Data Summary Report 2018 Supplemental Remedial Investigation Activities Fulton (Ontario St.) Former MGP Site NYSDEC Site #738050 Fulton, Oswego County, New York

Prepared for Niagara Mohawk Power Corporation d/b/a National Grid, Syracuse, New York April 2019

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

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Project Number: 152206.200



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nationalgrid

April 5, 2019

Mr. Matthew King New York State Department of Environmental Conservation Division of Environmental Remediation, Remedial Bureau C, Section A 625 Broadway, 11th Floor Albany, NY 12233-7014

Re: Data Summary Report, 2018 Supplemental Remedial Investigation Activities Fulton (Ontario St.) Former MGP Site Fulton, Oswego County, New York NYSDEC Site No. 738050

Dear Mr. King:

Please find enclosed a Data Summary Report (DSR) prepared by Brown and Caldwell Associates (BC) on behalf of Niagara Mohawk Power Corporation, doing business as National Grid, for the 2018 Supplemental Remedial Investigation (SRI) activities at the Fulton (Ontario St.) Former Manufactured Gas Plant (MGP) Site in Fulton, New York (hereinafter referred to as the "Site"). The SRI activities were conducted in accordance with the "Supplemental Remedial Investigation Work Plan Addendum, Fulton (North Ontario St.) Former MGP" (BC, March 2018), which was approved by the New York State Department of Environmental Conservation (NYSDEC) in a letter dated May 15, 2018. This DSR was prepared per the March 2018 SRI work plan to present the Remedial Investigation (RI) findings to-date with the NYSDEC.

Provided below is: a discussion of the Site setting and site stratigraphy; a discussion of the results and findings from the 2018 SRI and previous investigation activities; and conclusions and recommendations related to the RI findings for the Site.

Site Setting

The Site is located at 0 Ontario Street in the City of Fulton, Oswego County, New York. Latitude and longitude coordinates for the property are approximately 43° 19' 41.2" north latitude and 76° 25' 0.8" west longitude. The location of the property is shown on Figure 1.

According to the City of Fulton Assessors Office's records, the 0 Ontario Street address is comprised of one parcel owned by Mirabito Holdings, Inc. of Binghamton, New York (formerly owned by Drake Petroleum Company, Inc., successor by merger to Mid-Valley Oil Company, Inc). The property is identified as Parcel 1-06 on Assessors Office's Map 236.47 and occupies approximately ³/₄ acre. The 0 Ontario Street property is zoned for commercial use.

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The 0 Ontario Street property is abutted to the north by Ontario Street; to the west by Hubbard Street; to the south by another property owned by the Mirabito Holdings, Inc. that is currently occupied by a Sunoco service station; and to the east by New York State (NYS) Route 481.

A portion of the off-site property west of the area of known former MGP operations was owned by the owner of the MGP during the period of MGP operations, but where no MGP operations were known to have taken place. This portion of the off-site property to the west is referred to herein as the Parcel C Area. The off-site property (including the Parcel C Area) is zoned for industrial use.

The topography of the majority of the Site is generally flat but with a slight decline to the northwest. The ground surface near the western and northern boundaries of the Site slopes sharply downward to Hubbard Street and Ontario Street, respectively. The elevation of the Site varies from approximately 330 feet, National Geodetic Vertical Datum (NGVD) on the eastern portion of the property to approximately 320 feet NGVD along the western property boundary. On the off-site property west of the Site, the ground surface is relatively flat, with a variation in elevation from approximately 318 to 321 feet NGVD.

The United States Geological Survey (USGS) 7.5 Minute Series Fulton Quadrangle Topographic Map indicates the area in the vicinity of the Site is part of the eastern slope of the floodplain for the Oswego River. The June 2013 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map indicates the on-site area is designated as an "Other Area within Zone X" (areas determined to be outside the 0.2% annual chance floodplain), and the off-site area to the west is designated as an "Other Flood Area within Zone X" (areas of 0.2% annual chance flood and areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile). The Oswego River is located approximately 400 feet west of the Site.

Historical MGP Operations

According to the "Historical and Statistical Gazetteer of New York State", which was published by Heart of the Lakes Publishing in 1980, the Fulton Gas Light Company (FGLC) was organized on June 12, 1858. The first "Brown's Directory of American Gas Companies", published in 1887, indicated the FGLC manufactured coal gas. The only schematic of the plant that has been found is shown on an 1890 Sanborn[®] Fire Insurance Map. This Sanborn Map shows the plant to be located on the northern portion of the current 0 Ontario Street property. However, the plant was identified as being vacant on the 1890 Sanborn[®] Map indicating that by 1890, the former MGP was no longer in operation. Figure 2 shows the structures identified on the 1890 Sanborn[®] Map transposed onto a current Site map. The FGLC plant appears to only have operated for approximately 30 years. The results of gas chromatograph-flame ionization detector (GC-FID) fingerprint analyses performed on non-aqueous phase liquid (NAPL)-impacted soils collected during previous RI activities indicate it was derived from the coal carbonization processes of gas manufacturing. This is consistent with the types of plant facilities indicated on the 1890 Sanborn[®] Map.

A full discussion of the review of historical Fulton drawings and Sanborn[®] fire insurance maps was previously presented in the in further detail in Appendix D of the RI Data Summary Report (BC, May 2013), entitled "Phase IA Cultural Resources Investigation at the Former Manufactured Gas Plant (MGP) Site, Ontario Street, City of Fulton, Oswego County, New York " (Panamerican Consultants, Inc., March 2013).

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Objectives

The specific objectives of the 2018 SRI activities are listed below.

- 1. Further evaluate the extent of NAPL/tar in overburden on the off-site property west of the Site.
- 2. Further evaluate the extent of NAPL/tar in bedrock.
- 3. Further evaluate the extent of MGP-related constituents in off-site subsurface soil above applicable Soil Cleanup Objectives (SCOs) as set forth in 6 NYCRR Subpart 375-6.
- 4. Further evaluate the lateral extent of dissolved-phase, MGP-related constituents in overburden groundwater on south side of the Site and on the off-site property west of the Site.
- 5. Further evaluate the extent of dissolved-phase, MGP-related constituents in bedrock groundwater.

Field investigation elements of the March 2018 SRI work plan were completed during the period from July 2, 2018 through November 15, 2018. Investigation sample locations from these 2018 SRI activities and from the previous RI and Site Characterization (SC) activities are listed in Table 1 and their locations are shown on Figure 2.

Findings

Findings from the SRI and prior investigation activities (previous RI and SC activities) performed at the Site are summarized below.

Subsurface Deposits & Stratigraphy

The geologic materials encountered on the Site generally consist in ascending order of sandstone bedrock, glacial till, and anthropogenic fill (see Figures 3 through 6, geologic cross-sections A-A', B-B', C-C', and D-D'). Boring and well construction logs for locations completed during the 2018 SRI activities are provided in Appendix A; these logs present descriptions of subsurface deposits encountered during the completion of the soil borings and boring locations intended for well installation.

The overburden at the Site generally consists of several feet of fill material overlying glacial till deposits. The fill varies in thickness, but is typically 11-feet thick on-site and approximately 5-feet thick in the off-site area west of the Site (i.e., across Hubbard Street from the parcel that comprises the former MGP). In the area of the former gas holder, the fill extends to a depth of over 20 feet below ground surface (bgs). The fill is also locally thicker under Hubbard and Ontario Streets where native deposits were apparently excavated for installation of sewers, and subsequently filled (see Figures 4 and 5, geologic cross-sections B-B' and C-C'). In general, the fill is composed of various materials including sand, gravel, coal, and demolition debris (e.g., brick and concrete). Finer-grained material (silt and clay), where present in the fill, is typically not the predominant component. Soil descriptions indicate the glacial till is composed of poorly sorted sand with varying amounts of silt and gravel, and is moderately dense. The glacial till deposits are, in general, reddish brown in color.

The bedrock beneath the Site can generally be described as a red-brown thin to medium bedded, fine to medium-grained sandstone, with occasional thin finer-grained layers of shale, mudstone or siltstone, and thin zones of conglomeratic sandstone in which relatively large clasts of mudstone

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are abundant (e.g., "rip-up clasts" or "clay galls"). This is consistent with regional information, which indicates that the bedrock formation directly underlying the Site is the Oueenston Formation. The sediment that now comprises the Queenston Formation was deposited during the Late Ordovician Period (approximately 450 million years ago). Based on available bedrock geologic mapping including the "Geologic Map of New York, Finger Lakes Sheet" (Rickard, L.V. and Fisher, D.V., 1970), the area of the Site is shown to be within the area mapped as the "Undifferentiated Medina Group and Queenston Formation". The Medina Group and the Queenston Formation are commonly mapped together because they are difficult to differentiate without substantial outcrop exposure. In the vicinity of the Site, the Medina Group is represented by the Lower Silurian Grimsby Formation. Both the Grimsby Formation and the Queenston Formation contain red shale, siltstone, and sandstone, and both were deposited in shallow lagoons or bordering tidal flats (Patchen, 1966). Red color of the Queenston and Grimsby sediments are likely the result of exposure to an aerobic environment during and after deposition, which allowed iron within the unit to oxidize. Based on the above, the bedrock underlying the Site could be identified as either the Grimsby Formation or Queenston Formation; however, upon further review of available geologic literature associated these formations, it was determined that the bedrock underlying the Site is that of the Queenston Formation. The following documents were reviewed prior to arriving at this conclusion.

- Patchen, D.G., 1966, Petrology of the Oswego, Queenston, and Grimsby Formations, Oswego County, New York: unpubl. Master's thesis, SUNY Binghamton, 191 p.
- Lumsden, D.N. and Pelletier, B.R., 1969, Petrology of the Grimsby Sandstone (Lower Silurian) of Ontario and New York: Journal of Sedimentary Petrology, v. 39, no. 2, p. 521-530.

During the field work completed as part of a master's thesis prepared by Douglas G. Patchen at the State University of New York (SUNY) Binghamton, the top of Grimsby Formation of the Medina Group, which lies unconformably below the Oneida Conglomerate of the Clinton Group (Rickard, L.V. and Fisher, D.V., 1970), was mapped at a location along the Oswego River south of the Site. This outcrop was examined during the SRI activities and the lithologic contact identified by Patchen was observed at an elevation of approximately 358 feet NGVD. Review of additional literature indicated that the Grimsby Formation in Fulton is relatively thin (7 feet 4 inches) (Lumsden, D.M. and Pelletier, B.R., 1969). Based on the above, it can be inferred that the base of the Grimsby Formation in Fulton would be positioned at an elevation of approximately 350 feet NGVD in the vicinity of the outcrop. Bedrock surface elevations across the Site range from approximately 309 feet NGVD in the southern portion of the on-site property to a low of 296 feet NGVD on the property immediately north of the Site. Given that outcrop observations and regional mapping indicate that the bedding of the rock units in this area have a generally horizontal to sub-horizontal dip, the top of rock surface beneath the Site is at a stratigraphic position approximately 40 feet below the base of the Grimsby Formation.

Moreover, as indicated in the reviewed literature, the Queenston Formation is devoid of fossils in New York State, whereas although the Grimsby Formation is relatively barren of fossils, it does contain Arthrophycus alleghaniensis (worm burrow) throughout the formation (Patchen, 1966). Arthrophycus alleghaniensis was not identified in rock core samples or nearby outcrops, thereby further providing support that the bedrock directly underlying the Site is part of the Queenston Formation. Mr. Matthew King April 5, 2019 Page 5 of 17

In summary, based on the review of available geologic literature related to the Grimsby and Queenston Formations, inspection of outcrops located in the vicinity of the Site, and examination of core samples collected during the RI field activities, the sandstones and siltstones encountered beneath the Site are part of the Queenston Formation.

Based on the relative ease of drilling and observations from split-spoon samples, the upper few inches of the bedrock surface is weathered to some degree. Samples of the uppermost part of the sandstone that were recovered in split-spoons were capable of being disaggregated by hand (i.e., friable), thus indicating that the cement matrix (e.g., clays, calcite, silica, etc.), which binds the sand grains together was previously weathered and degraded.

The surface of the top of bedrock underlying the Site is somewhat undulatory, as depicted on the top of bedrock structural contour map (Figure 7) and in the geologic cross-sections (Figures 3 through 6).

Hydrogeology

Groundwater Occurrence and Flow

As part of the 2018 SRI activities, groundwater levels were measured on September 17, 2018, November 5, 2018, and November 14, 2018 (water table wells only) (Table 2). On-site, the water table is generally encountered within the till, at approximately 9 to 13 feet bgs. In the areas immediately to the west and north of the Site where the ground surface is at a lower elevation, the water table is encountered at shallower depths (approximately 5 to 7 feet bgs). Water table elevation contours for September 17, 2018 and November 14, 2018 (Figures 8 and 9) indicate that shallow overburden groundwater at the Site flows generally from southeast to the west and northwest across the Site and off-site property and likely discharges to the Oswego River. The water elevation measured in the Oswego River at staff gauge SG-1 prior to both sampling rounds was slightly greater than the nearest water table well (MW-122S). However, previous continuous water level monitoring in the Oswego River at a similar staff gauge location indicates the level of the river can fluctuate approximately ½ foot over a short period of time, which may account for the level in the river being slightly higher than the groundwater elevation in MW-122S at the time of the manual measurements. Additional data is required to confirm groundwater flow conditions in the shallow overburden.

The vertical hydraulic gradients from locations with both shallow and deep overburden wells have been observed to be variable in direction. Based on previous continuous water level monitoring, this may be due in part, to influence of nearby utilities (e.g., sewer lift station located near the intersection of Hubbard and Ontario Streets). Additional data is required to further assess vertical gradients in the overburden deposits. Distribution of groundwater elevations measured in wells with screened intervals positioned in the deep overburden deposits indicate a similar flow direction to the flow direction observed in the shallow overburden. In general, water level data from locations with both a deep overburden monitoring well and a shallow bedrock monitoring well indicate an upward vertical hydraulic gradient, and thus an upward component of groundwater flow from the bedrock to the deep overburden deposits.

As described in the section above on "Subsurface Deposits and Stratigraphy", the bedrock formation underlying the vicinity of the Site, the Queenston Formation, is composed of red-brown thin to medium bedded, fine to medium-grained sandstone, with occasional intervals containing Mr. Matthew King April 5, 2019 Page 6 of 17

grey and red-brown mudstone clasts (flat pebble conglomerate) throughout. Examination of nearby outcrops, rock cores, along with review of regional mapping conducted by others (Patchen, D.G., 1966), indicate the bedding is oriented with either a nearly horizontal or very shallow dip. Outcrop and core examinations also indicate that open bedding plane parallel fractures do occur, often where there is a contact between variations in lithology within the formation. The bedding plane parallel fractures appear to be the most continuous fractures on an outcrop scale. It is likely that open, generally continuous bedding plane parallel fractures impart a large degree of influence on lateral groundwater flow in the bedrock at the Site based on our understanding of the Queenston Formation, adjacent bedrock strata from regional information, and other sites in the Erie-Ontario Lowlands of New York where groundwater flow in shallow to horizontal dipping sedimentary bedrock units has been examined, as well as on the examination of nearby rock outcrops, on-site rock cores and borehole geophysical logs. A stratigraphic horizon (aka, a "marker bed") was identified and correlated across the site using natural gamma logging during the 2018 SRI field work; this marker bed coincides with the position of a bedding plane parallel water-bearing fracture zone that was found to be continuous across the study area. As described below, hydraulic responses observed in nearby wells during drilling indicate a high degree of hydraulic connectivity between wells that are screened across this zone. Groundwater elevation data from the well locations screened across the identified marker bed indicate that groundwater within this water-bearing fracture zone appears in general, to flow towards the Oswego River (see elevation data plotted on Figure 9), as the groundwater elevation in the closest shallow bedrock well to the river is consistently lower than the elevations measured in the bedrock wells to the east. However, there is some uncertainty regarding more localized flow patterns due to potential influence of nearby utilities on groundwater levels in the shallow bedrock wells (e.g., nearby utilities may cause short-term fluctuation in water levels in these wells). Additional data is required to evaluate this potential influence. The screened intervals for the bedrock wells installed prior to the 2018 SRI activities (MW-109R, MW-111R, MW-117R, and BRB-1) are positioned within the shallow bedrock, but at shallower stratigraphic intervals than the above-described marker bed. Groundwater elevations in these wells are consistently higher than the elevations in the wells screened across the marker bed, indicating a component of downward groundwater flow within the shallow bedrock zone. Based on the groundwater elevation data collected at the one location (MW-122RD cluster) where both a shallow and deep bedrock well were installed, there is a downward vertical gradient from the shallow bedrock water-bearing zone to the water-bearing fracture encountered in the deeper bedrock at MW-122RD.

During the 2018 SRI activities, the upper portion of the bedrock (i.e., upper ±30 feet below the top of rock), was evaluated at six locations (MW-120R, MW-121R, MW-122R, MW-123R, MW-124R, MW-125) using several assessment techniques including rock coring, packer pressure testing and borehole geophysical logging. In addition, during the bedrock drilling processes at MW-124R and MW-122RD (i.e., bedrock coring and packer pressure testing), continuous monitoring of water level changes was conducted in nearby, available, bedrock wells (BRB-1, MW-111R, MW-121R, and MW-125R), using pressure transducers with automatic data loggers (i.e., In-Situ LevelTROLLS[®]); these data support the assessment of hydraulic connectivity of water-bearing fractures in the upper bedrock. Data loggers were installed in the bedrock wells mentioned above to monitor changes in water level during drilling and packer pressure testing of bedrock at locations MW-124R and MW-122RD. During bedrock coring and packer pressure

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testing performed at MW-124R and during drilling/packer pressure testing of the shallow bedrock at MW-122RD, increases in water levels were observed in BRB-1/MW-111R, MW-121R, and MW-125 during both processes (see Figures 10 and 11). This evaluation supports the conclusion that the shallow bedrock interval evaluated during the RI activities completed to-date contains interconnected water-bearing fractures where lateral groundwater flow likely predominates; the water-bearing fractures encountered during the SRI appear to be part of a water-bearing zone in the shallow bedrock.

Additionally, during the 2018 SRI activities, a deeper portion of the bedrock was evaluated at MW-122RD. An isolation casing was installed at MW-122RD at 55 feet bgs (approximately 34 feet below top of rock surface). Rock coring, packer pressure testing, and borehole geophysical logging continued from below the casing to 100 feet bgs (approximately 79 feet below top of rock surface). Using the above assessment techniques, a deep water-bearing fracture was encountered at approximately 86 to 96 feet bgs (approximately 65 to 75 feet below top of rock surface), separated from the shallow water-bearing zone by approximately 25 to 30 feet of lower permeability bedrock. The continuous water level monitoring in nearby wells during drilling (see Figure 11) does not indicate hydraulic communication between the shallow bedrock water-bearing zone and the deep bedrock water-bearing fracture.

Summary tables presenting the results of the packer pressure testing are provided in Appendix B, while borehole geophysical logs generated during the 2018 SRI activities are presented as Appendix C.

A summary of the estimated K_h values from slug tests conducted on monitoring wells installed during the 2018 SRI activities and previous investigations is provided in Table 3. The slug test results are summarized as follows:

- <u>Shallow overburden</u>: The estimated geometric mean horizontal hydraulic conductivity (K_h) of the shallow overburden deposits (saturated portion of upper ± 15 feet of overburden deposits comprised primarily of glacial till and locally by fill) based on slug tests 7.6 x 10⁻⁴ centimeters per second (cm/sec); the estimated values range from 5.3 x 10⁻³ cm/sec to 1.2 x 10⁻⁴ cm/sec.
- <u>Deep overburden</u>: The estimated geometric mean K_h of the deep overburden deposits comprised of glacial till (approximately 15 feet bgs to approximately 28 feet bgs) based on slug tests is 2.1 x 10⁻³ cm/sec, with a range from 1.5 x 10⁻² cm/sec, to as low as 2.1 x 10⁻⁵ cm/sec.
- <u>Shallow bedrock</u>: Slug tests were conducted on the wells that are screened in the bedrock to estimate K_h . K_h values from slug tests on these wells are representative of the bedrock intersected by water-bearing fractures, not the bedrock matrix itself, which has much lower hydraulic conductivity based on its physical characteristics. The estimated geometric mean K_h of the shallow bedrock (upper ± 20 to ± 30 feet of rock) based on slug tests is 1.8×10^{-3} cm/sec. Estimated K_h values in the shallow bedrock range from 2.9×10^{-5} cm/sec to 1.6×10^{-2} cm/sec.
- <u>Deep bedrock</u>: A slug test was conducted on MW-122RD, which is screened in the deep bedrock, to estimate K_h. As described for shallow bedrock, the K_h value from this slug test is representative of the bedrock intersected by water-bearing fractures, not the bedrock matrix itself, which has much lower hydraulic conductivity based on its physical characteristics. The estimate K_h of the deep bedrock (approximately 65 to 75 feet below top of rock surface) based on this slug test is 1.2 x 10⁻³ cm/sec.

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In-situ hydraulic conductivity plots for the tests performed during the SRI activities are provided in Appendix D.

Visual/Olfactory Indications of Impact

Overburden

Figure 12 provides a plan view of locations where visual/olfactory observations indicative of potential impacts including NAPL and indications of potential purifier waste material have been observed in overburden soil through the course of the SC and RI field activities. Table 4 provides a description for these observations. The vertical positions of the observations are shown on the geologic cross-sections (Figures 3 through 6).

In general, the NAPL encountered occurs as a viscous, tacky tar-like material or as a semi-solid material that may have initially been a NAPL (observed at TP-103 and B-129). In the subsurface, the viscous NAPL/tar is observed as: partially to fully saturating the soils, as a coating on coarser-grained material, or as a seam within the soil matrix. Viscous NAPL/tar was observed within area of the former gas holder at depths ranging from approximately 22 to 27 feet bgs, and outside the area of the former holder at shallower depths (8 feet bgs). In the area of the former gas holder, NAPL/tar was observed on top of the bedrock surface. Most of the NAPL/tar observations exhibited tar-like odors and thus, NAPL/tar at these locations is likely associated with former MGP operations. However, based on observations and odor noted at B-119, B-121, B-123B, MW-103D, MW-111D, MW-112D, and MW-124R, some of the impacts encountered appeared to be petroleum-based and are not likely associated with former MGP operations. At locations B-119, B-123B, MW-103D, and MW-111D, visual/olfactory observations indicate potential petroleum and MGP impacts at same location. Environmental forensic results from samples of NAPL-impacted soils with olfactory observations indicative of MGP-related impacts (e.g., tar-like odors) collected from on-site location B-117 and off-site location MW-111D during the 2012 RI field work indicate that coal carbonization was likely the process used at the MGP, which did not require petroleum as a feedstock.

NAPL/tar was identified in soil within and near the off-site Parcel C Area at several locations and at various depths (see Figure 12). Typically, the NAPL/tar occurs as a thin seam or blotches of viscous, tacky tar-like material and is encountered immediately above the top of rock surface. These observations were documented at locations B-127, MW-111D, MW-111R, and MW-113D ranging in depth from approximately 19.5 5 to 20.6 feet bgs. However, NAPL has also been observed at shallower depths on the off-site property (at a depth of 10.5 feet bgs in boring B-106 and from approximately 9 to 18.8 feet bgs at B-127). The NAPL encountered at B-127 was described as having an oil-like consistency and heavily coating/saturating the sand and gravel deposits. Additionally, the impacted soils from this interval exhibited tar-like odors and thus, are likely, at least in part, MGP-related.

NAPL has not been observed in overburden monitoring wells during NAPL gauging events conducted during the RI activities. However, as a screening process to further assess the potential presence of NAPL at the Site, the concentrations of constituents in groundwater were compared to aqueous solubility of those constituents. A concentration that is above one percent of the solubility limit is considered an indicator that the constituent is potentially present in NAPL form in the vicinity of the well. Concentrations of naphthalene in groundwater samples from well MW-111D

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during the 2018 sampling events (950 μ g/L in September and 1,100 μ g/L in November) were above one percent of the aqueous solubility limit for naphthalene (310 μ g/L). NAPL/tar was identified the soil adjacent to the well screen at MW-111D.

In summary, NAPL/tar was encountered in the overburden deposits on-site within the area of former MGP operations, primarily in the area of the former gas holder. This NAPL/tar is in close proximity to the bedrock surface and is generally described as being viscous in nature. NAPL was also identified in the overburden at several locations within and near the off-site Parcel C Area. The NAPL/tar observed at these locations was described as either being viscous in nature and positioned on top of rock surface or at shallower intervals with the NAPL having an oil-like consistency and heavily coating/saturating the sand and gravel deposits.

Indications of potential purifier waste material (i.e., degraded wood material with burnt/sulfur-like odor) were observed in the interval from approximately 14 to 23 feet bgs at soil boring locations B-117, B-118, and MW-117R, which are in the area of the former gas holder. Potential purifier waste material (i.e., wood chips with slight burnt-like odor) was also encountered at approximately 9 feet bgs at soil boring B-129. Analysis of soil samples collected from these locations from similar depth intervals did not indicate significant concentrations of cyanide, which is sometimes associated with purifier waste.

Bedrock

Figure 13 provides a plan view of locations where NAPL/tar has been observed in bedrock core samples and/or within bedrock monitoring wells throughout the course of the RI field activities completed to-date. Table 4 provides a description for these observations, while the vertical positions of the observations are shown on the geologic cross sections (Figures 3 through 6).

NAPL/tar was observed in rock core samples at bedrock well locations MW-117R and BRB-1 during the 2015/2016 SRI activities. Both of these locations are in the area of the former gas holder. At MW-117R, NAPL/tar was observed discontinuously across the depth interval from 26.8 to 29.2 feet bgs. The NAPL/tar at MW-117R was generally observed as black tacky, viscous NAPL/tar coatings along near-horizontal fracture surfaces with a tar-like odor. At BRB-1, black viscous, tacky NAPL/tar with a tar-like odor was observed coating a bedding plane parting surface on a core at a depth of approximately 43.6 feet bgs, which is positioned approximately 17.6 feet below the top of rock at this location. During the 2018 SRI activities, black viscous blebs of NAPL/tar were observed at MW-121R on a horizontal fracture surface in a rock core at a depth of approximately 40.3 feet bgs, which is positioned approximately 18.3 feet below the top of rock at this location.

Observations were also made during the 2015/2016 SRI activities at MW-109R and MW-111R and during the 2018 SRI activities at MW-121R, that were indicative of NAPL in bedrock. For instance, upon removal of geophysical tools from the corehole at MW-109R, blotches of NAPL/tar were sporadically observed on the tools. Similarly, spots of NAPL/tar were observed sporadically on the geophysical tools and partially coating ends of the tools following removal of the tools from the corehole at MW-111R and MW-121R.

In summary, NAPL/tar has been identified in bedrock at locations within the area encompassing the former gas holder (MW-117R and BRB-1), the western property boundary (MW-109R), and the eastern portion of the off-site property including the Parcel C Area (MW-111R and

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MW-121R). Bedrock monitoring wells were installed at each of these locations; NAPL/tar has only been identified in wells MW-117R and MW-109R. Stratigraphically, the deepest elevation of NAPL/tar observed in bedrock based on core sample observations is approximately 280.7 feet NGVD (approximately 40.3 feet bgs) at location MW-121R. No NAPL/tar was observed in the deeper bedrock evaluated at MW-122RD (approximately 30 to 80 feet below the top of rock [approximately 50 to 100 feet bgs]), although this well was completed west of the area of where NAPL/tar was observed in bedrock.

The concentrations of naphthalene in wells BRB-1, MW-111R, MW-121R, MW-122R, MW-124R, and MW-125R were above one percent of the aqueous solubility limit, a threshold that is used as an indicator of the potential presence of NAPL to be present in the vicinity of a well. These wells are within or proximal to the area where NAPL was identified.

NAPL/tar has been found within bedrock monitoring well MW-117R each time the well was gauged following installation. The NAPL/tar was encountered at the base of the well, below the water column, indicating that the NAPL is denser than water and thus is considered a dense NAPL, or DNAPL. Following identification of NAPL/tar in the well MW-117R, a periodic NAPL gauging and removal program was initiated. Throughout the RI activities completed to-date, 36 gauging and 29 removal events have been performed and future gauging and removal events are currently planned. Over the course of the NAPL removal events, approximately 4.51 gallons of highly viscous NAPL/tar have been removed from this well location. Refer to Table 5 for a summary of NAPL monitoring and removal data, including approximate volumes of NAPL/tar removed per removal event. Initially, weekly gauging and removal events were conducted; however, based on a significant reduction in NAPL/tar accumulation in the well over time, the gauging/removal frequency was subsequently decreased to monthly and is currently performed on a quarterly basis. Approximately 0.10 feet of NAPL/tar was also measured at the base of the bedrock monitoring well MW-109R during the November 2018 NAPL gauging and groundwater monitoring activities (see Table 2). Gauging of this location during the previous RI activities yielded similar approximate NAPL thickness measurements from this location. NAPL/tar has not been encountered in any of the other bedrock monitoring wells.

Based on available data, the lateral extent of NAPL/tar in bedrock is delineated with the exception of south of MW-121R.

Subsurface Soil Analytical Results

A total of ten (10) subsurface soil samples from four (4) locations (B-134, B-135, MW-121D, and MW-124R) were collected and submitted for laboratory analyses during the 2018 SRI activities. The samples were analyzed for benzene, toluene, ethylbenzene and isomers of xylene (BTEX), polycyclic aromatic hydrocarbons (PAHs), and total cyanide. Additionally, samples collected from MW-124R were also analyzed for methyl tert-butyl ether (MTBE). The results of these analyses were compared to the New York State Subpart 375-6 SCOs for Protection of Public Health for industrial use, Protection of Ecological Resources, and/or Protection of Groundwater. Table 6 presents the soil quality data from the soil samples analyzed during the 2018 SRI activities that were collected from properties zoned for industrial use. Figure 14 depicts the subsurface soil quality data from the RI and SC activities. At a location, if a concentration of one or more constituents exceeded any one of the above noted SCOs, it is depicted with a red symbol. Locations where no exceedances were identified are depicted with a green symbol.

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Laboratory reports associated with the 2018 SRI soil samples are included on the DVD provided in Appendix F. These laboratory results were forwarded to a data validator for the preparation of a Data Usability Summary Reports (DUSR). The DUSR presents a summary of data usability, including a discussion of qualified data. As described in the DUSR, the data were considered by the validator to be valid and usable. The DUSR associated with the soil samples collected during the SRI is provided in Appendix G. Following receipt of the validated data from the SRI activities, the validated data was incorporated into a comprehensive analytical database for the project. These data were then formatted to the NYSDEC's environmental data submission requirements that are detailed on the NYSDEC Electronic Data Deliverable (EDD) with the analytical data; 2) validating the EDD using the database software application EQuISTM from EarthSoft[®], Inc.; and 3) submitting the validated EDD to the NYSDEC. An EDD that contains the supplemental RI data set is provided in Appendix H.

Subsurface soil samples collected during the 2018 SRI were intended to further evaluate the extent of MGP-related constituents in the off-site subsurface soil above applicable Soil Cleanup Objectives SCOs) as set forth in 6 NYCRR Subpart 375-6. During previous work, delineation was complete except for one or more BTEX compounds and several PAHs north of location B-127 and south and west of locations B-128 and MW-113D. Provided below is a summary of the findings of the subsurface soil quality data collected during the SRI activities.

The distribution of BTEX and PAHs in subsurface soils is depicted on Figure 14. BTEX and PAHs were either not detected or detected at concentrations below applicable SCOs in the samples collected from locations B-134 and MW-121D, located west and south of MW-113D and B-128, and thus, the southern and western extents of MGP-related soil impacts are delineated. At locations B-135 and MW-124R, positioned north of B-127, detected PAH concentrations are below applicable SCOs. A low level of benzene (0.46 mg/kg) was detected at a concentration above the lowest of the applicable SCOs (i.e., the Protection of Groundwater SCO [0.06 mg/kg]) in the 5 to 7 foot sample interval from B-135, yet at a much lower concentration than previously encountered at soil boring located to the south (B-127). Further north, xylene concentrations were detected above the lowest of the applicable SCOs (i.e., the Protection of Ecological Resources SCO [0.26 mg/kg]) in the 5 to 7 foot and 7 to 9 foot sample intervals from MW-124R (0.81 mg/kg and 0.3 mg/kg, respectively), but benzene concentrations were below the applicable SCOs. Trace amounts of sheen and discolored soils exhibiting tar-like odors were noted in the sample intervals from MW-124R (5 to 7 and 7 to 9 feet bgs) and thus, are likely attributable to another source.

Total Cyanide was not detected at concentrations above applicable SCOs in any of the 2018 SRI subsurface soil samples. Figure 14 depicts the results of the concentrations of total cyanide in soil from the RI and SC activities.

Based on the findings from the RI activities, the lateral and vertical extents of MGP-related impacts to soils have been adequately characterized for the purposes of the RI.

