: DUP-20240610 Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	96		70-130

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-06
Client ID: TRIP BLANK
Sample Location: YONKERS, NY

Date Collected: 06/10/24 00:00
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/14/24 02:10
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-06 Date Collected: 06/10/24 00:00

Client ID: TRIP BLANK Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-06 Date Collected: 06/10/24 00:00

Client ID: TRIP BLANK Date Received: 06/10/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	98		70-130

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/13/24 19:00
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1934333-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/13/24 19:00
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1934333-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/13/24 19:00
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1934333-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE

Project Number: 2221378

Lab Number: L2432304

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1934333-3 WG1934333-4								
Methylene chloride	91		98		70-130	7		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	93		95		70-130	2		20
Carbon tetrachloride	89		89		63-132	0		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	92		99		63-130	7		20
1,1,2-Trichloroethane	97		100		70-130	3		20
Tetrachloroethene	92		93		70-130	1		20
Chlorobenzene	95		99		75-130	4		20
Trichlorofluoromethane	81		82		62-150	1		20
1,2-Dichloroethane	96		100		70-130	4		20
1,1,1-Trichloroethane	94		96		67-130	2		20
Bromodichloromethane	91		97		67-130	6		20
trans-1,3-Dichloropropene	100		110		70-130	10		20
cis-1,3-Dichloropropene	93		100		70-130	7		20
1,1-Dichloropropene	97		99		70-130	2		20
Bromoform	88		95		54-136	8		20
1,1,2,2-Tetrachloroethane	120		130		67-130	8		20
Benzene	97		100		70-130	3		20
Toluene	100		100		70-130	0		20
Ethylbenzene	96		99		70-130	3		20
Chloromethane	84		87		64-130	4		20
Bromomethane	**19**	Q	**22**	Q	39-139	15		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE

Project Number: 2221378

Lab Number: L2432304

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1934333-3 WG1934333-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	71		70		55-138	1		20
1,1-Dichloroethene	88		91		61-145	3		20
trans-1,2-Dichloroethene	88		94		70-130	7		20
Trichloroethene	79		82		70-130	4		20
1,2-Dichlorobenzene	97		100		70-130	3		20
1,3-Dichlorobenzene	97		100		70-130	3		20
1,4-Dichlorobenzene	95		100		70-130	5		20
Methyl tert butyl ether	88		100		63-130	13		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	85		90		70-130	6		20
cis-1,2-Dichloroethene	88		94		70-130	7		20
Dibromomethane	88		94		70-130	7		20
1,2,3-Trichloropropane	99		120		64-130	19		20
Acrylonitrile	100		120		70-130	18		20
Styrene	90		95		70-130	5		20
Dichlorodifluoromethane	75		77		36-147	3		20
Acetone	92		110		58-148	18		20
Carbon disulfide	91		93		51-130	2		20
2-Butanone	100		130		63-138	**26**	Q	20
Vinyl acetate	**180**	Q	**190**	Q	70-130	5		20
4-Methyl-2-pentanone	110		120		59-130	9		20
2-Hexanone	120		130		57-130	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE

Project Number: 2221378

Lab Number: L2432304

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1934333-3 WG1934333-4								
Bromochloromethane	85		90		70-130	6		20
2,2-Dichloropropane	100		110		63-133	10		20
1,2-Dibromoethane	97		100		70-130	3		20
1,3-Dichloropropane	100		110		70-130	10		20
1,1,1,2-Tetrachloroethane	91		97		64-130	6		20
Bromobenzene	98		110		70-130	12		20
n-Butylbenzene	94		98		53-136	4		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	96		100		70-130	4		20
o-Chlorotoluene	110		120		70-130	9		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	90		99		41-144	10		20
Hexachlorobutadiene	97		100		63-130	3		20
Isopropylbenzene	95		99		70-130	4		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	82		94		70-130	14		20
n-Propylbenzene	110		120		69-130	9		20
1,2,3-Trichlorobenzene	83		95		70-130	13		20
1,2,4-Trichlorobenzene	89		97		70-130	9		20
1,3,5-Trimethylbenzene	100		110		64-130	10		20
1,2,4-Trimethylbenzene	100		110		70-130	10		20
1,4-Dioxane	70		84		56-162	18		20
p-Diethylbenzene	95		100		70-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE

Project Number: 2221378

Lab Number: L2432304

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1934333-3 WG1934333-4								
p-Ethyltoluene	100		110		70-130	10		20
1,2,4,5-Tetramethylbenzene	84		89		70-130	6		20
Ethyl ether	88		93		59-134	6		20
trans-1,4-Dichloro-2-butene	72		86		70-130	18		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		106		70-130
Toluene-d8	108		106		70-130
4-Bromofluorobenzene	118		120		70-130
Dibromofluoromethane	94		93		70-130

METALS

Project Name: WARBURTON DRY CLEANERS SITE
Lab Number: L2432304
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-01
Client ID: MW-1-20240610
Sample Location: YONKERS, NY
Date Collected: 06/10/24 10:57
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	333.7		mg/l	0.5400	NA	1	06/14/24 17:57	06/18/24 15:03	EPA 3005A	1,6020B	NTB

Project Name: WARBURTON DRY CLEANERS SITE
Lab Number: L2432304
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-02
Client ID: MW-1D-20240610
Sample Location: YONKERS, NY
Date Collected: 06/10/24 10:07
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	495.1		mg/l	0.5400	NA	1	06/14/24 17:57	06/18/24 15:08	EPA 3005A	1,6020B	NTB

Project Name: WARBURTON DRY CLEANERS SITE
Lab Number: L2432304
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-03
Client ID: MW-3-20240610
Sample Location: YONKERS, NY
Date Collected: 06/10/24 11:45
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	325.7		mg/l	0.5400	NA	1	06/14/24 17:57	06/18/24 15:12	EPA 3005A	1,6020B	NTB

Project Name: WARBURTON DRY CLEANERS SITE
Lab Number: L2432304
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-04
Client ID: MW-5-20240610
Sample Location: YONKERS, NY
Date Collected: 06/10/24 12:20
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	361.5		mg/l	0.5400	NA	1	06/14/24 17:57	06/18/24 15:33	EPA 3005A	1,6020B	NTB

Project Name: WARBURTON DRY CLEANERS SITE
Lab Number: L2432304
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-05
Client ID: DUP-20240610
Sample Location: YONKERS, NY
Date Collected: 06/10/24 12:00
Date Received: 06/10/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	367.5		mg/l	0.5400	NA	1	06/14/24 17:57	06/18/24 15:38	EPA 3005A	1,6020B	NTB

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 01-05 Batch: WG1934060-1										
Hardness	ND		mg/l	0.5400	NA	1	06/14/24 17:57	06/18/24 14:31	1,6020B	NTB

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE

Project Number: 2221378

Lab Number: L2432304

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Hardness (by calculation) - Mansfield Lab	Associated sample(s): 01-05		Batch: WG1934060-2					
Hardness	108		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1934060-3 QC Sample: L2432352-01 Client ID: MS Sample												
Hardness	62.10	66.2	132.2	106		-	-		75-125	-		20

INORGANICS
&
MISCELLANEOUS

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-01
Client ID: MW-1-20240610
Sample Location: YONKERS, NY
Sample Depth:
Matrix: Water

Date Collected: 06/10/24 10:57
Date Received: 06/10/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	151.		mg CaCO3/L	2.00	NA	1	-	06/15/24 04:48	121,2320B	MRM
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.046	1	-	06/12/24 15:51	121,4500NO3-F	MRM
Total Organic Carbon	0.66		mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	0.080	J	mg/l	0.50	0.056	1	-	06/11/24 05:33	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	464.		mg/l	12.5	2.10	25	-	06/13/24 21:46	44,300.0	AVT
Sulfate	7.44		mg/l	1.00	0.454	1	-	06/13/24 17:02	44,300.0	AVT

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-02
Client ID: MW-1D-20240610
Sample Location: YONKERS, NY
Sample Depth:
Matrix: Water

Date Collected: 06/10/24 10:07
Date Received: 06/10/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	110.		mg CaCO3/L	2.00	NA	1	-	06/15/24 04:52	121,2320B	MRM
Nitrogen, Nitrate/Nitrite	6.0		mg/l	0.10	0.046	1	-	06/12/24 15:52	121,4500NO3-F	MRM
Total Organic Carbon	0.33	J	mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	0.16	J	mg/l	0.50	0.056	1	-	06/11/24 05:33	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	406.		mg/l	12.5	2.10	25	-	06/13/24 21:57	44,300.0	AVT
Sulfate	49.1		mg/l	1.00	0.454	1	-	06/13/24 17:13	44,300.0	AVT

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-03
Client ID: MW-3-20240610
Sample Location: YONKERS, NY
Sample Depth:
Matrix: Water

Date Collected: 06/10/24 11:45
Date Received: 06/10/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	290.		mg CaCO3/L	2.00	NA	1	-	06/15/24 04:56	121,2320B	MRM
Nitrogen, Nitrate/Nitrite	5.5		mg/l	0.10	0.046	1	-	06/12/24 15:54	121,4500NO3-F	MRM
Total Organic Carbon	2.1		mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	0.070	J	mg/l	0.50	0.056	1	-	06/11/24 05:33	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	4.06		mg/l	0.500	0.083	1	-	06/13/24 23:02	44,300.0	AVT
Sulfate	40.2		mg/l	1.00	0.454	1	-	06/13/24 23:02	44,300.0	AVT

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-04
Client ID: MW-5-20240610
Sample Location: YONKERS, NY
Sample Depth:
Matrix: Water

Date Collected: 06/10/24 12:20
Date Received: 06/10/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	169.		mg CaCO3/L	2.00	NA	1	-	06/15/24 05:03	121,2320B	MRM
Nitrogen, Nitrate/Nitrite	6.5		mg/l	0.10	0.046	1	-	06/12/24 15:55	121,4500NO3-F	MRM
Total Organic Carbon	0.87		mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	ND		mg/l	0.50	0.056	1	-	06/11/24 05:33	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	347.		mg/l	12.5	2.10	25	-	06/13/24 22:07	44,300.0	AVT
Sulfate	55.9		mg/l	1.00	0.454	1	-	06/13/24 17:34	44,300.0	AVT

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432304-05
Client ID: DUP-20240610
Sample Location: YONKERS, NY
Sample Depth:
Matrix: Water

Date Collected: 06/10/24 12:00
Date Received: 06/10/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	152.		mg CaCO3/L	2.00	NA	1	-	06/15/24 05:08	121,2320B	MRM
Nitrogen, Nitrate/Nitrite	2.6		mg/l	0.10	0.046	1	-	06/12/24 15:56	121,4500NO3-F	MRM
Total Organic Carbon	0.62		mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	0.13	J	mg/l	0.50	0.056	1	-	06/11/24 05:34	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	457.		mg/l	12.5	2.10	25	-	06/13/24 17:56	44,300.0	AVT
Sulfate	26.8		mg/l	1.00	0.454	1	-	06/13/24 17:45	44,300.0	AVT

Project Name: WARBURTON DRY CLEANERS SITE **Lab Number:** L2432304

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1932401-1										
Iron, Ferrous	ND		mg/l	0.50	0.056	1	-	06/11/24 05:31	121,3500FE-B	CAR
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1933303-1										
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.046	1	-	06/12/24 12:50	121,4500NO3-F	MRM
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1933621-1										
Total Organic Carbon	ND		mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-05 Batch: WG1934149-1										
Chloride	0.148	J	mg/l	0.500	0.083	1	-	06/13/24 16:40	44,300.0	AVT
Sulfate	ND		mg/l	1.00	0.454	1	-	06/13/24 16:40	44,300.0	AVT
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1934446-1										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	06/15/24 03:59	121,2320B	MRM

Lab Control Sample Analysis

Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE

Project Number: 2221378

Lab Number: L2432304

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1932401-2								
Iron, Ferrous	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1933303-2								
Nitrogen, Nitrate/Nitrite	108		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1933621-2								
Total Organic Carbon	101		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-05 Batch: WG1934149-2								
Chloride	106		-		90-110	-		
Sulfate	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1934446-2								
Alkalinity, Total	105		-		90-110	-		10

Matrix Spike Analysis
Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378
Lab Number: L2432304
Report Date: 06/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1932401-4 QC Sample: L2432304-01 Client ID: MW-1-20240610												
Iron, Ferrous	0.080J	1	0.99	99		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1933303-4 QC Sample: L2431872-01 Client ID: MS Sample												
Nitrogen, Nitrate/Nitrite	1.1	4	4.9	95		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1933621-4 QC Sample: L2432304-01 Client ID: MW-1-20240610												
Total Organic Carbon	0.66	16	19	116		-	-		80-120	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1934149-3 QC Sample: L2432304-03 Client ID: MW-3-20240610												
Chloride	4.06	4	8.21	104		-	-		90-110	-		18
Sulfate	40.2	8	47.4	90		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1934446-4 QC Sample: L2432271-02 Client ID: MS Sample												
Alkalinity, Total	2960	500	3010	**9**	Q	-	-		86-116	-		10

Lab Duplicate Analysis

Batch Quality Control

Project Name: WARBURTON DRY CLEANERS SITE

Project Number: 2221378

Lab Number: L2432304

Report Date: 06/20/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1932401-3 QC Sample: L2432304-01 Client ID: MW-1-20240610						
Iron, Ferrous	0.080J	0.10J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1933303-3 QC Sample: L2431872-01 Client ID: DUP Sample						
Nitrogen, Nitrate/Nitrite	1.1	1.1	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1933621-3 QC Sample: L2432304-01 Client ID: MW-1-20240610						
Total Organic Carbon	0.66	0.58	mg/l	13		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1934149-4 QC Sample: L2432304-03 Client ID: MW-3-20240610						
Chloride	4.06	4.01	mg/l	1		18
Sulfate	40.2	39.9	mg/l	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1934446-3 QC Sample: L2432271-02 Client ID: DUP Sample						
Alkalinity, Total	2960	2980	mg CaCO3/L	0		10

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378

Lab Number: L2432304
Report Date: 06/20/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2432304-01A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-01B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-01C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-01D	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-01E	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-01F	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-01G	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L2432304-01H	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)
L2432304-01I	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		HARDT-6020(180)
L2432304-01J	Plastic 250ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		NO3/NO2-4500(28)
L2432304-01K	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-01L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-02A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-02B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-02C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-02D	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-02E	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-02F	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-02G	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L2432304-02H	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)
L2432304-02I	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		HARDT-6020(180)
L2432304-02J	Plastic 250ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		NO3/NO2-4500(28)
L2432304-02K	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2432304-02L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-03A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-03B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-03C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-03D	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-03E	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-03F	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-03G	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L2432304-03H	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)
L2432304-03I	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		HARDT-6020(180)
L2432304-03J	Plastic 250ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		NO3/NO2-4500(28)
L2432304-03K	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-03L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-04A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-04B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-04C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-04D	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-04E	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-04F	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-04G	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L2432304-04H	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)
L2432304-04I	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		HARDT-6020(180)
L2432304-04J	Plastic 250ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		NO3/NO2-4500(28)
L2432304-04K	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-04L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-05A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-05B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-05C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: WARBURTON DRY CLEANERS SITE
Project Number: 2221378

Lab Number: L2432304
Report Date: 06/20/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2432304-05D	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-05E	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-05F	Vial H2SO4 preserved	A	NA		2.6	Y	Absent		TOC-9060(28)
L2432304-05G	Plastic 250ml unpreserved/No Headspace	A	NA		2.6	Y	Absent		ALK-T-2320(14)
L2432304-05H	Plastic 250ml unpreserved	A	7	7	2.6	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)
L2432304-05I	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		HARDT-6020(180)
L2432304-05J	Plastic 250ml H2SO4 preserved	A	<2	<2	2.6	Y	Absent		NO3/NO2-4500(28)
L2432304-05K	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-05L	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.6	Y	Absent		SUB-SULFIDE(7)
L2432304-06A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L2432304-06B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	WARBURTON DRY CLEANERS SITE	**Lab Number:**	L2432304
Project Number:	2221378	**Report Date:**	06/20/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	WARBURTON DRY CLEANERS SITE	**Lab Number:**	L2432304
Project Number:	2221378	**Report Date:**	06/20/24

Footnotes

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

Terms

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

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	WARBURTON DRY CLEANERS SITE	**Lab Number:**	L2432304
Project Number:	2221378	**Report Date:**	06/20/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	WARBURTON DRY CLEANERS SITE	**Lab Number:**	L2432304
Project Number:	2221378	**Report Date:**	06/20/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 6/11/24

ALPHA Job #: L2432304

Client Information

Client: LaBella Associates
Address: 45 Mainstreet, Brooklyn, NY 11204
Phone:
Fax:
Email: cchu@labellapc.com

Project Information

Project Name: WARBURTON DRY CLEANERS SITE
Project Location: YONKERS, NY
Project #: 2221378
(Use Project name as Project #) ☐
Project Manager: CYNTHIA CHU
ALPHAQuote #:

Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☑ ASP-B
☑ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☑ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Alkalinity SM 2320	Chloride by IC - EPA 300.0	Sulfide by SM4500	Sulfate EPA 300.0	Ferrous Iron - SM 3500	TCL Volatiles EPA 8260	Total Organic Carbon 9060	Total Hardness by 6010B	Sample Specific Comments	Total Bottle
32304-01	MW-1-20240610	06/10	10:57	W	TBH	X	X	X	X	X	X	X	X		
02	MW-10-20240610		10:07			X	X	X	X	X	X	X	X		
03	MW-3-20240610		11:45			X	X	X	X	X	X	X	X		
04	MW-5-20240610		12:20			X	X	X	X	X	X	X	X		
05	DUP-20240610		12:00			X	X	X	X	X	X	X	X		
06	TRIP BLANK										X				

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type								
Preservative								

Relinquished By:	Date/Time	Received By:	Date/Time
	6/10/24 13:40		6/10 13:40
	6/10 18:20		6/10/24 18:20
	6/10/24		6/10 2200
	6/11 0830		6/11/24 0030

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

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 6/11/24

ALPHA Job #: L2432304

Client Information
Client:
Address:
SAA
Phone:
Fax:
Email:

Project Information
Project Name:
Project Location:
Project # SAA
(Use Project name as Project #) ☐
Project Manager:
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☒ ASP-B
☒ EQuIS (1 File) ☒ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	NO3/NO2 combined analysis	Total Bottle	Sample Specific Comments
32304-01	MW-1-20240610	6/10	10:57	W	TBH	X		
02	MW-1D-20240610		10:07			X		
03	MW-3-20240610		11:45			X		
04	MW-5-20240610		12:20			X		
05	DUP-20240610	↓		↓	↓	X		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
	6/10/24 1340		6/10 1340
	6/10 1620		6/10/24 1900
	6/10/24		6/10 2200
	6/11 0030		6/11/24 0030

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

Form No: 01-25 HC (rev. 30-Sept-2013)

PEOPLE ADVANCING SCIENCE

Pace Analytical Services, LLC-Fairfield

ANALYTICAL RESULTS

LEVEL II DELIVERABLES FORMAT

Work Order Number: 24F0844

Pace - Alpha Analytical, Westborough, MA

Project: L2432304

Sudip Pradhan
Laboratory Director

All Results meet the requirements of the National Environmental Laboratory Accreditation Conference and/or State specific certifications as applicable.

Report Date: Jun 18, 2024

1275 Bloomfield Ave., Bldg. 6, Fairfield, New Jersey 07004
(t) 973.227.0422 (f) 973.227.2813 (w) www.pacelabs.com

NELAC National Environmental Laboratory Accreditation Conference
NJDEP #07010 / NYDOH #11634 / PADEP #68-02903

sections 1 2 3 4 5 6 7 8

CONTENTS

PEOPLE ADVANCING SCIENCE

Pace Analytical Services, LLC-Fairfield

Sample Summary

Work Order: 24F0844

Client: Pace - Alpha Analytical, Westborough, MA

Project: L2432304

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-20240610	24F0844-01	Water	06/10/2024 10:57	06/12/2024 08:10
MW-1D-20240610	24F0844-02	Water	06/10/2024 10:07	06/12/2024 08:10
MW-3-20240610	24F0844-03	Water	06/10/2024 11:45	06/12/2024 08:10
MW-5-20240610	24F0844-04	Water	06/10/2024 12:20	06/12/2024 08:10
DUP-20240610	24F0844-05	Water	06/10/2024 12:00	06/12/2024 08:10

Pace
Pace Analytical Services-Fairfield
www.pacelabs.com

Subcontract Chain of Custody

APL/ Pace Fairfield
1275 Bloomfield Ave.
Bldg. 6
Fairfield, NJ 07004

24F0844

Pace - Alpha Analytical, Westborough, MA
L2432304

Alpha Job Number
L2432304

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 201.428.2601
Email: Nicole.Galamb@pacelabs.com

Project Information

Project Location: NY
Project Manager: Nicole Galamb

Turnaround & Deliverables Information

Due Date:
Deliverables:

ents/Report Limits

State/Federal Program:
Regulatory Criteria: NY-AWQS

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2432304

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	MW-1-20240610	06-10-24 10:57	WATER	Sulfide	
	MW-1D-20240610	06-10-24 10:07	WATER	Sulfide	
	MW-3-20240610	06-10-24 11:45	WATER	Sulfide	
	MW-5-20240610	06-10-24 12:20	WATER	Sulfide	
	DUP-20240610	06-10-24 12:00	WATER	Sulfide	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
2.5°C		6/11/24		6/11 1800
		6/11 2200		6/11/24 2225
		6/11/24		6/12/24 0658
Form No: AL_subcoc		6/12/24 0805		6/12/24 0810

DC#_Title: ENV-FRM-FAIR-007 v01_Sample Condition Upon Receipt Form
Effective Date: 7/26/2023

24F0844

Sample Condition Upon Receipt Form (SCUR)

Pace ANALYTICAL SERVICES

Affix Sample Label Here

Date and Initials of person:
Examining contents: 6/12 AR
Label: 6/12 AR
Deliver to location:
pH: 6/12 AR

Thermometer Used: TR03 Date: 6/12/24 Time: 0310 Initials: AR

State of Origin: NJ

Cooler #1 Temp.°C 2.9 **(Visual)** -0.4 **(Correction Factor)** 2.5 **(Actual)** ☐ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace ☐ Other

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground ☐ Other

Tracking #

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No **Seals intact:** ☐ Yes ☒ No **Ice:** (Wet) Blue Melted None

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other

Samples were collected by Pace employee ☐ Yes ☒ No ☐ N/A

		Comments:
Chain of Custody Present	☒Yes ☐ No ☐ N/A	
Chain of Custody Filled Out	☒Yes ☐ No ☐ N/A	
Relinquished Signature on COC	☒Yes ☐ No ☐ N/A	
Sampler Name and Signature on COC	☒Yes ☐ No ☐ N/A	
Samples Arrived within Hold Time	☒Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐Yes ☒ No ☐ N/A	
Sufficient Volume	☒Yes ☐ No ☐ N/A	
Correct Containers Used	☒Yes ☐ No ☐ N/A	
Containers Intact	☒Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☒Yes ☐ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☒Yes ☐ No ☐ N/A	Preservation Information: Preservative:
All Containers needing preservation are found to be in compliance with EPA recommendation:	☒Yes ☐ No ☐ N/A	Lot #/Trace #: Date: Time: Initials:
Exceptions: Vials, Microbiology, O&G, Metals		
Headspace in VOA Vials? (>6mm):	☐Yes ☐ No ☒N/A	
Trip Blank Present:	☐Yes ☐ No ☒N/A	

Additional Login Comments:

Client notification/ Resolution

Person Contacted: Date/Time:

Comments/Resolution:

Qualtrax ID: 188127 Pace® Analytical Services, LLC Page 1 of 1

Pace Analytical Services, LLC-Fairfield
Methodology Summary

Extractable Petroleum Hydrocarbons:

Gas Chromatography/Flame Ionization Detector

New Jersey Department of Environmental Protection Site Remediation Program Extractable Petroleum Hydrocarbons Methodology (Version 3.0).
USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8015D or NJDEP Office of Quality Assurance Quantitation of Semi-Volatile Petroleum Products in Water, Soil and Sediment OQA-QAM-025, Revision 6.

Metals:

Inductively-Coupled Plasma Atomic Emission Spectrometry or Inductively-Coupled Plasma Mass Spectroscopy

Wastewater and Groundwater Samples: USEPA Methods for the Analysis of Water and Wastes, Method 200.7, Method 200.8.
Soil Samples: USEPA Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 6010D.

Mercury:

Cold Vapor Atomic Absorption Spectrometry

Wastewater and Groundwater Samples: USEPA Methods for the Analysis of Water and Wastes, Method 245.1.
Soil Samples: USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 7471B.

Volatile Organic Compounds:

Purge and Trap Gas Chromatography/Mass Spectroscopy

Drinking Water Samples: USEPA Methods for the Determination of Organic Compounds in Drinking Water, Method 524.2.
Wastewater Samples: USEPA Methods for the Analysis of Water and Wastes, Method 624.1.
Soil and Groundwater Samples: USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update VI, Method 8260D.

Semi-Volatile Organic Compounds:

Gas Chromatography/Mass Spectroscopy

Wastewater Samples: USEPA Methods for the Analysis of Water and Wastes, Method 625.1.
Soil and Groundwater Samples: USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update VI, Method 8270E.

PFAS Compounds:

Liquid Chromatography/Tandem Mass Spectroscopy

Drinking Water Samples: USEPA Methods for the Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS), Method 537 (v1.1).

Pesticides:

Gas Chromatography/Electron Capture Detector

Wastewater Samples: USEPA Methods for the Analysis of Water and Wastes, Method 608.3.
Soil and Groundwater Samples: USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8081B.

Polychlorinated Biphenyls (PCBs):

Gas Chromatography/Electron Capture Detector

Wastewater Samples: USEPA Methods for the Analysis of Water and Wastes, Method 608.3.
Soil and Groundwater Samples: USEPA SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods Update III, Method 8082A.

General Chemistry Methods:

Various general chemistry methods are taken from "Standard Methods for the Examination of Water and Wastewater, 22nd Edition", .

Specific method citations can be found on the Analytical Results Summary page of this report listed under 'Method'.

** A complete list of Pace Fairfield's certified Methods are on the Standards And Docs page of the Results Retrieval System

Pace Analytical Services, LLC-Fairfield
Data Reporting Abbreviations and Qualifiers

Method Detection Limit (MDL):

The MDL is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results. The value is calculated following the guidelines defined in:

"Definition and Procedure for the Determination of the Method Detection Limit, Revision 2"
EPA 821-R-16-006, published December 2016.

Reporting Limit (RL):

The RL is the Concentration of the lowest calibration standard that was included in the initial calibration of the instrument. On analytical reports this value is corrected for percent moisture and any concentration or dilution factors.

Concentration (Conc.) / Result:

If the compound is detected, the measured concentration is reported. If this column is "ND", or contains a 'less than' (<) symbol, the compound was not detected.

Tentatively Identified Compound (TIC):

A TIC is a non-targeted compound, not included in the calibration, identified by a mass spectral library search OR requested to be identified and reported by the client.

Abbreviations:

ND	Non-Detect
TNTC	Too Numerous To Count

Qualifers:

U	Compound not detected

Pace Analytical Services, LLC-Fairfield

QUALITY CONTROL
Conformance/Non-Conformance Summary

ANALYSIS: Sulfide [SM 4500-S-D-11]

COMMENTS:
The matrix spike and matrix spike duplicate recovery for Sulfide was outside QC limits (low).