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Groundwater Analytical Results

Two comprehensive rounds of groundwater sampling were conducted during the 2018 SRI (September 2018 and November 2018). Field data sheets from the two sampling rounds are provided in Appendix E. In accordance with the March 2018 work plan, no groundwater samples were collected from MW-109R and MW-117R during either sampling round because NAPL was detected in these monitoring wells during NAPL gauging performed prior to sampling. The groundwater samples were analyzed for BTEX compounds, PAHs, and total cyanide. Results of the analyses were compared to the 6 NYCRR Part 703 groundwater standards for Class GA water (groundwater) or, where no such standard exists, the corresponding guidance value from Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1; collectively, these are referred to herein as the Class GA criteria. Table 7 presents the groundwater quality data from samples collected in September and November 2018, including a comparison to the Class GA criteria.

Laboratory reports associated with the SRI groundwater samples are included on the DVD provided in Appendix F. These laboratory results were forwarded to a data validator for the preparation of DUSR. The DUSR presents a summary of data usability, including a discussion of qualified data. As described in the DUSR, the data were considered by the validator to be valid and usable. The DUSR associated with the groundwater samples collected during the SRI is provided in Appendix G. Following receipt of the validated data from the 2018 SRI activities, the validated data was incorporated into a comprehensive analytical database for the project. These data were then formatted to the NYSDEC's environmental data submission requirements that are detailed on the NYSDEC EDD with the analytical data; 2) validating the EDD using the database software application EQuISTM from EarthSoft[®], Inc.; and 3) submitting the validated EDD to the NYSDEC. An EDD that contains the supplemental RI data set is provided in Appendix H.

Provided below is a summary of the findings of the overburden and bedrock groundwater quality data collected during the September and November 2018 groundwater sampling events.

Overburden Groundwater Quality

Concentrations of BTEX, naphthalene and total cyanide in overburden groundwater for the sampling rounds conducted to-date are posted on Figure 15. Concentrations that are above the Class GA criteria are shown in bold type.

The most prevalent constituents detected in overburden groundwater at concentrations above the Class GA criteria were BTEX compounds and naphthalene. These constituents are often associated with MGP-related residuals, but can also be related to non-MGP sources. These constituents are used as indicators for evaluating dissolved-phase impacts in overburden groundwater at the Site. During the sampling rounds completed as part of the 2018 SRI activities, both one or more BTEX compounds and naphthalene were detected at concentrations above the Class GA criteria in samples collected from deep overburden wells MW-109D, MW-110D, MW-111D, MW-113D, and MW-114D. The base of the screens for these wells is positioned immediately above or slightly below the top of bedrock surface. In the shallow overburden groundwater, one or more BTEX compounds were also detected at concentrations above the Class GA criteria in shallow overburden wells MW-108 and MW-111S. Of note, benzene was detected at concentrations below the criterion in the September 2018 sample collected from MW-108.

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Moreover, benzene is the only compound that has been detected at concentrations above Class GA criteria at this location and exceedances were only observed 2 out of the 7 sampling events performed between 2007 and 2018.

PAHs that are somewhat lower in solubility than naphthalene were also detected in samples from the deep overburden wells listed above. At MW-111D concentration of acenaphthene, fluorene, and phenanthrene exceeded the Class GA criteria. Acenaphthene was also reported above the Class GA criteria in samples collected from deep overburden wells MW-109D, MW-110D, MW-113D, and MW-114D and in samples collected from MW-111S, which is screened across the water table. Other PAH compounds including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-c,d)pyrene were detected above the Class GA criteria in samples collected from MW-103D and MW-111D, as presented in Table 7. However, elevated levels of these other PAH compounds, which have very low solubilities compared to naphthalene, acenaphthene, fluorene, and phenanthrene, may be related to suspended particulates or turbidity entrained in the sample.

At deep overburden well MW-121D, only the benzene concentration was slightly above the Class GA criterion during the November 2018 sampling event, however, benzene was not detected in the September 2018 samples collected from this location.

Total Cyanide was not detected above its applicable Class GA criterion at any location.

In summary, exceedances of Class GA criteria are most prevalent in the deep overburden wells located in the vicinity of the off-site Parcel C Area. In the deep overburden groundwater, the highest concentrations are at MW-111D within the Parcel C Area; the shallow overburden well at same location (MW-111S) has much lower concentrations and only exceeds for benzene. At deep overburden wells MW-114D and MW-113D, located downgradient and sidegradient, respectively, concentrations decrease but are still above Class GA criteria. At deep overburden wells further sidegradient (MW-121D) and downgradient (MW-122D), concentrations decrease to below Class GA criteria. The only other Class GA criteria exceedances identified during the 2018 SRI activities were for benzene at deep overburden well MW-103D and shallow overburden well MW-108, located south and west of the former gas holder, respectively. At MW-103D, the benzene concentrations ranged from 12 to 17 μ g/L. At MW-108, benzene concentrations ranged from 0.9 J (below class GA criterion) to 3 μ g/L.

The extents of dissolved-phase BTEX and PAH concentrations above the Class GA criteria in overburden groundwater have been adequately characterized for the purposes of the RI.

Bedrock Groundwater Quality

Concentrations of BTEX, naphthalene and total cyanide in bedrock groundwater are posted on Figure 16. Concentrations that are above the Class GA criteria are shown in bold type. NAPL/tar in the overburden and in bedrock is the source of MGP-related dissolved-phase organic compounds in the bedrock groundwater. As described above, NAPL/tar has been detected in bedrock monitoring wells MW-109R and MW-117R during NAPL gauging performed prior to sampling.

BTEX and naphthalene were detected above Class GA criteria within shallow bedrock groundwater in 8 of the 10 shallow bedrock wells; these constituents were either not detected or were detected at concentrations below the Class GA Criteria in shallow bedrock wells MW-120R and MW-123R, located to the east and south of the former MGP structures. Acenaphthene, which

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has a somewhat lower solubility than naphthalene, was also detected above its Class GA criterion in samples from several shallow bedrock wells (BRB-1, MW-111R, MW-122R, MW-124R, and MW-125R). At BRB-1 and MW-111R were exceedances of other lower solubility PAHs, as presented in Table 7. However, elevated levels of these other PAH compounds, which have very low solubilities compared to naphthalene and acenaphthene, may be related to suspended particulates or turbidity entrained in the sample.

As part of the 2018 SRI activities, groundwater quality conditions in the deeper bedrock was evaluated at MW-122RD. This well is completed in the first potential water-bearing zone below the section of lower permeability rock (potential aquitard) beneath the shallow bedrock zone, as indicated by activities conducted during drilling at MW-122RD (e.g., coring, packer testing, continuous water level monitoring in adjacent wells, and vertical gradient)] Dissolved-phase MGP-related constituents were either not detected or detected at concentrations below Class GA criteria in samples collected from MW-122RD, indicating that groundwater impacts in the bedrock appear to be limited to the shallow bedrock interval.

Total Cyanide was not detected above its applicable Class GA in samples collected from any of the bedrock monitoring wells sampled during the 2018 SRI activities.

Based on the results of the 2018 SRI groundwater sampling activities, the eastern and southern extents of dissolved-phase BTEX and naphthalene concentrations in shallow on-site bedrock groundwater have been adequately delineated for the purposes of the RI. However, further evaluation of the extent of dissolved-phase MGP-related constituents on the off-site properties is required.

Conclusions and Recommendations

Based on previous investigation findings and the data discussed herein, the evaluation of the nature and extent of MGP-related impacts at the Fulton (Ontario St.) Former MGP Site for the purposes of the RI is not yet complete and additional RI activities are required.

Provided below is a summary of conclusions associated with the RI and recommendations for further evaluating the nature and extent of MGP-related impacts at the Site.

Conclusions

Conclusions based on the RI data collected to-date, are as follows:

Hydrostratigraphy and Groundwater Flow

- Three water-bearing zones have been identified at the Site where lateral groundwater flow is predominantly over vertical flow, including:
 - Overburden water-bearing zone: although part of the same water-bearing zone, this unit has been subdivided as follows:
 - Shallow overburden deposits: the uppermost saturated unconsolidated deposits (fill and glacial till);
 - Deep overburden deposits: the lower five feet of unconsolidated glacial till deposits positioned above the top of rock surface.

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- Shallow bedrock water-bearing zone: a water-bearing zone within the shallow bedrock (upper ±30 feet below the top of bedrock) that is controlled to a large degree by approximately horizontal, open bedding plane fractures;
- Deep bedrock water-bearing fracture: a water-bearing fracture within the deeper bedrock (approximately 65 to 75 feet below the top of bedrock), separated from the shallow bedrock water-bearing zone by approximately 25 to 30 feet of lower permeability rock. The lateral continuity of this fracture has not been evaluated.
- Overburden groundwater generally flows from southeast to the west and northwest across the Site and across the off-site property to the west, and likely discharges to the Oswego River. The vertical hydraulic gradients from locations with both shallow and deep overburden wells have been observed to be variable in direction. Additional data is required to confirm groundwater flow conditions and to further assess hydraulic gradients in the overburden deposits.
- In the shallow bedrock water-bearing zone, the overall groundwater flow direction is towards the Oswego River. However, there is some uncertainty regarding more localized flow patterns due to potential influence of nearby utilities on groundwater levels in the shallow bedrock wells (e.g., nearby utilities may cause short-term fluctuation in water levels in these wells). Additional data is required to evaluate this potential influence. Water level data from locations with both a deep overburden monitoring well and a shallow bedrock monitoring well generally indicate an upward vertical hydraulic gradient, and thus an upward component of groundwater flow from the bedrock to the overburden deposits. At the MW-122 cluster, where both a shallow and deep bedrock well were installed, there is a downward vertical hydraulic gradient from the shallow bedrock water-bearing zone to the deeper water-bearing fracture.

Extent of NAPL/Tar

- During previous RI activities, NAPL/tar in overburden encountered on the on-site property was encountered within the area of former MGP operations, primarily in the area of the former gas holder. This NAPL/tar is often in close proximity to the bedrock surface and is generally viscous. NAPL/tar was also identified in the overburden on the off-site property west of the Site within and near the Parcel C Area. In this area, the NAPL/tar is positioned at the top of rock surface is viscous, while NAPL in shallower intervals has an oil-like consistency and coats or saturates the sand and gravel deposits. As a result of the 2018 SRI activities, delineation of NAPL/tar in overburden is complete.
- NAPL/tar has been identified in bedrock at locations within the area encompassing the former gas holder (MW-117R and BRB-1), the western property boundary (MW-109R), and the eastern portion of the off-site property including the Parcel C Area (MW-111R and MW-121R). The lateral extent of NAPL/tar in bedrock is delineated with the exception of south of MW-121R, located on the western off-site property. No NAPL was observed in the deeper bedrock evaluated at MW-122RD (approximately 30 to 80 feet below the top of rock [approximately 50 to 100 feet bgs]), although this well was completed west of the area of where NAPL was observed in bedrock.

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Subsurface Quality

• MGP-related exceedances of applicable SCOs are present on site, in the general vicinity of the former MGP structures, and in the easternmost part of the western off-site property, west of the former MGP structures. The exceedances generally correspond to the area where NAPL/tar were identified in the overburden. The lateral and vertical extents of MGP-related impacts to soils have been adequately characterized and delineated for the purposes of the RI.

Groundwater Quality

- In overburden groundwater, concentrations of MGP-related constituents above Class GA criteria are most prevalent in the deep overburden wells located in the vicinity of the off-site Parcel C area. Downgradient and sidegradient of the Parcel C Area, concentrations in the deep overburden groundwater decrease to below Class GA criteria. The only other Class GA criteria exceedances identified during the 2018 SRI activities were for benzene in the shallow overburden within the Parcel C Area (MW-111S), and west and south of the former gas holder at deep overburden well MW-103D and shallow overburden well MW-108. The extent of dissolved-phase MGP-related constituents above the Class GA criteria in overburden groundwater has been adequately characterized for the purposes of the RI.
- Dissolved-phase MGP-related constituents have been identified in groundwater within the shallow bedrock water-bearing zone at concentrations exceeding above Class GA criteria; these exceedances are associated with and/or in close proximity to where indications of NAPL/tar have been identified in bedrock. The eastern and southern extents of dissolved-phase MGP-related constituents in the shallow bedrock water-bearing zone on the Site and have been adequately delineated for the purposes of the RI. However, further evaluation of the extents of dissolved-phase MGP-related constituents in shallow bedrock groundwater on the off-site properties is required.
- In the deep bedrock water-bearing fracture encountered at MW-122RD, positioned between the Site and the Oswego River, dissolved-phase MGP-related constituents were either not detected in groundwater or detected at concentrations below Class GA criteria.

Recommendations

Based on the RI data discussed herein, the evaluation of the nature and extent of MGP-related impacts at the Fulton (Ontario St.) Former MGP is not yet complete and additional RI activities are required. However, further assessment of groundwater flow directions, vertical hydraulic gradients and groundwater discharge areas is needed to facilitate siting of additional monitoring well locations and ultimately to adequately assess contaminant distribution and migration pathways. As indicated in the discussions above, nearby utilities (e.g., sewer lift station) potentially influence groundwater levels and flow directions in overburden and shallow bedrock to some degree and thus, there is some uncertainty regarding localized flow patterns. To further resolve this potential influence, the following tasks are planned:

- <u>Information Request</u> The City of Fulton's Department of Public Works (DPW) will be contacted to obtain available information (e.g., as-built drawing, operational data, etc.) related to the sewer lift station that is located near the intersection of Hubbard and Ontario Streets.
- <u>Continuous Water Level Monitoring</u> Continuous monitoring of water levels in select overburden and bedrock wells, in the sewer lift station, and in a staff gauge installed in the

Oswego River will be conducted over an extended period (± 1 to 2 weeks). Specific locations for monitoring will be selected following review of information received from the City of Fulton. The continuous monitoring will be conducted with pressure transducers equipped with automatic data loggers (e.g., In-Situ LevelTROLLS[®]). The automatic data loggers will be set to record water levels from the pressure transduces every minute for the monitoring period. A manual water level meter will also be used to measure water levels in the monitoring wells at the beginning and end of the continuous monitoring period. Hourly barometric pressure data and precipitation data for the monitoring period will be obtained from the National Oceanic and Atmospheric Administration (NOAA) meteorological measurement station located closest to the Site. Additionally, barometric pressure will be measure and record barometric pressure (e.g., In-Situ BaroTROLL[®]).

The results and findings from the above-described tasks will then be used to assist in the development of a work plan that will propose activities to meet the following objectives:

- 1. Further evaluate the southern extent of NAPL/tar in bedrock on the off-site property west of the Site;
- 2. Further evaluate the extent of dissolved-phase, MGP-related constituents in bedrock groundwater on the off-site property west of the Site.

Schedule

Efforts to obtain available information from the City of Fulton will be initiated following submittal of this deliverable. It is anticipated that the continuous water level monitoring task will be conducted within the next couple of months (April or May 2019). Following evaluation of the collected data, the work plan proposing additional RI activities will be developed and submitted to the NYSDEC for review and approval.

Please review this submittal at your earliest convenience and do not hesitate to contact me at 315-428-5652 to discuss any questions or comments you may have.

Sincerely,

plat

for

Steven P. Stucker, C.P.G. Senior Environmental Engineer

Attachments cc: R. Jones, NYSDOH C. Rooney, National Grid (w/out enclosure) J. Marolda, Brown and Caldwell

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Tables



TABLE 1 SUMMARY OF BACKGROUND INFORMATION FOR INVESTIGATORY SAMPLE LOCATIONS FULTON (ONTARIO ST.) FORMER MGP SITE

FULTON.	NEW YORK

		Survey Coo	rdinates	Ground Surface	Depth to	Bedrock	Screene	d Interval	Screeneo	d Interval	To	tal
Location ID	Installation	NY State Plan	e - NAD 83	Elevation ⁽¹⁾	Bedrock	Elevation	Тор	Bottom	Тор	Bottom	De	pth
	Date	Northing	Easting	(ft., NGVD)	(ft., BGS)	(ft., NGVD)	(ft., BGS)	(ft., BGS)	(ft., NGVD)	(ft., NGVD)		(ft., NGVD)
Soil Borings												
B-104	11/16/2004	1212669.50	864405.49	326.81	28	298.81					28.2	298.61
B-105	11/16/2004	1212639.09	864421.94	328.27							16	312.27
B-106	9/12/2007	1212690.42	864301.49	319.46							12	307.46
B-107	9/12/2007	1212669.11	864264.75	319.38							10	309.38
B-114	11/27/2012	1212714.46	864350.66	320.51	22.0	298.51					22.1	298.41
B-115	11/13/2012	1212644.90	864415.48	328.00	24.6	303.40					24.8	303.20
B-116	11/13/2012	1212676.36	864407.45	326.93	26.0	300.93					26.3	300.63
B-117	11/19/2012	1212665.47	864372.38	325.68	26.0	299.68					26.2	299.48
B-118	11/19/2012	1212666.57	864381.36	325.59	26.0	299.59					26.1	299.49
B-119	11/15/2012	1212633.51	864339.99	321.19	18.5	302.69					20.2	300.99
B-120	11/14/2012	1212612.52	864372.82	327.44							13.2	314.24
B-121	11/15/2012	1212744.94	864405.96	321.90							13.2	308.70
B-122	11/14/2012	1212607.43	864438.35	329.06							13.5	315.56
B-123A	11/26/2012	1212664.52	864344.03	320.80							10.8	310.00
B-123B	11/26/2012	1212670.08	864344.41	320.93	20.0	300.93					20.2	300.73
B-124	11/27/2012	1212706.77	864283.95	319.32							17.5	301.82
B-125	9/29/2015	1212706.27	864267.13	319.35	24.5	294.85					24.5	294.85
B-126	9/30/2015	1212691.36	864282.56	319.21	20.4	298.81					20.4	298.81
B-127	9/28/2015	1212699.92	864309.03	319.69	21.0	298.69					21	298.69
B-128	9/25/2015	1212645.67	864302.92	320.35	21.7	298.65					21.7	298.65
B-129	10/5/2015	1212579.58	864411.99	328.53	19.3	309.23					19.3	309.23
B-130	10/5/2015	1212589.91	864462.68	330.06	21.3	308.76					21.5	308.56
B-131	10/5/2015	1212625.52	864486.16	330.79	24.5	306.29					24.5	306.29
B-132	10/2/2015	1212670.24	864511.65	330.99	24.0	306.99					24	306.99
B-133	10/1/2015	1212605.05	864337.52	321.72	19.5	302.22					19.5	302.22
B-134	7/11/2018	1212636.78	864226.28	319.42	20.0	299.42					20	299.42
B-135	7/11/2018	1212715.84	864301.95	319.74							21	298.74
Shallow Overburden	Monitoring Wells											
MW-101	11/12/2004	1212678.06	864491.70	329.76			8.0	18.0	321.76	311.76	25	304.76
MW-102	11/15/2004	1212715.74	864398.29	324.81			6.0	16.0	318.81	308.81	16.5	308.31
MW-103	11/15/2004	1212635.39	864378.78	327.29			9.0	19.0	318.29	308.29	20	307.29
MW-108	9/12/2007	1212665.90	864344.24	320.81	20.0	300.81	6.0	16.0	314.81	304.81	20.2	300.61

Brown AND Caldwell

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TABLE 1 SUMMARY OF BACKGROUND INFORMATION FOR INVESTIGATORY SAMPLE LOCATIONS FULTON (ONTARIO ST.) FORMER MGP SITE

FULTON,	NEW YORK
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		Survey Coo	rdinates	Ground Surface	Depth to	Bedrock	Screeneo	d Interval	Screeneo	d Interval	To	otal
Location ID	Installation	NY State Plan	e - NAD 83	Elevation ⁽¹⁾	Bedrock	Elevation	Тор	Bottom	Тор	Bottom	De	epth
	Date	Northing	Easting	(ft., NGVD)	(ft., BGS)	(ft., NGVD)	(ft., BGS)	(ft., BGS)	(ft., NGVD)	(ft., NGVD)	(ft. , BGS)	(ft., NGVD)
MW-109S	9/11/2007	1212707.12	864350.14	320.46			5.0	15.0	315.46	305.46	15	305.46
MW-110S	9/10/2007	1212744.56	864409.18	322.00			5.0	15.0	317.00	307.00	15	307.00
MW-111S	11/21/2012	1212673.92	864294.46	319.67			6.0	14.0	313.67	305.67	14	305.67
MW-112S	11/20/2012	1212756.33	864294.76	319.66			4.0	12.0	315.66	307.66	12	307.66
MW-118	9/29/2015	1212665.79	864314.83	320.35			9.0	15.0	311.35	305.35	15	305.35
MW-119	9/28/2015	1212663.91	864321.37	320.63	21.5	299.13	9.0	15.0	311.63	305.63	21.5	299.13
MW-121S	7/12/2018	1212585.03	864276.01	321.42			7.5	12.5	313.92	308.92	12.5	308.92
MW-122S	8/9/2018	1212678.19	864121.84	319.17			8.0	14.0	311.17	305.17	14	305.17
Deep Overburden Mo	nitoring Wells											
MW-102D	11/14/2012	1212708.08	864405.35	325.92	23.0	302.92	20.0	25.0	305.92	300.92	25	300.92
MW-103D	11/16/2012	1212636.03	864374.15	327.44	26.3	301.14	21.3	26.3	306.14	301.14	26.3	301.14
MW-109D	9/11/2007	1212710.40	864351.11	320.43	21.0	299.43	17.0	22.0	303.43	298.43	22.2	298.23
MW-110D	9/10/2007	1212745.05	864403.85	321.77	22.8	298.97	18.0	23.0	303.77	298.77	24.4	297.37
MW-111D	11/21/2012	1212674.38	864300.86	319.77	20.5	299.27	16.0	21.0	303.77	298.77	21	298.77
MW-112D	11/20/2012	1212755.38	864299.74	319.59	18.0	301.59	14.0	19.0	305.59	300.59	19	300.59
MW-113D	10/2/2015	1212643.91	864279.14	319.81	20.1	299.71	15.5	20.5	304.31	299.31	21.2	298.61
MW-114D	9/30/2015	1212673.74	864251.55	319.23	21.4	297.83	16.4	21.4	302.83	297.83	21.4	297.83
MW-115D	10/1/2015	1212787.68	864386.79	321.22	25.5	295.72	20.5	25.5	300.72	295.72	25.5	295.72
MW-116D	10/6/2015	1212709.37	864455.99	330.88	28.5	302.38	23.5	28.5	307.38	302.38	28.5	302.38
MW-120D	8/16/2018	1212570.12	864374.71	325.96			15.0	21.0	310.96	304.96	21	304.96
MW-121D	7/12/2018	1212586.02	864286.62	321.21	18.4	302.81	13.5	18.5	307.71	302.71	24	297.21
MW-122D	8/14/2018	1212671.76	864121.54	319.26	21.4	297.86	16.0	21.0	303.26	298.26	21.4	297.86
Shallow Bedrock Mor	•											
BRB-1	9/23/2015	1212641.70	864375.41	327.10	26.0	301.10	33.9	43.9	293.20	283.20	43.9	283.20
MW-109R	9/24/2015	1212702.18	864349.76	320.70	20.0	300.70	28.0	38.0	292.70	282.70	42.5	278.20
MW-111R	9/18/2015	1212677.13	864297.68	319.71	20.5	299.21	29.5	35.5	290.21	284.21	36.7	283.01
MW-117R	9/15/2015	1212666.13	864378.97	326.08	25.0	301.08	26.5	32.5	299.58	293.58	35.8	290.28
MW-120R	8/16/2018	1212570.18	864377.82	326.0	22.5	303.52	40.0	52.0	286.0	274.0	56.0	270.0
MW-121R	7/12/2018	1212575.34	864275.23	321.0	21.6	299.38	34.0	44.0	287.0	277.0	47.0	274.0
MW-122R	8/13/2018	1212665.04	864122.01	319.3	22.0	297.33	37.0	49.0	282.3	270.3	49.0	270.3
MW-123R	8/22/2018	1212658.67	864486.60	330.0	26.0	304.01	48.0	55.0	282.0	275.0	59.0	271.0
MW-124R	7/25/2018	1212754.72	864305.70	319.8	32.0	287.78	35.0	45.0	284.8	274.8	49.0	270.8
MW-125R	7/19/2018	1212715.98	864230.86	319.3	26.0	293.27	34.0	44.0	285.3	275.3	47.0	272.3

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 $\label{eq:resonance} P:\end{tabular} P:\end{$

TABLE 1 SUMMARY OF BACKGROUND INFORMATION FOR INVESTIGATORY SAMPLE LOCATIONS FULTON (ONTARIO ST.) FORMER MGP SITE

		Survey Coo	rdinates	Ground Surface	Depth to	Bedrock	Screene	d Interval	Screeneo	d Interval	Total	
Location ID	Installation	NY State Plan	e - NAD 83	Elevation ⁽¹⁾	Bedrock	Elevation	Тор	Bottom	Тор	Bottom	De	pth
	Date	Northing	Easting	(ft., NGVD)	(ft., BGS)	(ft., NGVD)	(ft., BGS)	(ft., BGS)	(ft., NGVD)	(ft., NGVD)	(ft. , BGS)	(ft., NGVD)
Deep Bedrock Monito	oring Wells											
MW-122RD	8/9/2018	1212658.49	864122.15	319.36	21	298.36	86	96	233.36	223.36	100	219.36
Test Pits												
TP-101	11/11/2004	1212684.71	864389.50	326.37							12.5	313.87
TP-102	11/11/2004	1212646.89	864411.38	327.97							9.5	318.47
TP-103	11/10/2004	1212636.89	864448.25	329.11							8.5	320.61
TP-104	11/10/2004	1212677.83	864452.32	328.61							8.5	320.11
TP-105	11/19/2012	1212694.82	864299.94	319.54							5.5	314.04
TP-106	11/19/2012	1212685.86	864289.52	319.76							7.5	312.26
TP-107	11/19/2012	1212706.07	864426.43	326.86							7.5	319.36
TP-108	11/19/2012	1212681.90	864434.77	328.39							7	321.39
Surface Soil Sample	Locations											
SS-1	12/6/2012	1212673.71	864399.25	326.54							0.5	326.04
SS-2	12/6/2012	1212660.43	864456.37	328.94							0.5	328.44
SS-3	12/6/2012	1212638.72	864429.99	328.52							0.5	328.02
SS-4	12/6/2012	1212617.52	864382.18	327.55							0.5	327.05
SS-5	12/6/2012	1212617.80	864455.32	329.47							0.5	328.97
SS-6	12/6/2012	1212594.67	864411.69	328.28							0.5	327.78
SS-7	12/6/2012	1212555.06	864373.26	326.79							0.5	326.29
SS-8	12/6/2012	1212550.85	864450.29	331.89							0.5	331.39
BG-SS-1	12/6/2012	1212897.79	864418.89	328.91							0.5	328.41
BG-SS-2	12/6/2012	1212788.10	864391.25	321.33							0.5	320.83
BG-SS-3	12/7/2012	1212787.66	864453.42	326.70							0.5	326.20
BG-SS-4	12/7/2012	1212708.36	864637.44	331.40							0.5	330.90
BG-SS-5	12/7/2012	1212477.55	864614.64	334.86							0.5	334.36

Notes:

(1) -For monitoring wells, value presented reflects ground surface elevation at time of installation.

-- Data not available or not applicable

NGVD - National Geodetic Vertical Datum 1929

BGS -Below Ground Surface

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 $\label{eq:resonance} P:\end{tabular} P:\end{$

				11/15	5/2006			9/24/	/2007		12/11/2012				
	Top of Casing	Screened	Depth to	Water	Depth to		Depth to	Water	Depth to		Depth to	Water	Depth to		
Location ID	Elevation	Interval	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	
	(ft., NGVD)	(ft., BGS)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	
MW-101	329.61	8-18	11.32	318.29	ND	16.59	12.98	316.63	ND	16.65	11.81	317.80	ND	16.60	
MW-102	324.63	6-16	9.84	314.79	ND	15.59	11.55	313.08	ND	15.63	9.62	315.01	ND	15.50	
MW-102D	325.49	20-25									10.56	314.93	ND	24.10	
MW-103	327.06	9-19	12.51	314.55	ND	18.69	13.82	313.24	ND	18.68	12.72	314.34	ND	18.70	
MW-103D	327.13	21.3-26.3									12.90	314.23	ND	26.10	
MW-108	320.49	6-16					8.01	312.48	ND	16.00	6.67	313.82	ND	15.70	
MW-109S	320.03	5-15					7.52	312.51	ND	14.64	6.06	313.97	ND	11.50	
MW-109D	320.00	17-22					7.50	312.50	ND	21.61	6.12	313.88	ND	14.55	
MW-110S	321.64	5-15					8.94	312.70	ND	14.56	6.83	314.81	ND	14.40	
MW-110D	321.41	18-23					8.85	312.56	ND	23.18	7.36	314.05	ND	23.10	
MW-110D ⁽¹⁾	321.56	18-23													
MW-111S	319.17	6-14									5.04	314.13	ND	13.40	
MW-111D	319.41	16-21									5.61	313.80	ND	20.55	
MW-112S	319.21	4-12									4.67	314.54	ND	11.60	
MW-112D	319.15	14-19									5.16	313.99	ND	19.01	
MW-113D	319.24	15.5-20.5													
MW-114D	318.87	16.4-21.4													
MW-115D	320.70	20.5-25.5													
MW-116D	333.43	23.5-28.5													
MW-118	319.97	9-15													
MW-119	320.25	9-15													
MW-120D	327.24	15-21													
MW-121S	321.02	7.5-12.5													
MW-121D	320.8	13.5-18.5													
MW-122S	318.77	8-14													
MW-122D	319	16-21													
BRB-1	328.90	33.9-43.9													
MW-109R	320.13	28-38													
MW-111R	319.26	29.5-35.5													
MW-117R	327.72	26.5-32.5													
MW-120R	327.75	40-52													
MW-121R	320.57	34-44													
MW-122R	319.07	37-49													
MW-122RD	319.1	86-96													
MW-123R	329.74	48-55													
MW-124R	319.5	35-45													
MW-125R	319.03	34-44													
SG-1 ⁽²⁾	313.29														
SG-1 ⁽³⁾	313.80														

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				11/15/2006				9/24/	2007		12/11/2012			
	Top of Casing	Screened	Depth to	Water	Depth to		Depth to	Water	Depth to		Depth to	Water	Depth to	
Location ID	Elevation	Interval	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth
	(ft., NGVD)	(ft., BGS)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)
PZ-1	329.65	NA	10.39	319.26	ND	14.71	12.89	316.76	ND	14.76	10.87	318.78	ND	14.91
PZ-2	329.38	NA	9.83	319.55	ND	14.60	11.99	317.39	ND	14.62	10.24	319.14	ND	16.05
PZ-3	327.06	NA	11.99	315.07	ND	13.31	12.90	314.16	ND	13.33	11.42	315.64	ND	13.30

				3/19,	/2013			10/19	/2015		3/14/2016				
	Top of Casing	Screened	Depth to	Water	Depth to		Depth to	Water	Depth to		Depth to	Water	Depth to		
Location ID	Elevation	Interval	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	
	(ft., NGVD)	(ft., BGS)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	
MW-101	329.61	8-18	11.09	318.52	ND	16.60	12.88	316.73	ND	16.50	11.38	318.23	ND	16.53	
MW-102	324.63	6-16	9.55	315.08	ND	15.58	9.95	314.68	ND	15.52	8.79	315.84	ND	15.49	
MW-102D	325.49	20-25	10.48	315.01	ND	24.20	10.89	314.60	ND	23.95	9.72	315.77	ND	24.04	
MW-103	327.06	9-19	12.46	314.60	ND	18.70	13.08	313.98	ND	18.63	12.09	314.97	ND	18.60	
MW-103D	327.13	21.3-26.3	12.48	314.65	ND	26.10	13.21	313.92	ND	25.96	12.20	314.93	ND	26.07	
MW-108	320.49	6-16	6.38	314.11	ND	15.95	6.69	313.80	ND	15.76	5.87	314.62	ND	15.64	
MW-109S	320.03	5-15	5.83	314.20	ND	14.50	6.02	314.01	ND	12.43	4.95	315.08	ND	12.91	
MW-109D	320.00	17-22	5.78	314.22	ND	21.50	6.12	313.88	ND	19.71	5.00	315.00	ND	19.52	
MW-110S	321.64	5-15	6.72	314.92	ND	14.45	7.03	314.61	ND	14.40	5.81	315.83	ND	14.86	
MW-110D	321.41	18-23	7.17	314.24	ND	23.15	7.42	313.99	ND	22.80	6.23	315.18	ND	22.83	
MW-110D ⁽¹⁾	321.56	18-23													
MW-111S	319.17	6-14	4.63	314.54	ND	13.40	6.10	313.07	ND	13.28	5.37	313.80	ND	13.33	
MW-111D	319.41	16-21	5.60	313.81	ND	20.55	5.87	313.54	ND	20.43	5.52	313.89	ND	20.44	
MW-112S	319.21	4-12	4.36	314.85	ND	11.65	5.86	313.35	ND	11.53	4.95	314.26	ND	11.59	
MW-112D	319.15	14-19	4.92	314.23	ND	19.15	5.81	313.34	ND	19.00	5.00	314.15	ND	19.04	
MW-113D	319.24	15.5-20.5					6.10	313.14	ND	20.85	5.37	313.87	ND	NM	
MW-114D	318.87	16.4-21.4					6.04	312.83	ND	21.82	5.29	313.58	ND	21.80	
MW-115D	320.70	20.5-25.5					6.59	314.11	ND	24.86	5.26	315.44	ND	24.87	
MW-116D	333.43	23.5-28.5					17.77	315.66	ND	30.48	16.36	317.07	ND	30.49	
MW-118	319.97	9-15					6.63	313.34	ND	14.75	5.91	314.06	ND	14.82	
MW-119	320.25	9-15					6.81	313.44	ND	14.59	5.65	314.60	ND	14.62	
MW-120D	327.24	15-21													
MW-121S	321.02	7.5-12.5													
MW-121D	320.8	13.5-18.5													
MW-122S	318.77	8-14													
MW-122D	319	16-21													
BRB-1	328.90	33.9-43.9					15.79	313.11	ND	45.30	14.33	314.57	ND	45.28	
MW-109R	320.13	28-38					6.99	313.14	ND	39.68	5.50	314.63	39.68	39.76	
MW-111R	319.26	29.5-35.5					6.19	313.07	ND	35.82	4.71	314.55	ND	35.91	
MW-117R	327.72	26.5-32.5					13.51	314.21	(4)	NM	12.36	315.36	24.00	NM	
MW-120R	327.75	40-52													
MW-121R	320.57	34-44													
MW-122R	319.07	37-49													
MW-122RD	319.1	86-96													
MW-123R	329.74	48-55													
MW-124R	319.5	35-45													
MW-125R	319.03	34-44													
SG-1 ⁽²⁾	313.29						4.15	309.14	ND	NA					
SG-1 ⁽³⁾	313.80														

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				3/19,	/2013			10/19	/2015		3/14/2016			
	Top of Casing	Screened	Depth to	Water	Depth to		Depth to	Water	Depth to		Depth to	Water	Depth to	
Location ID	Elevation	Interval	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth
	(ft., NGVD)	(ft., BGS)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)
PZ-1	329.65	NA	10.37	319.28	ND	14.94	12.45	317.20	ND	14.83	10.65	319.00	ND	14.72
PZ-2	329.38	NA	9.62	319.76	ND	16.50	11.76	317.62	ND	NM	Dry	≥316.05	ND	13.33
PZ-3	327.06	NA	11.75	315.31	ND	13.88	(5)	NA	NA	(5)	(5)	NA	NA	(5)

				9/17/	2018		11/5/2018				11/14/2018			
	Top of Casing	Screened	Depth to	Water	Depth to		Depth to	Water	Depth to		Depth to	Water	Depth to	
Location ID	Elevation	Interval	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth
	(ft., NGVD)	(ft., BGS)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)
MW-101	329.61	8-18	14.80	314.81	ND	16.64	13.21	316.40	ND	16.52	13.01	316.60	NM	NM
MW-102	324.63	6-16	11.81	312.82	ND	15.49	10.33	314.30	ND	15.47	10.31	314.32	NM	NM
MW-102D	325.49	20-25	12.53	312.96	ND	24.10	11.22	314.27	ND	24.03	NM	NM	NM	NM
MW-103	327.06	9-19	14.62	312.44	ND	18.70	13.26	313.80	ND	18.60	13.28	313.78	NM	NM
MW-103D	327.13	21.3-26.3	14.73	312.40	ND	26.10	13.41	313.72	ND	25.05	NM	NM	NM	NM
MW-108	320.49	6-16	8.62	311.87	ND	15.86	7.46	313.03	ND	15.59	7.50	312.99	NM	NM
MW-109S	320.03	5-15	8.16	311.87	ND	14.80	6.96	313.07	ND	14.79	7.02	313.01	NM	NM
MW-109D	320.00	17-22	8.07	311.93	ND	22.00	6.88	313.12	ND	21.93	NM	NM	NM	NM
MW-110S	321.64	5-15	9.14	312.50	ND	14.25	7.45	314.19	ND	14.21	7.46	314.18	NM	NM
MW-110D	321.41	18-23												
MW-110D ⁽¹⁾	321.56	18-23	9.39	312.17	ND	22.52	7.91	313.65	ND	22.44	NM	NM	NM	NM
MW-111S	319.17	6-14	7.38	311.79	ND	13.30	6.28	312.89	ND	13.31	6.34	312.83	NM	NM
MW-111D	319.41	16-21	7.59	311.82	ND	20.47	7.68	311.73	ND	20.48	NM	NM	NM	NM
MW-112S	319.21	4-12	7.42	311.79	ND	11.50	6.12	313.09	ND	11.55	6.12	313.09	NM	NM
MW-112D	319.15	14-19	7.45	311.70	ND	19.03	6.10	313.05	ND	18.48	NM	NM	NM	NM
MW-113D	319.24	15.5-20.5	7.32	311.92	ND	20.96	6.28	312.96	ND	20.91	NM	NM	NM	NM
MW-114D	318.87	16.4-21.4	7.23	311.64	ND	21.83	6.22	312.65	ND	21.79	NM	NM	NM	NM
MW-115D	320.70	20.5-25.5	8.42	312.28	ND	24.84	6.95	313.75	ND	24.85	NM	NM	NM	NM
MW-116D	333.43	23.5-28.5	19.18	314.25	ND	30.80	17.49	315.94	ND	30.48	NM	NM	NM	NM
MW-118	319.97	9-15	8.06	311.91	ND	14.76	6.93	313.04	ND	14.80	7.00	312.97	NM	NM
MW-119	320.25	9-15	8.33	311.92	ND	14.65	7.25	313.00	ND	14.60	7.24	313.01	NM	NM
MW-120D	327.24	15-21	14.40	312.84	ND	22.51	13.12	314.12	ND	22.50	NM	NM	NM	NM
MW-121S	321.02	7.5-12.5	8.47	312.55	ND	12.05	7.65	313.37	ND	12.03	7.78	313.24	NM	NM
MW-121D	320.8	13.5-18.5	8.73	312.07	ND	18.17	7.88	312.92	ND	18.23	NM	NM	NM	NM
MW-122S	318.77	8-14	9.90	308.87	ND	13.50	6.46	312.31	ND	13.52	6.58	312.19	NM	NM
MW-122D	319	16-21	8.10	310.90	ND	21.20	6.83	312.17	ND	21.09	NM	NM	NM	NM
BRB-1	328.90	33.9-43.9	16.63	312.27	ND	44.90	14.88	314.02	ND	44.92	NM	NM	NM	NM
MW-109R	320.13	28-38	7.82	312.31	39.75	NM	6.06	314.07	39.66		NM	NM	NM	NM
MW-111R	319.26	29.5-35.5	7.03	312.23	ND	35.96	5.26	314.00	ND	35.90	NM	NM	NM	NM
MW-117R	327.72	26.5-32.5	14.62	313.10	35.60	NM								
MW-120R	327.75	40-52	16.05	311.70	ND	53.84	14.00	313.75	ND	53.74	NM	NM	NM	NM
MW-121R	320.57	34-44	8.91	311.66	ND	43.48	7.24	313.33	ND	43.40	NM	NM	NM	NM
MW-122R	319.07	37-49	8.05	311.02	ND	48.82	5.77	313.30	ND	48.76	NM	NM	NM	NM
MW-122RD	319.1	86-96	14.11	304.99	ND	96.50	12.03	307.07	ND	95.87	NM	NM	NM	NM
MW-123R	329.74	48-55	17.91	311.83	ND	54.85	15.88	313.86	ND	54.75	NM	NM	NM	NM
MW-124R	319.5	35-45	7.57	311.93	ND	44.97	5.80	313.70	ND	44.87	NM	NM	NM	NM
MW-125R	319.03	34-44	6.93	312.10	ND	44.00	5.10	313.93	ND	43.59	NM	NM	NM	NM
SG-1 ⁽²⁾	313.29										NM	NM	NM	NM
SG-1 ⁽³⁾	313.80		4.73	309.07	ND						1.42	312.38	NM	NM

				9/17/2018			11/5/2018			11/14/2018				
	Top of Casing	Screened	Depth to	Water	Depth to		Depth to	Water	Depth to		Depth to	Water	Depth to	
Location ID	Elevation	Interval	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth	Water	Elevation	NAPL	Total Depth
	(ft., NGVD)	(ft., BGS)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)	(ft., BTOC)	(ft., NGVD)	(ft., BTOC)	(ft., BTOC)
PZ-1	329.65	NA												
PZ-2	329.38	NA												
PZ-3	327.06	NA												

Notes:

NGVD - National Geodetic Vertical Datum 1929 BGS - Below Ground Surface BTOC - Below Top of Casing

NAPL - Non Aqueous Phase Liquid

Monitoring well not installed at time of measurements
 NA - Not Available. PZ-1, PZ-2, and PZ-3 were installed previously by another party.

NA - Not Available. PZ-1, PZ-2, and PZ-3 were installed previously by another party.
ND - Not detected with oil/water interface probe.
(1) - MW-110D was repaired and resurvyed in 2018.
(2) - 2015 Staff gauge location was established within the Oswego River, however, was subsequently destroyed.
(3) - 2018 Staff gauge location established within the Oswego River.
(4) - NAPL gauging at location completed using a bailer. Upon removal of bailer, black viscous, tacky tar-like material observed coating totom of bailer. Strong tar-like odor.
(5) - Obstruction in piezometer.

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TABLE 3 SUMMARY OF IN-SITU HYDRAULIC CONDUCTIVITY TEST RESULTS FULTON (ONTARIO ST.) FORMER MGP SITE FULTON, NEW YORK

	0			
1	Screened	Saturated Formation	TUDI	Hydraulic
Location ID	Interval	Adjacent To Screen	Test Date	Conductivity
	(ft., BGS)			(cm/sec)
Shallow Overbur		01	44 (45 (0000	4 55 04
MW-101	8-18	Glacial Till	11/15/2006	1.5E-04
MW-102	6-16	Fill/Glacial Till	11/15/2006	1.2E-04
MW-103	9-19	Glacial Till Glacial Till	11/16/2006	7.7E-04
MW-108 MW-109S	6-16 5-15	Fill	9/13/2007	2.2E-04 2.0E-03
MW-1093 MW-110S	5-15 5-15	Glacial Till	9/13/2007 9/24/2007	2.0E-03 1.8E-04
MW-1103 MW-111S	5-15 6-14	Glacial Till	3/22/2013	7.3E-04
MW-1113 MW-112S	0-14 4-12	Fill/Glacial Till	3/22/2013	4.1E-04
MW-1123	9-15	Glacial Till	11/2/2015	5.3E-03 ⁽¹⁾
MW-119	9-15	Glacial Till	11/2/2015	1.4E-03
MW-121S	7.5-12.5	Glacial Till	11/15/2018	3.1E-03
MW-122S	8-14	Glacial Till	11/14/2018	5.1E-03
Deen Arrestonder	- 14/- 11-		Geometric Mean	7.6E-04
Deep Overburder MW-102D	20-25	Cleared Till (Weathered Deals	2/22/2012	1.1E-03
MW-102D MW-103D	20-25	Glacial Till/Weathered Rock Glacial Till	3/22/2013 3/22/2013	1.1E-03 1.4E-03
MW-103D MW-109D	17-22	Glacial Till	9/24/2007	6.6E-03
MW-109D MW-110D	18-23	Glacial Till	9/13/2007	8.3E-03
MW-110D MW-111D	16-23	Glacial Till	3/22/2013	2.1E-05
MW-111D MW-112D	14-19	Glacial Till	3/22/2013	8.1E-03
MW-113D	15.5-20.5	Glacial Till	11/3/2015	1.5E-02
MW-114D	16.4-21.4	Glacial Till	11/3/2015	1.1E-03
MW-115D	20.5-25.5	Glacial Till	11/2/2015	1.9E-03 ⁽¹⁾
MW-116D	23.5-28.5	Glacial Till	11/2/2015	7.3E-03 ⁽¹⁾
MW-120D	15-21	Glacial Till	11/15/2018	1.2E-03
	13.5-18.5			
MW-121D MW-122D	13.5-18.5	Glacial Till Glacial Till	11/15/2018	2.3E-03
	10-21	Glacial III	11/14/2018 Geometric Mean	1.2E-03 2.1E-03
Shallow Bedrock	Wells		deometric mean	2.12-03
BRB-1	33.9-43.9	Bedrock	11/2/2015	9.5E-03
MW-109R	28-38	Bedrock	11/3/2015	3.4E-03
MW-111R	29.5-35.5	Bedrock	11/2/2015	1.6E-02
MW-120R	40-52	Bedrock	11/15/2018	1.2E-03
MW-121R	34-44	Bedrock	11/15/2018	1.3E-03
MW-122R	37-49	Bedrock	11/15/2018	2.9E-05
MW-123R	48-55	Bedrock	11/15/2018	1.0E-03
MW-124R	35-45	Bedrock	11/15/2018	2.3E-03
MW-125R	34-44	Bedrock	11/15/2018	3.6E-03
			Geometric Mean	1.8E-03
Deep Bedrock W				
MW-122RD	86-96	Bedrock	11/14/2018	1.2E-03

Notes:

(1) - Value is representative of the average estimated horizontal hydraulic conductivity based on two separate in-situ tests performed at well location.

BGS - Below ground surface

cm/sec - centimeters per second



TABLE 4 SUMMARY OF VISUAL/OLFACTORY FIELD OBSERVATIONS IN SOIL AND BEDROCK FULTON (ONTARIO ST.) FORMER MGP SITE FULTON, NEW YORK

	Date of	Total Depth of	Depth of	
Location	Observation	Boring/Test Pit	Observation (ft., BGS)	Description
SOIL BORINGS				
B-104	11/16/2004	28.2	14-14.4	Moderate tar-like odor.
	11/16/2004		18-18.7	Slight tar-like odor.
	11/16/2004		20-20.2	Slight indistinct odor.
	11/16/2004		22.4-22.9	Brown-black, viscous NAPL, strong tar-like odor.
	11/16/2004		24.5-24.7	Brown-black NAPL, highly viscous, strong sheen.
	11/16/2004		25-25.3	Brown-black NAPL, highly viscous, strong sheen.
	11/16/2004		26.1-26.2	Staining.
	11/16/2004		26.2-27	Saturated with water and NAPL, sheen.
	11/16/2004		28-28.2	Sheen on water in split-spoon, strong tar-like odor.
B-105	11/16/2004	16		No observations or odor indicative of MGP-related or other impacts.
B-106	9/12/2007	12	10.5	Brown-black NAPL coating grains (fill), moderate fuel-like odor - see Note 1.
B-107	9/12/2007	10		No observations or odor indicative of MGP-related or other impacts.
B-114	11/27/2012	22.1	18.8-20.8	Slight tar-like odor.
	11/27/2012		20.8-21.6	Sporadic black staining, slight tar-like odor.
B-115	11/13/2012	24.8	12-19	Slight mothball-like odor.
B-116	11/13/2012	26.3	6.5-8.8	Slight mothball-like odor.
	11/13/2012		14-14.6	Slight to moderate mothball-like odor.
B-117	11/19/2012	26.2	14-20.5	Degraded wood shavings, burnt-like odor.
	11/19/2012		22-22.4	Degraded wood shavings, moderate sheen, moderate tar-like odor.
	11/19/2012		24-25.6	Black stringy/viscous tar, strong tar-like odor - see Note 2.
	11/19/2012		25.6-25.8	Slight tar-like odor.
B-118	11/19/2012	26.1	8.8-9.7	Burnt-like odor.
	11/19/2012		14-19.2	Degraded wood shavings, moderate burnt/fuel-like odor.
	11/19/2012		22-22.8	Droplets of NAPL partially coating wood surfaces, strong tar-like odor.
	11/19/2012		24-24.2	Thin tar seam running through matrix.

TABLE 4 SUMMARY OF VISUAL/OLFACTORY FIELD OBSERVATIONS IN SOIL AND BEDROCK FULTON (ONTARIO ST.) FORMER MGP SITE FULTON, NEW YORK

	Date of	Total Depth of	Depth of	
Location	Observation	Boring/Test Pit	Observation (ft., BGS)	Description
B-119	11/15/2012	20.2	14.5-15.1	Black staining, slight fuel-like odor.
	11/15/2012		16-17.2	Black staining, slight fuel/tar-like odor.
	11/15/2012		18-18.5	Slight/faint fuel-like odor.
	11/15/2012		20-20.2	Moderate tar-like odor.
B-120	11/14/2012	13.2		No observations or odor indicative of MGP-related or other impacts.
B-121	11/15/2012	13.2	6-6.8	Slight fuel-like odor.
B-122	11/14/2012	13.5		No observations or odor indicative of MGP-related or other impacts.
B-123A	11/26/2012	10.8		No observations or odor indicative of MGP-related or other impacts.
B-123B	11/26/2012	20.2	18.3-18.7	Slight fuel/tar-like odor.
	11/26/2012		20-20.2	Moderate mothball-like odor.
B-124	11/27/2012	17.5		No observations or odor indicative of MGP-related or other impacts.
B-125	9/29/2015	24.5	19.9-24.4	Slight tar-like odor.
B-126	9/30/2015	20.4	19-21.4	Very slight tar-like odor.
B-127	9/28/2015	21	9-16.6	Sand and gravel saturated with NAPL (oil-like consistency) and groundwater, sheen, strong tar-like odor.
	9/28/2015		17-18.8	Sand and gravel heavily coated with NAPL (oil-like consistency), sheen, strong tar-like odor.
	9/28/2015		19-20.5	Black discoloration, strong tar-like odor, slight sheen.
	9/28/2015		20.5-20.6	Thin seam of black viscous, tacky tar-like material, strong tar-like odor.
	9/28/2015		20.6-21	Slight tar-like odor.
B-128	9/25/2015	21.7	21-21.7	Slight tar-like odor.
B-129	10/5/2015	19.3	5.5	Black semi-solid tar-like material.
	10/5/2015		9.4	Dark discoloration, wood chips, slight burnt-like odor.
B-130	10/5/2015	21.5	17.5	Slight dark discoloration around soil grains.
	10/5/2015		19.5-20	Slight discoloration around gravel.

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TABLE 4 SUMMARY OF VISUAL/OLFACTORY FIELD OBSERVATIONS IN SOIL AND BEDROCK FULTON (ONTARIO ST.) FORMER MGP SITE FULTON, NEW YORK

	Date of	Total Depth of	Depth of	
Location	Observation	Boring/Test Pit	Observation (ft., BGS)	Description
B-131	10/5/2015	24.5		No observations or odor indicative of MGP-related or other impacts.
B-132	10/2/2015	24		No observations or odor indicative of MGP-related or other impacts.
B-133	10/1/2015	19.5		No observations or odor indicative of MGP-related or other impacts.
B-134	7/11/2018	20		No observations or odor indicative of MGP-related or other impacts.
B-135	7/11/2018	21	5.4-5.8	Discolored soils (black) with tar-like odors, discolored soils adhere to Ziploc® bag, trace amount of sheen observed on Ziploc® bag;
D-100		21	11-13	Faint mothball-like odor.
			13-20.4	Moderate to strong mothball-like odor.
SOIL BORINGS INTER	NDED FOR MONITORING WE	LLS		
MW-101	11/12/2004	25	18-19	Slight sheen on bubbles on water in split-spoon.
MW-102	11/15/2004	16.5	6-7.2	Moderate tar-like odor.
	11/15/2004		8-8.8	Moderate tar-like odor.
	11/15/2004		10-11.2	Stained throughout, strong tar-like odor.
	11/15/2004		11.2-12	Slight tar-like odor.
	11/15/2004		12-14	Black staining, strong tar-like odor in stained areas.
	11/15/2004		14-14.6	Little staining.
MW-102D	11/14/2012	25		No observations or odor indicative of MGP-related or other impacts.
MW-103	11/15/2004	20		No observations or odor indicative of MGP-related or other impacts.
MW-103D	11/16/2012	26.3	23.3-23.6	Slight to moderate fuel-like odor.
	11/16/2012		24-24.9	Moderate tar-like odor.
	11/16/2012		24.9-25.4	Moderate mothball-like odor.
	11/16/2012		26-26.2	Slight sheen, moderate mothball-like odor.
MW-108	9/12/2007	20.2		No observations or odor indicative of MGP-related or other impacts.
MW-109S	9/11/2007	15		No observations or odor indicative of MGP-related or other impacts.

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Location	Observation			
LUCALIUII		Boring/Test Pit	Observation (ft., BGS)	Description
MW-109D	9/11/2007	22.2	21	Black staining, indistinct odor.
MW-110S	9/10/2007	15		No observations or odor indicative of MGP-related or other impacts.
MW-110D	9/10/2007	24.4		No observations or odor indicative of MGP-related or other impacts.
MW-111S	11/21/2012	14		Split-spoon samples not collected. Refer to MW-111D for descriptions of observations.
MW-111D	11/21/2012	21	18.2-18.4	Moderate fuel-like odor.
	11/21/2012		20-20.5	Thin seam/band of stringy/viscous tar through matrix - see Note 2.
	11/21/2012		20.5-20.7	Strong tar-like odor.
	11/21/2012			Viscous NAPL/tar and sheen observed within end of auger head upon removal from borehole.
MW-112S	11/20/2012	12		Split-spoon samples not collected. Refer to MW-112D for descriptions of observations.
MW-112D	11/20/2012	19	0.4-5	Slight to moderate fuel-like odor.
	11/20/2012		5-5.3	Slight fuel-like odor.
MW-113D	10/2/2015	21.2	15-17	Slight tar-like odor
	10/2/2015		17.15-17.8	Strong tar-like odor, gray discoloration throughout.
	10/2/2015		19-19.8	Strong tar-like odor.
	10/2/2015		19.8-20.1	Occurrences of black viscous tacky tar-like material coating sand, strong tar-like odor.
MW-114D	9/30/2015	21.4	19-20.2	Slight tar-like odor.
	9/30/2015		21-21.4	Black discoloration, slight tar-like odor.
MW-115D	10/1/2015	25.5		No observations or odor indicative of MGP-related or other impacts.
MW-116D	10/6/2015	28.5	11-11.3	Slight dark discoloration.
	10/6/2015		13.4-14.7	Slight dark discoloration around soil grains.
	10/6/2015		27.8-28.5	Blotches of orange discoloration.
MW-118	9/29/2015	15		No observations or odor indicative of MGP-related or other impacts.
MW-119	9/28/2015	21.5	15-16	Very slight tar-like odor.
	9/28/2015		17-17.8	Very slight tar-like odor, slight black discoloration.

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	Date of	Total Depth of	Depth of	
Location	Observation	Boring/Test Pit	Observation (ft., BGS)	Description
MW-120D	8/16/2018	21	11-11.6	Faint mothball-like odor.
	8/16/2018		13-13.2	Discoloration (black), sheen and strong mothball-like odor.
	8/16/2018		15.2-15.7	Discoloration (black), metallic luster, strong mothball-like odor.
	8/16/2018		17-17.3	Discoloration (black), sub-metallic/metallic luster, strong mothball-like odor.
MW-121S	7/12/2018	12.5		No observations or odor indicative of MGP-related or other impacts.
MW-121D	7/11/2018	24	10.5-18.4	Slight mothball-like odor.
MW-122S	8/9/2018	14		No observations or odor indicative of MGP-related or other impacts.
MW-122D	8/14/2018	21		No observations or odor indicative of MGP-related or other impacts.
BRB-1	9/4/2015	43.9	15-20.3	Slight/faint mothball-like odor.
Top of Rock: 26' BGS	9/8/2015		23-23.6	Slight mothball-like odor.
	9/8/2015		23.6-23.7	Sand and gravel slightly discolored, moderate mothball-like odor.
	9/8/2015		25-25.7	Sporadic dark grey discoloration, moderate tar/mothball-like odor.
	9/8/2015		25.7-25.85	Black discoloration and blotches of viscous black tar-like material throughout, moderate/strong tar-like odor.
	9/8/2015		26-26.1	Thin band of tar/NAPL.
	9/9/2015		27.5-32	Slight mothball-like odor from drilling return water, slight mothball-like odor observed throughout core run.
	9/9/2015		29.2	Specks of sheen on ~25% of parting surface.
	9/9/2015		34-37	Specks of sheen on \sim 5% of parting surface.
	9/9/2015		37-42	Moderate mothball-like odor from drilling return water, NAPL blebs and droplets observed on surface of return water
				following completion of core run.
	9/9/2015		37.9-42	Sporadic specks of sheen on fracture surfaces, moderate mothball-like odor.
	9/9/2015		43.6	Black viscous, tacky tar-like material coating ~50% of parting surface, sheen, strong tar-like odor.
	9/9/2015		42-43.9	NAPL/tar droplets/globules on outside of core.

	Date of	Total Depth of	Depth of	
Location	Observation	Boring/Test Pit	Observation (ft., BGS)	Description
MW-109R	9/21/2015	42.5	17.6-17.7	Black discoloration, moderate tar-like odor.
Top of Rock: 20' BGS	9/21/2015		19.4-19.5	Black discoloration, moderate tar-like odor.
	9/21/2015		19.5-19.7	Slight tar-like odor.
	9/22/2015		21.5-26.5	Slight mothball-like odor.
	9/22/2015		24.55-25.7	Weathered parting with black discoloration, slight tar-like odor.
	9/22/2015		32.25-33.5	Sporadic sheen on outside of core.
	9/22/2015		36.5-41.5	Sheen on surface of core.
	9/22/2015		40-40.1	Sporadic sheen on parting surfaces, slight mothball-like odor.
	9/22/2015			Blotches of NAPL/tar sporadically observed on geophysical tools upon removal from corehole.
MW-111R	9/15/2015	36.7	7-8.6	Slight mothball-like odor.
Top of Rock: 20.5' BGS	9/15/2015		9-10.1	Slight mothball-like/tar-like odor.
	9/15/2015		11-12.1	Moderate to strong tar-like odor.
	9/15/2015		13-14.1	Moderate to strong tar-like odor and slight sporadic sheen on water in split-spoon.
	9/15/2015		15-15.8	Strong tar-like odor and slight sporadic sheen on water in split-spoon.
	9/16/2015		17-18.3	Strong tar-like odor and slight sheen on water in spoon.
	9/16/2015		17.45	Thin band of black discoloration.
	9/16/2015		17.65-18.3	Black discoloration.
	9/16/2015		19-20.2	Strong tar-like odor and sheen, black discoloration throughout.
	9/16/2015		19.5-20.2	Black discoloration throughout, blotches of viscous black tar-like material, strong tar-like odor.
	9/17/2015		21-21.8	Sheen on parting surfaces of weathered bedrock and strong tar-like odor.
	9/17/2015		31.7	NAPL observed on inflatable packer following removal of packer assembly from corehole after packer pressure test
	9/17/2015			conducted on 31.7-36.7' interval. Spots of NAPL/tar observed sporadically on geophysical tools and partially coating ends of tools following removal
	-,, =•=•			from corehole.

	Date of	Total Depth of	Depth of	
Location	Observation	Boring/Test Pit	Observation (ft., BGS)	Description
MW-117R	9/10/2015	35.8	9.4-9.85	Moderate sulfur-like and tar-like odor.
Top of Rock: 24.5' BGS	9/10/2015		11-11.9	Moderate tar-like odor.
	9/10/2015		13-13.7	Slight tar-like odor.
	9/10/2015		19.4-19.7	Strong sulfur-like odor.
	9/10/2015		21-22	Sporadic sheen observed on gravel surfaces, moderate tar/sulfur-like odor.
	9/10/2015		23-23.25	Sporadic sheen observed and strong tar-like odor.
	9/10/2015		23.25-23.4	Black viscous NAPL/tar coating woodchip-like material, strong tar-like odor.
	9/10/2015		23.4-24.2	Black discoloration throughout, viscous NAPL/tar coating fracture surfaces of weathered bedrock, strong tar-like odor.
	9/10/2015		25-25.4	Black discoloration on outside of sample and split-spoon, sheen on water in split-spoon with NAPL specks throughout, moderate tar-like odor.
	9/14/2015		25.8-30.8	Blebs of NAPL observed on surface of drilling return water, nodules of black tacky, viscous tar observed on inside base
	0 /1 4 /004 5		00.0	of container for drilling return water after contents of container were transferred to polyethylene storage tank.
	9/14/2015		26.8 29	Sheen on fracture surface, black discoloration and sporadic specks of NAPL on weathered bedrock fragments.
	9/14/2015 9/14/2015		29	Angular fracture with black tacky, viscous tar coating ~60% of fracture surface, strong tar-like odor. Sporadic sheen and NAPL on ~80 of near horizontal parting.
	9/14/2015 9/14/2015		30.4	
	9/14/2015 9/14/2015		30.4	Sheen on ~5% of parting surface. Sporadic specks of black tacky, viscous NAPL/tar on outside of core, moderate sheen on outside of core.
	9/14/2015 9/14/2015		32.6	Few blebs of NAPL and slight sheen observed on center of parting (potentially introduced during drilling).
	9/14/2015		33.5	Few blebs of NAPL and slight sheen observed on center of parting (potentially introduced during drilling).
	9/14/2015		33.7	Slight sheen on ~30% of fracture surface.
	9/14/2015		34	Sheen on ~50% of fracture surface.
	9/14/2015		34.8	Heavy sheen on ~80% of fracture surface.
	9/14/2015		35.2	Heavy sheen with sporadic specks of NAPL on fracture surface (potentially introduced during drilling).
	9/14/2015		35.5	Heavy sheen with sporadic specks of NAPL on fracture surface (potentially introduced during drilling).
MW-120R	8/14/2018	56	14	Discolored soils (black), strong mothball-like odors observed upon removal of augers.
Top of Rock 24' BGS	-,,		18	Discolored soils (black), strong mothball-like odors observed upon removal of augers.
MW-121R	7/18/2018	47	37-47	Moderate mothball-like odor observed in drilling return water.
Top of Rock 22' BGS	7/18/2018		37-37.5	Abundant sheen.
	7/18/2018		40.3	Abundant sheen and two black viscous NAPL blebs on horizontal parting, moderate mothball-like odor.
	7/18/2018		42-47	Sporadic sheen observed on outside of core, not observed on fracture surfaces, slight to moderate mothball-like odor,
				single bleb of NAPL observed on surface of drilling return water.
	7/18/2018			Spots of NAPL observed sporadically on geophysical tools following removal from corehole.

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Location	Date of Observation	Total Depth of Boring/Test Pit	Depth of Observation (ft., BGS)	Description
MW-122R	8/13/2018	49	24.15-24.3	Faint fuel-like odor.
Top of Rock 24' BGS			24.9-25.1	Faint fuel-like odor.
MW-123R Top of Rock 26' BGS	8/15/2018	59	7-14.4	Marbled discolored soils (black), faint mothball like odor.
MW-124R	7/23/2018	49	5-5.7	Fuel-like odor.
Top of Rock 32' BGS	7/23/2018		7.2-7.9	Fuel-like odor.
	7/23/2018		9-9.6	Fuel-like odor.
	7/23/2018		11-11.5	Fuel-like odor.
	7/23/2018		17-17.4	Sheen observed on surface of water in split-spoon, faint mothball-like odor.
	7/23/2018		17.4-17.6	Discolored soils (black), faint mothball-like odor.
	7/23/2018		17.6-18.7	Faint mothball-like odor.
	7/23/2018		19-19.7	Sporadic discolored soils (black), sheen observed on surface of water in split-spoon, faint mothball-like odor.
	7/24/2018		32.1	Near horizontal parting with sporadic spots of black discoloration, faint mothball-like odor.
	7/24/2018		32-33.9	Faint mothball-like odors throughout core run.
MW-125R	7/12/2018	47	17-21	Faint mothball-like odor
Top of Rock 26' BGS	7/12/2018		23-26	Faint mothball-like odor
	7/19/2018		28	Trace NAPL blebs and sheen observed on surface of drilling return water, faint mothball-like odor.
MW-122RD	7/26/2018	100	28-28.1	Near horizontal parting with strong fuel-like odor.
Top of Rock 21' BGS	7/26/2018		42.3-42.6	Near horizontal parting with fuel-like odor.
TEST PITS				
TP-101	11/11/2004	12.5		No observations or odor indicative of MGP-related or other impacts.
TP-102	11/11/2004	9.5	8	Viscous tar coating on piece of brick.
TP-103	11/10/2004	8.5	1.5 3.5	Black staining. Hardened tar adhering to piece of wood.
TP-104	11/10/2004	8.5		No observations or odor indicative of MGP-related or other impacts.
TP-105	11/19/2012	5.5		No observations or odor indicative of MGP-related or other impacts.

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	Date of	Total Depth of	Depth of	
Location	Observation	Boring/Test Pit	Observation (ft., BGS)	Description
TP-106	11/19/2012	7.5	4	Slight sulfur-like odor.
TP-107	11/19/2012	7.5		No observations or odor indicative of MGP-related or other impacts.
	11/13/2012	110		
TP-108	11/19/2012	7		No observations or odor indicative of MGP-related or other impacts.

Notes:

(1) - A sample of the fill material from B-106 was collected and submitted for gas chromatography-flame ionization detection (GC-FID) fingerprint analysis; this analysis indicated potential coal tar impacts to the sample. There was insufficient sample recovery for conducting other laboratory analyses.

(2) - Sample collected from this interval analyzed by GC/FID (EPA 8100M) for fingerprinting and by GC/MS/SIM (EPA 8270M) for mono- and polycyclic aromatic hydrocarbons (MAHs and PAHs), alkyl PAH homologues and other selected compounds; this analysis indicated coal tar impacts to the sample.