Reviewed By: _____ (IK) 6/18/2024
Sudip Pradhan - Laboratory Director — Date

For any questions about your Quality Control, please call us at 973-227-0422

PEOPLE ADVANCING SCIENCE

Pace Analytical Services, LLC-Fairfield

Positive Results Only Summary

24F0844-01 (Water) Sample Name: **MW-1-20240610**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0220		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-02 (Water) Sample Name: **MW-1D-20240610**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0200		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-03 (Water) Sample Name: **MW-3-20240610**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0110		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-04 (Water) Sample Name: **MW-5-20240610**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0100		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-05 (Water) Sample Name: **DUP-20240610**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0260		0.00500	0.0100	mg/L	1	6/17/24 11:30

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
H - Indicates a Hold Time violation
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit, **RL** - Reporting limit
D1 - Sample was Decanted (Dissolved)

PEOPLE ADVANCING SCIENCE

Pace Analytical Services, LLC-Fairfield

All Results Summary

Client: Pace - Alpha Analytical, Westborough, MA **Work Order:** 24F0844
Project: L2432304 **Date to Lab:** 6/12/2024 8:10:00AM

24F0844-01 (Water) Sample Name: **MW-1-20240610** Collected: **6/10/2024 10:57:00AM**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0220		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-02 (Water) Sample Name: **MW-1D-20240610** Collected: **6/10/2024 10:07:00AM**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0200		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-03 (Water) Sample Name: **MW-3-20240610** Collected: **6/10/2024 11:45:00AM**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0110		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-04 (Water) Sample Name: **MW-5-20240610** Collected: **6/10/2024 12:20:00PM**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0100		0.00500	0.0100	mg/L	1	6/17/24 11:30

24F0844-05 (Water) Sample Name: **DUP-20240610** Collected: **6/10/2024 12:00:00PM**

SM 4500-S-D-11 - General Chemistry

Analyte	Result	Qual	MDL	RL	Units	Dilution	Analyzed
Sulfide	0.0260		0.00500	0.0100	mg/L	1	6/17/24 11:30

ND, U - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
H - Indicates a Hold Time violation
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit, **RL** - Reporting limit
D1 - Sample was Decanted (Dissolved)

PEOPLE ADVANCING SCIENCE

Pace Analytical Services, LLC-Fairfield

GENERAL CHEMISTRY

Pace - Alpha Analytical, Westborough, MA

Work Order: 24F0844

Project: L2432304

ANALYSIS DATA SHEET

General Chemistry

Client: Pace - Alpha Analytical, Westborough, MA
Project: L2432304
Work Order: 24F0844

General Chemistry

24F0844-01 (Water) - MW-1-20240610

Analyte	Units	Conc.	RL	DF	Qual	Analyzed	Method
Sulfide	mg/L	0.0220	0.0100	1		06/17/24 11:30	SM 4500-S-D-11

24F0844-02 (Water) - MW-1D-20240610

Analyte	Units	Conc.	RL	DF	Qual	Analyzed	Method
Sulfide	mg/L	0.0200	0.0100	1		06/17/24 11:30	SM 4500-S-D-11

24F0844-03 (Water) - MW-3-20240610

Analyte	Units	Conc.	RL	DF	Qual	Analyzed	Method
Sulfide	mg/L	0.0110	0.0100	1		06/17/24 11:30	SM 4500-S-D-11

24F0844-04 (Water) - MW-5-20240610

Analyte	Units	Conc.	RL	DF	Qual	Analyzed	Method
Sulfide	mg/L	0.0100	0.0100	1		06/17/24 11:30	SM 4500-S-D-11

24F0844-05 (Water) - DUP-20240610

Analyte	Units	Conc.	RL	DF	Qual	Analyzed	Method
Sulfide	mg/L	0.0260	0.0100	1		06/17/24 11:30	SM 4500-S-D-11

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard
D - Indicates result is based on a dilution
H - Indicates a Hold Time violation
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit, **RL** - Reporting limit

F-I

ANALYTICAL REPORT

Lab Number:	L2432795
Client:	LaBella Associates 45 Main Street Brooklyn, NY 11201
ATTN:	Cynthia Chu
Phone:	(917) 280-6364
Project Name:	321 WARBURTON AVE.
Project Number:	2221378
Report Date:	06/20/24

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2432795-01	MW-2 (60')	WATER	YONKERS, NY	06/11/24 08:40	06/11/24
L2432795-02	MW-2 (66')	WATER	YONKERS, NY	06/11/24 08:45	06/11/24
L2432795-03	MW-2 (73.5')	WATER	YONKERS, NY	06/11/24 08:50	06/11/24
L2432795-04	MW-4 (59')	WATER	YONKERS, NY	06/11/24 09:10	06/11/24
L2432795-05	MW-4 (66.5')	WATER	YONKERS, NY	06/11/24 09:15	06/11/24
L2432795-06	MW-4 (73.5')	WATER	YONKERS, NY	06/11/24 09:20	06/11/24
L2432795-07	MW-6 (56')	WATER	YONKERS, NY	06/11/24 08:00	06/11/24
L2432795-08	MW-6 (65')	WATER	YONKERS, NY	06/11/24 08:05	06/11/24
L2432795-09	MW-6 (73.5')	WATER	YONKERS, NY	06/11/24 08:10	06/11/24
L2432795-10	TRIP BLANK	WATER	YONKERS, NY	06/11/24 00:00	06/11/24
L2432795-11	MW-2-20240611	WATER	YONKERS, NY	06/11/24 08:41	06/11/24
L2432795-12	MW-4-20240611	WATER	YONKERS, NY	06/11/24 11:35	06/11/24
L2432795-13	MW-6-20240611	WATER	YONKERS, NY	06/11/24 10:15	06/11/24

Project Name:	321 WARBURTON AVE.	**Lab Number:**	L2432795
Project Number:	2221378	**Report Date:**	06/20/24

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	321 WARBURTON AVE.	**Lab Number:**	L2432795
Project Number:	2221378	**Report Date:**	06/20/24

Case Narrative (continued)

Report Submission

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

The analysis of Sulfide was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 06/20/24

ORGANICS

VOLATILES

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-01 D
Client ID: MW-2 (60')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:40
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 16:40
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	ND		ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.8	50
Dibromochloromethane	ND		ug/l	25	7.4	50
1,1,2-Trichloroethane	ND		ug/l	75	25.	50
Tetrachloroethene	6000		ug/l	25	9.0	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	ND		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
1,3-Dichloropropene, Total	ND		ug/l	25	7.2	50
1,1-Dichloropropene	ND		ug/l	120	35.	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	8.4	50
Benzene	ND		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	ND		ug/l	50	3.6	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	ND		ug/l	25	8.4	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-01 D Date Collected: 06/11/24 08:40
Client ID: MW-2 (60') Date Received: 06/11/24
Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	25	8.8	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
Methyl tert butyl ether	ND		ug/l	120	8.3	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
Xylenes, Total	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	ND		ug/l	120	35.	50
1,2-Dichloroethene, Total	ND		ug/l	120	35.	50
Dibromomethane	ND		ug/l	250	50.	50
1,2,3-Trichloropropane	ND		ug/l	120	35.	50
Acrylonitrile	ND		ug/l	250	75.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	ND		ug/l	250	73.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	ND		ug/l	250	97.	50
Vinyl acetate	ND		ug/l	250	50.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
2,2-Dichloropropane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,3-Dichloropropane	ND		ug/l	120	35.	50
1,1,1,2-Tetrachloroethane	ND		ug/l	120	35.	50
Bromobenzene	ND		ug/l	120	35.	50
n-Butylbenzene	ND		ug/l	120	35.	50
sec-Butylbenzene	ND		ug/l	120	35.	50
tert-Butylbenzene	ND		ug/l	120	35.	50
o-Chlorotoluene	ND		ug/l	120	35.	50
p-Chlorotoluene	ND		ug/l	120	35.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Hexachlorobutadiene	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
p-Isopropyltoluene	ND		ug/l	120	35.	50
Naphthalene	ND		ug/l	120	35.	50

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-01 D
Client ID: MW-2 (60')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:40
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
1,3,5-Trimethylbenzene	ND		ug/l	120	35.	50
1,2,4-Trimethylbenzene	ND		ug/l	120	35.	50
1,4-Dioxane	ND		ug/l	12000	3000	50
p-Diethylbenzene	ND		ug/l	100	35.	50
p-Ethyltoluene	ND		ug/l	100	35.	50
1,2,4,5-Tetramethylbenzene	ND		ug/l	100	27.	50
Ethyl ether	ND		ug/l	120	35.	50
trans-1,4-Dichloro-2-butene	ND		ug/l	120	35.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	107		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-02 D
Client ID: MW-2 (66')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:45
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/17/24 23:01
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	ND		ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.8	50
Dibromochloromethane	ND		ug/l	25	7.4	50
1,1,2-Trichloroethane	ND		ug/l	75	25.	50
Tetrachloroethene	7800		ug/l	25	9.0	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	ND		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
1,3-Dichloropropene, Total	ND		ug/l	25	7.2	50
1,1-Dichloropropene	ND		ug/l	120	35.	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	8.4	50
Benzene	ND		ug/l	25	8.0	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	ND		ug/l	50	3.6	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	ND		ug/l	25	8.4	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-02 D Date Collected: 06/11/24 08:45
Client ID: MW-2 (66') Date Received: 06/11/24
Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	25	8.8	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50
Methyl tert butyl ether	ND		ug/l	120	8.3	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
Xylenes, Total	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	ND		ug/l	120	35.	50
1,2-Dichloroethene, Total	ND		ug/l	120	35.	50
Dibromomethane	ND		ug/l	250	50.	50
1,2,3-Trichloropropane	ND		ug/l	120	35.	50
Acrylonitrile	ND		ug/l	250	75.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	82	J	ug/l	250	73.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	ND		ug/l	250	97.	50
Vinyl acetate	ND		ug/l	250	50.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
2,2-Dichloropropane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,3-Dichloropropane	ND		ug/l	120	35.	50
1,1,1,2-Tetrachloroethane	ND		ug/l	120	35.	50
Bromobenzene	ND		ug/l	120	35.	50
n-Butylbenzene	ND		ug/l	120	35.	50
sec-Butylbenzene	ND		ug/l	120	35.	50
tert-Butylbenzene	ND		ug/l	120	35.	50
o-Chlorotoluene	ND		ug/l	120	35.	50
p-Chlorotoluene	ND		ug/l	120	35.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Hexachlorobutadiene	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
p-Isopropyltoluene	ND		ug/l	120	35.	50
Naphthalene	ND		ug/l	120	35.	50

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-02 D Date Collected: 06/11/24 08:45

Client ID: MW-2 (66') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
1,3,5-Trimethylbenzene	ND		ug/l	120	35.	50
1,2,4-Trimethylbenzene	ND		ug/l	120	35.	50
1,4-Dioxane	ND		ug/l	12000	3000	50
p-Diethylbenzene	ND		ug/l	100	35.	50
p-Ethyltoluene	ND		ug/l	100	35.	50
1,2,4,5-Tetramethylbenzene	ND		ug/l	100	27.	50
Ethyl ether	ND		ug/l	120	35.	50
trans-1,4-Dichloro-2-butene	ND		ug/l	120	35.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	102		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-03 D
Client ID: MW-2 (73.5')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:50
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 17:24
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	250	70.	100
1,1-Dichloroethane	ND		ug/l	250	70.	100
Chloroform	ND		ug/l	250	70.	100
Carbon tetrachloride	ND		ug/l	50	13.	100
1,2-Dichloropropane	ND		ug/l	100	14.	100
Dibromochloromethane	ND		ug/l	50	15.	100
1,1,2-Trichloroethane	ND		ug/l	150	50.	100
Tetrachloroethene	8400		ug/l	50	18.	100
Chlorobenzene	ND		ug/l	250	70.	100
Trichlorofluoromethane	ND		ug/l	250	70.	100
1,2-Dichloroethane	ND		ug/l	50	13.	100
1,1,1-Trichloroethane	ND		ug/l	250	70.	100
Bromodichloromethane	ND		ug/l	50	19.	100
trans-1,3-Dichloropropene	ND		ug/l	50	16.	100
cis-1,3-Dichloropropene	ND		ug/l	50	14.	100
1,3-Dichloropropene, Total	ND		ug/l	50	14.	100
1,1-Dichloropropene	ND		ug/l	250	70.	100
Bromoform	ND		ug/l	200	65.	100
1,1,2,2-Tetrachloroethane	ND		ug/l	50	17.	100
Benzene	ND		ug/l	50	16.	100
Toluene	ND		ug/l	250	70.	100
Ethylbenzene	ND		ug/l	250	70.	100
Chloromethane	ND		ug/l	250	70.	100
Bromomethane	ND		ug/l	250	70.	100
Vinyl chloride	ND		ug/l	100	7.1	100
Chloroethane	ND		ug/l	250	70.	100
1,1-Dichloroethene	ND		ug/l	50	17.	100
trans-1,2-Dichloroethene	ND		ug/l	250	70.	100

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-03 D Date Collected: 06/11/24 08:50
Client ID: MW-2 (73.5') Date Received: 06/11/24
Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	50	18.	100
1,2-Dichlorobenzene	ND		ug/l	250	70.	100
1,3-Dichlorobenzene	ND		ug/l	250	70.	100
1,4-Dichlorobenzene	ND		ug/l	250	70.	100
Methyl tert butyl ether	ND		ug/l	250	17.	100
p/m-Xylene	ND		ug/l	250	70.	100
o-Xylene	ND		ug/l	250	70.	100
Xylenes, Total	ND		ug/l	250	70.	100
cis-1,2-Dichloroethene	ND		ug/l	250	70.	100
1,2-Dichloroethene, Total	ND		ug/l	250	70.	100
Dibromomethane	ND		ug/l	500	100	100
1,2,3-Trichloropropane	ND		ug/l	250	70.	100
Acrylonitrile	ND		ug/l	500	150	100
Styrene	ND		ug/l	250	70.	100
Dichlorodifluoromethane	ND		ug/l	500	100	100
Acetone	ND		ug/l	500	150	100
Carbon disulfide	ND		ug/l	500	100	100
2-Butanone	ND		ug/l	500	190	100
Vinyl acetate	ND		ug/l	500	100	100
4-Methyl-2-pentanone	ND		ug/l	500	100	100
2-Hexanone	ND		ug/l	500	100	100
Bromochloromethane	ND		ug/l	250	70.	100
2,2-Dichloropropane	ND		ug/l	250	70.	100
1,2-Dibromoethane	ND		ug/l	200	65.	100
1,3-Dichloropropane	ND		ug/l	250	70.	100
1,1,1,2-Tetrachloroethane	ND		ug/l	250	70.	100
Bromobenzene	ND		ug/l	250	70.	100
n-Butylbenzene	ND		ug/l	250	70.	100
sec-Butylbenzene	ND		ug/l	250	70.	100
tert-Butylbenzene	ND		ug/l	250	70.	100
o-Chlorotoluene	ND		ug/l	250	70.	100
p-Chlorotoluene	ND		ug/l	250	70.	100
1,2-Dibromo-3-chloropropane	ND		ug/l	250	70.	100
Hexachlorobutadiene	ND		ug/l	250	70.	100
Isopropylbenzene	ND		ug/l	250	70.	100
p-Isopropyltoluene	ND		ug/l	250	70.	100
Naphthalene	ND		ug/l	250	70.	100

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-03 D
Client ID: MW-2 (73.5')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:50
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	250	70.	100
1,2,3-Trichlorobenzene	ND		ug/l	250	70.	100
1,2,4-Trichlorobenzene	ND		ug/l	250	70.	100
1,3,5-Trimethylbenzene	ND		ug/l	250	70.	100
1,2,4-Trimethylbenzene	ND		ug/l	250	70.	100
1,4-Dioxane	ND		ug/l	25000	6100	100
p-Diethylbenzene	ND		ug/l	200	70.	100
p-Ethyltoluene	ND		ug/l	200	70.	100
1,2,4,5-Tetramethylbenzene	ND		ug/l	200	54.	100
Ethyl ether	ND		ug/l	250	70.	100
trans-1,4-Dichloro-2-butene	ND		ug/l	250	70.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	107		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-04 Date Collected: 06/11/24 09:10
Client ID: MW-4 (59') Date Received: 06/11/24
Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 15:33
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	79		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-04 Date Collected: 06/11/24 09:10