BGS - Below ground surface

	Ground Surface	Reference	Depth to	Base of	Screene	ed Interval	Sump	Interval	Total				Initial Depth t	o Resistance	(ft., BGS) ⁽³⁾			
	Elevation ⁽¹⁾	Elevation ⁽²⁾	Bedrock	Steel Casing	Тор	Bottom	Тор	Bottom	Depth	3/14/16	4/5/16	4/6/16	4/20/16	5/3/16	5/4/16	5/10/16	5/11/16	5/17/16
Location ID	(ft., NGVD)	(ft., NGVD)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft. , BGS)									
MW-117R	326.06	327.72	24.5	25.8	26.5	32.5	32.5	34.5	35.8	24.3	27.8	30.3	29.7	29.4	30.9	30.7	30.8	30.6
												Depth to	Resistance a	ifter DNAPL R	emoval (ft., B	(GS) ⁽³⁾		
										3/14/16	4/5/16	4/6/16	4/20/16	5/3/16	5/4/16	5/10/16	5/11/16	5/17/16
										(4)	30.7	NA	NA	31.1 ⁽⁵⁾	NA	31.1	NA	31.1
													Volume of DN	IAPL Remove	d (gallons)			
										3/14/16	4/5/16	4/6/16	4/20/16	5/3/16	5/4/16	5/10/16	5/11/16	5/17/16
										≥ 0.57 ⁽⁶⁾	0.47	NA	NA	0.28	NA	0.07	NA	0.08

Notes and Abbreviations:

(1) -Value presented reflects ground surface elevation at time of installation.

(2) - Top of PVC well casing.

(3) - Depth to resistance measured using three-foot long threaded rod attached to downhole tape. The measurement is interpreted as elevation), but were adjusted in this table to be referenced to ground surface.

(4) - Depth to resistance not measured following DNAPL removal efforts on this date.

(5) - Unable to advance bailer past 31.1 feet BGS.

(6) - This is the minimum volume removed on 3/14/16 assuming the initial depth to resistance on 4/5/16 is the depth to resistance following DNAPL removal.

(7) - Following sediment removal efforts conducted on 6/10/16, the total depth of the well is now consistent with the constructed well bottom.

	Ground Surface	Reference	Depth to	Base of	Screene	d Interval	Sump	Interval	Total				Initia	l Depth to Res	istance (ft., E	3GS) ⁽³⁾			
	Elevation ⁽¹⁾	Elevation ⁽²⁾	Bedrock	Steel Casing	Тор	Bottom	Тор	Bottom	Depth	5/18/16	5/23/16	5/24/16	6/9/16	6/10/16	6/17/16	6/24/16	7/1/16	7/8/16	7/14/16
Location ID	(ft., NGVD)	(ft., NGVD)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft. , BGS)										
MW-117R	326.06	327.72	24.5	25.8	26.5	32.5	32.5	34.5	35.8	31.0	30.8	31.2	31.1	31.3	33.3	33.3	33.5	33.8	33.8
													Depth to Resi	istance after [ONAPL Remo	val (ft., BGS) ⁽³⁾			
										5/18/16	5/23/16	5/24/16	6/9/16	6/10/16	6/17/16	6/24/16	7/1/16	7/8/16	7/14/16
										NA	31.2	NA	31.3	NA	34.5 ⁽⁷⁾	34.5	34.5	34.5	34.5
													Volu	me of DNAPL	Removed (ga	llons)			
										5/18/16	5/23/16	5/24/16	6/9/16	6/10/16	6/17/16	6/24/16	7/1/16	7/8/16	7/14/16
										NA	0.06	NA	0.03	NA	0.20	0.19	0.17	0.11	0.11

Notes and Abbreviations:

(1) -Value presented reflects ground surface elevation at time of installation.

(2) - Top of PVC well casing.

(3) - Depth to resistance measured using three-foot long threaded rod attached to downhole tape. The measurement is interpreted as

being the approximate top of level of DNAPL in well. Depths to resistance were initially measured from the top of casing (reference elevation), but were adjusted in this table to be referenced to ground surface.

(4) - Depth to resistance not measured following DNAPL removal efforts on this date.

(5) - Unable to advance bailer past 31.1 feet BGS.

(6) - This is the minimum volume removed on 3/14/16 assuming the initial depth to resistance on 4/5/16 is the depth to resistance following DNAPL removal.

(7) - Following sediment removal efforts conducted on 6/10/16, the total depth of the well is now consistent with the constructed well bottom.

	Ground Surface	Reference	Depth to	Base of	Screene	d Interval	Sump l	Interval	Total				Initial Depth	to Resistanc	e (ft., BGS) ⁽³⁾			
	Elevation ⁽¹⁾	Elevation ⁽²⁾	Bedrock	Steel Casing	Тор	Bottom	Тор	Bottom	Depth	7/26/16	8/25/16	9/27/16	10/27/16	11/29/16	12/28/16	1/31/17	2/28/17	3/28/17
Location ID	(ft., NGVD)	(ft., NGVD)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft. , BGS)									
MW-117R	326.06	327.72	24.5	25.8	26.5	32.5	32.5	34.5	35.8	33.7	33.6	33.4	33.5	33.3	33.9	33.6	33.6	33.4
												Depth	to Resistance	after DNAPL	Removal (ft.,	BGS) ⁽³⁾		
										7/26/16	8/25/16	9/27/16	10/27/16	11/29/16	12/28/16	1/31/17	2/28/17	3/28/17
										34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5
													Volume of D	NAPL Remov	ed (gallons)			
										7/26/16	8/25/16	9/27/16	10/27/16	11/29/16	12/28/16	1/31/17	2/28/17	3/28/17
										0.14	0.16	0.18	0.17	0.20	0.11	0.16	0.15	0.18

Notes and Abbreviations:

(1) -Value presented reflects ground surface elevation at time of installation.

(2) - Top of PVC well casing.

(3) - Depth to resistance measured using three-foot long threaded rod attached to downhole tape. The measurement is interpreted as elevation), but were adjusted in this table to be referenced to ground surface.

(4) - Depth to resistance not measured following DNAPL removal efforts on this date.

(5) - Unable to advance bailer past 31.1 feet BGS.

(6) - This is the minimum volume removed on 3/14/16 assuming the initial depth to resistance on 4/5/16 is the depth to resistance following DNAPL removal.

(7) - Following sediment removal efforts conducted on 6/10/16, the total depth of the well is now consistent with the constructed well bottom.

	Ground Surface	Reference	Depth to	Base of	Screene	d Interval	Sump	Interval	Total			Initial	Depth to Resis	tance (ft., BO	GS) ⁽³⁾		
	Elevation ⁽¹⁾	Elevation ⁽²⁾	Bedrock	Steel Casing	Тор	Bottom	Тор	Bottom	Depth	4/25/17	5/31/17	8/1/17	10/17/17	1/3/18	3/14/18	6/5/18	10/30/18
Location ID	(ft., NGVD)	(ft., NGVD)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft., BGS)	(ft. , BGS)								
MW-117R	326.06	327.72	24.5	25.8	26.5	32.5	32.5	34.5	35.8	34.3	34.0	34.0	33.5	33.7	34.2	34.3	33.9
											D	Pepth to Resis	tance after DN	IAPL Remova	al (ft., BGS) ⁽³⁾		
										4/25/17	5/31/17	8/1/17	10/17/17	1/3/18	3/14/18	6/5/18	10/30/18
										34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5
												Volum	e of DNAPL Re	emoved (gall	ons)		
										4/25/17	5/31/17	8/1/17	10/17/17	1/3/18	3/14/18	6/5/18	10/30/18
										0.04	0.09	0.09	0.17	0.13	0.06	0.03	0.10
										Total Volume R	emoved: ≥	4.51					

Notes and Abbreviations:

(1) -Value presented reflects ground surface elevation at time of installation.

(2) - Top of PVC well casing.

(3) - Depth to resistance measured using three-foot long threaded rod attached to downhole tape. The measurement is interpreted as

elevation), but were adjusted in this table to be referenced to ground surface.

(4) - Depth to resistance not measured following DNAPL removal efforts on this date.

(5) - Unable to advance bailer past 31.1 feet BGS.

(6) - This is the minimum volume removed on 3/14/16 assuming the initial depth to resistance on 4/5/16 is the depth to resistance following DNAPL removal.

(7) - Following sediment removal efforts conducted on 6/10/16, the total depth of the well is now consistent with the constructed well bottom.

	Soil	Cleanup Objec	tives							
	[6 NY	CRR Subpart 3	75-6]							
	Protection of									
	Public Health -	Protection of			B-134	B-134	B-135	B-135	B-135	B-135 DUP
	Industrial	Ecological	Protection of		9-11	19-20	5-7	9-11	19-21	19-21
Constituent	Zoning ^(a)	Resources	Groundwater	Units	7/11/2018	7/11/2018	7/11/2018	7/11/2018	7/11/2018	7/11/2018
Volatile Organic Compound	ls (VOCs)									
BTEX										
Benzene	89	70	0.06	mg/kg	0.002 J	0.003 J	0.46 J	0.0007 J	0.019	0.011 J
Toluene	1000	36	0.7	mg/kg	0.0008 U	0.011	0.034 J+	0.001 U	0.002 J	0.001 J
Ethylbenzene	780	NE	1	mg/kg	0.0008 U	0.07	0.002 J	0.001 U	0.0009 U	0.0009 U
Xylenes, total	1000	0.26	1.6	mg/kg	0.0008 U	0.13	0.013 J+	0.001 U	0.0009 U	0.0009 U
Total BTEX	NE	NE	NE	mg/kg	0.002 J	0.21	0.51 J	0.0007 J	0.02	0.01 J
tert-Butyl methyl ether (MTB	E)									
Semi-volatile Organic Comp	oounds (SVOCs)									
Polycyclic Aromatic Hydroca	arbons (PAHs)									
Acenaphthene	1000	20	98	mg/kg	0.004 U	0.23	0.011 J	0.004 J	0.015 J	0.017 J
Acenaphthylene	1000	NE	107	mg/kg	0.004 U	0.19	0.027	0.004 U	0.019 J	0.019
Anthracene	1000	NE	1000	mg/kg	0.004 U	0.37	0.042	0.004 U	0.056	0.043
Benzo(a)anthracene	11	NE	1	mg/kg	0.004 U	0.27	0.042	0.004 U	0.022	0.018 J
Benzo(a)pyrene	1.1	2.6	22	mg/kg	0.007 U	0.2	0.03	0.008 U	0.01 J	0.007 J
Benzo(b)fluoranthene	11	NE	1.7	mg/kg	0.004 U	0.25	0.037	0.004 U	0.009 J	0.008 J
Benzo(g,h,i)perylene	1000	NE	1000	mg/kg	0.007 U	0.07	0.014 J	0.008 U	0.007 U	0.007 U
Benzo(k)fluoranthene	110	NE	1.7	mg/kg	0.004 U	0.095	0.022	0.004 U	0.006 J	0.005 J
Chrysene	110	NE	1	mg/kg	0.004 U	0.19	0.04	0.004 U	0.023 J	0.014 J
Dibenz(a,h)anthracene	1.1	NE	1000	mg/kg	0.004 U	0.022	0.005 J	0.004 U	0.004 U	0.004 U
Fluoranthene	1000	NE	1000	mg/kg	0.004 U	0.69	0.09	0.004 U	0.062	0.073
Fluorene	1000	30	386	mg/kg	0.004 U	0.38	0.043	0.004 J	0.044	0.036
Indeno(1,2,3-c,d)pyrene	11	NE	8.2	mg/kg	0.007 U	0.071	0.013 J	0.008 U	0.007 U	0.007 U
Naphthalene	1000	NE	12	mg/kg	0.007 U	0.36	1.1	0.008 U	0.12 J	0.061 J
Phenanthrene	1000	NE	1000	mg/kg	0.004 U	1.1	0.15	0.009 J	0.11 J	0.079 J
Pyrene	1000	NE	1000	mg/kg	0.004 U	0.48	0.078	0.006 J	0.074	0.076
Total PAHs	NE	NE	NE	mg/kg	ND	5.0	1.7	0.02 J	0.58	0.46

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		Cleanup Object CRR Subpart 3								
	Protection of									
	Public Health -	Protection of			B-134	B-134	B-135	B-135	B-135	B-135 DUP
	Industrial	Ecological	Protection of		9-11	19-20	5-7	9-11	19-21	19-21
Constituent	Zoning ^(a)	Resources	Groundwater	Units	7/11/2018	7/11/2018	7/11/2018	7/11/2018	7/11/2018	7/11/2018
Inorganic Constituents										
Cyanide, total	10000	NE	40	mg/kg	0.20 U	0.22 U	0.22 U	0.22 U	0.20 U	0.21 U

Notes:

U - The analyte was analyzed for, but was not detected. Value shown is representative of the method detection limit for the analyzed constituent.

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.

J+ - Analyte present. Reported value may be biased high. Result is estimated high.

NE - Not established.

ND - Not detected.

(a) - Industrial Zoning Classification per City of Fulton Tax Assessment Department

Boxed concentrations are greater than one or more of the New York State Subpart 375 Soil Cleanup Objectives for: Protection of Public Health for Industrially Zoned Properties, Protection of Ecological Resources, and/or Protection of Groundwater.

	Soil	Cleanup Objec	tives						
		CRR Subpart 3							
	Protection of		10 0]						
	Public Health -	Protection of			MW-121D	MW-121D	MW-124R	MW-124R	MW-124R
	Industrial	Ecological	Protection of		9-11	18-18.4	5-7	7-9	19-20
Constituent	Zoning ^(a)	Resources	Groundwater	Units	7/11/2018	7/11/2018	7/23/2018	7/23/2018	7/23/2018
Volatile Organic Compounds (, ,				, ,
BTEX									
Benzene	89	70	0.06	mg/kg	0.0004 U	0.001 J	0.046 J	0.021 U	0.016 U
Toluene	1000	36	0.7	mg/kg	0.0008 U	0.002 J	0.1 J	0.041 U	0.031 U
Ethylbenzene	780	NE	1	mg/kg	0.0008 U	0.003 J	0.19 J	0.063 J	0.04 J
Xylenes, total	1000	0.26	1.6	mg/kg	0.0008 U	0.008	0.81	0.3	0.19
Total BTEX	NE	NE	NE	mg/kg	ND	0.014	1.1	0.4	0.2
				G , G					
tert-Butyl methyl ether (MTBE)							0.024 U	0.021 U	0.016 U
Semi-volatile Organic Compo	unds (SVOCs)								
Polycyclic Aromatic Hydrocarb	ons (PAHs)								
Acenaphthene	1000	20	98	mg/kg	0.004 U	0.004 U	0.27 J	0.18 U	0.16 J
Acenaphthylene	1000	NE	107	mg/kg	0.004 U	0.004 U	0.17 U	0.18 U	0.091 U
Anthracene	1000	NE	1000	mg/kg	0.004 U	0.004 U	0.2 J	0.18 U	0.14 J
Benzo(a)anthracene	11	NE	1	mg/kg	0.009 J	0.004 U	0.51 J	0.29 J	0.33 J
Benzo(a)pyrene	1.1	2.6	22	mg/kg	0.009 J	0.007 U	0.6 J	0.37 U	0.46 J
Benzo(b)fluoranthene	11	NE	1.7	mg/kg	0.012 J	0.004 U	0.68 J	0.26 J	0.42 J
Benzo(g,h,i)perylene	1000	NE	1000	mg/kg	0.007 U	0.007 U	0.5 J	0.37 U	0.39 J
Benzo(k)fluoranthene	110	NE	1.7	mg/kg	0.007 J	0.004 U	0.32 J	0.18 U	0.25 J
Chrysene	110	NE	1	mg/kg	0.012 J	0.004 U	0.59 J	0.41 J	0.45 J
Dibenz(a,h)anthracene	1.1	NE	1000	mg/kg	0.004 J	0.004 U	0.17 U	0.19 J	0.091 U
Fluoranthene	1000	NE	1000	mg/kg	0.015 J	0.004 U	0.88	0.38 J	0.56
Fluorene	1000	30	386	mg/kg	0.004 U	0.004 U	0.18 J	0.18 U	0.1 J
Indeno(1,2,3-c,d)pyrene	11	NE	8.2	mg/kg	0.007 U	0.007 U	0.45 J	0.37 U	0.26 J
Naphthalene	1000	NE	12	mg/kg	0.007 U	0.011 J	0.34 U	0.37 U	0.36 J
Phenanthrene	1000	NE	1000	mg/kg	0.014 J	0.005 J	0.5 J	0.33 J	0.39 J
Pyrene	1000	NE	1000	mg/kg	0.015 J	0.004 U	0.91	0.58 J	0.69
Total PAHs	NE	NE	NE	mg/kg	0.10 J	0.02 J	7	2 J	4.3

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		Cleanup Objec							
	Protection of	CRR Subpart 3	/5-6]						
	Public Health -	Protection of			MW-121D	MW-121D	MW-124R	MW-124R	MW-124R
	Industrial	Ecological	Protection of		9-11	18-18.4	5-7	7-9	19-20
Constituent	Zoning ^(a)	Resources	Groundwater	Units	7/11/2018	7/11/2018	7/23/2018	7/23/2018	7/23/2018
Inorganic Constituents									
Cyanide, total	10000	NE	40	mg/kg	0.38 J	0.20 U	0.19 U	0.20 U	0.19 U

Notes:

U - The analyte was analyzed for, but was not detected. Value shown is representative of the method detection limit for the analyzed constituent.

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.

J+ - Analyte present. Reported value may be biased high. Result is estimated high.

NE - Not established.

ND - Not detected.

(a) - Industrial Zoning Classification per City of Fulton Tax Assessment Department

Boxed concentrations are greater than one or more of the New York State Subpart 375 Soil Cleanup Objectives for: Protection of Public Health for Industrially Zoned Properties, Protection of Ecological Resources, and/or Protection of Groundwater.

	Class GA Gr	oundwater Criteria	Location ID	BRB-1	BRB-1	MW-101	MW-101	MW-102	MW-102	MW-102D	MW-102D DUP	MW-102D
		NYS Part 703 ⁽¹⁾		9/26/2018	11/13/2018	9/20/2018	11/7/2018	9/20/2018	11/8/2018	9/20/2018	9/20/2018	11/8/2018
Constituent	TOGS 1.1.1 Guidance	Standard	Sample Date Units	- 37 207 2010	11/13/2010	- 37 207 2018		 		- 3/20 /2018	3/20/ 2018	
	Guidance	Standard	Units									
Volatile Organic Compounds (VOCs)												
BTEX	NE			13	2 J+	0.2 U	0.2 U	0.4 J	0.2 U	0.2 U	0.2 U	0.2 U
Benzene Toluene	NE NE	1	µg/L		2 J+	0.2 U 0.2 U	0.2 U 0.2 U	0.4 J 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U	0.2 U 0.2 U
	NE	5 5	µg/L	85 93	34	0.2 U 0.4 U	0.2 U 0.4 U	0.2 U 0.5 J	0.2 U 0.4 U	0.2 U 0.4 U	0.2 U 0.4 U	0.2 U 0.4 U
Ethylbenzene			µg/L									
Xylenes, total	NE	5	µg/L	340 531	120 176	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Total BTEX	NE	NE	µg/L	531	176	ND	ND	1.1 J	ND	ND	ND	ND
Semi-volatile Organic Compounds (SVOCs)												
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene	20	NE	µg/L	49	30	0.1 U	0.1 U	3	0.8	5	6	5
Acenaphthylene	NE	NE	µg/L	41	16	0.1 U	0.1 U	7	2	1	1	0.9
Anthracene	50	NE	µg/L	22	9	0.1 U	0.1 U	1	0.7	0.8	0.9	0.7
Benzo(a)anthracene	0.002	NE	µg/L	23	4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene	NE	ND	µg/L	17	3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	0.002	NE	µg/L	17	4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	NE	NE	µg/L	5	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(k)fluoranthene	0.002	NE	µg/L	9	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chrysene	0.002	NE	µg/L	16	3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	NE	NE	µg/L	2	1 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Fluoranthene	50	NE	µg/L	49	11	0.1 U	0.1 U	1.0	0.8	0.3 J	0.4 J	0.3 J
Fluorene	50	NE	µg/L	49	26 J-	0.1 U	0.1 U	1	0.4 J	3	3	2
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	7	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	10	NE	µg/L	650	42	0.1 U	0.1 U	0.3 J	1	1	1	0.9
Phenanthrene	50	NE	µg/L	74	20	0.1 U	0.1 U	0.4 J	0.1 U	5	6	4
Pyrene	50	NE	µg/L	31	8	0.1 U	0.1 U	0.6	0.6	0.5 J	0.6	0.5 J
Total PAHs	NE	NE	µg/L	1061	180	ND	ND	14	6	16	19	14

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	Class GA Groundwater Criteria		Location ID	BRB-1	BRB-1	MW-101	MW-101	MW-102	MW-102	MW-102D	MW-102D DUP	MW-102D
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/26/2018	11/13/2018	9/20/2018	11/7/2018	9/20/2018	11/8/2018	9/20/2018	9/20/2018	11/8/2018
Constituent	Guidance	Standard	Units									
Inorganic Constituents												
Cyanide, total	NE	200	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	23	24	5.0 U	5.0 U	5.0 U

Notes:

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.

J+ - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

U - The analyte was analyzed for, but was not detected. Value shown is representative of the practical quantitation limit for

the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the

reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary

to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

 (1) - Notes applicable to NYS Part 703 Standards:
 (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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	Class GA Gro	oundwater Criteria	Location ID	MW-103	MW-103	MW-103D	MW-103D	MW-103D DUP	MW-108	MW-108
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/21/2018	11/8/2018	9/24/2018	11/8/2018	11/8/2018	9/19/2018	11/6/2018
Constituent	Guidance	Standard	Units							
Volatile Organic Compounds (VOCs)										
BTEX										
Benzene	NE	1	µg/L	0.2 U	0.2 U	12	17	17	0.9 J	3
Toluene	NE	5	µg/L	0.2 U	0.2 U	0.3 J	2	2	0.2 U	0.5 J
Ethylbenzene	NE	5	µg/L	0.4 U	0.4 U	2	2	2	0.4 U	0.4 U
Xylenes, total	NE	5	µg/L	1 U	1 U	3 J	4 J	4 J	1 U	1 U
Total BTEX	NE	NE	µg/L	ND	ND	17.3	25	25	0.9 J	3.5
Semi-volatile Organic Compounds (SVOCs)										
Polycyclic Aromatic Hydrocarbons (PAHs)										
Acenaphthene	20	NE	µg/L	0.4 J	0.4 J	3	2	1	0.1 J	0.6
Acenaphthylene	NE	NE	µg/L	0.1 U	0.1 U	0.7	0.7	0.5 J	0.3 J	1
Anthracene	50	NE	µg/L	0.1 U	0.1 U	0.1 J	0.3 J	0.1 J	0.1 U	0.1 U
Benzo(a)anthracene	0.002	NE	µg/L	0.1 U	0.1 U	0.3 J	0.8	0.6	0.1 U	0.1 U
Benzo(a)pyrene	NE	ND	µg/L	0.1 U	0.1 U	0.4 J	1	0.6	0.1 U	0.1 U
Benzo(b)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.4 J	1	0.7	0.1 U	0.1 U
Benzo(g,h,i)perylene	NE	NE	µg/L	0.1 U	0.1 U	0.1 J	0.3 J	0.2 J	0.1 U	0.1 U
Benzo(k)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.2 J	0.5 J	0.3 J	0.1 U	0.1 U
Chrysene	0.002	NE	µg/L	0.1 U	0.1 U	0.3 J	0.6	0.4 J	0.1 U	0.1 U
Dibenz(a,h)anthracene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 J	0.10 U	0.1 U	0.1 U
Fluoranthene	50	NE	µg/L	0.1 U	0.1 U	0.5	1.0	0.7	0.1 U	0.1 U
Fluorene	50	NE	µg/L	0.1 U	0.1 U	0.6	0.5	0.4 J	0.1 U	0.1 U
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 U	0.2 J	0.4 J	0.3 J	0.1 U	0.1 U
Naphthalene	10	NE	µg/L	0.1 U	0.1 U	4	3	2	0.1 U	0.1 U
Phenanthrene	50	NE	µg/L	0.1 U	0.1 U	0.2 J	0.3 J	0.2 J	0.1 U	0.1 U
Pyrene	50	NE	µg/L	0.1 J	0.1 J	0.9	1.0	0.9	0.1 U	0.1 U
Total PAHs	NE	NE	µg/L	0.5 J	0.5 J	12	14	9 J	0.4	1.6

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	Class GA Gro	undwater Criteria	Location ID	MW-103	MW-103	MW-103D	MW-103D	MW-103D DUP	MW-108	MW-108
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/21/2018	11/8/2018	9/24/2018	11/8/2018	11/8/2018	9/19/2018	11/6/2018
Constituent	Guidance	Standard	Units							
Inorganic Constituents										
Cyanide, total	NE	200	µg/L	19	19	23	18	19	16	8.5 J

Notes:

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit. J+ - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

U - The analyte was analyzed for, but was not detected. Value shown is representative of the practical quantitation limit for

the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

(1) - Notes applicable to NYS Part 703 Standards: (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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	01 04 0		La satisa ID	MW-109S	MW-109S	MW-109D	MW-109D DUP	MW-109D	MW-110S	MW-110S	MW-110D	MW-110D
		oundwater Criteria	Location ID			9/26/2018		11/13/2018				
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/24/2018	11/8/2018	9/26/2018	9/26/2018	11/13/2018	9/20/2018	11/7/2018	9/24/2018	11/8/2018
Constituent	Guidance	Standard	Units									
Volatile Organic Compounds (VOCs)												
BTEX												
Benzene	NE	1	µg/L	0.2 U	0.2 U	1	1	0.4 J	0.2 U	0.2 U	0.3 J	0.4 J
Toluene	NE	5	µg/L	0.2 U	0.2 U	0.5 J	0.5 J	0.5 J	0.2 U	0.2 U	2	2
Ethylbenzene	NE	5	µg/L	0.4 U	0.4 U	7	7	3	0.4 U	0.4 U	10	9
Xylenes, total	NE	5	µg/L	1 U	1 U	7	7	4 J	1 U	1 U	27	25
Total BTEX	NE	NE	µg/L	ND	ND	15.5	15.5	7.9	ND	ND	39.3	36.4
Semi-volatile Organic Compounds (SVOCs)												
Polycyclic Aromatic Hydrocarbons (PAHs)												
Acenaphthene	20	NE	µg/L	0.1 U	0.1 U	24	22	12	0.1 U	0.1 U	21	16
Acenaphthylene	NE	NE	μg/L	0.1 U	0.1 J	6	6	3	0.1 U	0.1 U	8	7
Anthracene	50	NE	μg/L	0.1 U	0.1 U	0.5	0.4 J	0.6	0.1 U	0.1 U	2	1
Benzo(a)anthracene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 J	0.1 J
Benzo(a)pyrene	NE	ND	μg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	0.002	NE	μg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	NE	NE	μg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(k)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chrysene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Fluoranthene	50	NE	µg/L	0.1 U	0.1 U	0.8	0.8	0.8	0.1 U	0.1 U	2.0	1.0
Fluorene	50	NE	µg/L	0.1 U	0.1 U	4	4	4 J-	0.1 U	0.1 U	11	8
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	10	NE	µg/L	0.1 U	0.1 U	20	18	10	0.1 U	0.1 U	130	98
Phenanthrene	50	NE	µg/L	0.1 U	0.1 U	1	1	2	0.1 U	0.1 U	11	8
Pyrene	50	NE	µg/L	0.1 U	0.1 U	0.5 J	0.5 J	0.6	0.1 U	0.1 U	1.0	0.9
Total PAHs	NE	NE	µg/L	ND	0.1 J	57	53	33	ND	ND	186	140

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	Class GA Groundwater Criteria		Location ID	MW-109S	MW-109S	MW-109D	MW-109D DUP	MW-109D	MW-110S	MW-110S	MW-110D	MW-110D
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/24/2018	11/8/2018	9/26/2018	9/26/2018	11/13/2018	9/20/2018	11/7/2018	9/24/2018	11/8/2018
Constituent	Guidance	Standard	Units									
Inorganic Constituents												
Cyanide, total	NE	200	µg/L	5.0 U	5.0 U	7.9 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.