Client ID: MW-4 (59') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	2.3		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	80		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	2.1	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-04 Date Collected: 06/11/24 09:10

Client ID: MW-4 (59') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	106		70-130

Project Name: 321 WARBURTON AVE.
Project Number: 2221378
Lab Number: L2432795
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-05
Client ID: MW-4 (66.5')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 09:15
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 15:55
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	38		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-05 Date Collected: 06/11/24 09:15

Client ID: MW-4 (66.5') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.94		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	99		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	2.5	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-05 Date Collected: 06/11/24 09:15

Client ID: MW-4 (66.5') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	106		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-06 D
Client ID: MW-4 (73.5')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 09:20
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 17:47
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	170		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	0.29	2
1,1-Dichloropropene	ND		ug/l	5.0	1.4	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	ND		ug/l	1.0	0.32	2
Toluene	ND		ug/l	5.0	1.4	2
Ethylbenzene	ND		ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	ND		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-06 D
Client ID: MW-4 (73.5')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 09:20
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	3.6		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	0.33	2
p/m-Xylene	ND		ug/l	5.0	1.4	2
o-Xylene	ND		ug/l	5.0	1.4	2
Xylenes, Total	ND		ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
1,2-Dichloroethene, Total	ND		ug/l	5.0	1.4	2
Dibromomethane	ND		ug/l	10	2.0	2
1,2,3-Trichloropropane	ND		ug/l	5.0	1.4	2
Acrylonitrile	ND		ug/l	10	3.0	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	110		ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
Vinyl acetate	ND		ug/l	10	2.0	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
2,2-Dichloropropane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,3-Dichloropropane	ND		ug/l	5.0	1.4	2
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	1.4	2
Bromobenzene	ND		ug/l	5.0	1.4	2
n-Butylbenzene	ND		ug/l	5.0	1.4	2
sec-Butylbenzene	ND		ug/l	5.0	1.4	2
tert-Butylbenzene	ND		ug/l	5.0	1.4	2
o-Chlorotoluene	ND		ug/l	5.0	1.4	2
p-Chlorotoluene	ND		ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Hexachlorobutadiene	ND		ug/l	5.0	1.4	2
Isopropylbenzene	ND		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	ND		ug/l	5.0	1.4	2

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-06 D
Client ID: MW-4 (73.5')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 09:20
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,4-Dioxane	ND		ug/l	500	120	2
p-Diethylbenzene	ND		ug/l	4.0	1.4	2
p-Ethyltoluene	ND		ug/l	4.0	1.4	2
1,2,4,5-Tetramethylbenzene	ND		ug/l	4.0	1.1	2
Ethyl ether	ND		ug/l	5.0	1.4	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	1.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	106		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-07
Client ID: MW-6 (56')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:00
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 16:18
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	3.0		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	160		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-07 Date Collected: 06/11/24 08:00

Client ID: MW-6 (56') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.45	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	9.4		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	4.0	J	ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-07 Date Collected: 06/11/24 08:00

Client ID: MW-6 (56') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	105		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-08 D
Client ID: MW-6 (65')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:05
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 18:09
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	2200		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	ND		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	ND		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	ND		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-08 D Date Collected: 06/11/24 08:05
Client ID: MW-6 (65') Date Received: 06/11/24
Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	3.3	20
p/m-Xylene	ND		ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	ND		ug/l	50	14.	20
cis-1,2-Dichloroethene	ND		ug/l	50	14.	20
1,2-Dichloroethene, Total	ND		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	ND		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	ND		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	ND		ug/l	50	14.	20

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-08 D Date Collected: 06/11/24 08:05

Client ID: MW-6 (65') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	ND		ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	ND		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	107		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-09 D
Client ID: MW-6 (73.5')
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:10
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 18:31
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	ND		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.4	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	2400		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	ND		ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
1,3-Dichloropropene, Total	ND		ug/l	12	3.6	25
1,1-Dichloropropene	ND		ug/l	62	18.	25
Bromoform	ND		ug/l	50	16.	25
1,1,2,2-Tetrachloroethane	ND		ug/l	12	4.2	25
Benzene	ND		ug/l	12	4.0	25
Toluene	ND		ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	ND		ug/l	25	1.8	25
Chloroethane	ND		ug/l	62	18.	25
1,1-Dichloroethene	ND		ug/l	12	4.2	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-09 D Date Collected: 06/11/24 08:10
Client ID: MW-6 (73.5') Date Received: 06/11/24
Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25
Methyl tert butyl ether	ND		ug/l	62	4.2	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
Xylenes, Total	ND		ug/l	62	18.	25
cis-1,2-Dichloroethene	ND		ug/l	62	18.	25
1,2-Dichloroethene, Total	ND		ug/l	62	18.	25
Dibromomethane	ND		ug/l	120	25.	25
1,2,3-Trichloropropane	ND		ug/l	62	18.	25
Acrylonitrile	ND		ug/l	120	38.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	ND		ug/l	120	36.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	ND		ug/l	120	48.	25
Vinyl acetate	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
2,2-Dichloropropane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,3-Dichloropropane	ND		ug/l	62	18.	25
1,1,1,2-Tetrachloroethane	ND		ug/l	62	18.	25
Bromobenzene	ND		ug/l	62	18.	25
n-Butylbenzene	ND		ug/l	62	18.	25
sec-Butylbenzene	ND		ug/l	62	18.	25
tert-Butylbenzene	ND		ug/l	62	18.	25
o-Chlorotoluene	ND		ug/l	62	18.	25
p-Chlorotoluene	ND		ug/l	62	18.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Hexachlorobutadiene	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
p-Isopropyltoluene	ND		ug/l	62	18.	25
Naphthalene	ND		ug/l	62	18.	25

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-09 D Date Collected: 06/11/24 08:10

Client ID: MW-6 (73.5') Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
1,3,5-Trimethylbenzene	ND		ug/l	62	18.	25
1,2,4-Trimethylbenzene	ND		ug/l	62	18.	25
1,4-Dioxane	ND		ug/l	6200	1500	25
p-Diethylbenzene	ND		ug/l	50	18.	25
p-Ethyltoluene	ND		ug/l	50	18.	25
1,2,4,5-Tetramethylbenzene	ND		ug/l	50	14.	25
Ethyl ether	ND		ug/l	62	18.	25
trans-1,4-Dichloro-2-butene	ND		ug/l	62	18.	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	106		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-10
Client ID: TRIP BLANK
Sample Location: YONKERS, NY

Date Collected: 06/11/24 00:00
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 06/15/24 15:11
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-10 Date Collected: 06/11/24 00:00

Client ID: TRIP BLANK Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.17	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-10 Date Collected: 06/11/24 00:00

Client ID: TRIP BLANK Date Received: 06/11/24

Sample Location: YONKERS, NY Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	104		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/15/24 13:41
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-10 Batch: WG1935128-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/15/24 13:41
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-10 Batch: WG1935128-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/15/24 13:41
Analyst: MJV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-10 Batch: WG1935128-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	106		70-130

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/17/24 18:56
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1935682-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/17/24 18:56
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1935682-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.17
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 321 WARBURTON AVE. **Lab Number:** L2432795

Project Number: 2221378 **Report Date:** 06/20/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 06/17/24 18:56
Analyst: TMS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1935682-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	108		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1935128-3 WG1935128-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	96		97		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	93		93		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	98		97		70-130	1		20
cis-1,3-Dichloropropene	95		96		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	96		92		54-136	4		20
1,1,2,2-Tetrachloroethane	100		98		67-130	2		20
Benzene	95		96		70-130	1		20
Toluene	99		98		70-130	1		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	79		80		64-130	1		20
Bromomethane	64		63		39-139	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1935128-3 WG1935128-4								
Vinyl chloride	80		81		55-140	1		20
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	97		99		61-145	2		20
trans-1,2-Dichloroethene	97		100		70-130	3		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	89		90		63-130	1		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	100		100		64-130	0		20
Acrylonitrile	83		82		70-130	1		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	99		96		36-147	3		20
Acetone	110		110		58-148	0		20
Carbon disulfide	96		96		51-130	0		20
2-Butanone	96		100		63-138	4		20
Vinyl acetate	100		99		70-130	1		20
4-Methyl-2-pentanone	80		79		59-130	1		20
2-Hexanone	77		79		57-130	3		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1935128-3 WG1935128-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	99		97		70-130	2		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	110		100		70-130	10		20
tert-Butylbenzene	110		100		70-130	10		20
o-Chlorotoluene	110		100		70-130	10		20
p-Chlorotoluene	110		100		70-130	10		20
1,2-Dibromo-3-chloropropane	93		95		41-144	2		20
Hexachlorobutadiene	97		95		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	110		100		70-130	10		20
Naphthalene	94		92		70-130	2		20
n-Propylbenzene	110		100		69-130	10		20
1,2,3-Trichlorobenzene	95		94		70-130	1		20
1,2,4-Trichlorobenzene	94		94		70-130	0		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
1,4-Dioxane	102		104		56-162	2		20
p-Diethylbenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-10 Batch: WG1935128-3 WG1935128-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		99		70-130	1		20
Ethyl ether	89		90		59-134	1		20
trans-1,4-Dichloro-2-butene	87		87		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		111		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	97		97		70-130
Dibromofluoromethane	103		104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1935682-3 WG1935682-4								
Methylene chloride	100		89		70-130	12		20
1,1-Dichloroethane	100		88		70-130	13		20
Chloroform	110		93		70-130	17		20
Carbon tetrachloride	110		97		63-132	13		20
1,2-Dichloropropane	96		83		70-130	15		20
Dibromochloromethane	100		89		63-130	12		20
1,1,2-Trichloroethane	100		90		70-130	11		20
Tetrachloroethene	92		79		70-130	15		20
Chlorobenzene	110		92		75-130	18		20
Trichlorofluoromethane	90		77		62-150	16		20
1,2-Dichloroethane	110		95		70-130	15		20
1,1,1-Trichloroethane	110		97		67-130	13		20
Bromodichloromethane	100		91		67-130	9		20
trans-1,3-Dichloropropene	99		87		70-130	13		20
cis-1,3-Dichloropropene	93		82		70-130	13		20
1,1-Dichloropropene	100		89		70-130	12		20
Bromoform	100		89		54-136	12		20
1,1,2,2-Tetrachloroethane	120		100		67-130	18		20
Benzene	94		81		70-130	15		20
Toluene	100		88		70-130	13		20
Ethylbenzene	100		92		70-130	8		20
Chloromethane	75		65		64-130	14		20
Bromomethane	41		**36**	Q	39-139	13		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1935682-3 WG1935682-4								
Vinyl chloride	76		66		55-140	14		20
Chloroethane	84		71		55-138	17		20
1,1-Dichloroethene	87		74		61-145	16		20
trans-1,2-Dichloroethene	98		85		70-130	14		20
Trichloroethene	100		91		70-130	9		20
1,2-Dichlorobenzene	110		98		70-130	12		20
1,3-Dichlorobenzene	110		98		70-130	12		20
1,4-Dichlorobenzene	110		98		70-130	12		20
Methyl tert butyl ether	88		78		63-130	12		20
p/m-Xylene	100		90		70-130	11		20
o-Xylene	100		85		70-130	16		20
cis-1,2-Dichloroethene	98		85		70-130	14		20
Dibromomethane	110		96		70-130	14		20
1,2,3-Trichloropropane	120		100		64-130	18		20
Acrylonitrile	85		76		70-130	11		20
Styrene	100		90		70-130	11		20
Dichlorodifluoromethane	94		83		36-147	12		20
Acetone	110		110		58-148	0		20
Carbon disulfide	92		74		51-130	**22**	Q	20
2-Butanone	94		86		63-138	9		20
Vinyl acetate	100		88		70-130	13		20
4-Methyl-2-pentanone	80		71		59-130	12		20
2-Hexanone	75		70		57-130	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1935682-3 WG1935682-4								
Bromochloromethane	95		84		70-130	12		20
2,2-Dichloropropane	100		89		63-133	12		20
1,2-Dibromoethane	100		91		70-130	9		20
1,3-Dichloropropane	100		92		70-130	8		20
1,1,1,2-Tetrachloroethane	100		90		64-130	11		20
Bromobenzene	110		92		70-130	18		20
n-Butylbenzene	120		110		53-136	9		20
sec-Butylbenzene	120		110		70-130	9		20
tert-Butylbenzene	120		100		70-130	18		20
o-Chlorotoluene	120		110		70-130	9		20
p-Chlorotoluene	120		110		70-130	9		20
1,2-Dibromo-3-chloropropane	100		91		41-144	9		20
Hexachlorobutadiene	100		84		63-130	17		20
Isopropylbenzene	120		100		70-130	18		20
p-Isopropyltoluene	120		100		70-130	18		20
Naphthalene	100		91		70-130	9		20
n-Propylbenzene	120		100		69-130	18		20
1,2,3-Trichlorobenzene	98		88		70-130	11		20
1,2,4-Trichlorobenzene	97		84		70-130	14		20
1,3,5-Trimethylbenzene	120		100		64-130	18		20
1,2,4-Trimethylbenzene	120		100		70-130	18		20
1,4-Dioxane	104		92		56-162	12		20
p-Diethylbenzene	110		97		70-130	13		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1935682-3 WG1935682-4								
p-Ethyltoluene	120		100		70-130	18		20
1,2,4,5-Tetramethylbenzene	110		94		70-130	16		20
Ethyl ether	79		67		59-134	16		20
trans-1,4-Dichloro-2-butene	110		96		70-130	14		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	113		113		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	111		111		70-130
Dibromofluoromethane	105		105		70-130

METALS

Project Name: 321 WARBURTON AVE.
Lab Number: L2432795
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-11
Client ID: MW-2-20240611
Sample Location: YONKERS, NY
Date Collected: 06/11/24 08:41
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	282.4		mg/l	0.5400	NA	1	06/16/24 15:55	06/19/24 17:34	EPA 3005A	1,6020B	NTB

Project Name: 321 WARBURTON AVE.
Lab Number: L2432795
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-12
Client ID: MW-4-20240611
Sample Location: YONKERS, NY
Date Collected: 06/11/24 11:35
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	513.8		mg/l	0.5400	NA	1	06/16/24 15:55	06/19/24 17:39	EPA 3005A	1,6020B	NTB

Project Name: 321 WARBURTON AVE.
Lab Number: L2432795
Project Number: 2221378
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-13
Client ID: MW-6-20240611
Sample Location: YONKERS, NY
Date Collected: 06/11/24 10:15
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab											
Hardness	326.3		mg/l	0.5400	NA	1	06/16/24 15:55	06/19/24 17:44	EPA 3005A	1,6020B	NTB