J+ - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

U - The analyte was analyzed for, but was not detected. Value shown is representative of the practical quantitation limit for

the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the

reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary

to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

 (1) - Notes applicable to NYS Part 703 Standards:
 (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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TOGS 1.1.1 WTS Part 703 ¹⁰ Sample Date 9/24/2018 11/8/2018 9/26/2018 11/13/2018 9/26/2018 11/13/2018 9/19/2018 11 Constituent Guidance Standard Units Units 9/26/2018 11/13/2018 9/26/2018 11/13/2018 9/19/2018 11 Constituent Guidance Standard Units Units 9/26/2018 11/13/2018 9/19/2018 11 Bercon NE 1 µg/L 6 29 67 52 11 5 0.2 U		Class GA Gr	oundwater Criteria	Location ID	MW-111S	MW-111S	MW-111D	MW-111D	MW-111R	MW-111R	MW-112S	MW-112S
Constituent Guidance Standard Units Piostile Organic Compounds (VOCs) Units BETX Benzene NE 1 µg/L 6 29 67 52 11 5 0.2 U Toluene NE 5 µg/L 0.2 U 1 1200 180 66 43 0.2 U Stylenes, total NE 5 µg/L 0.4 U 9 200 330 92 66 0.4 U 1 U Total BTEX NE 5 µg/L 6 49 1097 1562 459 314 ND Semi-volatific Organic Compounds (SVOCs) P µg/L 6 49 1097 1562 459 314 ND Acenaphthene 20 NE µg/L 11 57 73 69 54 31 0.1 U Acenaphthene 20 NE µg/L 0.1 U												11/7/2018
Volatile Organic Compounds (VOCs) BETE Benzene NE 1 µg/L 6 29 67 52 11 5 0.2 U Toluene NE 5 µg/L 0.2 U 1 120 180 66 43 0.2 U Ethylbenzene NE 5 µg/L 0.4 U 9 2000 330 922 66 0.4 U Xjenes, stal NE 5 µg/L 1 U 10 710 10000 290 200 1 U Total BTEX NE NE µg/L 6 49 1097 1562 459 314 ND Compounds (SVOCs) Polycic Aromatic Hytocarbons (PAHs) Accamptitume A 9 14 13 7 4 0.1 U Accamptitume 0.002 NE µg/L 0.1 U 0.1 U 0.4 J 0.2 J 0.1 J <					5/24/2010	11/0/2010	5/20/2010	11/10/2010	5/20/2010	11/13/2010	5/15/2010	11/1/2010
BTEX Benzene NE 1 $\mu g/L$ 6 29 67 52 11 5 0.2 U Toluene NE 5 $\mu g/L$ 0.4 U 9 200 330 92 66 43 0.2 U Zylenes, total NE 5 $\mu g/L$ 0.4 U 9 200 330 92 66 43 0.4 U 0.4 U 0.2 U 0.4 U 0.4 U 0.4 U 0.4 U 0.2 U 0.4 U 0.2 U 0.4 U 0.2 U 0.4 U 0.2 U 0.4 U 0		Guidance	Standard	Units								
Benzene NE 1 $\mu g/L$ 6 29 67 52 11 5 0.2 U Toluene NE 5 $\mu g/L$ 0.2 U 1 120 180 66 43 0.2 U Ethylbenzene NE 5 $\mu g/L$ 0.4 U 9 200 330 92 66 0.4 U Xylenes, total NE 5 $\mu g/L$ 1 U 10 710 10000 290 200 1 U Total BTEX NE NE $\mu g/L$ 6 49 1097 1562 459 314 ND Semi-volatile Organic Compounds (SVOCs) Polycyclic Aromatic Hydrocarbons (PAHs) Accenaphthylene NE $\mu g/L$ 11 57 73 69 54 31 0.1 U Actina phthylene NE NE $\mu g/L$ 0.1 J 0.9 14 13 7 4 0.1 U Anthracene 0.002 NE $\mu g/L$ 0.1 U 0.	ganic Compounds (VOCs)											
Toluene NE 5 µg/L 0.2 U 1 120 180 66 43 0.2 U Ethylberzene NE 5 µg/L 0.4 U 9 200 330 92 66 0.4 U Xylenes, total NE 5 µg/L 1 U 10 710 1000 290 200 1 U Total BTEX NE NE µg/L 6 49 1097 1562 459 314 ND Semi-volatile Organic Compounds (SVOCs) E Polycyclic Armatic Hydrocarbons (PAHs) Accenaphthylene NE µg/L 11 57 73 69 54 31 0.1 U Accenaphthylene NE NE µg/L 0.1 J 0.9 14 13 7 4 0.1 U Accenaphthylene NE NE µg/L 0.1 U 0.1 U 0.4 J 0.2 J 0.1 U Benzo(a)anthracene 0.002 NE µg/L 0.1 U 0.1 U <					-					_		
Ethylbenzene NE 5 µg/L 0.4 U 9 200 330 92 66 0.4 U Xylenes, total NE 5 µg/L 1 U 10 710 1000 290 200 1 U Total BTEX NE NE µg/L 6 49 1097 1562 459 314 ND Ethylbenzone NE NE µg/L 6 49 1097 1562 459 314 ND Semi-volatile Organic Compounds (SVOCs) Polycyclic Aromatic Hydrocarbons (PAHs) Acenaphthylen NE µg/L 11 57 73 69 54 31 0.1 U Acenaphthylen NE NE µg/L 0.1 U			-	-						-		0.2 U
Xylenes, total NE 5 µg/L 1 10 710 1000 290 200 1 U Total BTEX NE NE µg/L 6 49 1097 1562 459 314 ND Semi-volatile Organic Compounds (SVOCs) Polycyclic Aromatic Hydrocarbons (PAHs) Accnaphthylene NE µg/L 11 57 73 69 54 31 0.1 U Acenaphthylene NE NE µg/L 4 15 150 130 32 8 0.1 U Accnaphthylene NE NE µg/L 0.1 0.9 14 13 7 4 0.1 U 0.4 0.1 0.1 U 0.4 0.1												0.2 U
Total BEX NE NE µg/L 6 49 1097 1562 459 314 ND Semi-voietile Organic Compounds (SVOCs) Polycelic Aromatic Hydrocarbons (PAHs) Acenaphthene 20 NE µg/L 11 57 73 69 54 31 0.1 U Acenaphthene 20 NE µg/L 4 15 150 130 32 8 0.1 U Anthracene 50 NE µg/L 0.1 J 0.9 14 13 7 4 0.1 U Benzo(a)anthracene 0.002 NE µg/L 0.1 U 0.1 U 0.1 U 0.4 J 0.2 J 0.1 J 0.9 14 13 7 4 0.1 U 0.1 U 0.1 U 0.1 U 0.8 0.0 0.2 J 0.1 J 0.1 U	ne											0.4 U
International and the state of the stat	al	NE	5	µg/L	1 U						1 U	1 U
Polycyclic Aromatic Hydroarbons (PAHs) Acenaphthene 20 NE µg/L 11 57 73 69 54 31 0.1 U Acenaphthene NE NE µg/L 4 15 150 130 32 8 0.1 U Acenaphthylene NE NE µg/L 0.1 J 0.9 14 13 7 4 0.1 U Anthracene 0.002 NE µg/L 0.1 U 0.1 U 1.0 1.0 0.4 J 0.2 J 0.1 U Benzo(a)anthracene 0.002 NE µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(a)pyrene NE ND µg/L 0.1 U 0.1 U 0.8 1.0 0.2 J 0.1 J 0.1 U Benzo(a)pyrene 0.002 NE µg/L 0.1 U 0.1 U 0.3 J 0.3 J 0.1 U 0.1 U Benzo(k)filoranthene 0.002 NE µg/L 0.1 U <td></td> <td>NE</td> <td>NE</td> <td>µg/L</td> <td>6</td> <td>49</td> <td>1097</td> <td>1562</td> <td>459</td> <td>314</td> <td>ND</td> <td>ND</td>		NE	NE	µg/L	6	49	1097	1562	459	314	ND	ND
Acenaphthene 20 NE µg/L 11 57 73 69 54 31 0.1 U Acenaphthylene NE NE µg/L 4 15 150 130 32 8 0.1 U Acenaphthylene S0 NE µg/L 0.1 U 0.9 14 13 7 4 0.1 U Anthracene 0.002 NE µg/L 0.1 U 0.1 U 1.0 1.0 0.4 J 0.2 J 0.1 U Benzo(a)anthracene 0.002 NE µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(a)pyrene NE ND µg/L 0.1 U 0.1 U 0.8 1.0 0.2 J 0.1 J 0.1 U Benzo(a)pyrene 0.002 NE µg/L 0.1 U 0.1 U 0.8 1.0 0.2 J 0.1 J 0.1 U Benzo(k)filoranthene 0.002 NE µg/L 0.1 U 0.1 U 0.1 U	tile Organic Compounds (SVOCs)											
Acenaphthylene NE NE µg/L 4 15 150 130 32 8 0.1 U Anthracene 50 NE µg/L 0.1 J 0.9 14 13 7 4 0.1 U Benzo(a)anthracene 0.002 NE µg/L 0.1 U 0.1 U 1.0 1.0 0.4 J 0.2 J 0.1 U Benzo(a)anthracene 0.002 NE µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(a)pyrene NE ND µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(a)hyrene 0.002 NE µg/L 0.1 U 0.1 U 0.8 1.0 0.2 J 0.1 J 0.1 U Benzo(k)hjouranthene 0.002 NE µg/L 0.1 U 0.1 U 0.3 J 0.1 U	Aromatic Hydrocarbons (PAHs)											
Anthracene 50 NE µg/L 0.1 J 0.9 14 13 7 4 0.1 U Benzo(a)anthracene 0.002 NE µg/L 0.1 U 0.1 U 1.0 1.0 0.4 J 0.2 J 0.1 U Benzo(a)apyrene NE ND µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(a)pyrene NE ND µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(g)hluoranthene 0.002 NE µg/L 0.1 U 0.1 U 0.8 1.0 0.2 J 0.1 J 0.1 U Benzo(g), h)perylene NE NE µg/L 0.1 U 0.1 U 0.3 J 0.3 J 0.1 U 0.1 U 0.1 U Benzo(g), h)anthracene 0.002 NE µg/L 0.1 U	ene	20	NE	µg/L	11	57	73	69	54	31	0.1 U	0.1 U
Benzo(a)anthracene 0.002 NE µg/L 0.1 U 1.0 1.0 0.4 J 0.2 J 0.1 U Benzo(a)pyrene NE ND µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U	ylene	NE	NE	µg/L	4	15	150	130	32	8	0.1 U	0.1 U
Benzo(a)pyrene NE ND µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(a)pyrene 0.002 NE µg/L 0.1 U 0.1 U 0.8 0.9 0.2 J 0.1 J 0.1 U Benzo(a)pyrene 0.002 NE µg/L 0.1 U 0.1 U 0.8 1.0 0.2 J 0.1 J 0.1 U Benzo(a)h,jperylene NE NE µg/L 0.1 U 0.1 U 0.3 J 0.3 J 0.1 U 0.1 U 0.1 U Benzo(k)fluoranthene 0.002 NE µg/L 0.1 U 0.1 U 0.4 J 0.5 0.1 U 0.1 U 0.1 U Chrysene 0.002 NE µg/L 0.1 U 0.1 U 1.0 1.0 U 0.1 U<	,	50	NE	µg/L	0.1 J	0.9	14	13	7	4	0.1 U	0.1 U
Benzo(h)fluoranthene 0.002 NE µg/L 0.1 U 0.1 U 0.8 1.0 0.2 J 0.1 J 0.1 U Benzo(h)fluoranthene NE NE µg/L 0.1 U 0.1 U 0.3 J 0.3 J 0.1 U 0.1 J 0.1 U Benzo(h)fluoranthene 0.002 NE µg/L 0.1 U 0.1 U 0.3 J 0.3 J 0.1 U 0.1 U 0.1 U Chrysene 0.002 NE µg/L 0.1 U 0.1 U 0.4 J 0.5 0.1 U 0.1 U 0.1 U Dibenz(a,h)anthracene NE µg/L 0.1 U 0.1	thracene	0.002	NE	µg/L	0.1 U	0.1 U	1.0	1.0	0.4 J	0.2 J	0.1 U	0.1 U
Benzo(g,h,j)pervlene NE NE µg/L 0.1 U 0.1 U 0.3 J 0.1 U 0.1 J 0.1 U Benzo(g,h,j)pervlene 0.002 NE µg/L 0.1 U 0.1 U 0.3 J 0.3 J 0.1 U 0.1 U 0.1 U Benzo(g,h,j)pervlene 0.002 NE µg/L 0.1 U 0.1 U 0.4 J 0.5 0.1 U 0.1 U 0.1 U Chrysene 0.002 NE µg/L 0.1 U 0.1 U 1.0 1.0 0.3 J 0.2 J 0.1 U Dibenz(a,h)anthracene NE µg/L 0.1 U Fluoranthene 50 NE µg/L 0.6 1.0 11 10 5.0 4.0 0.1 U Fluorene 50 NE µg/L 0.2 J 1 73 63 J 40 17 J- 0.1 U	rene	NE	ND	µg/L	0.1 U	0.1 U	0.8	0.9	0.2 J	0.1 J	0.1 U	0.1 U
Benzo(k)fluoranthene 0.002 NE μg/L 0.1 U 0.1 U 0.4 J 0.5 0.1 U 0.1 U 0.1 U Chrysene 0.002 NE μg/L 0.1 U 0.1 U 1.0 1.0 0.3 J 0.2 J 0.1 U Dibenz(a,h)anthracene NE NE μg/L 0.1 U	oranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.8	1.0	0.2 J	0.1 J	0.1 U	0.1 U
Chrysene 0.002 NE µg/L 0.1 U 0.1 U 1.0 0.3 J 0.2 J 0.1 U Dibenz(a,h)anthracene NE NE µg/L 0.1 U <)perylene	NE	NE	µg/L	0.1 U	0.1 U	0.3 J	0.3 J	0.1 U	0.1 J	0.1 U	0.1 U
Dibenz(a,h)anthracene NE µg/L 0.1 U	oranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.4 J	0.5	0.1 U	0.1 U	0.1 U	0.1 U
Fluoranthene 50 NE µg/L 0.6 1.0 11 10 5.0 4.0 0.1 U Fluoranthene 50 NE µg/L 0.2 J 73 63 J- 40 17 J- 0.1 U		0.002	NE	µg/L	0.1 U	0.1 U	1.0	1.0	0.3 J	0.2 J	0.1 U	0.1 U
Fluorene 50 NE µg/L 0.2 J 1 73 63 J- 40 17 J- 0.1 U	anthracene	NE	NE	µg/L	0.1 U	0.1 U	0.1 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
	ле	50	NE	µg/L	0.6	1.0	11	10	5.0	4.0	0.1 U	0.1 U
		50	NE		0.2 J		73	63 J-	40	17 J-	0.1 U	0.1 U
	,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 U	0.4 J	0.5 J	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene 10 NE µg/L 0.1 U 5 950 1100 700 17 0.1 U	10	10	NE		0.1 U	5	950	1100	700	17	0.1 U	0.1 U
Phenanthrene 50 NE µg/L 0.1 U 0.3 J 61 53 33 5 0.1 U	ene	50	NE		0.1 U	0.3 J	61	53	33	5	0.1 U	0.1 U
Pyrene 50 NE µg/L 0.4 J 1.0 7.0 6.0 3.0 2.0 0.1 U		50	NE		0.4 J	1.0	7.0	6.0	3.0	2.0	0.1 U	0.1 U
Total PAHs NE NE µg/L 16 81 1344 1449 875 89 ND		NE						1449				ND

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	Class GA Gro	oundwater Criteria	Location ID	MW-111S	MW-111S	MW-111D	MW-111D	MW-111R	MW-111R	MW-112S	MW-112S
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/24/2018	11/8/2018	9/26/2018	11/13/2018	9/26/2018	11/13/2018	9/19/2018	11/7/2018
Constituent	Guidance	Standard	Units								
Inorganic Constituents											
Cyanide, total	NE	200	µg/L	6.8 J	7.4 J	27	16	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.
 J + - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

U - The analyte was analyzed for, but was not detected. Value shown is representative of the practical quantitation limit for

the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the

reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

 (1) - Notes applicable to NYS Part 703 Standards:
 (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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	Class GA Gro	oundwater Criteria	Location ID	MW-112D	MW-112D	MW-113D	MW-113D	MW-114D	MW-114D	MW-115D	MW-115D
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/19/2018	11/7/2018	9/26/2018	11/12/2018	9/26/2018	11/13/2018	9/18/2018	11/6/2018
Constituent	Guidance	Standard	Units								
Volatile Organic Compounds (VOCs)											
BTEX											
Benzene	NE	1	µg/L	0.2 U	0.2 U	12	22	12	26	0.2 U	0.2 U
Toluene	NE	5	µg/L	0.2 U	0.2 U	0.2 U	4	17	77	0.2 U	0.2 U
Ethylbenzene	NE	5	µg/L	0.4 U	0.4 U	2	25	29	120	0.4 U	0.4 U
Xylenes, total	NE	5	µg/L	1 U	1 U	1 U	15	57	250	1 U	1 U
Total BTEX	NE	NE	µg/L	ND	ND	14.2	66	115	473	ND	ND
Semi-volatile Organic Compounds (SVOCs)											
Polycyclic Aromatic Hydrocarbons (PAHs)											
Acenaphthene	20	NE	µg/L	0.1 U	0.1 U	31	59	43	72	0.1 UJ	0.1 U
Acenaphthylene	NE	NE	µg/L	0.1 U	0.1 U	7	10	14	21	0.1 UJ	0.1 U
Anthracene	50	NE	µg/L	0.1 U	0.1 U	0.7	2	0.5 J	1	0.1 UJ	0.1 U
Benzo(a)anthracene	0.002	NE	µg/L	0.1 U	0.1 U	0.2 J	0.1 J	0.1 U	0.1 U	0.1 W	0.1 U
Benzo(a)pyrene	NE	ND	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Benzo(b)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Benzo(g,h,i)perylene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Benzo(k)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Chrysene	0.002	NE	µg/L	0.1 U	0.1 J	0.1 J	0.1 U	0.1 U	0.1 U	0.1 W	0.1 U
Dibenz(a,h)anthracene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Fluoranthene	50	NE	µg/L	0.1 U	0.1 J	5.0	6.0	0.9	2.0	0.1 UJ	0.1 U
Fluorene	50	NE	µg/L	0.1 U	0.1 U	1	6 J-	2	8 J-	0.1 UJ	0.1 U
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 U
Naphthalene	10	NE	µg/L	0.1 U	0.1 U	0.3 J	3	51	200	0.1 UJ	0.1 J
Phenanthrene	50	NE	µg/L	0.1 U	0.1 U	0.4 J	1	2	5	0.1 W	0.1 U
Pyrene	50	NE	µg/L	0.3 J	0.3 J	3.0	5.0	0.4 J	0.8	0.1 UJ	0.1 U
Total PAHs	NE	NE	µg/L	0.3 J	0.5 J	49	92	114	310	ND	0.1 J

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	Class GA Gro	oundwater Criteria	Location ID	MW-112D	MW-112D	MW-113D	MW-113D	MW-114D	MW-114D	MW-115D	MW-115D
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/19/2018	11/7/2018	9/26/2018	11/12/2018	9/26/2018	11/13/2018	9/18/2018	11/6/2018
Constituent	Guidance	Standard	Units								
Inorganic Constituents											
Cyanide, total	NE	200	µg/L	5.0 U	5.0 U	17	5.7 J	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.
 J + - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

U - The analyte was analyzed for, but was not detected. Value shown is representative of the practical quantitation limit for

the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the

reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

 (1) - Notes applicable to NYS Part 703 Standards:
 (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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	Class GA Gr	oundwater Criteria	Location ID	MW-116D	MW-116D	MW-119	MW-119	MW-120D	MW-120D	MW-120R	MW-120R
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/19/2018	11/6/2018	9/19/2018	11/7/2018	9/18/2018	11/6/2018	9/18/2018	11/6/2018
Constituent	Guidance	Standard	Units								
Volatile Organic Compounds (VOCs)	Guidanoo	otunturu	Onito								
BTEX											
Benzene	NE	1	µg/L	0.2 U	0.2 U	0.2 U	0.2 J	0.2 U	0.2 U	1	0.2 U
Toluene	NE	5	µg/L	0.2 U	0.7 J	0.2 U					
Ethylbenzene	NE	5	µg/L	0.4 U	2	0.4 U					
Xylenes, total	NE	5	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	3 J	1 U
Total BTEX	NE	NE	µg/L	ND	ND	ND	0.2 J	ND	ND	6.7	ND
Semi-volatile Organic Compounds (SVOCs)											
Polycyclic Aromatic Hydrocarbons (PAHs)											
Acenaphthene	20	NE	µg/L	0.1 U	0.1 U	0.1 U	0.3 J	0.1 U	0.1 U	1	0.4 J
Acenaphthylene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U	0.2 J	0.1 U	0.1 U	0.2 J	0.1 U
Anthracene	50	NE	µg/L	0.1 U	0.2 J	0.1 U					
Benzo(a)anthracene	0.002	NE	µg/L	0.1 U							
Benzo(a)pyrene	NE	ND	µg/L	0.1 U							
Benzo(b)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 L						
Benzo(g,h,i)perylene	NE	NE	µg/L	0.1 U							
Benzo(k)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 L						
Chrysene	0.002	NE	µg/L	0.1 U							
Dibenz(a,h)anthracene	NE	NE	µg/L	0.1 U							
Fluoranthene	50	NE	µg/L	0.1 U	0.1 J	0.1 U					
Fluorene	50	NE	µg/L	0.1 U	0.9	0.3 J					
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 L						
Naphthalene	10	NE	µg/L	0.1 U	4	0.4 J					
Phenanthrene	50	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 J	0.1 U	1	0.4 J
Pyrene	50	NE	µg/L	0.1 U							
Total PAHs	NE	NE	µg/L	ND	ND	ND	0.5 J	0.1 J	ND	7	2 J

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	Class GA Groundwater Criteria		Location ID	MW-116D	MW-116D	MW-119	MW-119	MW-120D	MW-120D	MW-120R	MW-120R
	T0GS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/19/2018	11/6/2018	9/19/2018	11/7/2018	9/18/2018	11/6/2018	9/18/2018	11/6/2018
Constituent	Guidance	Standard	Units								
Inorganic Constituents											
Cyanide, total	NE	200	µg/L	5.5 J	5.0 U						

Notes:

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 J + - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

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the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the

reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

 (1) - Notes applicable to NYS Part 703 Standards:
 (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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	Class GA Gro	oundwater Criteria	Location ID	MW-121S	MW-121S	MW-121D	MW-121D	MW-121R	MW-121R	MW-122S	MW-122S
	T0GS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/20/2018	11/7/2018	9/20/2018	11/7/2018	9/25/2018	11/12/2018	9/25/2018	11/9/2018
Constituent	Guidance	Standard	Units								
Volatile Organic Compounds (VOCs)											
BTEX											
Benzene	NE	1	µg/L	0.2 U	0.2 U	0.2 U	3	4	2	0.2 U	0.2 U
Toluene	NE	5	µg/L	0.2 U	0.2 U	0.2 U	0.2 U	21	3	0.2 U	0.2 U
Ethylbenzene	NE	5	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	50	14	0.4 U	0.4 U
Xylenes, total	NE	5	µg/L	1 U	1 U	1 U	1 U	150	24	1 U	1 U
Total BTEX	NE	NE	µg/L	ND	ND	ND	3	225	43	ND	ND
Semi-volatile Organic Compounds (SVOCs)											
Polycyclic Aromatic Hydrocarbons (PAHs)											
Acenaphthene	20	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.8	20	9	0.1 U	0.1 U
Acenaphthylene	NE	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.2 J	13	1	0.1 U	0.1 U
Anthracene	50	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	2	0.9	0.1 U	0.1 U
Benzo(a)anthracene	0.002	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene	NE	ND	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	NE	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(k)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chrysene	0.002	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenz(a,h)anthracene	NE	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Fluoranthene	50	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	1.0	0.8	0.1 U	0.1 U
Fluorene	50	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	13	5 J-	0.1 U	0.1 U
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	10	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.2 J	380	43	0.1 J	0.1 U
Phenanthrene	50	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	12	3	0.1 U	0.1 U
Pyrene	50	NE	µg/L	0.1 U	0.1 UJ	0.1 U	0.1 U	0.8	0.5 J	0.1 U	0.1 U
Total PAHs	NE	NE	µg/L	ND	ND	ND	1	442	63	0.1 J	ND

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	Class GA Groundwater Criteria		Location ID	MW-121S	MW-121S	MW-121D	MW-121D	MW-121R	MW-121R	MW-122S	MW-122S
	T0GS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/20/2018	11/7/2018	9/20/2018	11/7/2018	9/25/2018	11/12/2018	9/25/2018	11/9/2018
Constituent	Guidance	Standard	Units								
Inorganic Constituents											
Cyanide, total	NE	200	µg/L	5.0 U	5.0 U	5.0 U					

Notes:

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.
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 (1) - Notes applicable to NYS Part 703 Standards:
 (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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	Class GA Gr	oundwater Criteria	Location ID	MW-122D	MW-122D	MW-122R	MW-122R	MW-122RD	MW-122RD	MW-123R	MW-123R
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/25/2018	11/9/2018	9/25/2018	11/9/2018	9/18/2018	11/12/2018	9/18/2018	11/6/2018
Constituent	Guidance	Standard	Units								
Volatile Organic Compounds (VOCs)	Guidanoo	otandura	01110								
BTEX											
Benzene	NE	1	µg/L	0.6 J	0.2 U	12	15 J+	0.2 U	0.2 U	0.2 U	0.2 U
Toluene	NE	5	µg/L	0.2 U	0.2 U	9	18 J+	0.2 J	0.2 U	0.2 J	0.2 U
Ethylbenzene	NE	5	µg/L	0.6 J	0.4 U	32	49 J+	0.4 U	0.4 U	0.5 J	0.4 U
Xylenes, total	NE	5	µg/L	1 U	1 U	190	170	1 U	1 U	1 U	1 U
Total BTEX	NE	NE	µg/L	1.4 J	ND	243	252	0.2	ND	0.7 J	ND
Semi-voiatile Organic Compounds (SVOCs)											
Polycyclic Aromatic Hydrocarbons (PAHs)											
Acenaphthene	20	NE	µg/L	0.6	0.2 J	50	44	0.1 U	0.1 U	0.1 J	0.1 J
Acenaphthylene	NE	NE	µg/L	0.2 J	0.1 U	2	2	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	50	NE	µg/L	0.1 U	0.1 U	1	1	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)anthracene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Benzo(a)pyrene	NE	ND	µg/L	0.1 U	0.1 U	0.1 U					
Benzo(b)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U					
Benzo(g,h,i)perylene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U					
Benzo(k)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U					
Chrysene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Dibenz(a,h)anthracene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U					
Fluoranthene	50	NE	µg/L	0.1 U	0.1 U	0.3 J	0.4 J	0.1 U	0.1 U	0.1 U	0.1 U
Fluorene	50	NE	µg/L	0.3 J	0.1 U	12	16	0.1 U	0.1 UJ	0.1 U	0.1 U
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U					
Naphthalene	10	NE	µg/L	0.3 J	0.1 U	0.8	400	0.1 U	0.1 J	2	0.9
Phenanthrene	50	NE	µg/L	0.1 U	0.1 U	2	9	0.1 U	0.1 U	0.1 U	0.1 U
Pyrene	50	NE	µg/L	0.1 U	0.1 U	0.2 J	0.2 J	0.1 UJ	0.1 UJ	0.1 U	0.1 U
Total PAHs	NE	NE	µg/L	1 J	0.2 J	68	473	ND	0.1	2	1

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	Class GA Groundwater Criteria		Location ID	MW-122D	MW-122D	MW-122R	MW-122R	MW-122RD	MW-122RD	MW-123R	MW-123R
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/25/2018	11/9/2018	9/25/2018	11/9/2018	9/18/2018	11/12/2018	9/18/2018	11/6/2018
Constituent	Guidance	Standard	Units								
Inorganic Constituents											
Cyanide, total	NE	200	µg/L	5.0 U	5.0 U	5.0 U					

Notes:

Testimated concentration. The result is below the quantitation limit but above the method detection limit.
 J+ - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

U - The analyte was analyzed for, but was not detected. Value shown is representative of the practical quantitation limit for

the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the

reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

 (1) - Notes applicable to NYS Part 703 Standards:
 (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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P:\National_Grid\Fulton(N_Ontario_St)\152206 - Fulton SRI Addendum _RI Report\DataSummaryRpt\Tables\ 4/1/2019

	Class GA Gro	oundwater Criteria	Location ID	MW-124R	MW-124R	MW-125R	MW-125R	MW-125R DUP
	TOGS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/25/2018	11/12/2018	9/25/2018	11/12/2018	11/12/2018
Constituent	Guidance	Standard	Units					
Volatile Organic Compounds (VOCs)								
BTEX								
Benzene	NE	1	µg/L	4	8	11	5 J+	5
Toluene	NE	5	µg/L	18	26	75	38 J+	37
Ethylbenzene	NE	5	µg/L	33	77	100	63 J+	62
Xylenes, total	NE	5	µg/L	80	160	350	180 J+	180
Total BTEX	NE	NE	µg/L	135	271	536	286 J+	284
Semi-volatile Organic Compounds (SVOCs)								
Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	20	NE	µg/L	22	38	47	29	29
Acenaphthylene	NE	NE	µg/L	6	6	28	11	10
Anthracene	50	NE	µg/L	1	2	5	3	3
Benzo(a)anthracene	0.002	NE	µg/L	0.1 U	0.1 U	0.2 J	0.1 J	0.1 J
Benzo(a)pyrene	NE	ND	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(k)fluoranthene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chrysene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 J	0.1 U	0.1 U
Dibenz(a,h)anthracene	NE	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Fluoranthene	50	NE	µg/L	0.7	0.5 J	3.0	3.0	2.0
Fluorene	50	NE	µg/L	10	19 J-	33	19 J	20 J
Indeno(1,2,3-c,d)pyrene	0.002	NE	µg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	10	NE	µg/L	230	410	810	210 J	130 J
Phenanthrene	50	NE	µg/L	8	13	28	6 J	9 J
Pyrene	50	NE	µg/L	0.5 J	0.3 J	2.0	2.0	2.0
Total PAHs	NE	NE	µg/L	278	489	956	283	205

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	Class GA Gro	Class GA Groundwater Criteria		MW-124R	MW-124R	MW-125R	MW-125R	MW-125R DUP
	T0GS 1.1.1	NYS Part 703 ⁽¹⁾	Sample Date	9/25/2018	11/12/2018	9/25/2018	11/12/2018	11/12/2018
Constituent	Guidance	Standard	Units					
Inorganic Constituents								
Cyanide, total	NE	200	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Notes:

J - Estimated concentration. The result is below the quantitation limit but above the method detection limit.
J + - Analyte present. Reported value may be biased high. Result is estimated high.

J- - Analyte present. Reported value may be biased low. Result is estimated low.

U - The analyte was analyzed for, but was not detected. Value shown is representative of the practical quantitation limit for the analyzed constituent.

UJ - The analyte was not detected above the reported sample quantitation limit. However, based on data validation, the

reported method detection limit is approximate and may or may not represent the actual limit of the quantitation necessary to accurately and precisely measure the analyte in the sample.

NE - Standard and/or guidance value not established.

ND - Not detected

Boxed concentrations are greater than New York State Class GA Groundwater Standards or Guidance values.

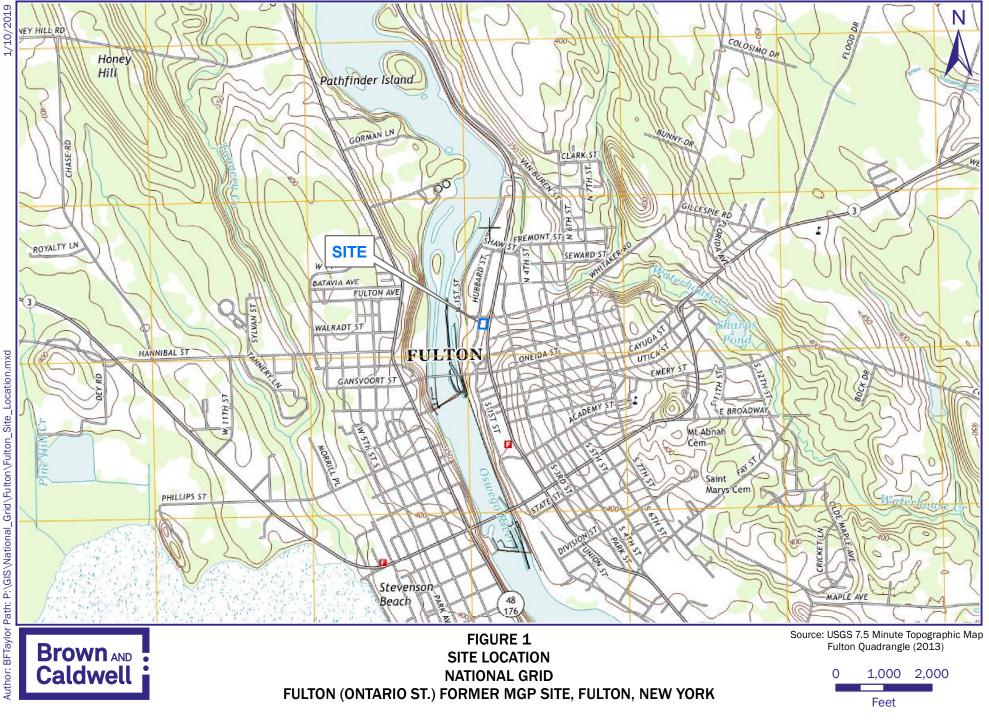
(1) - Notes applicable to NYS Part 703 Standards: (a) - Any detected concentration for Benzo(a)pyrene is considered above the Part 703 Standard.