Project Name: 321 WARBURTON AVE.
Project Number: 2221378
Lab Number: L2432795
Report Date: 06/20/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 11-13 Batch: WG1934994-1										
Hardness	ND		mg/l	0.5400	NA	1	06/16/24 15:55	06/17/24 10:27	1,6020B	EJF

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Hardness (by calculation) - Mansfield Lab	Associated sample(s): 11-13		Batch: WG1934994-2					
Hardness	105		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 11-13 QC Batch ID: WG1934994-3 WG1934994-4 QC Sample: L2432682-03 Client ID: MS Sample												
Hardness	260.8	66.2	416.9	**236**	Q	419.1	**239**	Q	75-125	1		20

INORGANICS
&
MISCELLANEOUS

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-11
Client ID: MW-2-20240611
Sample Location: YONKERS, NY

Date Collected: 06/11/24 08:41
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	119.		mg CaCO3/L	2.00	NA	1	-	06/16/24 10:54	121,2320B	MRW
Nitrogen, Nitrate/Nitrite	7.3		mg/l	0.10	0.046	1	-	06/13/24 05:45	121,4500NO3-F	KAF
Total Organic Carbon	1.3		mg/l	1.0	0.19	2	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	ND		mg/l	0.50	0.056	1	-	06/12/24 07:02	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	158.		mg/l	5.00	0.839	10	-	06/15/24 11:28	44,300.0	CVN
Sulfate	41.6		mg/l	1.00	0.454	1	-	06/15/24 14:54	44,300.0	CVN

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-12
Client ID: MW-4-20240611
Sample Location: YONKERS, NY

Date Collected: 06/11/24 11:35
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	277.		mg CaCO3/L	2.00	NA	1	-	06/16/24 11:02	121,2320B	MRW
Nitrogen, Nitrate/Nitrite	3.4		mg/l	0.10	0.046	1	-	06/13/24 05:47	121,4500NO3-F	KAF
Total Organic Carbon	1.0		mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	0.080	J	mg/l	0.50	0.056	1	-	06/12/24 07:02	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	341.		mg/l	5.00	0.839	10	-	06/15/24 11:40	44,300.0	CVN
Sulfate	55.7		mg/l	1.00	0.454	1	-	06/15/24 15:06	44,300.0	CVN

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

SAMPLE RESULTS

Lab ID: L2432795-13
Client ID: MW-6-20240611
Sample Location: YONKERS, NY

Date Collected: 06/11/24 10:15
Date Received: 06/11/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Alkalinity, Total	110.		mg CaCO3/L	2.00	NA	1	-	06/16/24 11:09	121,2320B	MRW
Nitrogen, Nitrate/Nitrite	5.9		mg/l	0.10	0.046	1	-	06/13/24 05:52	121,4500NO3-F	KAF
Total Organic Carbon	0.36	J	mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Iron, Ferrous	ND		mg/l	0.50	0.056	1	-	06/12/24 07:02	121,3500FE-B	CAR
Anions by Ion Chromatography - Westborough Lab										
Chloride	367.		mg/l	5.00	0.839	10	-	06/15/24 11:53	44,300.0	CVN
Sulfate	40.1		mg/l	1.00	0.454	1	-	06/15/24 15:18	44,300.0	CVN

Project Name: 321 WARBURTON AVE.
Project Number: 2221378
Lab Number: L2432795
Report Date: 06/20/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 11-13 Batch: WG1933095-1										
Iron, Ferrous	ND		mg/l	0.50	0.056	1	-	06/12/24 07:01	121,3500FE-B	CAR
General Chemistry - Westborough Lab for sample(s): 11-13 Batch: WG1933613-1										
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.046	1	-	06/13/24 02:59	121,4500NO3-F	KAF
General Chemistry - Westborough Lab for sample(s): 11-13 Batch: WG1933621-1										
Total Organic Carbon	ND		mg/l	0.50	0.09	1	-	06/13/24 02:51	1,9060A	DEW
Anions by Ion Chromatography - Westborough Lab for sample(s): 11-13 Batch: WG1934806-1										
Chloride	0.242	J	mg/l	0.500	0.083	1	-	06/15/24 09:27	44,300.0	CVN
Sulfate	ND		mg/l	1.00	0.454	1	-	06/15/24 09:27	44,300.0	CVN
General Chemistry - Westborough Lab for sample(s): 11-13 Batch: WG1934939-5										
Alkalinity, Total	ND		mg CaCO3/L	2.00	NA	1	-	06/16/24 12:02	121,2320B	MRW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 321 WARBURTON AVE.

Project Number: 2221378

Lab Number: L2432795

Report Date: 06/20/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 11-13 Batch: WG1933095-2								
Iron, Ferrous	92		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 11-13 Batch: WG1933613-2								
Nitrogen, Nitrate/Nitrite	100		-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 11-13 Batch: WG1933621-2								
Total Organic Carbon	101		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 11-13 Batch: WG1934806-2								
Chloride	102		-		90-110	-		
Sulfate	99		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 11-13 Batch: WG1934939-6								
Alkalinity, Total	108		-		90-110	-		10

Matrix Spike Analysis
Batch Quality Control

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1933095-4 QC Sample: L2432795-11 Client ID: MW-2-20240611												
Iron, Ferrous	ND	1	0.92	92		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1933613-4 QC Sample: L2432940-01 Client ID: MS Sample												
Nitrogen, Nitrate/Nitrite	0.27	4	4.2	98		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1933621-4 QC Sample: L2432304-01 Client ID: MS Sample												
Total Organic Carbon	0.66	16	19	116		-	-		80-120	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1934806-3 QC Sample: L2433740-01 Client ID: MS Sample												
Chloride	14.2	4	17.6	**85**	Q	-	-		90-110	-		18
Sulfate	15.5	8	22.6	**89**	Q	-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1934939-8 QC Sample: L2431182-01 Client ID: MS Sample												
Alkalinity, Total	26.9	100	125	98		-	-		86-116	-		10

Lab Duplicate Analysis
Batch Quality Control

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1933095-3 QC Sample: L2432795-11 Client ID: MW-2-20240611						
Iron, Ferrous	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1933613-3 QC Sample: L2432940-01 Client ID: DUP Sample						
Nitrogen, Nitrate/Nitrite	0.27	0.23	mg/l	16		20
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1933621-3 QC Sample: L2432304-01 Client ID: DUP Sample						
Total Organic Carbon	0.66	0.58	mg/l	13		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1934806-4 QC Sample: L2433740-01 Client ID: DUP Sample						
Chloride	14.2	14.2	mg/l	0		18
Sulfate	15.5	15.6	mg/l	1		20
General Chemistry - Westborough Lab Associated sample(s): 11-13 QC Batch ID: WG1934939-7 QC Sample: L2431182-01 Client ID: DUP Sample						
Alkalinity, Total	26.9	26.4	mg CaCO3/L	2		10

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2432795-01A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-01B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-01C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-02A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-02B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-02C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-03A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-03B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-03C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-04A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-04B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-04C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-05A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-05B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-05C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-06A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-06B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-06C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-07A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-07B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-08A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-08B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-08C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2432795-09A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-09B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-09C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-10A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-10B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L2432795-11A	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-11B	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-11C	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-11D	Plastic 250ml unpreserved/No Headspace	A	NA		2.2	Y	Absent		ALK-T-2320(14)
L2432795-11E	Plastic 250ml unpreserved	A	7	7	2.2	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)
L2432795-11F	Plastic 250ml HNO3 preserved	A	<2	<2	2.2	Y	Absent		HARDT-6020(180)
L2432795-11G	Plastic 250ml H2SO4 preserved	A	<2	<2	2.2	Y	Absent		NO3/NO2-4500(28)
L2432795-11H	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.2	Y	Absent		SUB-SULFIDE()
L2432795-11I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.2	Y	Absent		SUB-SULFIDE()
L2432795-12A	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-12B	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-12C	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-12D	Plastic 250ml unpreserved/No Headspace	A	NA		2.2	Y	Absent		ALK-T-2320(14)
L2432795-12E	Plastic 250ml unpreserved	A	7	7	2.2	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)
L2432795-12F	Plastic 250ml HNO3 preserved	A	<2	<2	2.2	Y	Absent		HARDT-6020(180)
L2432795-12G	Plastic 250ml H2SO4 preserved	A	<2	<2	2.2	Y	Absent		NO3/NO2-4500(28)
L2432795-12H	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.2	Y	Absent		SUB-SULFIDE()
L2432795-12I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.2	Y	Absent		SUB-SULFIDE()
L2432795-13A	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-13B	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-13C	Vial H2SO4 preserved	A	NA		2.2	Y	Absent		TOC-9060(28)
L2432795-13D	Plastic 250ml unpreserved/No Headspace	A	NA		2.2	Y	Absent		ALK-T-2320(14)
L2432795-13E	Plastic 250ml unpreserved	A	7	7	2.2	Y	Absent		SO4-300(28),CL-300(28),FERROUS(1)

*Values in parentheses indicate holding time in days

Project Name: 321 WARBURTON AVE.
Project Number: 2221378

Lab Number: L2432795
Report Date: 06/20/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2432795-13F	Plastic 250ml HNO3 preserved	A	<2	<2	2.2	Y	Absent		HARDT-6020(180)
L2432795-13G	Plastic 250ml H2SO4 preserved	A	<2	<2	2.2	Y	Absent		NO3/NO2-4500(28)
L2432795-13H	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.2	Y	Absent		SUB-SULFIDE()
L2432795-13I	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.2	Y	Absent		SUB-SULFIDE()

*Values in parentheses indicate holding time in days

Project Name:	321 WARBURTON AVE.	**Lab Number:**	L2432795
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GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

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

Terms

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

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

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

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

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

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Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	321 WARBURTON AVE.	**Lab Number:**	L2432795
Project Number:	2221378	**Report Date:**	06/20/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 6/12/24

ALPHA Job #: L2432795

Client Information

Client: LaBella Associates
Address: 45 Main St Suite 1018
Brooklyn, NY 11201
Phone: 516-225-0396
Fax:
Email: cchu@labellapc.com

Project Information

Project Name: 321 Warburton Ave
Project Location: Yonkers, NY
Project #: 2221378
(Use Project name as Project #) ☐
Project Manager: Cynthia Chu
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☑ ASP-B
☑ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☑ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

TCL Volatiles - EPA 8260D

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL Volatiles	Sample Specific Comments
32795-01	MW-2 (60')	6-11-24	8:40	W	TTH	X	
02	MW-2 (66')		8:45			X	
03	MW-2 (73.5')		8:50			X	
04	MW-4 (59')		9:10			X	
05	MW-4 (66.5')		9:15			X	
06	MW-4 (73.5')		9:20			X	
07	MW-6 (56')		8:00			X	
08	MW-6 (65')		8:05			X	
09	MW-6 (73.5')		8:10			X	
10	TRIP BLANK						

Container Type: V
Preservative: A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	6-11-24	WIFI Pace	6/11/24 17:43
WIFI (Pace)	6/11/24 19:00		6/11/24 19:20
	6/11/24		6/11 2200
	6/12 120		6/12/24 0120

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

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 6/12/24

ALPHA Job #: L2432795

Client Information
Client: LaBella Associates
Address: 45 Main St Suite 1018
Brooklyn, NY 11201
Phone: 516-225-0396
Fax:
Email: cchu@labellapc.com

Project Information
Project Name: 321 Warburton Ave
Project Location: Yonkers, NY
Project #: 2221378
(Use Project name as Project #)
Project Manager: Cynthia Chu
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☑ ASP-B
☑ EQuIS (1 File) ☑ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Total Alkalinity - SM2320	Chloride by IC - EPA 300.0	Sulfide - SM 4500	Sulfate, IC - EPA 300.0	Ferrous Iron - SM 3500	Total organic carbon - EPA 9060A	Total Hardness by EPA 6020B	NO3/NO2 combined analysis	Sample Specific Comments	Total Bottle
32795-11	MW-2-20240611	6-11-24	8:41	W	TBH	X	X	X	X	X	X	X	X		
12	MW-4-20240611	↓	11:35	↓	TBH	X	X	X	X	X	X	X	X		
13	MW-6-20240611	↓	10:15	↓	TBH	X	X	X	X	X	X	X	X		

Container Type: P P P P P V P P
Preservative:

Preservative Code: A = None; B = HCl; C = HNO_3; D = H_2SO_4; E = NaOH; F = MeOH; G = $NaHSO_4$; H = $Na_2S_2O_3$; K/E = Zn Ac/NaOH; O = Other

Container Code: P = Plastic; A = Amber Glass; V = Vial; G = Glass; B = Bacteria Cup; C = Cube; O = Other; E = Encore; D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	6-11-24	WIFI Pace	6/11/24 17:43
WIFI (Pace)	6/11/24 19:00		6/11/24 2200
	6/11/24 8:12 120		6/12/24 0120

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

Form No: 01-25 HC (rev. 30-Sept-2013)

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

June 18, 2024

Reports
Alpha Analytical
8 Walkup Drive
Westborough, MA 01581

RE: Project: L2432795
Pace Project No.: 70301493

Dear Reports:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Melville

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Brianna D. Rivera
brianna.rivera@pacelabs.com
516-370-6007
Project Manager

Enclosures

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

CERTIFICATIONS

Project: L2432795
Pace Project No.: 70301493

Pace Analytical Services Long Island
575 Broad Hollow Rd, Melville, NY 11747
Connecticut Certification #: PH-0435
Delaware Certification # NY 10478
Maryland Certification #: 208
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987
New Jersey Certification #: NY158
New York Certification #: 10478 Primary Accrediting Body
Pennsylvania Certification #: 68-00350
Rhode Island Certification #: LAO00340
Virginia Certification # 460302

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

SAMPLE SUMMARY

Project: L2432795
Pace Project No.: 70301493

Lab ID	Sample ID	Matrix	Date Collected	Date Received
70301493001	**MW-2-20240611**	Water	06/11/24 08:41	06/13/24 08:00
70301493002	**MW-4-20240611**	Water	06/11/24 11:35	06/13/24 08:00
70301493003	**MW-6-20240611**	Water	06/11/24 10:15	06/13/24 08:00

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

SAMPLE ANALYTE COUNT

Project: L2432795
Pace Project No.: 70301493

Lab ID	Sample ID	Method	Analysts	Analytes Reported
70301493001	**MW-2-20240611**	SM22 4500-S2 F	CEA	1
70301493002	**MW-4-20240611**	SM22 4500-S2 F	CEA	1
70301493003	**MW-6-20240611**	SM22 4500-S2 F	CEA	1