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Figures





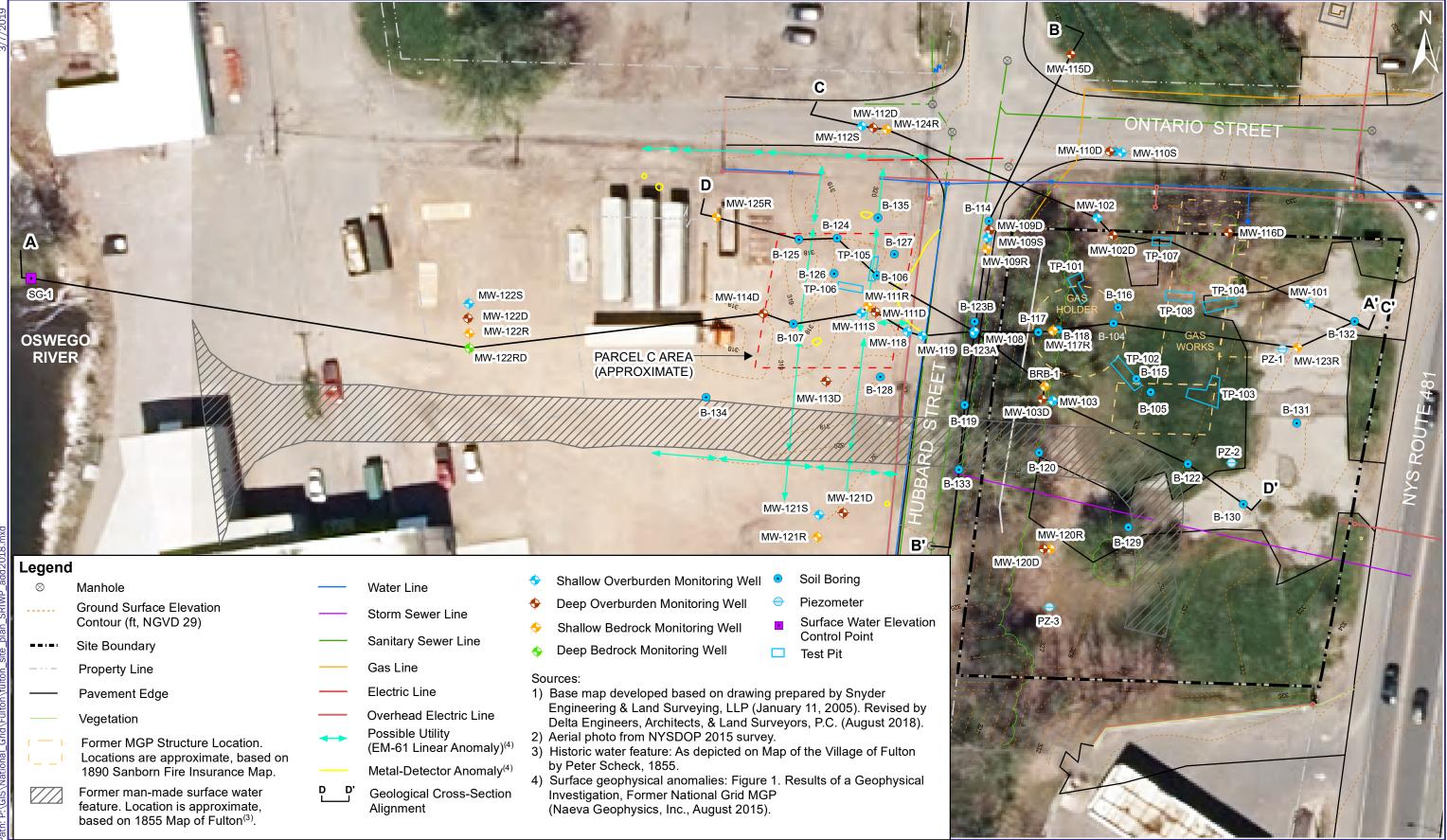
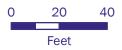
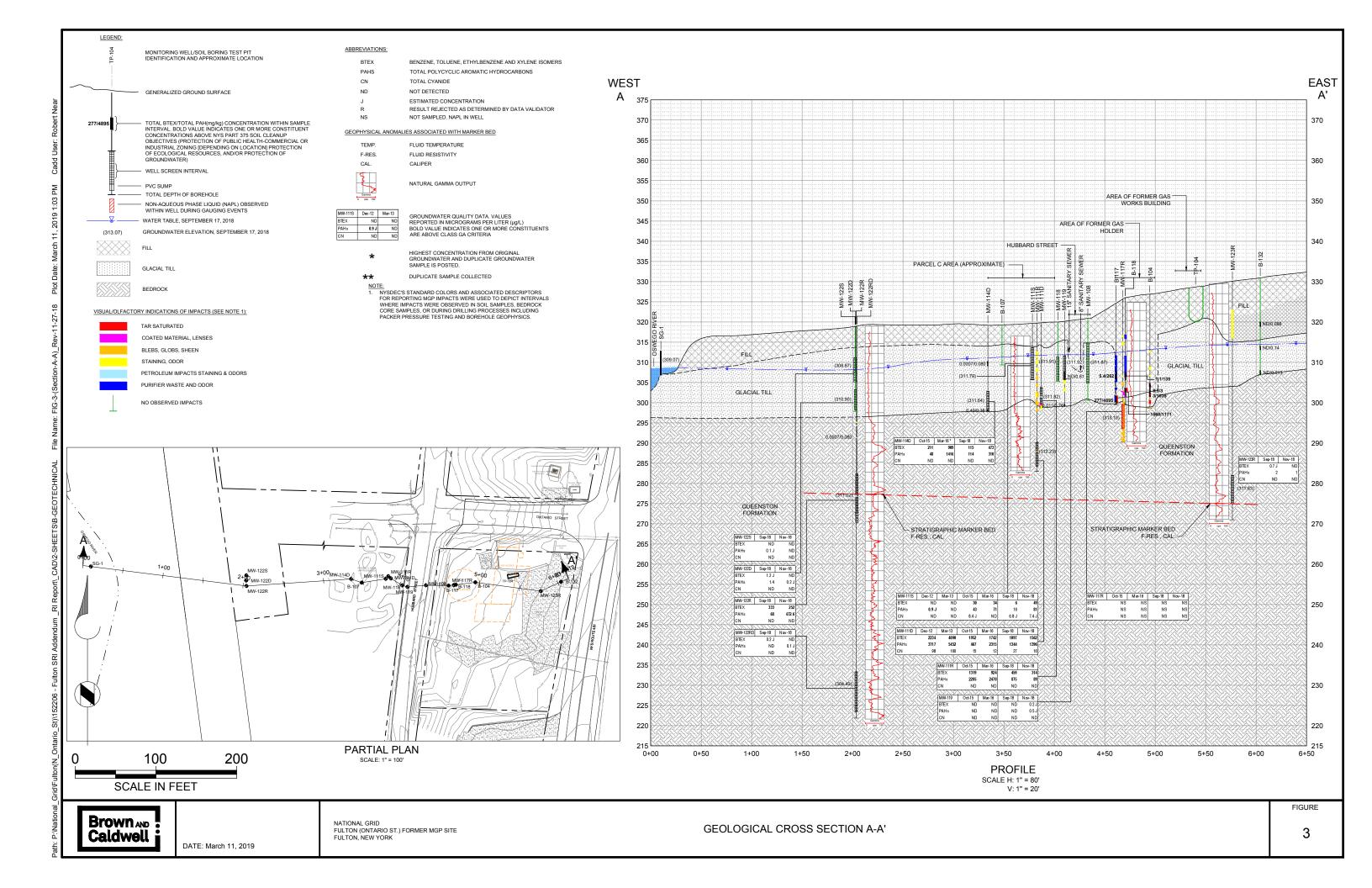
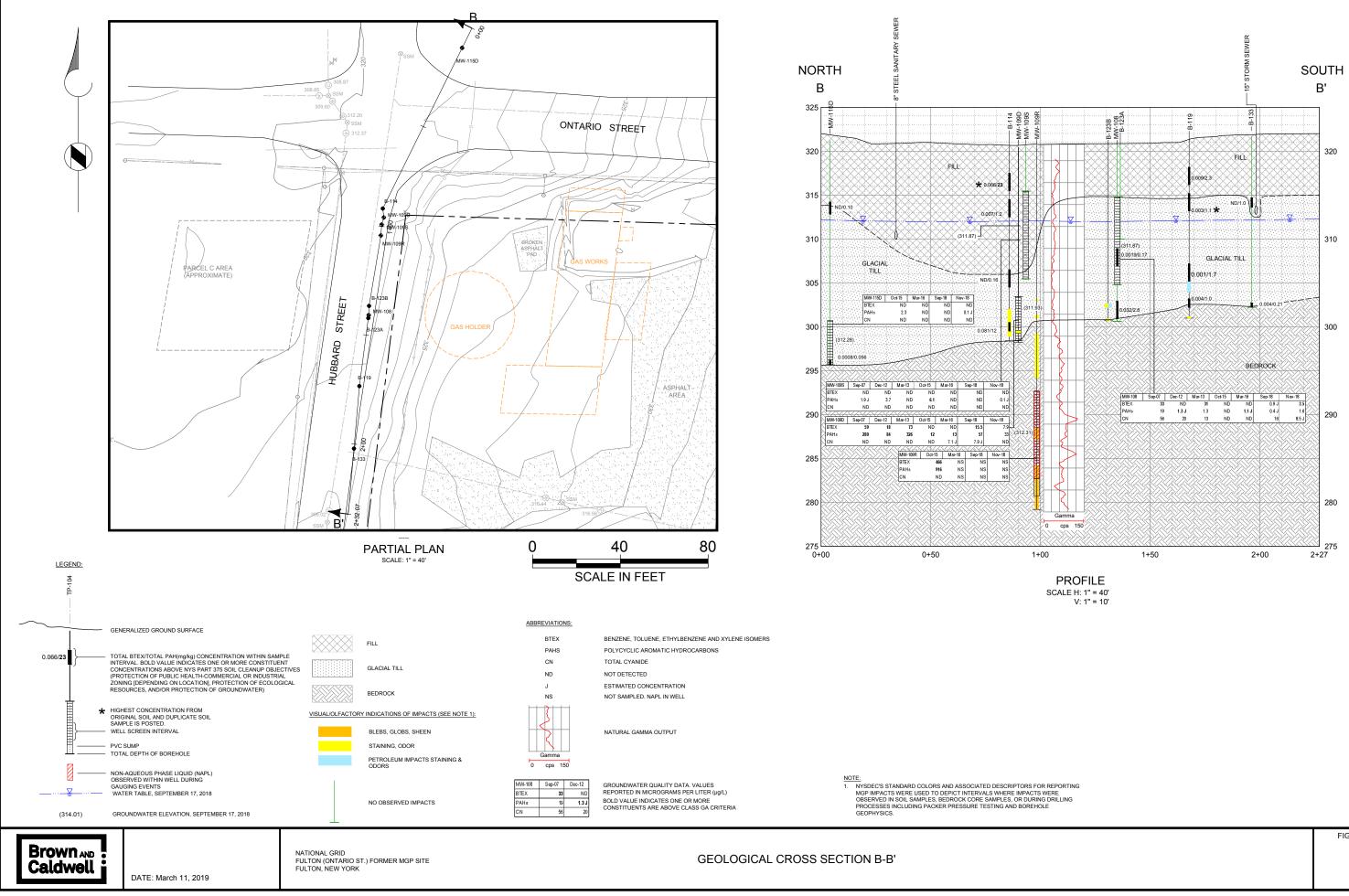


FIGURE 2 SITE PLAN NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE, FULTON, NEW YORK

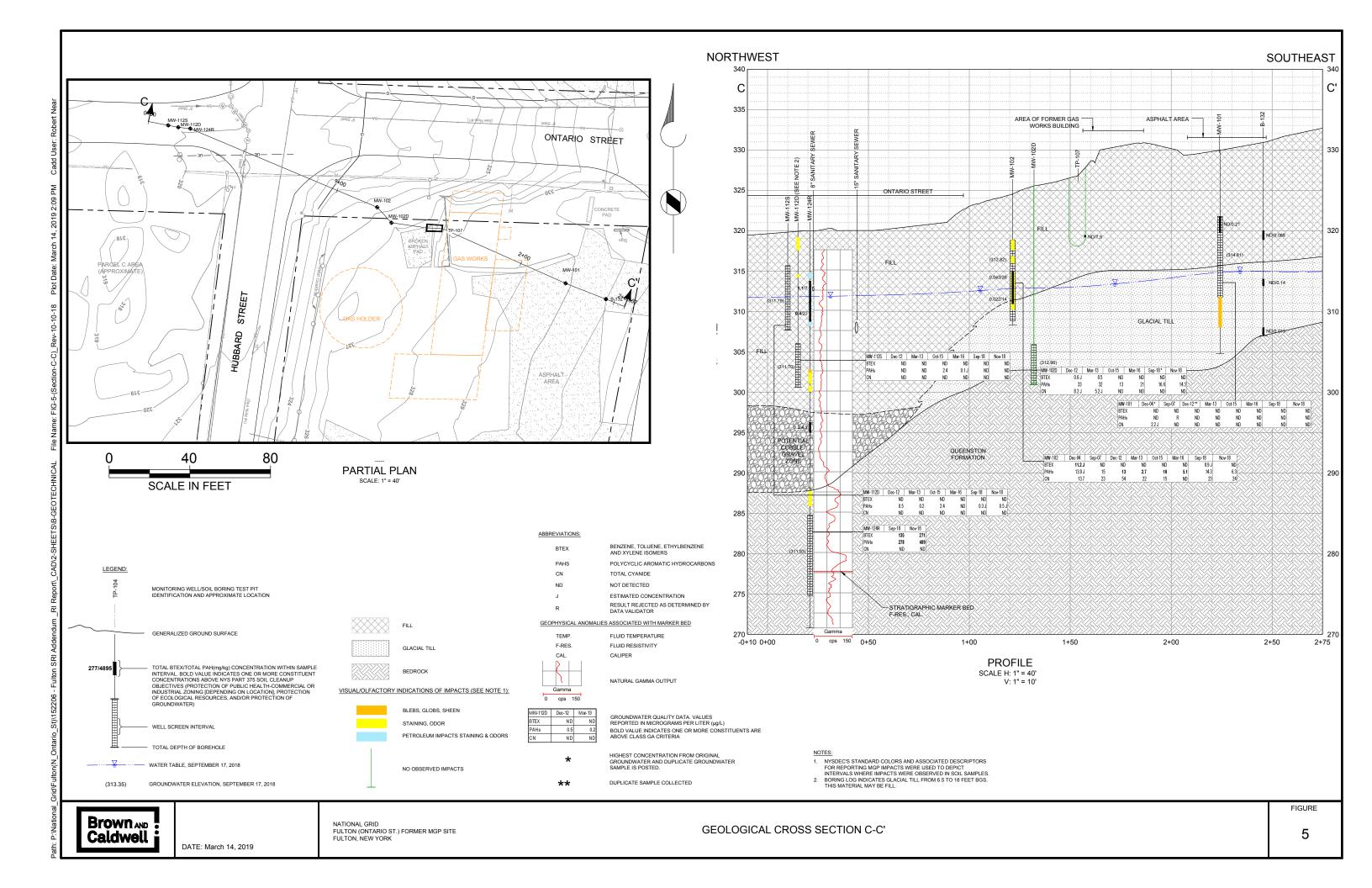


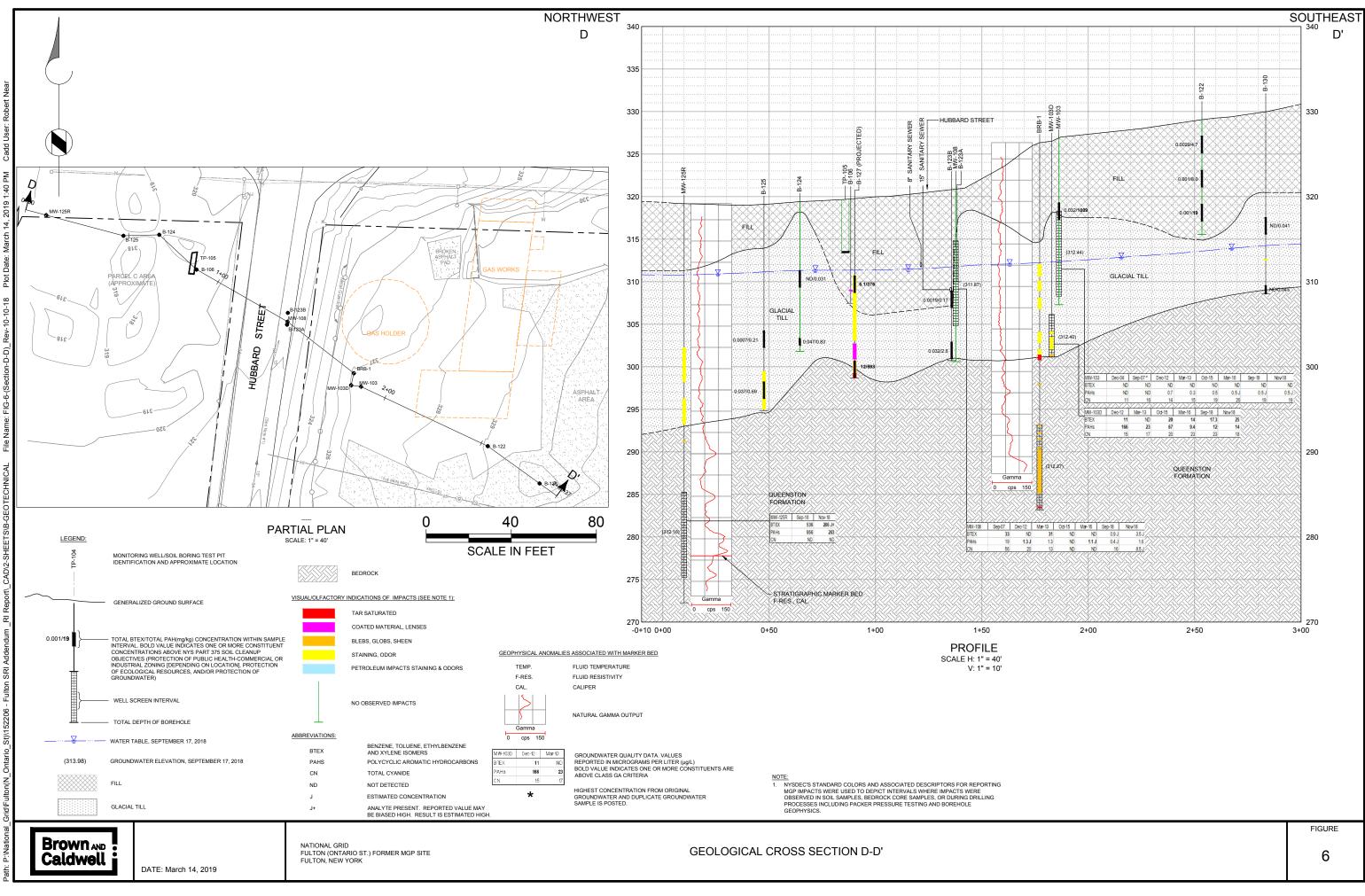


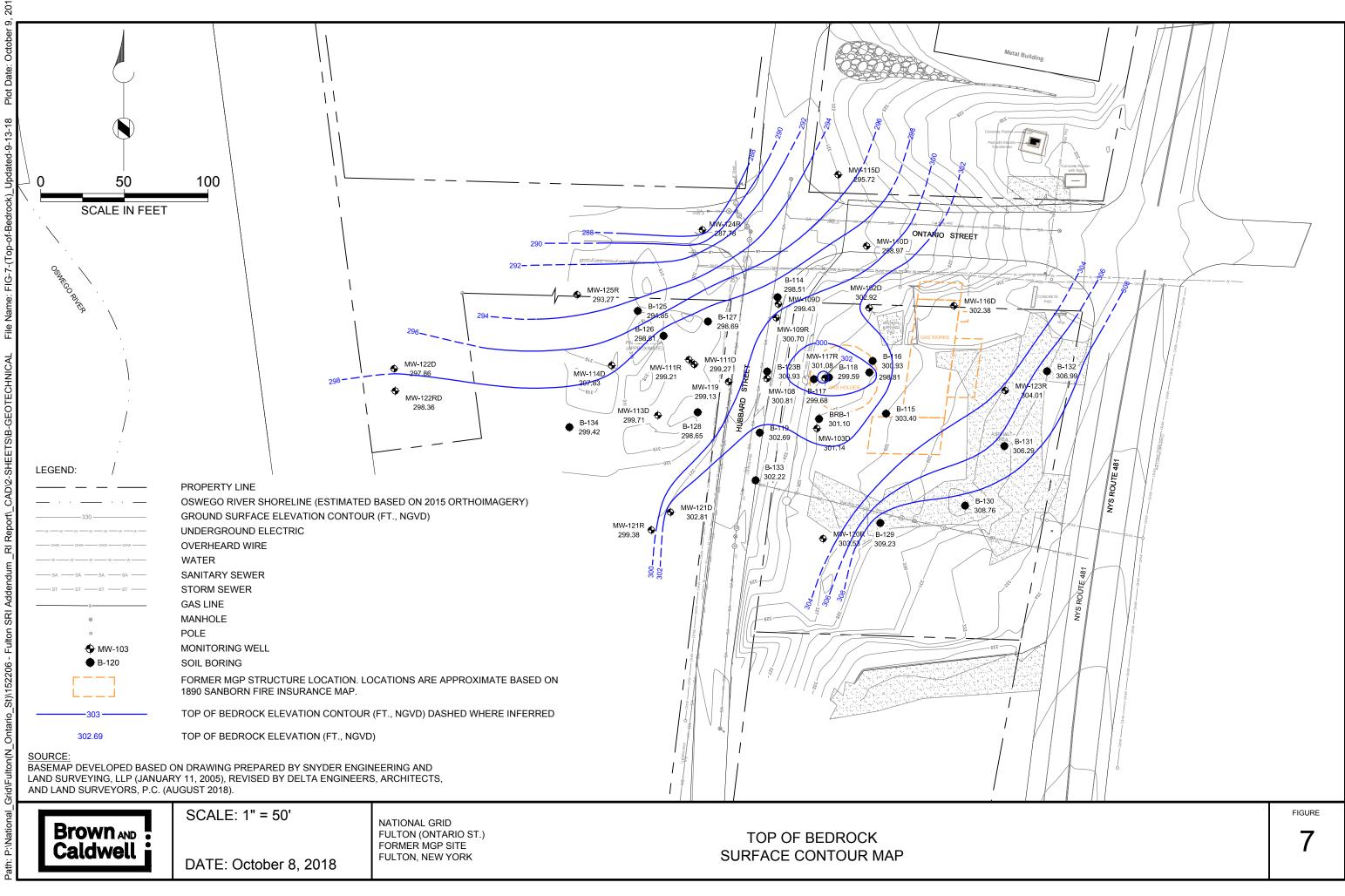


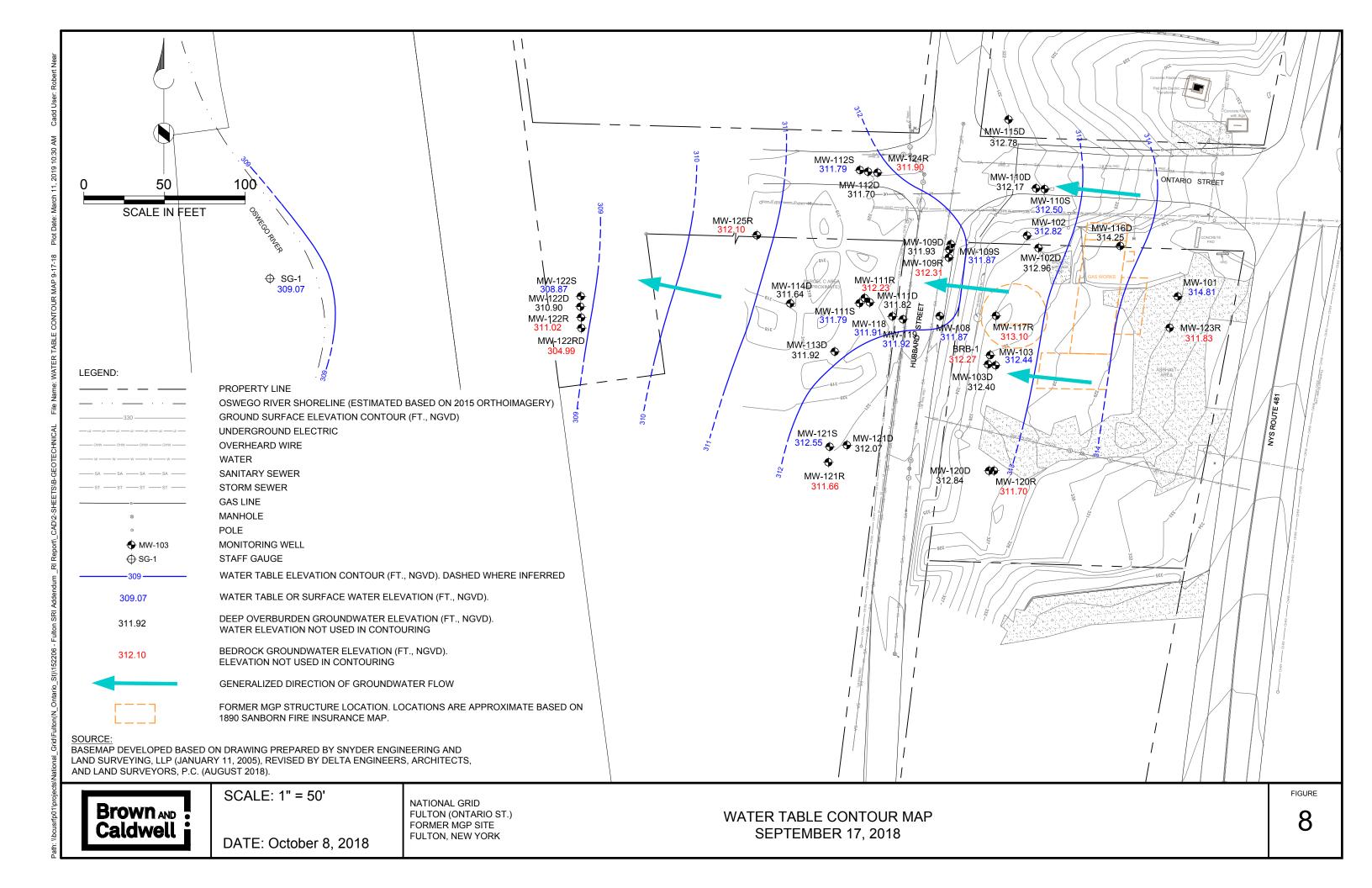
FIGURE

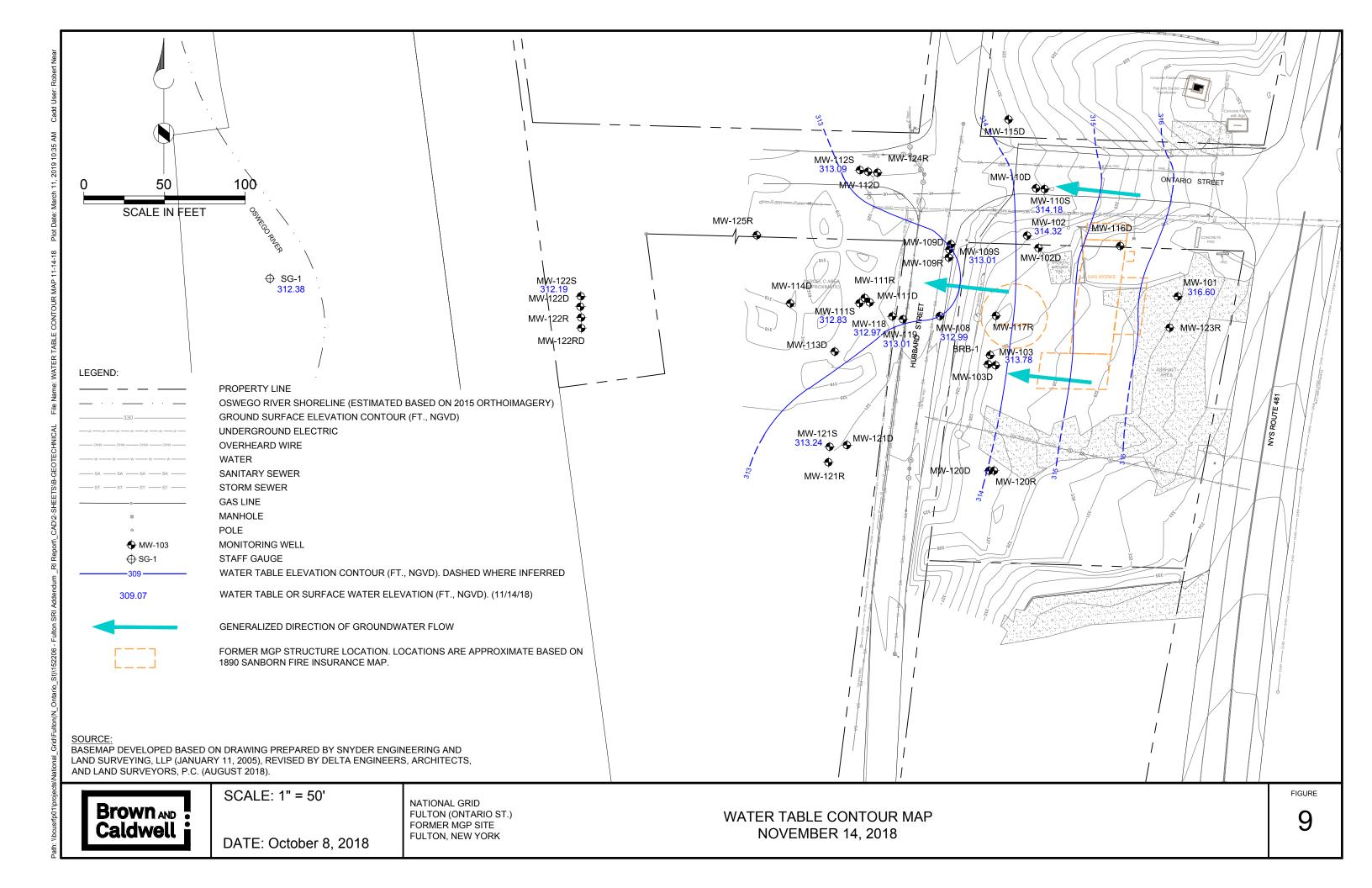
4

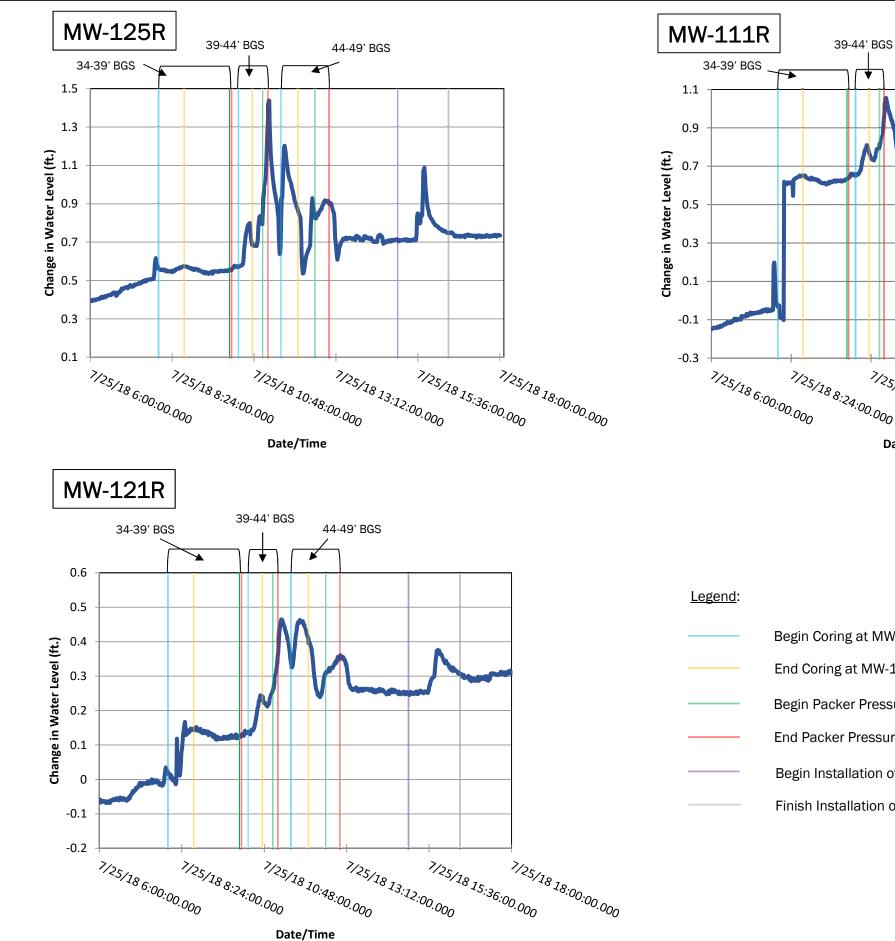


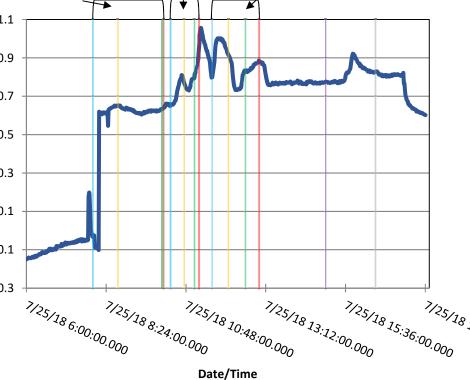












44-49' BGS

- Begin Coring at MW-124R End Coring at MW-124R
- Begin Packer Pressure Testing at MW-124R
- End Packer Pressure Testing at MW-124R
- Begin Installation of MW-124R
- Finish Installation of MW-124R

152206

>>25/18 18:00:00.000

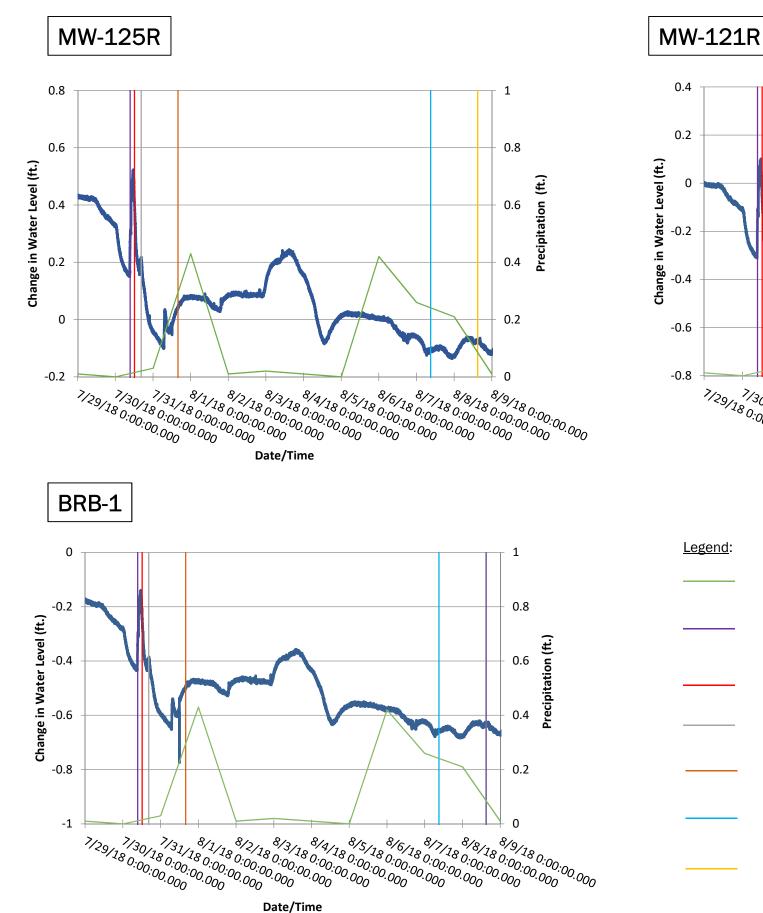
Well ID	Water Bearing Zone	Distance from MW-124R (ft.)
MW-111R	Shallow Bedrock	75
MW-125R	Shallow Bedrock	81
MW-121R	Shallow Bedrock	176

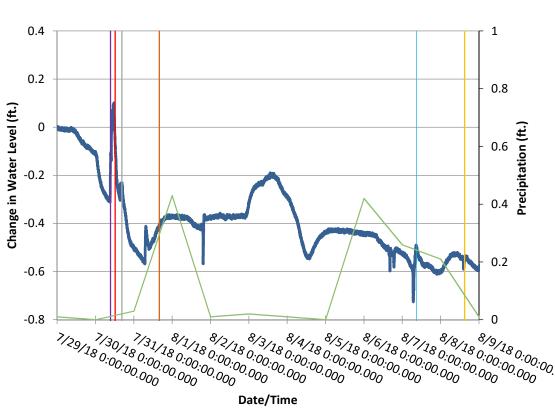
FIGURE 10

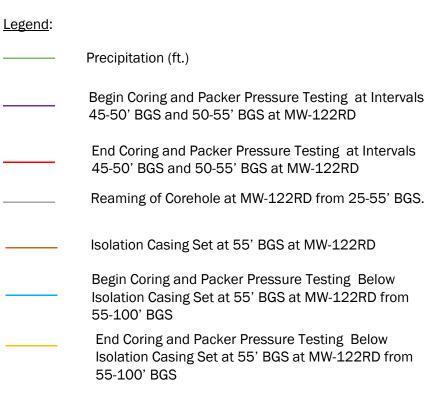
Changes in Water Levels in Nearby **Bedrock Wells During Coring and Packer** Pressure Testing at MW-124R (July 25, 2018)

NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE – FULTON, NEW YORK

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Precipitation (ft.)

0.2

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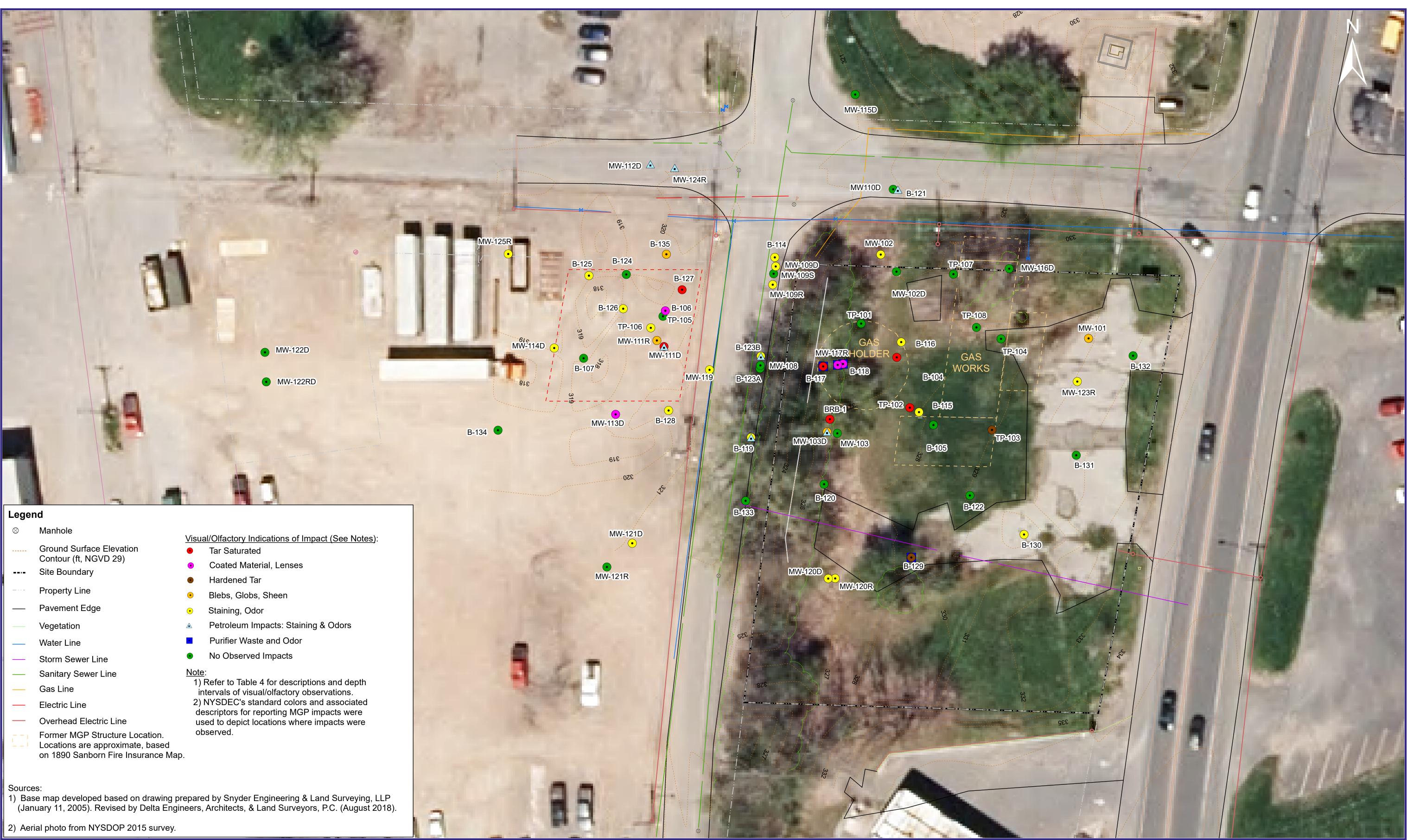
Well ID	Water Bearing Zone	Distance from MW-122RD (ft.)
MW-125R	Shallow Bedrock	118
MW-121R	Shallow Bedrock	167
BRB-1	Shallow Bedrock	245

FIGURE 11

Changes in Water Levels in Nearby **Bedrock Wells During Coring and Packer** Pressure Testing at MW-122RD (July 29, 2018 - August 8, 2018)

NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE -FULTON, NEW YORK

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FIGURE 12 VISUAL/OLFACTORY OBSERVATIONS: OVERBURDEN NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE, FULTON, NEW YORK





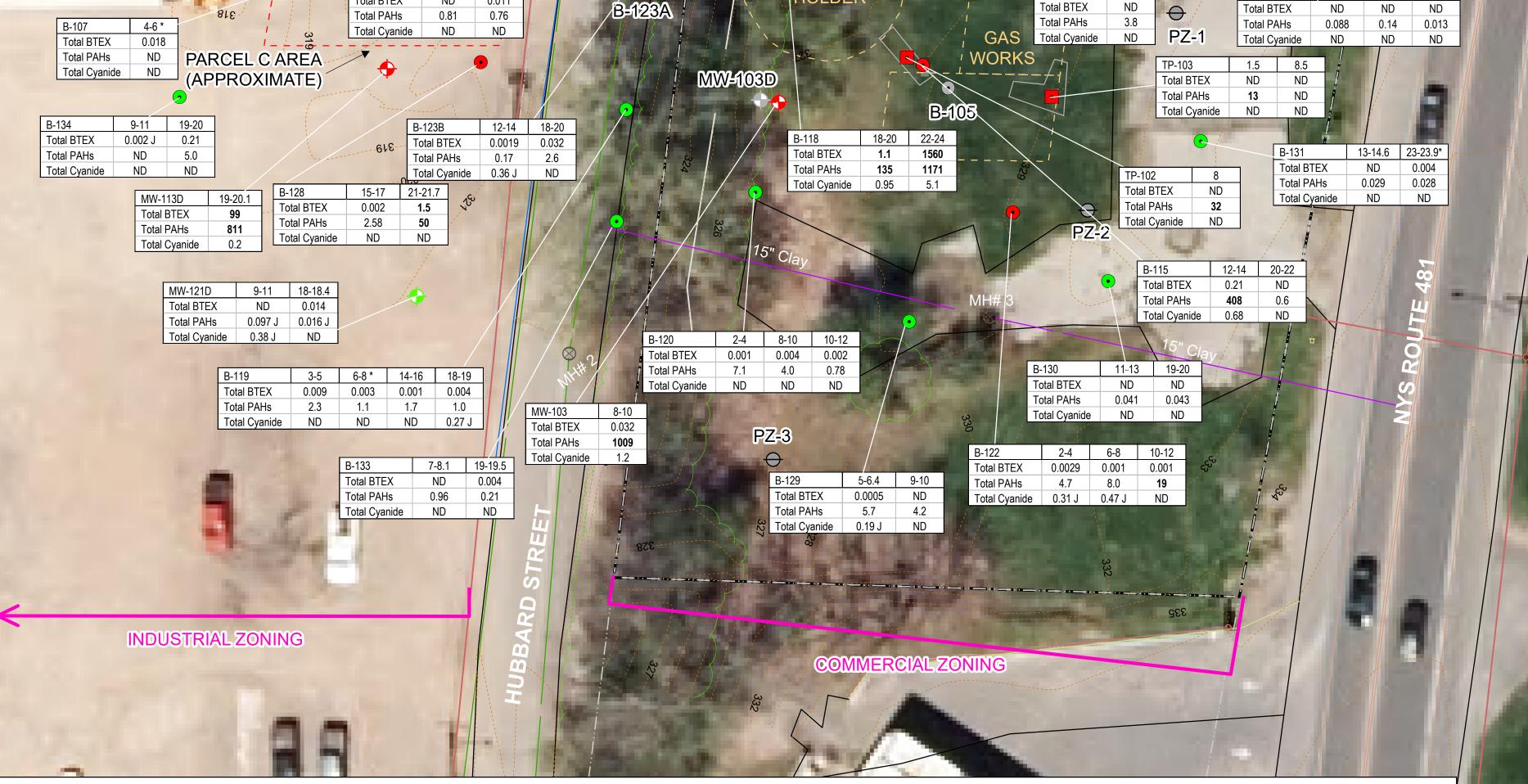
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Brown AND Caldwell

FIGURE 13 VISUAL/OLFACTORY OBSERVATIONS: BEDROCK NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE, FULTON, NEW YORK



	MM-115D 7.84 25-25.5 Telel BTEX NO 0.008 B-121 2.4 6.8 10-12 Telel BTEX NO 0.008 0.42 Telel DTEX NO 0.023 ND
B-135 5-7 9-11 19-21* Total BTEX 0.51 0.0007 J 0.021 Total PAHs 1.7 0.023 J 0.58 Total Cyanide ND ND ND	B-114 3-5* 6-8 14-16 20-22 Total BTEX 0.066 0.007 ND 0.081 Total PAHs 23 1.2 0.16 12 Total Cyanide ND ND ND ND
TP-105 5.5* MW-112D g B-124 8-10 16-18 Total PAHs 2.9 B-127 9-11*	Total Cyanide ND ND ND MH# 4 MW110D MW-110S 19-21 19-21 ND ND
Total BTEX ND 0.047 Total Cyanide 0.76 Total BTEX 5.1 Total PAHs 0.031 0.83 Total Cyanide ND Total Cyanide ND	12 MW-102 10-12 12-14 593 Total BTEX 0.043 0.022 ND Total PAHs 39 14
B-125 15-17 21-23 Total BTEX 0.0007 0.037 Total PAHs 0.21 0.69	Total Cyanide ND ND Total BTEX ND ND Total PAHs 4.5 0.067 Total Cyanide ND ND
Total Cyanide ND ND B-126 9-9.85 19-20.4 Total BTEX 0.0005 0.008	MW-109D B-104 22-24 24-25.3* MW-109S MW-102D Total BTEX 8.3 3
Total PAHs0.101.0Total CyanideNDNDTP-1066.5Total BTEX0.01DescriptionMW-111DTotal BTEXTotal BTEX	B-117 18-20 24-26 20-20.5* Total BTEX 5.4 277 Total PAHs 699 1035 Total BTEX 5.4 277 Total PAHs 262 4895 Total Quarido ND Total Cyanido ND
MW-114D 9-10.15 21-21.4 64 Total PAHs 0.078 Total PAHs Total Cyanide ND <	613 NA Total Cyanide ND 6.3
Total PAHs 0.08 0.36 Total Cyanide ND ND 816 Total PAHs 0.81 0.76	MW-103 GAS B-123A HOLDER



Legend

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- Monitoring Well: green symbol indicates no exccedance of New York State Part 375 Soil Cleanup Objectives (SCOs); red symbol indicates one or more constituents exceed SCO(s)
- Soil Boring: green symbol indicates no exceedance of SCOs; red symbol indicates one or more constituents exceed SCO(s)
 - Test Pit Sample: green symbol indicates no exccedance of SCOs; red symbol

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- Explanation of terms and abbreviations:
- BTEX Benzene, Toluene, Ethylbenzene, Xylenes PAHs - Polycyclic Aromatic Hydrocarbons
- J Estimated Concentration

indicates one or more constituents exceed SCO(s)

- Soil Boring
- Monitoring Well

Test Pit

- Ground Surface Elevation Contour (ft, NGVD 29)
- ----- Site Boundary

— Pavement Edge

Vegetation

– Storm Sewer Line

Electric Line

Former MGP Structure Location. Locations are approximate, based on 1890 Sanborn Fire Insurance Map.

- Piezometer
- Manhole
 - Property Line
 - Water Line
 - Sanitary Sewer Line
 - Overhead Electric Line
 - Gas Line

ND - Not Detected NA - Not Analyzed

Bold Value - Indicates conentration of one or more constituents in a constituent group are above NYS Part 375 SCOs (Protection of Public Health for Commercially or Industrially Zoned Properties [depending on sample location]; Protection of Ecological Resources; and/or Protection of Groundwater)

Results reported in milligrams per kilogram (mg/kg)

* - Table lists the highest concentration from original and duplicate sample

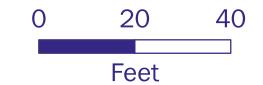
Sources:

 Base map developed based on drawing prepared by Snyder Engineering & Land Surveying, LLP (January 11, 2005); Revised by Delta Engineers, Architects, & Land Surveyors, P.C. (August 2018).

2) Aerial photo from NYSDOP 2015 survey



FIGURE 14 BTEX, PAHS AND CYANIDE IN SUBSURFACE SOIL NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE, FULTON, NEW YORK



12

			MW-109S Benzene Toluene Ethylbenzene Xylenes, total Naphthalene Cyanide, total MW-109D Benzene Toluene Ethylbenzene Xylenes, total Xylenes, total Naphthalene Cyanide, total	Sep-07 ND ND ND ND ND ND Sep-07 6.6 ND 18 34 150 JD ND		ND Mar-13 J 9 2 2 3 9 2 2 3 9 2 3 9 2 3 9 3 3 3 3 3 3 3 3 3 3 3 3 3	0 0
MW-122SSep-18BenzeneNETolueneNEEthylbenzeneNEXylenes, totalNENaphthalene0.1 xCyanide, totalNEMW-122DSep-18Benzene0.6 JTolueneNDEthylbenzene0.6 JXylenes, totalNDEthylbenzene0.6 JXylenes, totalNDNaphthalene0.3 JCyanide, totalND	D ND D ND D ND D ND J ND D ND 	MW-111SBenzeneTolueneEthylbenzeneXylenes, totalNaphthaleneCyanide, totalMW-111DBenzeneTolueneEthylbenzeneXylenes, totalNaphthaleneCyanide, totalNaphthaleneCyanide, total	ND ND ND ND ND ND	ND ND ND ND ND ND	25 ND 4 0.5 J 0.6 8.4 J	15 ND 14 5 8 ND	Sep-18 NI NI NI 6.8 Sep-18 6 12 20 71 95 2
		MW-114D Benzene Toluene Ethylbenzen Xylenes, tota Naphthalene Cyanide, tota MW-113D Benzene Toluene Ethylbenzene Xylenes, tota Naphthalene Cyanide, tota	al 120 a 7 al ND Oct-15 44 3 a 64 4 42 42	Mar-16 * 30 59 280 540 1200 ND 1200 ND 20 0 0 120 0 120 0 120 0 120 0 10 10 10 7.7 J	Sep-18 12 17 29 57 51 ND Sep-18 12 ND 2 ND 0.3 J 17	2 26 7 77 9 120 7 250 7 250 9 ND 9 NOV-18 9 22 9 4 1 25 1 5 3 3	
						MW-121S Benzene Toluene Ethylbenzene Xylenes, total Naphthalene Cyanide, tota MW-121D Benzene Toluene Ethylbenzene Xylenes, total Naphthalene Cyanide, total	al
- 1							

on\fulto lal_Grid∖Fi P:\GIS\Natio :-

+	Shallow Overburden Monitoring Well	 Pavement Edge
↔	Deep Overburden Monitoring Well	 Vegetation
\ominus	Piezometer	 Water Line
\otimes	Manhole	 Storm Sewer Line
	Ground Surface Elevation	 Sanitary Sewer Line
	Contour (ft, NGVD 29)	 Gas Line
	Site Boundary	 Electric Line
	Property Line	 Overhead Electric Line

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Former MGP Structure Location. Locations are approximate, based on 1890 Sanborn Fire Insurance Map.

Sources:

- 1) Base map developed based on drawing prepared by Snyder Engineering & Land Surveying, LLP (January 11, 2005); Revised by Delta Engineers, Architects, & Land Surveyors, P.C.(August 2018).
- 2) Aerial photo from NYSDOP 2015 survey

Explanation of terms and abbreviations: ND - Not detected NA - Not analyzed J - Estimated concentration D - Reported result is representative of a diluted sample analysis.

Bold Value - Indicates constituent concentration above Class GA Criterion.

Results reported in micrograms per liter (µg/L)

- * Table lists the highest concentration from original and duplicate sample
- ** Duplicate sample collected

FIGURE 15 BTEX, NAPHTHALENE AND CYANIDE IN OVERBURDEN GROUNDWATER NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE, FULTON, NEW YORK

ND ND ND ND ND ND ND ND 3.1 ND 3.1 ND 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ND ND ND ND ND ND Dec-12 Mar Dec-12 Mar 1 J 4 J 1 S 75 ND	ND ND ND ND ND ND T-13 * Oc ND 1 J 4 J 13 75 ND ar-16 Se ND ND ND ND ND ND ND ND ND ND	ND ND	ND ND ND ND ND ND ND I 5 16 76 ND Iov-18 ND ND ND ND	Sep-18 ND ND ND ND ND Sep-18 0.3 J 2 10 27 130 ND	Nov-18 NC NC NC NC NC NC NC NC NC NC NC NC NC				N
ene otal ne otal	MW-101 Benzene Toluene Ethylbenzene Xylenes, total Naphthalene Cyanide, total Oec-04 Sep ND ND ND ND ND ND ND ND ND ND ND ND ND	-07 * Der ND ND ND ND ND ND ND 16 r-13 Oc ND ND	Izene Jene ylbenzene enes, total ohthalene anide, total C-12 Mi ND ND ND ND ND 0.2 J 14 t-15 Mi 8 2	D N D N D N D N D N D N D N D N D N D N D N ND N ND N ND 15 ar-16 S 9 N	ID ID ID ID ID ID ID ID ID ID ID ID ID I	ND ND ND	ND ND	D D D D	Nov-18 ND ND ND ND ND ND ND ND ND ND NS NS NS NS NS NS NS NS	
ene otal ne otal Dec-12 ND ND ND ND ND ND 06 * [] 06 * [] 06 * [] ND 4.2 J ND ND ND ND ND ND ND	3 J 8 70 J 15 Mar-13 ND ND ND ND 0.2 J ND	ND ND 6 17 Sep-18 NS NS NS NS NS NS NS NS NS	3 7 25 20 Nov-18 NS NS NS NS NS NS NS NS NS NS NS NS NS		2 3 J 4 23	The second secon				
332										





				No Real	
	MW-122R Benzene Toluene Ethylbenzene Xylenes, total Naphthalene Cyanide, total	Sep-18 Nov 12 9	MW-125R Benzene Toluene Ethylbenzene Xylenes, total Naphthalene Cyanide, total Cyanide, total	Sep-18 11 75 100 350 810 ND	Nov-18 * 5 J+ 38 J+ 63 J+ 180 J+ 210 J ND
		PP-18 Nov-18 ND ND 0.2 J ND ND ND ND ND ND 0.1 J ND ND			M Be Tc Ett Xy Na C

Legend

\	Bedrock Monitoring Well
\otimes	Manhole
	Ground Surface Elevation Contour (ft, NGVD 29)
	Site Boundary
	Property Line

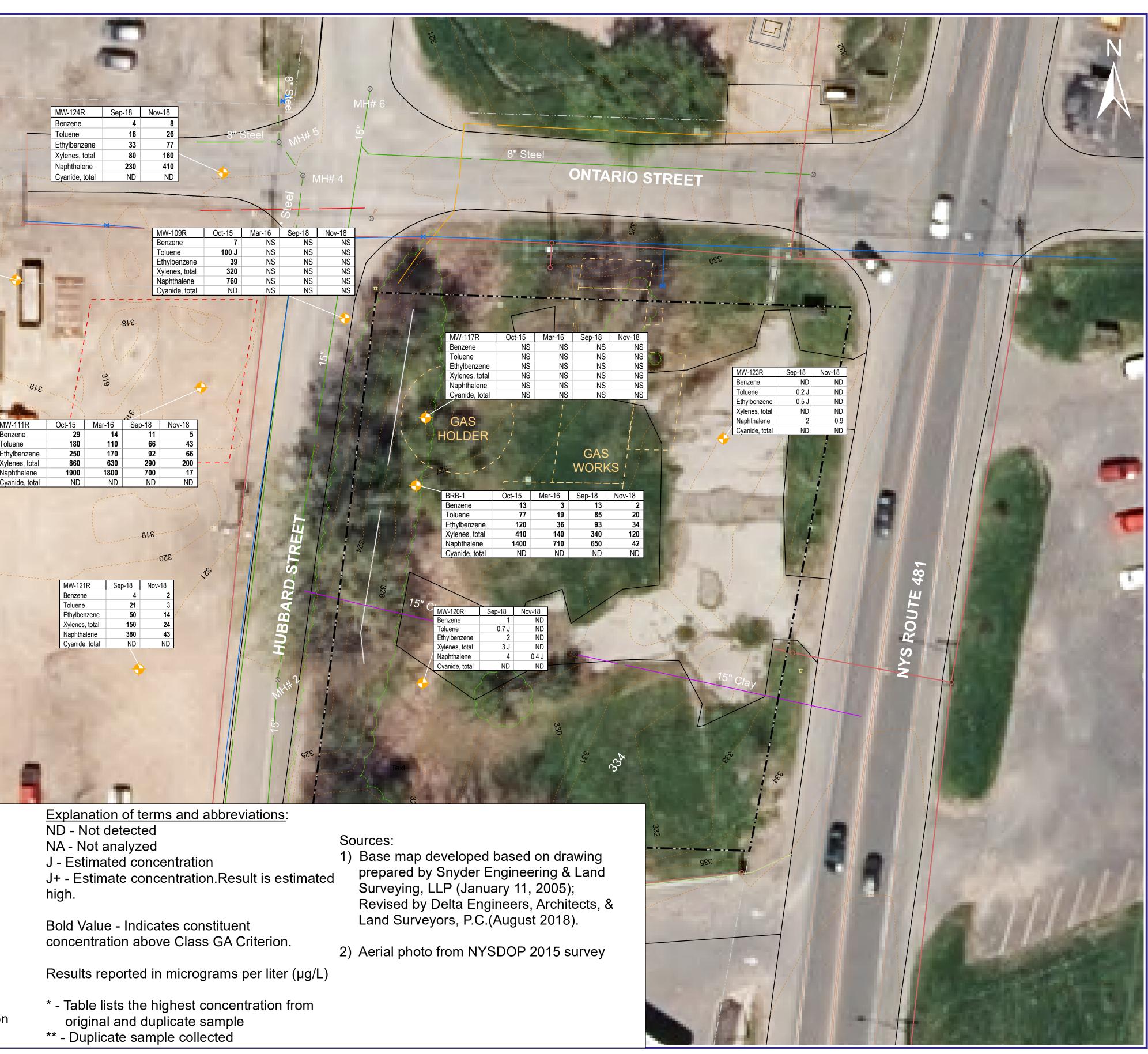
- Pavement Edge
 - Vegetation

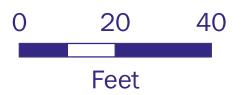
- Water Line
- Storm Sewer Line
- Sanitary Sewer Line
- Gas Line
- Electric Line
- **Overhead Electric Line**

Former MGP Structure Location. Locations are approximate, based on 1890 Sanborn Fire Insurance Map.

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FIGURE 16 **BTEX, NAPHTHALENE AND CYANIDE IN BEDROCK GROUNDWATER** NATIONAL GRID FULTON (ONTARIO ST.) FORMER MGP SITE, FULTON, NEW YORK





Appendix A: Soil Boring and Well Construction Logs



	Brov Calc			Projec	tt Name: F tt Number: tt Location:	1522	06	o St.) Fo	orme	r M	GP :	Site		Perm	4 2			
Г	nspec	tor/C	Office		Checked B	y: Bo	orehole Di	Diameter: Screen Diameter and Type:						Slot	Size:	r	l'otal Boring De	pth (ft)
]	REH/	Uppe	r Saddle	River, NJ	JLM		6'	6" NA						N/	20.0 ft.			
			n Date	Nothr		tor:	Samplin		-				lopmen	t Metho	od:			
								r Type:	140 ll Autor	mati		N/A						
	Driller S. Lor			rilling Met plit-Spoon	ment:	Vert	Dat	um:	NGVI	NYS Pl D 29 v: 319.4		AD83	N	asting: 864226 orthing: 12126 OC Elev:				
t)	et)	pe										Gra	phic Log	2	(mqc			
Depth (feet)	Elevation (feet)	USC Soil Type		1	Description			Blow Coun		Sample No.	Sample Int Recovery	Lithology	Bac	kfill	ppm Readings (ppm)		Remarks	
-	-	GW	Brown (-) Silt		FILL VEL, some o	mf Sar	nd, little _			1					0.0	Boring BGS	g hand cleared to 5'	
-	-	GW		orown cmf -) Silt. Dry.	GRAVEL, s	ome Sa	ind, _			2					0.0			
-		SW	Silt. D	ry.	D, some cmf		_			3					0.0	Boreh cement	ole backfilled with '/ bentonite grout.	
-	315	SW SP	found hand.	throughout	ry. Black coa t, breaks apar 9, some cmf (t easily	by			4					0.1			
5		sw sw	Silt. M breaks Dark l	oist. Some	black coal-lil	te piec	es,	9-12-20)-20	6					0.0			
-	-	0		GLA nf SAND,	ACIAL TIL some cmf G		race (-)											
-	-	SW GW SW	Grey			avel, t		9-12-20)-20	7					0.0			
	310	GW	Red/b Sand,	brown, cmf little Silt. Sa	GRAVEL, s iturated.	ome cr	nf _ _	9-35-1	3-7	8					0.0	^D Sample (B-134-9-11) collected and submitted for analysis of BTEX, PAHs and Total Cyanide.		
-	-	GW	Same	as above. Sa		7-9-30	-32	9					0.0					
-	305	GW SW	Red/b	as above. Sa rown cmf S ravel. Satur	SAND, some	(-) Silt	- t, little - -	11-12-2	22-6	10			- - -		0.1			

	Brov Calc	Project Name:Fulton (Ontario St.) Former MGP SitePProject Number:152206Project Location:Fulton, NY								Permi	t Nun V/A	nber:	Boring No. B-134 Page 2 of 2	
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts	Sample No.	Sample Int	Recovery	Lithology data	hic Lo, Bac	g :kfill	ppm Readings (ppm)		Remarks
-	-	SW	Same	e as above. Saturated. 	6-6-8-9	11						0.0		
-	-	SW SW		e as above. Saturated. 	13-11-8-8	12						0.2	Sampl	e (B-134-19-20)
- 20—	300	sw GW		e as above. Saturated. cmf Gravel, little cmf Sand, trace Silt. rated.	8-10-100/0"	13	X					4	and T Split-s	e (B-134-19-20) ted and submitted for is of BTEX, PAHs otal Cyanide. poon and auger refusal
				BEDROCK									on apj 20' BC	parent top of rock at SS.

	Brov Calc	wn _a Iwe		Projec	t Name: F t Number: t Location:	1522	06	o St.) Fo	orme	r M	GP	Si	te		Permi	Boring No. B-135 Page 1 of 2			
Ι	nspec	tor/C	Office		Checked B	y: Bo	orehole Di	Diameter: Screen Diameter and Type:						Slot	Size:	ſ	fotal Boring Depth	(ft)	
]	REH/	Uppe	r Saddle R	liver, NJ	JLM		6'							N/	А"		21.0 ft.		
			n Date	Nothr	i ng Contrac nagle	tor:	-	g: Split-	-					pmen	t Metho	od:			
7/9,								r Type:	140 l Auto		2	N	N/A						
	Driller S. Lora			lling Met lit-Spoon	hod:	Drilli CME	ing Equip 2-85	ment:	Vert	Dat	um:	Ν	GÝD		ane NA 4 ft.	D83	N	asting: 864302.0 ft. orthing: 1212715.8 DC Elev:	
	et)	pe										_	Grapi	nic Log	r S	(udo			
Depth (feet)	Elevation (feet)	USC Soil Type		1		Blow Coun		Sample No.	Sample Int	Kecovery	Lithology	Bac	kfill	ppm Readings (ppm)		Remarks			
-		GW	Brown c trace Sil	cmf GRA` t. Dry.	FILL VEL, some o	1d, _			1			***			0.0	Boring BGS.	hand cleared to 5'		
-	-	GW	Same as	above. D	ry.		_			2	T	I	***			0.0			
-		GW	Brown o Silt. Dry	cmf GRA` 7.	nd, little _			3		Ľ	***			0.0	Boreh cement	ole backfilled with / bentonite grout.			
-	-	GW	Same as	above. Sl	ightly moist.		-			4		Ľ	***			0.1			
-	315	sw	Brown o Silt. Moi	ist.	D, some cmf		l, little			5		I	***			0.1		GS: Discoloration) on soils.	
5	-	SW	Red cmt Silt. Dry	f SAND, s	CIAL TIL some cmf G		race	8-9-10	-11	6						0.0	(black discol ziploc sheen	8' BGS: Discolored so and tar-like odor, ored soils adhere to k bag, trace amount o observed on ziplock	of
	-	SW	Same as	above. Sa	aturated @8.	1' BGS		7-10-1	2-6	7						0.0	and su	le (B-135-5-7) collecte abmitted for analysis X, PAHs and Total de.	ed of
10-	310	SW	Red cmi Silt. Satu	f SAND,s 1rated.	ome (-) cmf	Gravel	, little _	7-10-11	-16	8	\square		· · · · · · · · · · · · · · · · · · ·			0.1			
	-	SW	Same as	-	11-10-1	6-11	9						0.0	collec	le (B-135-9-11) ted and submitted for is of BTEX, PAHs 'otal Cyanide. ' BGS: Faint mothbal odor.				
-	305	SW SW SW	Grey/re Gravel.	Saturated. f SAND, :	ND, little sil		9-7-6-	14	10						0.1		' BGS: Moderate ball-like odor.		

	Brov Cald	vn _{Ar} Iwe	v⊳ Il	Project Name: Fulton (Ontar Project Number: 152206 Project Location: Fulton, NY	io St.) Forme	er M	GP	Site		Permi]	t Nur N/A	nber:	Boring No. B-135 Page 2 of 2
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts	Sample No.	Sample Int Becovery		bhic Lo Bac	g ckfill	ppm Readings (ppm)		Remarks
-		SW		as above. Saturated.	11-14-15-24	11					0.1		rate-strong pall-like odor.
-		SW		as above. Saturated.	17-33-13-12	12					0.4		BGS: Moderate pall-like odor.
20	300	SW		rent top of bedrock based on drilling itions.	11-18-13-12	13					0.2	analys	e (B-134-19-21) ted and submitted for is of BTEX, PAHs otal Cyanide.

	Brown and Caldwell Project Name: Fulton (Or Project Number: 152206 Project Location: Fulton, I								ormer	M	GΡ	Sit	æ		Permi N	t Nur N/A	nber:	Well No. MW-120D Page 1 of 2	
Ι	nspec	tor/C	Office		Checked B	y: Bo	orehole D	iameter:	Sci	reen d Ty	Dia	ame	eter		Slot	Size:	L I	Total Boring Depth (ft)
1	REH/	Uppe	r Saddle I	River, NJ	JLM		6	"		PVC	-				0.02	20"		21.0 ft.	
s	tart/H	inist	n Date		ing Contrac	tor:	Samplin	ng: Split-S	Spoon			D	evel	opmer	nt Metho	d:	_		
8/8/	/18 - 8	8/16/	18	Nothr Drillir	ng, Inc.		Hamme	er Type:	140 lb Auton			Sı	urge d	& Purg	ge w/ Wh	ale Pu	ump. R	emoved apprx: 30 gal.	
	Driller: S. Lor:		Dr. HS	illing Met SA	thod:	Drilli CME	ng Equip -85	oment:	Horiz Vert 1 Groui	Dati	ım:	N	GVD	29	Plane NA 96 ft.	D83	N	asting: 864374.7 ft. orthing: 1212570.1 f OC Elev: 327.24 ft.	ît.
	et))e										(Grap	hic Lo	g	(ud			
Depth (feet)	Elevation (feet)	USC Soil Type		1	Description			Blow Count	ts	Sample No.	Sample Int	Kecovery	Lithology		7ell <u>ck Up</u>	ppm Readings (ppm)		Remarks	
_		SP	Brown	mf SAND	FILL , some Orga	nics (le	af _			1						0.0	Boring BGS.	hand cleared to 5'	
-	325		litter), li Asphalt	ttle f Grav	vel. Dry.	,	_	-					▼						
-	,	SP	Brown Silt. Dr		, some cmf	Gravel,	trace _	-		2						0.0			
-		SW	Brown Silt. Dr	cmf SANI y.	O and mf GI	AVEL	_, trace _	-		3			•.•.• •.•.•			0.0			
-		GP	Brown	mf Gravel	, little Sand,	trace Si	lt. Dry	-		4	Þ	0` 0				0.0			
-		SP	Light br trace Sil		AND, some	mf Gr	avel, _	-		5						0.0			
5		SW SW	Brown Silt. Dr	cmf SANI y.	D, some mf		-	1-2-1-	4	6	$\langle $		••••• •••••			1.6		5' BGS: ht/Bentonite Grout	
-	320		Red cm brick), c odor. D	liscolorati	nd GRAVE on (black) or	L (crus) grains	, no –	-			XP						5644.		
-		SW	Brown	cmf SANI	D and GRAV	VEL (re	ed —	1-2-1-	1	7						1.3			
-			Drick), t	race Silt. I	Jiy.		-				X						0.0-15 Riser.	5.0' BGS: 2" PVC	
-		SW	Same as	s above. D	ery.		_	6-5-4-2	22	8						0.8			
10-		sw	Brown/ little Sil	'red cmf S	ACIAL TIL AND, some		ravel, —				\ \		<u></u>				9.5-12 Seal.	2.5' BGS: Bentonite	
-	315	GW	Brown/ trace Sil	red cmf (t. Saturate	GRAVEL, lit ed.	le cmf	Sand, –	6-8-6-	1	9		Ē				0.7	11_11	.6' BGS: Faint	
-							_	-			X							ball-like odor.	
-		GW			GRAVEL, lit	tle San	- d, —	WOH-WO	H-1-1	10		T•'				1.0		13' BGS: #00 Finer ed Filter Sand.	
-		GW Red/brown cmf GRAVEL, little Sand, trace, Silt.									\mathbb{N}						(black	.2' BGS: Discoloratior) on grains, sheen and g mothball-like odor.	