PACE-MV = Pace Analytical Services - Melville

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

ANALYTICAL RESULTS

Project: L2432795
Pace Project No.: 70301493

Sample: MW-2-20240611 **Lab ID: 70301493001** Collected: 06/11/24 08:41 Received: 06/13/24 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2F W Sulfide Iodometric	Analytical Method: SM22 4500-S2 F Pace Analytical Services - Melville								
Sulfide	**<2.0**	mg/L	2.0	0.20	1		06/17/24 15:07		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

ANALYTICAL RESULTS

Project: L2432795
Pace Project No.: 70301493

Sample: MW-4-20240611 **Lab ID: 70301493002** Collected: 06/11/24 11:35 Received: 06/13/24 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2F W Sulfide Iodometric	Analytical Method: SM22 4500-S2 F Pace Analytical Services - Melville								
Sulfide	**<2.0**	mg/L	2.0	0.20	1		06/17/24 15:08		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

ANALYTICAL RESULTS

Project: L2432795
Pace Project No.: 70301493

Sample: MW-6-20240611 **Lab ID: 70301493003** Collected: 06/11/24 10:15 Received: 06/13/24 08:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2F W Sulfide Iodometric	Analytical Method: SM22 4500-S2 F Pace Analytical Services - Melville								
Sulfide	**<2.0**	mg/L	2.0	0.20	1		06/17/24 15:09		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

QUALITY CONTROL DATA

Project: L2432795
Pace Project No.: 70301493

QC Batch: 351937
QC Batch Method: SM22 4500-S2 F
Analysis Method: SM22 4500-S2 F
Analysis Description: 4500S2F W Sulfide Iodometric
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70301493001, 70301493002, 70301493003

METHOD BLANK: 1822674 Matrix: Water
Associated Lab Samples: 70301493001, 70301493002, 70301493003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	2.0	0.20	06/17/24 14:52	

LABORATORY CONTROL SAMPLE & LCSD: 1822675 1822701

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Sulfide	mg/L	14	14.0	14.0	100	100	85-115	0	20	

LABORATORY CONTROL SAMPLE & LCSD: 1822675 1822702

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Sulfide	mg/L	14	14.0	14.0	100	100	85-115	0	20	

LABORATORY CONTROL SAMPLE & LCSD: 1822675 1822703

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Sulfide	mg/L	14	14.0	14.0	100	100	85-115	0	20	

LABORATORY CONTROL SAMPLE & LCSD: 1822675 1822704

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Sulfide	mg/L	14	14.0	14.0	100	100	85-115	0	20	

SAMPLE DUPLICATE: 1822678

Parameter	Units	70301297003 Result	Dup Result	RPD	Max RPD	Qualifiers
Sulfide	mg/L	<0.20	<2.0		20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

QUALIFIERS

Project: L2432795
Pace Project No.: 70301493

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
516-370-6000

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: L2432795
Pace Project No.: 70301493

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70301493001	**MW-2-20240611**	SM22 4500-S2 F	351937		
70301493002	**MW-4-20240611**	SM22 4500-S2 F	351937		
70301493003	**MW-6-20240611**	SM22 4500-S2 F	351937		

WO# : 70301493

70301493

World Class Chemistry

Subcontract Chain of Custody

Pace Analytical (Melville)
575 Broad Hollow Road
Melville, NY 11747

Alpha Job Number
L2432795

Client Information

Client: Alpha Analytical Labs
Address: Eight Walkup Drive
Westborough, MA 01581-1019

Phone: 201.428.2601
Email: Nicole.Galamb@pacelabs.com

Project Information

Project Location: NY
Project Manager: Nicole Galamb

Turnaround & Deliverables Information

Due Date:
Deliverables:

Regulatory Requirements/Report Limits

State/Federal Program:

Regulatory Criteria: NY-AWQS

Project Specific Requirements and/or Report Requirements

Reference following Alpha Job Number on final report/deliverables: L2432795

Report to include Method Blank, LCS/LCSD:

Additional Comments: Invoices to: invoices@pacelabs.coupahost.com Reports to: west.subreports@pacelabs.com

Lab ID	Client ID	Collection Date/Time	Sample Matrix	Analysis	Batch QC
	MW-2-20240611	06-11-24 08:41	WATER	Sulfide	
	MW-4-20240611	06-11-24 11:35	WATER	Sulfide	
	MW-6-20240611	06-11-24 10:15	WATER	Sulfide	

	Relinquished By:	Date/Time:	Received By:	Date/Time:
	[signature]	6/12/24	[signature]	6/12 1800
	[signature]	6/12 2200	[signature]	6/14 22:10
	[signature]	6/14/24	Adam Joyce Pace	6/13 4:10
Form No: AL_subcoc	Paul Joyce	6/13 8:00	[signature]	6/13/24, 8:10

DC#_Title: Excel Form Template
Effective Date:

WO#: 70301493
PM: BDR **Due Date: 06/20/24**
CLIENT: ALPHA

Client Name: Alpha Project

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☒ No Temperature Blank Present: ☐ Yes ☒ No
Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ Ziplo ☒ None ☐ Other Type of Ice: (Wet) Blue None

Thermometer Used: TH211 Correction Factor: -0.1 ☐ Samples on ice, cooling process has begun
Cooler Temperature(°C): 2.6 Cooler Temperature Corrected(°C): 2.5 Date/Time 5035A kits placed in freezer _____
Temp should be above freezing to 6.0°C

USDA Regulated Soil (☒ N/A, water sample)

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ Ye ☐ No

Did samples orignate from a foreign source including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MELV-0076) and include with SCUR/COC paperwork.

Date and Initials of person examining contents: WK 6/13/24

				COMMENTS:
Chain of Custody Present:	☑Yes	☐No		1.
Chain of Custody Filled Out:	☑Yes	☐No		2.
Chain of Custody Relinquished:	☑Yes	☐No		3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No		5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No		6.
Rush Turn Around Time Requested	☐Yes	☑No		7.
Sufficient Volume: (Triple volume provided for MS/MSD)	☑Yes	☐No		8.
Correct Containers Used:	☑Yes	☐No		9.
-Pace Containers Used:	☑Yes	☐No		
Containers Intact:	☑Yes	☐No		10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11. Note: if sediment is visible in the dissolved container.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: SL WT OIL OTHER	☑Yes	☐No		12.

Date and Initials of person checking preservation: SH 6/13/24

All containers needing preservation have been checked.	☐Yes	☐No	☑N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				Sample #
All containers needing preservation are found to be in compliance with method recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	☐Yes	☐No	☑N/A	
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
SM 4500 CN samples checked for sul	☐Yes	☐No	☑N/A	15.
Lead Acetate Strips Lot #				Positive for Sulfide? Y N
Headspace in ALK Bottle (>6mm):	☐Yes	☐No	☑N/A	
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	16.
Trip Blank Present:	☐Yes	☐No	☑N/A	17.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	

Client Notification/ Resolution: Field Data Required? Y / N
Person Contacted: Date/Time:
Comments/ Resolution:

* PM (Project Manager) review (which includes the SCUR) is documented electronically in LIMS.

Pace Analytical Services, LLC-Fairfield

General Chemistry - Quality Control

Sulfide		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch BBF0907			Prepared & Analyzed: 6/17/2024							
BBF0907-BLK1		ND	0.0100	mg/L						
BBF0907-BS1		0.363	0.0100	mg/L	0.400		90.8	80-120		
BBF0907-DUP1	**Source: 24F0844-01**	0.0220	0.0100	mg/L		0.0220			0.00	20
BBF0907-MS1	**Source: 24F0844-01**	0.271	0.0100	mg/L	0.400	0.0220	62.2*	70-130		
BBF0907-MSD1	**Source: 24F0844-01**	0.277	0.0100	mg/L	0.400	0.0220	63.8*	70-130	2.19	20

8 8.1.

ND - Indicates compound analyzed for but not detected
J - Indicates estimated value
B - Indicates compound found in associated blank
E - Concentration exceeds highest calibration standard

D - Indicates result is based on a dilution
H - Indicates a Hold Time violation
P - Greater than 25% diff. between 2 GC columns.
MDL - Minimum detection limit, **RL** - Reporting limit

F-III

APPENDIX E

Groundwater Sampling Field Logs

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-1

Project Name: Warburton Dry Cleaners Site
Location: 321 Warburton Ave, Yonkers NY
Project No.: 2221378
Sampled By: TBH/WC
Date: 06/10/2024
Weather: 70°F Sunny

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	42.36 ft bgs
Depth of Well:		Length of Well Screen:	
Measuring Point:	Top of casing	Depth to Top of Pump:	
Pump Type:	Bladder pump	Tubing Type:	¼” HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
10:43			16.2	2.20	1.701	10.60	16.1	74.0	42.36		
10:46			16.0	0.71	1.688	8.60	-99.1	48.8			
10:49			15.8	0.68	1.714	8.00	-99.0	26.3			
10:52		2.5	16.1	0.62	1.713	7.93	-89.8	15.20			
10:55			16.1	0.60	1.816	7.65	-80.0	10.0	43.64		

Total 2.5 Gallons Purged

Purge Time Start: 10:43 Purge Time End: 11:15 Final Static Water Level: 43.64’

OBSERVATIONS

Sampled at 10:57
DUP collected

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-1D

Project Name: Warburton Dry Cleaners Site
Location: 321 Warburton Ave, Yonkers, NY
Project No.: 2221378
Sampled By: TBH/WC
Date: 06/10/2024
Weather: 70°F Sunny

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 72.6’
Measuring Point: Top of casing
Pump Type: Bladder pump

Static Water Level: 41.9 ft bgs
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: ¼” HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
9:42			15.1	5.66	1.657	7.60	94.9	172	41.9		
9:45			15.1	5.58	1.664	7.00	97.5	94.0			
9:50		2	15.0	5.93	1.674	6.74	101.5	78.9			
9:54			15.7	5.50	1.672	6.52	108.0	25.11			
9:57			15.2	5.48	1.673	6.49	110.9	14.63	42.4		
10:00			15.1	5.41	1.673	6.47	112.6	8.43			
10:03		4	15.0	5.35	1.674	6.45	116.4	5.70			
10:05			14.8	5.32	1.674	6.41	118.4	6.80			

Total 5 Gallons Purged

Purge Time Start: 9:42 Purge Time End: 10:12 Final Static Water Level: 42.4 ft bgs

OBSERVATIONS

Sampled at 10:07

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-2

Project Name: Warburton Dry Cleaners Site
Location: 321 Warburton Ave, Yonkers, NY
Project No.: 2221378
Sampled By: TBH/WC
Date: 06/11/2024
Weather: 75°F Sunny

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 76’
Measuring Point: Top of casing
Pump Type: Bladder pump

Static Water Level: 59.0 ft bgs
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: ¼” HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
9:35			15.1		1.101	6.45	48.6	1000	59		
9:40		3	15.0		1.098	6.45	33.6	761			YSI restart 02 calibration
9:55			16.1	43.0	0.940	6.70	149.2	110	59.8		
9:58			15.9	3.85	0.938	6.33	140.4	30.6			
10:01		5	15.8	3.80	0.935	6.13	132.7	15.9			
10:04			15.9	3.78	0.937	6.04	127.2	10.8			
10:07			15.9	3.78	0.934	6.00	123.4	7.5	61.2		
10:10		7	16.1	3.76	0.936	5.97	121.4	5.27			
10:13			16.4	3.75	0.938	5.95	120.7	4.89			

Total 7 Gallons Purged

Purge Time Start: 9:35 Purge Time End: 10:20 Final Static Water Level: 61.2 ft bgs

OBSERVATIONS

Sample collected at 10:15 AM.

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-3

Project Name: Warburton Dry Cleaners Site
Location: 321 Warburton Ave, Yonkers, NY
Project No.: 2221378
Sampled By: TBH/WC
Date: 06/10/2024
Weather:

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well:
Measuring Point: Top of casing
Pump Type: Bladder pump

Static Water Level: 29.8 ft bgs
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: ¼” HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
8:53			15.0	1.50	511	8.21	16.5	195.55	29.8		
8:56			14.6	0.59	508	8.28	-30.3	370.2			
8:59			14.8	0.42	499.2	8.37	-48	392.2			
9:02			14.8	0.37	496.5	8.42	-59.1	372.4		Dried up	
9:05				0.24	530	8.03	-79.8	163.8			
9:48			15.0	2.02	636	7.93	-79.2	44.69	37.8		
9:51			15.7	0.69	591	7.88	-91.1	62.4			
10:18			15.3	1.21	703	7.85	-90.8	31.14			
10:30			15.8	1.94	749	7.72	-61.8	398.4			
10:33			16.5	0.79	691	7.76	-98.6	168.4			
10:36			17.1	1.12	657	7.83	-80.7	128.5			
10:39		5	17.2	0.78	661	7.81	-82.33	81.60	37.5		
11:20			15.8	2.62	856	7.67	-134.3	9.42			
11:23			15.9	0.96	806	7.59	-152.8	15.8			
11:26			16.6	0.97	793	7.63	-138.4	28.6			
11:29			17.1	1.34	782	7.66	-109	25.14			
11:32			18.0	1.40	787	7.64	-106.2	19.92			
11:35			16.7	1.28	794	7.63	-109.9	17.25			
11:38			17.1	1.39	757	7.66	-100.0	19.69			
11:41		10	17.5	1.50	746	7.67	-98.3	20.67			
11:44			18.0	1.40	755	7.65	-104.2	22.46			

Total 10 Gallons Purged

Purge Time Start: 8:53 Purge Time End: 11:50 Final Static Water Level: 37.5 ft bgs

OBSERVATIONS

Sample collected at 11:45

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-4

Project Name: Warburton Dry Cleaners Site
Location: 321 Warburton Ave, Yonkers, NY
Project No.: 2221378
Sampled By: TBH/WC
Date: 06/11/2024
Weather: 75°F Sunny

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	58.35 ft bgs
Depth of Well:		Length of Well Screen:	
Measuring Point:	Top of casing	Depth to Top of Pump:	
Pump Type:	Bladder pump	Tubing Type:	¼” HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
11:15		4	15.5	2.46	1.633	7.15	32.0	53.44	58.35		
11:18			15.8	2.25	1.646	6.96	9.60	47.64			
11:21			15.6	2.34	1.666	6.86	6.6	18.55			
11:24		7	15.5	2.64	1.689	6.71	11.0	15.20			
11:27			15.6	2.95	1.711	6.73	5.6	14.89			
11:30			15.6	2.95	1.725	6.66	5.8	11.85			
11:33			15.7	2.85	1.723	6.64	3.2	10.01			

Total 9 Gallons Purged

Purge Time Start: 11:10 Purge Time End: 11:40 Final Static Water Level:

OBSERVATIONS

Sampled at 11:35

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-5

Project Name: Warburton Dry Cleaners Site
Location: 321 Warburton Ave, Yonkers, NY
Project No.: 2221378
Sampled By: TBH/WC
Date: 06/10/2024
Weather: 70 F Sunny

WELL SAMPLING INFORMATION

Well Diameter: 2”
Depth of Well: 76.7’
Measuring Point: Top of casing
Pump Type: Bladder pump

Static Water Level: 33.8 ft bgs
Length of Well Screen:
Depth to Top of Pump:
Tubing Type: ¼”HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
11:56			16.5	2.68	1.009	10.7	-144.8	10.08	33.8		
11:59			14.7	3.22	1.597	8.08	32.1	6.66			
12:02			14.9	3.24	1.606	6.90	10.2	3.91			
12:04			14.8	3.40	1.610	6.70	4.9	3.27			
12:06		2	14.8	3.63	1.618	6.60	19.3	3.67			
12:08			14.8	3.92	1.627	6.51	28.2	3.74			
12:10			14.8	4.07	1.630	6.42	33.2	3.80			
12:12			14.6	4.27	1.630	6.39	40.3	24.0			
12:14		3	14.6	4.35	1.625	6.38	36.3	25.1			
12:16			14.6	4.44	1.629	6.39	28.2	26.1			
12:18			14.6	4.50	1.633	6.38	30.3	28.8			

Total 3.5 Gallons Purged

Purge Time Start: 11:56 Purge Time End: 12:25 Final Static Water Level: 33.83 ft bgs

OBSERVATIONS

Sampled at 12:20

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300 State Street
Rochester, New York 14614
Telephone: (585) 454-6110
Facsimile: (585) 454-3066

WELL I.D.: MW-6

Project Name: Warburton Dry Cleaners Site
Location: 321 Warburton Ave, Yonkers NY
Project No.: 2221378
Sampled By: TBH/WC
Date: 6/11/24
Weather: 75° F Sunny

WELL SAMPLING INFORMATION

Well Diameter:	2”	Static Water Level:	55.55 ft bgs
Depth of Well:	76’	Length of Well Screen:	20’
Measuring Point:	Top of casing	Depth to Top of Pump:	
Pump Type:	Bladder pump	Tubing Type:	1/4” HDPE

FIELD PARAMETER MEASUREMENT

Time	Pump Rate (mL/min)	Gallons Purged	Temp °C	Dissolved O_2 (mg/L) + 10%	Conductivity (mS/cm) +/- 3%	pH +/- 0.1	Redox (mV) +/- 10 mV	Turbidity (NTU) + 10%	Depth to Water Ft. BGS		Comments
8:25		4	14.4	4.72	1.599	6.26	-30.1	71.3	55.55		
8:28			14.4	5.65	1.621	6.27	-12.8	49.0			
8:31			14.4	5.70	1.629	6.27	-10.1	40.54			
8:33			14.6	5.84	1.632	6.28	-5.9	31.54			
8:36		5	14.6	6.01	1.639	6.28	-3.2	28.74			
8:39			14.7	6.14	1.642	6.29	-1.0	28.56	55.56		

Total 5 Gallons Purged

Purge Time Start: 8:25 Purge Time End: 8:44 Final Static Water Level: 55.56 ft bgs

OBSERVATIONS

Sampled at 8:41

APPENDIX F

Provect-IR60® Specifications

OVERVIEW

Provect-IR® *In Situ* Chemical Reduction (ISCR) reagent is designed to treat persistent organic and/or inorganic contaminants present in the subsurface environment. As developers of the conventional ISCR amendments, scientists now at Provectus know that Provect-IR is a more efficient, and safer amendment. It is unique in its composition:

- Zero Valent Iron: Up to 85% (weight basis), site-specific particle sizes
- Integrated Vitamins, minerals, and nutrients (yeast extract) specially selected for anaerobes
- Chemical oxygen scavenger to maintain reduced condition
- Multiple, Complex, Hydrophilic, Timed-Release organic carbon sources (plant materials, Kelp, Calcium Propionate) @ 390 g H donor / lb product
- Natural, food-grade methane inhibitors to increase safety and efficiency

MATERIAL PACKAGING, HANDLING AND STORAGE

Provect-IR can be specially formulated to meet site-specific needs. The standard formulation contains 40% ZVI and is packaged as a dry powder in 50-lb easy-open (no sharps), polyethylene-lined, recycled paper bags or, upon request, in 2,000 lb supersacks. Typical shipments entail multiple units of 4x4 wooden pallets containing 40 bags x 50 lbs/ bag = 2,000 lbs reagent per pallet. Each pallet is neatly wrapped in water-resistant plastic, but direct exposure to rain should be avoided.

GENERAL HEALTH AND SAFETY GUIDELINES

Provect-IR is non-hazardous and safe to handle. The use of standard personal protective equipment is always recommended, including safety glasses, steel-toe boots, gloves, hearing protection (in the proximity of loud machinery) and hard hats. Dust mask may be desired when working with the material under certain conditions. The SDS is posted on our web site.

SLURRY PREPARATION

Provect-IR is mixed with clean water on site to yield an aqueous slurry (see **Table 1** for field mixing guidelines). Experienced injection contractors can manage (mix, transport/pump, and inject) slurry containing between 20% and 30% solids (defined as the mass of dry Provect-IR divided by the total mass of slurry, including the water). For situations where more volume is desired, slurry density can be decreased (e.g., using a thinner slurry). Conversely, for situations where less volume is required (for example to minimize surfacing issues), thicker slurry with higher

solids can be applied. A slurry containing *ca.* 30% solids will have the following general characteristics:

- Wet Density = 0.9 to 1.1 g/cm^3
- Dry Density = 0.3 to 0.4 g/cm^3
- Viscosity = 500 to 1,500 c P

TABLE 1. FIELD GUIDE FOR MAKING SLURRY

per 50 pound bag		per 25 kg bag	
Target weight %	**USG water required**	**Target weight %**	**Liters water required**
15	34	15	142
20	24	20	100
22	21	22	89
24	19	24	79
26	17	26	71
28	15	28	64
30	14	30	58
32	13	32	53
34	12	34	49
36	11	36	44

APPLICATION TECHNIQUES

Provect-IR has been employed for source area treatment, plume treatment and/or plume management using permeable reactive barrier (PRBs). The choice of installation method will depend on the site-specific conditions, including treatment depth and geology. The most practiced *in situ* application method has been direct injection of aqueous slurry.

Provect-IR® slurry containing 10 to 35% solids has been added to numerous aquifers using a variety of injection methods, including hydraulic fracturing, pneumatic fracturing, and direct

injection. It can also be added via direct soil mixing using a wide range of equipment, or it can be placed directly into an open excavation or trench.

GENERAL GUIDELINES FOR DIRECT PUSH INJECTION OF AQUEOUS SLURRY

Mixing Equipment: Reagent slurry has been prepared in various ways, ranging from in-line automated mixing systems, to manual mixing using a hand-held drill with a mixing attachment, to more creative processes. Particularly for larger projects, experienced drillers will have some form of mechanical mixing system on site that includes a tank with a paddle-type mixer at the bottom. The slurry is then transferred to a feed tank connected to an injection pump so that slurry can be prepared continuously while injections are being performed (see example, ChemGrout mixing system). Slurry mixes quickly in these systems (<1 minute), and injections can proceed without interruption.

Pumps: Experienced drillers will have a variety of pumping equipment on site. For injecting slurries, an injection pump capable of generating at least 300 psi of pressure at a flow rate of >5 gpm is desired. Obviously, the pump needs to be able to handle solids, such as piston pumps, grout pumps, and progressing cavity pumps - with a preference towards the piston and grout pumps. Slurry is typically injected at pressures of 100 to 200 psi; however, higher pressures are sometimes required to initiate the injection. It is recommended to have a higher pressure pump available on site that can generate over 500 psi and ca. >10 gpm, as deeper installations often require higher injection pressures.

Tooling. Experienced drillers will have sufficient rod length on site to allow 3 to 5 injection points to be capped overnight to allow pressure to dissipate. This can help prevent backflow and surfacing of slurry as the injection rods are retracted. Likewise, experienced drillers will have on hand a variety of injection tips, some that direct the slurry horizontally (see for example GeoProbe's pressure activated tip).

In a “top-down” injection approach, the rods are initially advanced to the top of the targeted depth interval, and a specified volume of slurry is injected while recording flow rate, injection pressure, and slurry volume delivered. The injection rods are then further advanced a distance ranging 2 to 4 feet and the process is repeated to help ensure even distribution of slurry over the targeted depth interval. At the end of each injection point, a small volume of water (15 USG) is often used to clear the rods and the injection tip of any slurry.

CONTACT US FOR A SITE EVALUATION

PROVECTUS ENVIRONMENTAL PRODUCTS, INC.

PO BOX 358 | Freeport, IL 61032

Tel: (815) 650-2230 | Email: info@ProvectusEnv.com

Provect-IR® ISCR Reagent

Provect-IR® is a unique mixture of reagents combined into a single product that optimizes the *in situ* reductive dechlorination of chemicals present in soil, sediment, and groundwater. It acts by promoting synergistic interactions between:

- Natural antimethanogenic compounds
- Hydrophilic, nutrient rich organic carbon sources
- Zero-Valent Iron (ZVI)
- Chemical oxygen scavengers
- Vitamin and mineral sources

This distinctive, patented combination of natural and food-grade chemicals promotes *in situ* chemical reduction (ISCR) conditions for fast and effective destruction of targeted constituents of interest (COIs) such as chlorinated solvents, organochlorine pesticides, and other halogenated compounds (Brown *et al.*, 2009; Dolfing *et al.*, 2008; US Patent Office Scalzi *et al* 2012). Notably, Provect-IR® is the only ISCR reagent to simultaneously inhibit the production of methane during the requisite carbon fermentation processes (US Patent Office Scalzi *et al*, 2013, 2014). This promotes more efficient use of the hydrogen donor while avoiding negative issues associated with elevated methane (CH4) in groundwater, soil gas, and indoor air.

Current regulations for methane in groundwater vary from ca. 10 to 28 mg CH4/L (Indiana Department of Environmental Management, 2014). More State regulations are pending, with several enhanced reductive dechlorination (ERD) projects which intended to use liquid carbon (emulsified oils) sources failing to receive regulatory approval due to issues associated with excessive production of methane during previous technology applications (Personal Communication - State of California; State of Minnesota). Many remedial practitioners have subsequently been required to establish contingencies for conventional ERD/ISCR implementation if methane exceeds a threshold level ranging from 1 ppm to 10 ppm groundwater. These contingencies often entail expensive and extensive systems for capturing and treating methane in soil gas/vapor captured via SVE systems.

MODE OF ACTION – HOW DOES IT WORK?

What is a Methanogen? In the 1970s, Dr. Carl Woese (1928 to 2012) and his colleagues at the University of Illinois - Urbana studied prokaryotic relationships using DNA sequences and they found that microbes that produce methane – or methanogens - are Archaea (Woese and Fox, 1977). The identification of this new Domain of microorganism was very important for many reasons, but from our limited perspective herein this vast difference in genetic composition means that methanogens are significantly different from typical heterotrophic bacteria and eukaryotes. In other words, *Dehalococcoides* ethenogenes are as different from methanogens as you are.

What is a Statin? A statin can be defined as "a class of lipid-lowering drugs that reduce serum cholesterol levels by inhibiting a key enzyme involved in the biosynthesis of cholesterol". Lovastatin is a widely known, potent statin used for decades to lower cholesterol in human blood by inhibiting 3-hydro-3-methylglutaryl-coenzyme A (HMG-CoA) reductase, which is a key enzyme in the cholesterol biosynthesis pathway (Alberts et al., 1980). It was the first statin approved by the United States Food and Drug Administration in 1987 as a hypercholesterolemic drug.

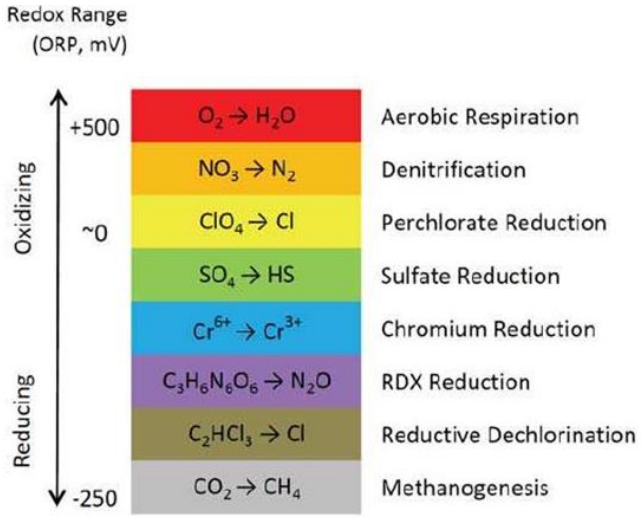
What is Red Yeast (Rice) Extract? The red yeast rice (RYR) extract that is component of Provect-IR® is a substance extracted from rice that has been fermented with a type of yeast called Monascus purpureus. Red yeast extract is used as a food coloring, food additive/preservative, and is widely consumed by humans. The RYR extract contains a number of monacolins - most importantly, Monacolin K, otherwise known as Lovastatin or Mevinolin. Monacolin K is the only naturally occurring statin compound. In addition to Monacolin K, RYR extract also contains mono-unsaturated fatty acids and other vitamins that will effectively stimulate anaerobic bacteria in the subsurface.

So - How Does a Statin Inhibit a Methanogen? Interestingly, Monacolin K is a potent inhibitor of methanogenic archaea because cell membrane production in archaea shares a similar pathway with cholesterol biosynthesis (Miller and Wolin, 2001). And since methanogens are so uniquely different than bacteria, the inhibitory effect is not observed in microbes that are typically associated with: i) catabolism of organic contaminants (such as pseudomonas species) and/or, ii) halo-respiration/biodegradation of chlorinated solvents (such as *Dehalococcoides* species). RYR has been used in the cattle industry for decades in efforts to manage rumen microbiology and control methane production in cows.

ATTENUATION PROCESSES – SAFER, MORE EFFICIENT ISCR TREATMENT

In situ chemical reduction as defined by Dolfing et al (2008) describes the combined effect of stimulated biological oxygen consumption (via fermentation of an organic carbon source), direct chemical reduction with ZVI or other reduced metals. The corresponding enhanced thermodynamic decomposition reactions that are realized at the lowered redox (Eh) conditions allow for more effective mineralization of many COIs.

Several ERD substrates and other accelerated anaerobic bioremediation technologies exist (e.g., emulsified oils, non-emulsified oils, carbon-based hydrogen release compounds, vegetable matter + ZVI amendments) that purportedly offer similar responses. However, the Provect-IR® antimethanogenic ISCR substrate is unique in its ability to yield Eh values most conducive to reductive dechlorination while simultaneously preventing methane production - which is a waste of the H being generated and potentially a safety issue under field conditions.



Provect-IR® uniquely combines RYR extract with of a variety of specially selected reagents in order to induce genuine ISCR conditions and facilitate the destruction of targeted COIs in a safer, more efficacious manner. As outlined below, it can be used to manage environments impacted by chlorinated solvents, pesticides, heavy metals and other COIs.

Specially Selected Organic Hydrogen Donors: A variety of hydrophilic, nutrient rich organic carbon sources are incorporated in Provect-IR® that assist in promoting the ISCR process. The Provect-IR bioremediation amendments consist of slow, medium and long-term release carbon sources. Such a formulation is desirable because it provides both a rapidly utilized electron donor (calcium propionate), slow-release long-term electron donors (kelp meal and yeast extract) and long-term release carbon sources (other cellulose and hemi-cellulose carbon such as soy meal). More specifically,

- Calcium propionate and other readily biodegradable carbon sources: Following the addition of simple carbon sources such as lactate, formate, ethanol or glucose to an aquifer setting these compounds are often converted rapidly to hydrogen and acetate. Although this is the desired response, the process is sometimes too rapid, and this can result in aquifer acidification (due to rapid VFA production) and the liberation of too much hydrogen (which allows methanogens and sulfate reducers to compete effectively with dehalogenators, which tend to grow more slowly). Hence, calcium propionate is used as a readily biodegradable carbon source.
- Yeast extract: This supplement provides a variety of organic hydrogen donors that have slower release profiles (i.e., they are not fermented as rapidly as proprionate). Yeast extract also contains biological components that are very useful to anaerobes, but are not available through other carbon-only media. In particular, yeast extract provides an abundant source of priming ATPase along with trace nutrients and vitamin B complexes.

- Kelp meal/Cellulose based carbon: These hydrogen sources are composed of a hydrophilic, solid and complex carbon that ferment more slowly and inherently generate less methane. The hydrophilic organic component of the kelp meal, for example, is composed of cellulose and hemicellulose and it may be treated during the manufacturing process so that some of the components more easily undergo hydrolysis to glucose while maintaining an overall longevity of 3 to 5+ years.

Chemical Oxygen Scavengers: The presence of chemical oxygen scavengers such as sodium sulfite helps minimize performance lag phases that are often observed following the injection of remedial amendments. This is due, in part, to the presence of oxygen that is introduced as a result of the field mixing and blending operations. It takes a certain amount of time and reagent consumption to remove that introduced oxygen and allow the ISCR reactions to proceed. Provect-IR is unique it that manages this impact chemically, which is a more effective, reliable manner thus allowing the ISCR process to be more effective.

Zero-Valent Iron: The presence of ZVI in Provect-IR® is critical to ISCR reactions. The ZVI is added as a reduced material that is oxidized during the reductive dechlorination reactions which use ZVI as the reducing agent. The beta-elimination reaction mainly produces (chloro)acetylene, ethane/ethane and chloride ions, without the accumulation of potentially problematic catabolites typical of microbiologically mediated sequential reductive dehalogenation processes (e.g., DCE "stall"). As the ZVI reacts, hydroxyl ions are released and pH increases which is useful in neutralizing the acidity generated during the fermentation of carbon, where acids are generated. Oxidized iron species are also produced, where are useful in alpha-elimination reactions and iron cycling. One limitation to ZVI reactions is that they are surface mediated which means that direct contact is required for direct COI destruction.

RYR Extract: Provect-IR® is the only ISCR amendment that will rapidly induce ISCR conditions while simultaneously preventing or significantly minimizing the production of methane. The benefits are notable:

- Safer: Methane is explosive with an LEL of 5% and an UEL of 15%. Production of methane will result from the addition of any conventional ERD or ISCR amendment: excessive and extended production of methane can result in elevated in groundwater concentrations (as high as 1,000 ppm have been reported) which can lead to accumulation in soil gas subsequently impacting indoor air. State specific regulations for methane in groundwater have been promulgated, with others pending for soil gas and indoor air.
- More Efficient = More Cost Effective: Production of methane is a direct indication that the hydrogen generated from the organic carbon amendments was used by methanogens and the amendment has been wasted because it was not utilized by acetogens or

dehalorespiration. By inhibiting the growth and proliferation of methane producing Archaea, chlororespiring bacteria can become the more dominant bacterial populations.

PRIMARY FEATURES

- Effective: No accumulation of dead-end catabolic intermediates as a function of substrate addition (as is common with [emulsified] oils and sources of carbon only).
  - Does not rely on physical sorption/sequestration as a major "removal" mechanism (as is common with oils).
  - Inherently buffered for pH control – will not acidify an aquifer and liberate heavy metals as potential secondary COIs.
- Efficient: Significantly lower costs as a result more efficient amendment utilization and avoidance of contingencies for methane management. No need for additional buffers.
- Safe: Fewer health and safety concerns as compared with use of traditional ERD or ISCR reagents; Avoid issues associated with new and emerging methane regulations.
- Ease of Use: Green and sustainable. All components integrated in a single package. Logistics with no surprises.
- Longevity: Engineered profile of carbon sources for multi-year longevity estimated at 3 to 7 years based on site-specific hydrogeology. Reagent will stay in place and remain active which prevents rebound.
- Improved Performance: More efficient use of hydrogen donors (does not get wasted as methane).
- Adaptable Formulations for Heavy Metals: Will not mobilize arsenic or other heavy metals yielding secondary contaminants (as is common with [emulsified] oils and sources of carbon only). Can be formulated to manage environments that are co-impacted by various inorganic contaminants while simultaneously mineralizing the organic compounds.
- Patented Technologies: Technology end users and their clients are fully protected from all Patent and other legal issues

PHYSICAL PROPERTIES

Particle Size: ranges from ca. <5 to >100 micron (can be manufactured to specifications).

Dry Density: ranges from 0.4 to 0.5 g/cm3

29% Aqueous Slurry Density: ranges from 0.9 to 1.0 g/cm3

29% Aqueous Slurry Viscosity: ranges from 500 to 1,500 cP

LITERATURE CITED:

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Safety Data Sheet (SDS)

OSHA HazCom 2012 Standard 29 CFR 1910.1200. Prepared to GHS Rev03.

Printing date 01/25/2016 Reviewed on 02/01/2022

* 1 Identification

· **Product identifier**

· **Trade name: Provect-IR ISCR Reagent (Antimethanogenic)**
· **Product description**
Remediation product for the treatment of soil, sediment and groundwater. Not for use in potable water sources.

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Provectus Environmental Products, Inc.
PO Box 358
Freeport, IL 61032
Phone: 815-650-2230
Fax: 815-650-2230
www.provectusenvironmental.com
· **Emergency telephone number:** 815-650-2230

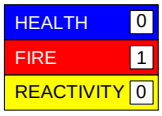
* 2 Hazard(s) identification

· **Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).

· **Label elements**
· **GHS label elements** Non-Regulated Material
· **Hazard pictograms** Non-Regulated Material
· **Signal word** Non-Regulated Material
· **Hazard statements** Non-Regulated Material
· **Hazard description:**
CONTAINMENT HAZARD: Any vessel that contains wetted reagent must be vented due to potential pressure build up from fermentation gases.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**

Health = 0
Fire = 1
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 0
Fire = 1
Reactivity = 0

3 Composition/information on ingredients

	Proprietary	40 to 90%
7439-89-6	iron	5 to 90%
4075-81-4	calcium dipropionate	0 to 4%

· **Chemical characterization: Mixtures**
· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

8013-01-2	Yeast extracts	STOT SE 3, H335	0.5 to 5%

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom 2012 Standard 29 CFR 1910.1200. Prepared to GHS Rev03.

Printing date 01/25/2016 Reviewed on 02/01/2022

Trade name: Provect-IR ISCR Reagent

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9000-30-0	Guar gum	STOT SE 3, H335; Eye Irritant 2B, H320; Combustible Dust	0 to 5%
7757-83-7	sodium sulfite	Acute Toxicity 4, H302	0 to 2%

· ***Additional information:*** Product contains red yeast rice

4 First-aid measures

· ***Description of first aid measures***
· ***After inhalation:*** Remove person to fresh air. If signs/symptoms continue, get medical attention.
· ***After skin contact:*** Wash off with soap and water. Get medical attention if irritation develops.
· ***After eye contact:*** Flush with water for 5 minutes
· ***After swallowing:***
Rinse mouth with water and afterwards drink plenty of milk or water. Call a poison control center or doctor immediately for treatment advice.
· ***Most important symptoms and effects, both acute and delayed*** No further relevant information available.
· ***Indication of any immediate medical attention and special treatment needed***
No further relevant information available.

5 Fire-fighting measures

· ***Extinguishing media***
· ***Suitable extinguishing agents:***
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· ***Special hazards arising from the substance or mixture*** No further relevant information available.
· ***Advice for firefighters***
· ***Protective equipment:*** No special measures required.

* 6 Accidental release measures

· ***Personal precautions, protective equipment and emergency procedures*** Not required.
· ***Environmental precautions:*** Do not allow to enter sewers or potable water sources.
· ***Methods and material for containment and cleaning up:***
Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Sweep or vacuum up spillage and place in vented container.
· ***Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

* 7 Handling and storage

· ***Precautions for safe handling*** No special measures required.
· ***Information about protection against explosions and fires:*** Combustible material

· ***Conditions for safe storage, including any incompatibilities***
· ***Storage:***
· ***Requirements to be met by storerooms and receptacles:***
CONTAINMENT HAZARD: Any vessel that contains wetted reagent must be vented due to potential pressure build up from fermentation gases.
· ***Information about storage in one common storage facility:*** Not required.
· ***Further information about storage conditions:***
Keep tightly closed in a dry and cool place. Keep away from open flames, hot surfaces and sources of ignition. Any material that is wetted must be vented due to potential pressure build up from fermentation gases.

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· **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

· **Control parameters**
· **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:**
Dry or powdered ingredients are combustible. Dispersal of finely divided dust from products into air may form mixtures that are ignitable and explosive. Minimize airborne dust generation and eliminate sources of ignition.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
· **Breathing equipment:** Not required.
· **Protection of hands:** Not required.
· **Eye protection:** Not required.

* 9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Solid
Color:	Brown to Green
· **Odor:**	Pleasant
· **Odor threshold:**	Not determined.
· **pH-value:**	Not applicable.
· **Change in condition**	
Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	Undetermined.
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Not determined.
· **Ignition temperature:**	
Decomposition temperature:	Not determined.
· **Auto igniting:**	Product is not self-igniting.
· **Danger of explosion:**	Dry or powdered ingredients are combustible. Dispersal of finely divided dust from products into air may form mixtures that are ignitable and explosive. Minimize airborne dust generation and eliminate sources of ignition.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not applicable.
· **Density:**	Not determined.

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Trade name: Provect-IR ISCR Reagent

(Contd. of page 3)

· **Relative density** Not determined.
· **Vapor density** Not applicable.
· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**
Water: Soluble.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**
Dynamic: Not applicable.
Kinematic: Not applicable.

· **Solvent content:**
Organic solvents: 0.0 %

Solids content: 100.0 %
· **Other information** No further relevant information available.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability** Product is stable under normal conditions.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.
· **Hazardous decomposition products:** No dangerous decomposition products known.

* 11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** Product dust may cause eye irritation.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.
· **NTP (National Toxicology Program)**
None of the ingredients is listed.
· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.

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Printing date 01/25/2016 Reviewed on 02/01/2022

Trade name: Provect-IR ISCR Reagent

(Contd. of page 4)

· ***Persistence and degradability*** No further relevant information available.
· ***Bioaccumulative potential*** No further relevant information available.
· ***Mobility in soil*** No further relevant information available.
· ***Additional ecological information:***
· ***General notes:*** Water hazard class 1 (Self-assessment): slightly hazardous for water
· ***Results of PBT and vPvB assessment***
· ***PBT:*** Not applicable.
· ***vPvB:*** Not applicable.
· ***Other adverse effects*** No further relevant information available.

13 Disposal considerations

· ***Waste treatment methods***
· ***Recommendation:*** Smaller quantities can be disposed of with household waste.

· ***Uncleaned packaging:***
· ***Recommendation:*** Disposal according to official regulations municipal.
· ***Recommended cleansing agent:*** Water, if necessary with cleansing agents.

* 14 Transport information

· ***UN-Number***
· ***DOT, ADR, ADN, IMDG, IATA*** Non-Regulated Material
· ***UN proper shipping name***
· ***DOT, ADR, ADN, IMDG, IATA*** Non-Regulated Material
· ***Transport hazard class(es)***

· ***DOT, ADR, ADN, IMDG, IATA***
· ***Class*** Non-Regulated Material
· ***Packing group***
· ***DOT, ADR, IMDG, IATA*** Non-Regulated Material
· ***Environmental hazards:***
· ***Marine pollutant:*** No
· ***Special precautions for user*** Not applicable.
· ***Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code*** Not applicable.
· ***UN "Model Regulation":*** -

15 Regulatory information

· ***Safety, health and environmental regulations/legislation specific for the substance or mixture***
· ***Sara***

· ***Section 355 (extremely hazardous substances):***

None of the ingredients is listed.

· ***Section 313 (Specific toxic chemical listings):***

None of the ingredients is listed.

· ***TSCA (Toxic Substances Control Act):***

7439-89-6	iron
4075-81-4	calcium dipropionate
8013-01-2	Yeast extracts
9000-30-0	Guar gum
7757-83-7	sodium sulfite

(Contd. on page 6)

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Trade name: Provect-IR ISCR Reagent

(Contd. of page 5)

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **GHS label elements** Non-Regulated Material
· **Hazard pictograms** Non-Regulated Material
· **Signal word** Non-Regulated Material
· **Hazard statements** Non-Regulated Material

· **National regulations:**

The product is subject to be labeled according with the prevailing version of the regulations on hazardous substances.

· **State Right to Know**

	Proprietary	40-90%
7439-89-6	iron	5-90%
4075-81-4	calcium dipropionate	2-12%
8013-01-2	Yeast extracts STOT SE 3, H335	≤ 2.5%
9000-30-0	Guar gum STOT SE 3, H335; Eye Irrit. 2B, H320; Combustible Dust	≤ 2.5%
7757-83-7	sodium sulfite Acute Tox. 4, H302	≤ 2.5%

All ingredients are listed.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 01/23/2016 / 4
· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association

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Trade name: Provect-IR ISCR Reagent

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ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

· **** Data compared to the previous version altered.***

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