Γ	Brov Calc	vn A	ND	Project Name: Fulton (Ontario Project Number: 152206	o St.) Forme	r M	GP S	lite			t Numb	er: Well No. MW-120D
L	Calc	lwe	ll	Project Location: Fulton, NY						Ν	V/A	Page 2 of 2
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts	Sample No.	Sample Int Recovery		vhic Loạ W	g ell	ppm Readings (ppm)	Remarks
	310	SW SW	little Red Silt.	wn/red cmf SAND, some cmf Gravel, e Silt. Moist l cmf SAND, some cmf Gravel, trace Dry	6-8-21-12	11					D m m	5.2-15.7' BGS: Discoloration (black), netallic luster, strong nothball-like odor. 5.0-21.0' BGS: 0.020'' PVC
-	-	SW SW	Grav Red	wm/red cmf SAND, some Silt, trace mf wel. Moist	6-18-20-22	12					1:	lotted Screen. 3.0-21.0' BGS: #1 Filter and.
- 20-	-	sw	Sam	ne as above. Dry. BEDROCK	100/4"	13					D su m St	7.0-17.3' BGS: Discoloration (black) ib-metallic-metallic, strong nothball-like odor. plit-spoon refusal on porcent top of each (2010 3)
	305											GS.

	Brown and Caldwell Project Name: Fulton (O Project Number: 152206 Project Location: Fulton, Inspector/Office Checked By: Boreh							2206	o St.) Fo	orme	r M	GF	° S	ite]		it Nur N/A	nber:	Well No. MW-120R Page 1 of 4
I	nspec	tor/C	Office	e		Checked B	y: I	Borehole D	iameter:	Soar	creer nd T	n Di vpe	ian	neter			Slot	Size:	1	Total Boring Depth (ft)
	REH/ River,	JLM/ NJ	Uppe	er Sad	ldle	JLM		8.25'	'/4"		' PV						0.0	20"		56.0 ft.
S	start/I	Finisł	n Dat	te	Drilli Nothn	ng Contrac	tor:	Samplin	ng: SS/C	ont. C	lore			Deve	lopm	ent l	Metho	od:		
8/8,	/18 - 3	8/22/	18		Drillin	g, Inc.		Hamme	r Type:	140 l Auto	b. matio	с		Surge	& Pu	irge v	w/ Wł	nale Pu	ımp. R	emoved apprx: 50 gal.
	Driller S. Lor				l ing Met A/Rotary		Dri CM	illing Equip IE-85	oment:	Vert	Dat	um	: 1	Proj: NGVI e Ele) 29		ne NA ft.	.D83	Ν	asting: 864377.8 ft. orthing: 1212570.2 ft. OC Elev: 327.75 ft.
	et)	be												Graj	phic I	Log		(mq		
Depth (feet)	Elevation (feet)	USC Soil Type			I	Description			Blov Coun RQD (ts	Sample No.	Sample Int	Recovery	Lithology		Wel		ppm Readings (ppm)		Remarks
_			0-24	4' BG	S, refer to	amples not c o MW-120D	bori	ng log 🛛 🗕							ŠŠ				Boring BGS.	g hand cleared to 5'
	325		tor	descr	aption of	soils from th	us mi	terval											0.0-20 Casing	5.0' BGS: 4'' Steel g.
	315							- - - - - - - - - - - - -											<i>Cemen</i> 0.0-40 <i>Riser</i> . 14' B((black	3.5' BGS: tt/Bentonite Grout. 2.0' BGS: 2" PVC GS: Discolored soils s), strong mothball-like s observed upon

	Brov Cald	vn a Iwe	∎	Project Name: Fulton (Ontari Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	er M	GP	9 Si	ite		Permit N	: Nun J/A	nber:	Well No. MW-120R Page 2 of 4
				· · · · · · · · · · · · · · · · · · ·					Gran	hic Log	7	.		
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Recovery	Lithology		ell	ppm Readings (ppm)		Remarks
	310												18' BC (black odors	ral of augers GS: Discolored soils), strong mothball-like observed upon ral of augers
	300	BR BR	Red m fractu thick l mode clasts infillir irregu weath surfac	BEDROCK nedium grained sandstone, ctured, unweathered, thick bedded. 	100%	1								
	295	BR	fractur bedde 32.65- weath fractur (@33.1 moder	nedium grained sandstone, moderately red, moderate-slightly weathered, thick ed. @ 32.6' Grey sandstone layer. @ -32.9' Highly fractured, highly res, silt and gravel infill. @ 33.05' ed, moderately weathered fracture. 1', 33.15' Near horizontal fracture, rately weathered, silt infill. @ 33.9' Grey and red mud clasts. @ 34.4'	90%	3							discol	BGS: Slight oration (black) on re surface.

	Brov Calc	vn _A	₽ 	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Fo r me	r M	GP S	Site	Pe	ermit Num N/A	ber: Well No. MW-120R Page 3 of 4
feet)	(feet)	Type			Blow	No.	nt v	T T	hic Log Well	(mqq) s	
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Counts RQD (%)	Sample No.	Sample Int Recovery	Lithology	WCI	ppm Readings (ppm)	Remarks
	290		red an @ 35. weath surfac	horizontal slightly weathered fracture, hd grey mud clasts on fracture surface. .05' Near horizontal fracture, slightly hered, red mud clasts on fracture te. @ 35.55' Near horizontal fracture, ly weathered.						-	33.5-36.5' BGS: Bentonite Seal.
-		BR	weath @ 36. fractur fractur horizo	nedium grained sandstone, slightly ered, slightly fractured, thick bedded. .3' Near horizontal slightly weathered re. @ 36.65', 37.55' Mechanical 	86.6%	4					36.5-37.0' BGS: #00 Finer Grained Filter Sand.
- 40 - - -	285	BR	slightl moder 42.91' weath	ine to medium grained sandstone, ly to moderately weathered, slightly to rately fractured, moderately hard. @ 'Fracture nearly horizontal, slightly ererd, mud clasts on fracture surface. .65' Irregular surface, moderately	95%	5					37.0-53.0' BGS: #1 Filter Sand.
- - - 45	280		weath partin weath at silts	ered. @ 45.05' Near horizontal g on mudstone, slightly to moderately ered. @45.5' Near horizontal parting stone/mudstone. @ 42.9-43.65' Zone ibundant mud clasts throughout.							40.0-52.0' BGS: 0.020'' PVC Slotted Screen.
 50		BR	sandst slightl Slightl weath on/at verticl fractu	ish brown, fine to medium grained tone, slightly to moderately weathered, _ ly hard, slightly fractured. @ 46.0' ly inclined fracture, moderately ered. @49.2' Near horizontal fracture siltstone bed. From 48.9-49.2' Near le fracture. @ 49.55' Near horizontal re at siltstone bed, slightly weathered. .45' Near horizontal fracture, slightly ered.	88%	6					
-	275	BR	sandst moder 53.05' clasts,	ish brown fine to medium grained tone, slightly to moderately hard, - rately weathered, slightly fractured. @ 'Near horizontal fracture at mud - , irregular surface, moderately ered. @ 53.35' Near horizontal -	92%	7					

[Brov Calc	wn a lwe	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	er M	GP	Site			N/A		Well No. MW-120R Page 4 of 4
Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts RQD (%)	Sample No.	Sample Int	Lithology Lithology	w	g 'ell	ppm Readings (ppm)		Remarks
55-			fracture, moderately to highly weathered. @ 53.5' Near horizontal fracture, highly irregular, mud clast zone, moderately to highly weathered.								53.0-5 backfu chips.	56.0' BGS: Corebole lled with bentonite

	Brown and Caldwell Project Name: Fulton (On Project Number: 152206 Project Location: Fulton, I Inspector/Office							o St.) Fo	ormen	: M	GΡ	Si	te		Permi N	t Nun N/A	nber:	Well No. MW Page 1	-121D of 2
Ι	nspec	tor/C	Office		Checked B	y: Bo	orehole Di	ameter:	Scan	reer	n Dia ype:	am	eter		Slot	Size:	Г	otal Boring	Depth (ft)
]	REH/	Uppe	r Saddle	River, NJ	JLM		6'	'		PV	-				0.02	20"		24.0 f	t.
s	tart/I	Finisł	n Date	Drill Nothr	ing Contract	tor:	Samplin	g: Split	Spoon			1	Devel	opmen	t Metho	d:			
7/9,	/18 - 7	7/12/	'18	Drillir	ng, Inc.		Hamme	r Type:	140 lt Autor		2	5	Surge	& Purg	ge w/ Wh	ale Pr	ımp. R	emoved appr	x: 40 gal.
	Driller S. Lora			rilling Me ISA	thod:	Drilli CME	ng Equip -85	ment:	Vert	Dati	um:	N	IGÝE		'lane NA 21 ft.	D83	No	asting: 8642 orthing: 12 DC Elev: 32	12586.0 ft.
<u> </u>	et)	pe										_	Grap	hic Lo	g	(mq			
Depth (feet)	Elevation (feet)	USC Soil Type]	Description			Blov Coun		Sample No.	Sample Int	Kecovery	Lithology		7 ell ic Rated Box	ppm Readings (ppm)		Remark	s
-		GW	Light Sand,	Brown cmf little Silt. D	FILL GRAVEL, s ry.	ome cr	nf –			1			***			0.0	Boring BGS.	hand cleared to	o 5'
-	320	GW	Same	as above. D	Dry.		_			2	┣	ľ	***			0.0			
-		GW	Same	as above. D	Dry.		-			3		₿	***			0.0			
-		SW	Brown Silt. M	n cmf SANI loist.	D, some cmf	Gravel	l, little _			4	┣		***			0.0			
-		SW	Same	as above. N	loist.		-			5						0.0			
5		SW		Silt. Dry.	SAND, some		Gravel,	9-10-15	5-24	6						0.0		0.0' BGS: t/Bentonite Gr	rout
-	315			GLA	ACIAL TILI						\mathbb{N}						5000		
-		SW	Red cr Silt. D		some cmf G1	avel, li	ttle	13-50-3	8-17	7	$\left \right\rangle$					0.0	0.0-18 Riser.	8.5' BGS: 2" F	PVC
		SW	Same	as above. Sa	atu r ated at 10	.5.	-	16-20-2	4-26	8						0.0	collec analys and T	le (MW-121E ted and subm is of BTEX, otal Cyanide.	nitted for PAHs
-	310	SW	Same	as above. Sa	aturated.			4-7-3	-3	9						0.1	mothl	.7.5' BGS: Sli ball-like odor 2.0' BGS: Bei	
-											\mathbb{N}							2.5' BGS: #00 ed Filter Sand.) Finer
-		SW	Red cr Grave	nf SAND, l. Saturated	some (-) Silt,	little cr	mf	4-7-7	-7	10						0.2	12.5-1 Sand.	'7.5' BGS: #1	Filter

	Brov Calc	vn a Iwe	v⊳ II	Project Name: Fulton (O Project Number: 152206 Project Location: Fulton,	o St.) Forme	r M	GP S	Site		Permit	t Nun J/A	nber: Well No. MW-121D Page 2 of 2
				<u> </u>				Cross	hic Lo	<u></u>		<u> </u>
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts	Sample No.	Sample Int Recoverv			g /ell	ppm Readings (ppm)	Remarks
-	305	SW	Same	as above. Saturated.	 16-16-26-16	11					0.0	13.5-18.5' BGS: 0.020'' PVC Slotted Screen.
-	-	SW SW SW SW BR	Same Same Same Red w	as above. Saturated. as above. Saturated. Compact. as above. Compact. BEDROCK weathered sandstone. Auger down to betent bedrock.	 100/5" 100/2" 100/3" 100/4"	12 13 14 15 16						Sample (MW-121D-18-18.4) collected and submitted for analysis of BTEX, PAHs and Total Cyanide. Split-spoon refusal on top of weathered bedrock @ 18.4' BGS. <i>18.5-20' BGS: Finer Grained</i> <i>Filter Sand.</i>
20-	300		comp	betent bedrock.								18.5-20' BGS: Finer Grained Filter Sand.

	Brown AND Caldwell Project Name: Fulton (O Project Number: 152206 Project Location: Fulton, Inspector/Office Checked By: Boreh							o St.) F	orm	er M	GP	• S:	ite		Permi	it Nur N/A	nber:	Well No. MW-121R Page 1 of 3
Ι	nspec	tor/C	Office		Checked B	y: Bo	orehole D	iameter:		Screen and T	n Di vpe	ian :	neter		Slot	Size:	1	Гotal Boring Depth (ft)
	REH/ River,	AJT/ NJ	Upper	Saddle	JLM		8.25'	'/4"		2" PV					0.02	20"		47.0 ft.
S	start/I	Finisł	n Date	Drill i Nothr	ing Contrac	tor:	Samplin	ng: SS/C	Cont.	Core			Devel	opment	Metho	od:		
7/10	0/18 -	7/18	8/18	Drillin	ig, Inc.		Hamme	r Type:	140 Aut	lb. omati	с		Surge	& Purge	w/Wł	nale Pi	ımp. R	emoved apprx: 45 gal.
	Driller S. Lor			Drilling Met HSA/Rotary		Drill i CME	ing Equip 2-85	oment:	Vei	rt Dat	um:	N	IGÝE	NYS Pla 29 7: 320.98		.D83	N	asting: 864275.2 ft. orthing: 1212575.3 ft. OC Elev: 320.57 ft.
Depth (feet)	Elevation (feet)	USC Soil Type		1	Description			Blov Cour RQD	nts	Sample No.	Sample Int	Recovery	Lithology Lab	hic Log Wa Traffic Vault I	ell Rated	ppm Readings (ppm)		Remarks
-	320	GW		vn cmf GRA Silt. Dry.	FILL VEL, some c	mf Sar	nd, _			1		I				0.0	Boring BGS.	g hand cleared to 5'
-		SW		t brown cmf (+) Silt. Dry		e cmf (Gravel, _			2	J	I	***			0.0		
-		SW	breal	e as above. D ks apart easily	by hand.					3						0.0	0.0-22	2.0' BGS: 4'' Steel
-	-	SW	little	brown cmf Silt. Dry.		e cmf (Gravel, _			4						0.0	Casing	g.
5	-	SW		e as above. M		¬1	-			5	₽					0.0		
-	315	SW SW	Silt. 1	vn cmf SANI Dry. GLA	CIAL TIL			6-6-7	-10	0	M					0.0		
-			Red Silt. I	cmf SAND, :	some (-) cmf	Grave	el, little — –				\mathbb{N}							
-	-		7-11	-spoon samp BGS. Refer escription of	to MW-121I) borin	1g log –											
- 10-							-											
-	310						-											8.0' BGS: at/Bentonite Grout.
-	310	SW	Brov Silt. 1 11.8-	vn cmf SANI Moist from 1 13.	D, some cmf 1-11.8. Satur	Grave ated fr	el, little rom 	9-11-1	5-20	7								
-			13-1	-spoon samp 7' BGS. Refe escription of	r to MW-121	D bor	ing log _											

Γ	Brov Calc	vn _A Iwe		Project Name: Fulton (Onta Project Number: 152206	,	er M	GP	Si	te		Permit	t Nun N/A	MW-121R
				Project Location: Fulton, NY									Page 2 of 3
t)	iet)	pe						_	Grap	ohic Log	5	(mdc	
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Recovery	Lithology	Wo	ell	ppm Readings (ppm)	Remarks
	305	SW SW	Grave	mf SAND, some (-) Silt, little (-) mf el. Moist. as above. Moist. as above. Moist.	21-100/6" 100/4" 45-100/1"	8 9 10						0.0	Split-spoon refusal on apparent top of rock @ 21.6' BGS.
- - - 25— - -	295	BR	bedde highly @ 23. infill, i horize	BEDROCK nedium grained sandstone, thinly ed. (a) 22.9' Near horizontal fracture, weathered. (a) 23.2' Red mudstone. 2-23.3' Near horizontal fracture, silt moderately weathered. (a) 24.3' Near ontal fracture moderately weathered fill. (a) 25.6' Mechanical fracture.	73.3%		-						0.0-31.5' BGS: 2" PVC Riser. 26.0-28.0' BGS: Bentonite Seal
		BR	bedde moder horizo infill.	nedium grained sandstone, thinly ed. @ 28.3' Near horizontal fracture, rately weathered. @ 28.7' Near ontal fracture, highly weathered, silt @ 29.0' Moderately weathered verticle re, silt infill. @ 30.2' Likely mechanical re.	90%	12							Seal. 28.0-28.5' BGS: #00 Finer Grained Filter Sand.
-		BR	bedde horizo with si weath (a) 35	nedium grained sandstone, thinly ed. @ 33.9-34.0' Siltstone and near ontal moderately weathered fracture ilt on surface. @ 34.9' Moderately ered fracture with silt infilling fracture. 3' Near horizontal fracture. @ 36.3', 36 6' Moderately weathered fracture	86.7%	13			· ·				28.5-41.5' BGS: #1 Filter Sand.

	Brov Cald	vn _A	ND II	Project Name: Fulton (Onta: Project Number: 152206 Project Location: Fulton, NY	Ре	ermit Nur N/A	nber:	Well No. MW-121R Page 3 of 3					
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Т	Lithology Laber	hic Log Well	ppm Readings (ppm)		Remarks
- 35- - - -	285	BR	Red fi 39.3' 1	.6' Highly weathered.	94.2%	14						37-37 sheen	.5' BGS: Abundant
- - - 40 -	280		Near l @ 40. Near l weath horizo	hered. @ 39.5-39.8' Siltstone. @ 39.8' horizontal fracture, heavily weathered. .35' Near horizontal fracture. @ 40.9' horizontal fracture, moderately hered in siltstone. @ 41.4' Near ontal moderately weathered fracture. .55', 41.65' Highly weathered fractures.								Slottee 37-42 obser surfac 40.35 with t viscon horize	 41.5' BGS: 0.020" PVC 1 Screen. ' BGS: Specks of sheen ved on fracture tes. ' BGS; Heavy sheen wo blebs of black is NAPL on near ontal parting, moderate ball-like odor.
- - - 45 - -	275	BR	43.5' S fractur horizo silt inf 45.0-4 Near I fractur fractur Highly @ 45. horizo	nedium to fine grained sandstone. @ Steeply inclined, slightly weathered ire. @ 44.0', 44.2', 44.6' Near ontal, highly weathered fracture with fill. @ 44.0-44.3' Siltstone. @ 46.0' Siltstone. @ 44.85', 45.0', 45.1' horizontal, moderately weathered ire with silt infill. @ 45.55' v-shaped ire, appears mechanical. @ 45.65' y weathered near horizontal fracture. 7', 45.9' Highly weathered near ontal fracture with silt infill. @ 46.6', Moderately weathered near horizontal ire.	68.3%	15						41.5-4 sump is annuli boreho 37-47 moth in dri 41.5-4 backfi chips. 42-47 obser not o surfac odor, obser drillin Spots sproa tools	 43.5' BGS: 2' PVC with bentonite in rr space between le & sump. ' BGS: Moderate ball-like odor observed ling return water. 47.0' BGS: Corebole led with bentonite ' Sporadic sheen ved on outside of core, bserved on fracture re, slight mothball-like single bleb of NAPL ved on surface of g return water. of NAPL observed dically on geophysical following removal corehhole.

	Brov Calc	vn _{Ar} Iwe	ND :	Project Number: 152206 Project Location: Fulton, NY												it Nu N/A		Well No. MW-121S Page 1 of 1		
I	nspec	tor/C	Office		Checked B	y: B	orehole Di	ameter:	Sa	creer nd T	n Di vpe	ian	neter		Slo	t Size:	1	Fotal Boring Depth (ft)		
]	REH/	Uppe	r Saddl	e River, NJ	JLM		6'	'		" PV					0.0)20"		12.5 ft.		
s	start/H	⁷ inisł	n Date	Drill Noth	ing Contrac	tor:	Samplin	npling: Split Spoon Development								Method:				
7/9,	/18 - ′	7/12/	18	Drillin	ng, Inc.		Hamme	her Type: 140 lb. Surge & Automatic							rge w/ Whale Pump. Removed apprx: 15-20 ga					
Driller: Drilling Method: Drilling Equ S. Loranty HSA CME-85								ment:	ment: Horiz Datum/Proj: NYS Plane NA Vert Datum: NGVD 29 Ground Surface Elev: 321.42 ft.								 Easting: 864276.0 ft. Northing: 1212585.0 ft. TOC Elev: 321.02 ft. 			
) be													Graphic Log		og	(mq				
Depth (feet)	Elevation (feet)	USC Soil Type			Description		Blov Cour		Sample No.	Sample Int	Recovery	Lithology	Traf	Well fic Rated It Box	ppm Readings (ppm)		Remarks			
-		GW	Light Sand	brown cmf , trace Silt. D	emf _			1			***			0.0	Boring BGS.	, hand cleared to 5'				
-	320	SW	Brow	n cmf SAN	D, some cmf	el. Dry			2		I	***			0.0		0' BGS:			
-		GW	Brow Silt. I	rn cmf GRA Dry.	VEL, some S	trace (-)			3	J					0.0	Seal.	nt/Bentonite Grout			
-	-	SW	Dark Grav	brown cmf el, little (+) \$	SAND, some Silt. Moist.	e (-) cr	mf _			4			***			0.0	0.0-7.	5' BGS: 2'' PV⁄C Riser.		
- 5		SW		as above.			_			5	J					0.0	4.0-5.	0' BGS: Bentonite Seal.		
-	315		Split 5-12. for d	spoon samp 5' BGS. Ref escription of	les not collec er to MW-12 f soils from th	ted fro ID bo nis inte	om oring log _ erval											5' BGS: #00 Finer ed Filter Sand.		
-	-																6.5-12 Sand.	2.5' BGS: #1 Filter		
	-				-											2.5' BGS: 0.020" PVC				
																		I Screen.		

	Brov Calc	wn Iwe		Project Name: Fulton (Ontario St.) Former MGP Site Project Number: 152206 Project Location: Fulton, NY											Permi N	t Nun N/A	nber:	Well No. MW-122D Page 1 of 2	
I	nspec	tor/C	Office		Checked B	y: Bo	orehole D	iameter:	Scan	reen d Ty	Dia Dia	imet	ter		Slot	Size:	Г	'otal Boring Depth (ft)	
I	REH/	Uppe	r Saddle R	iver, NJ	JLM		6			PV0	-				0.02	20"		21.4 ft.	
s	tart/H	Finish	n Date	Drilli Nothr	ng Contrac	tor:	Samplin	pling: SS/Cont. Core Developmen							t Method:				
7/10)/18 -	8/14	/18	Drillin	g, Inc.		Hamme	ner Type: 140 lb. Surge & Purge Automatic							e w/ Whale Pump. Removed apprx: 35 gal.				
	Driller S. Lora		Dri HS	lling Met A	hod:	ing Equip ≧-85	ipment: Horiz Datum/Proj: NY Vert Datum: NGVD 29 Ground Surface Elev: 3						29		D83	No	sting: 864121.5 ft. orthing: 1212671.8 ft. OC Elev: 319.00 ft.		
()	et) Pe											G	Graphic Log		og (maa				
Depth (feet)	Elevation (feet)	USC Soil Type		1	Description		Blow Count		Sample No.	Sample Int	I 1	Lithology		ell c Rated Box	ppm Readings (ppm)		Remarks		
		GW	Grey/br Sand, tra	own cmf ace Silt. D	FILL GRAVEL, s ry.	mf _			1			\otimes			0.0	Boring BGS.	band cleared to 5'		
-		GW	Dark bro little (-)	own cmf Silt. Dry.	GRAVEL, so	ome Sa	and, _			2						0.0	0.0.40		
-		SW	Brown c Gravel.		D, some (-) S	e cmf _			3						0.0		.5' BGS: t/Bentonite Grout		
-	315	SW	Brown c Silt. Moi), some cmf	Grave	el, little _			4						0.0			
		SW	Same as	above.			-			5			\otimes			0.0			
5-		ŚŴ	Red/bro trace Silt		SAND, some	mf Gi	ravel,	5-16-20-	16	6	$\backslash /$	••• •••				5.5			
-		SW	Silt. Dry		little cmf G						X	***							
		SW	Red cmf Silt. Dry		some mf Gra	vel, lit	tle (-) -												
-		SW	Red cmf Silt. Moi		some cmf G	avel, li	ittle (-) 	8-9-7-5	5	7	\mathbb{N}					5.3	0.0-16 Riser.	.0' BGS: 2" PVC	
	310	SW SP	Brown r	above. M nf SAND Saturated.	, little Silt, tr) m	1-1-1-W0	НС	8						3.2				
-		SP		above. Sa		5-	WOH-WOI	H-WO	н9						1.4				
-		GP SW	trace-Sil Brown c	nf Gravel t. Saturate mf SANI Saturated.	-) mf _	1-5-8-WOH 10									12.5-1 Seal.	4.5' BGS: Bentonite			
_	305	GW		emf GRA t. Saturate	VEL, some c d.	nd, –				\mathbb{N}							5.0' BGS: #00 Finer d Filter Sand.		

	Brov Cald	vn _A	ND II	Project Name: Fulton (Onta: Project Number: 152206 Project Location: Fulton, NY		r M	GP	Sit	e	Pe	rmit N	Number: /A	Well No. MW-122D Page 2 of 2
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts	Sample No.	Sample Int	Т	Lithology Lithology	hic Log Well	ppm	Readings (ppm)	Remarks
- - -		SW SW SW	Silt. S Red c Brow	n cmf SAND, little mf Gravel, trace aturated. cmf SAND. Dry. Compact. n cmf SAND, some mf Gravel, trace aturated.	- 16-8-10-12 	11 0H ²						4.1 15.0-2 Sand. 2	21.0' BGS: #1 Filter
	300	SW SP	little S	brown cmf SAND, some cmf Gravel, Silt. Saturated. n mf SAND, little Silt, trace mf el. Saturated.	- 4.WOH-WOH-WC - -)H ¹³						Solite	21.0' BGS: 0.020'' PVC l Screen. spoon refusal on
		SW SY	Grave Red c Silt. C	orown cmf SAND, some Silt, trace mf el. Moist. Compact. mf SAND, some cmf Gravel, little Compact, weathered bedrock gregated sandstone). BEDROCK	50/4"	14						5.7 BGS.	ent top of rock @ 21.0'

Brown AND Caldwell					Project Name: Fulton (Ontario St.) Former MGP Site Project Number: 152206 Project Location: Fulton, NY]	Permit Number: N/A			Well No. MW-122R Page 1 of 3			
Ι	nspec	tor/(Offic	e		Checked B	By:	Borehole	Dia	meter:	S	cree nd T	n D	ian	neter			Slot	Size:	1	Total Boring Depth (ft)		
	REH/	Uppe	r Sad	ldle R	iver, NJ	JLM		8.	25"/	4"		" PV						0.02	20"		49.0 ft.		
5	Start/I	Finisł	n Da	te	Drilli Nothn	ng Contrac	tor:	Samp	npling: SS/Cont. Core Developme								ent l	it Method:					
7/1	0/18 -	8/13	8/18		Drillin	g, Inc.		Ham	mer Type: 140 lb. Surge & Pu Automatic							& Pu	rge v	ge w/ Whale Pump. Removed apprx: 20 ga					
	Driller S. Lor				lling Met A/Rotary			illing Eq ME-85	ıipn	nent:	Vert	Dat	um	: 1	Proj: NGVI e Ele v) 29			D83	Ν	asting: 864122.0 ft. orthing: 1212665.0 ft. OC Elev: 319.07 ft.		
Depth (feet)	Elevation (feet)	Soil Type			1	Description				Blov Cour		Sample No.	e Int	very		ohic L	.og Wel	1	ppm Readings (ppm)		Remarks		
Dept	Elevat	USC S								RQD	(%)	Samj	Sample Int	Recovery	Lithology	Trat Vau	ffic F ilt Bo	Rated	ppm Read				
-	-	GW	Gr Sar	ey/br 1d, tra	own cmf ace Silt. D	FILL GRAVEL, s ry.	e cmf	-			1							0.0	Boring BGS.	g hand cleared to 5'			
-		GW	Sar	ne as	above. D	ry.					2			***				0.0					
-		SW	Bro Gr	own c avel. 1	mf SANI Moist.	D, some Silt,	e cmf	_			3			***				0.0					
-		SW	Sar	ne as	above. M	oist.		_			4	J		***				0.0					
- 5-	315	SW			above. M			c	_			5			***				0.0	0.0-24 Casinţ	4.0' BGS: 4'' Steel g		
-	-		5-2 for	11-spc 21' BC desci	GS. Refer	les not collec to MW-122F soils from th	RD b his in	from poring log nterval.	_														
-	-								_														
-	-								_														
-	-								_														
-	310								+														
10-	-																			0.0-33 Cemen	3.5' BGS: nt/Bentonite Grout.		
-	-								_														
-	-								-														
-							-																
-							+																
-								-															

	Brov Cald	vn _a Iwe	NP II	Project Name: Fulton (Ontar Project Number: 152206 Project Location: Fulton, NY	io St.) Forme	er M	GP	Si	te		Permit N	: Nur J/A	nber:	Well No. MW-122R Page 2 of 3
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Recovery	Lithology Lithology	ohic Log W	g ell	ppm Readings (ppm)		Remarks
	300 295 290	BR	fractu: weath fractu: 24.9-2 sandst 25.25'. slightl horizo red m Near l silt inf moder clasts Red m interv: mediu 29.45- horizo 29.9-3 30.0-2 horizo 31.6-3 32.25' weath fractu: 22.3-3	BEDROCK redium grained sandstone, medium d, moderately weathered, moderately red. @ 24.15-24.3' Red highly red. @ 24.15-24.3' Red highly red. @ 24.35' 24.75' Inclined re, slightly weathered, silt infill. @ 5.1' Highly fractured disaggregated tone, highly weathered. @ 25.2', , 26.2' Near horizontal fracture, y weathered, silt infill. @ 25.65' Near ontal fracture, moderately weathered, ud clasts on fracture surface. @ 25.7' horizontal slightly weathered fracture, fill. @ 27.3' Near horizontal rately weathered fracture, grey mud on fracture surface, silt infill. nedium grained sandstone with als of red siltstone, slightly weathered, im bedded, moderately fractured. @ 29.7' Red mud clasts. @ 29.55' Near ontal slightly weathered fracture. @ 10.0' Grey sandstone, fine grained. @ 10.0' Grey sandstone, fine grained. @ 10.0' Grey sandstone, fine grained. @ Near horizontal fracture, slightly ered. @ 32.3', 32.5' Near horizontal re, moderately weathered, silt infill. @ 25.5', 32.1-32.25' Red mud clasts. @ Mechanical fracture.	66%	o 6						pr	0.0-39 Riser. 24.15- fuel-li 24.9-2	2.0' BGS: 2" PVC -24.3' BGS: Faint ke odor. 25.1' BGS: Moderate ke odor.
											Ň			

	Brov Cald	vn _A		Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	r M	GP	Site		Permi	t Nun N/A	nber:	Well No. MW-122R Page 3 of 3
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Grai Lithology	w	g /ell	ppm Readings (ppm)		Remarks
	280	BR	Contin 34-49' log for interva	nuous core samples not collected from 'BGS. Refer to MW-122RD boring r description of bedrock from this al.								Seal. 36.5-3 Graine 37.0-4 Sand. 39.0-4	6.5' BGS: Bentonite 7.0' BGS: #00 Finer d Sand. 9.0' BGS: #1 Filter 9.0' BGS: 0.020" PVC Screen.

	Brov Calc	wn _a Iwe		Project Name: Fulton (Ontario St.) Former MGP Site Project Number: 152206 Project Location: Fulton, NY											Permi	it Nun N/A	nber:	Well No. MW-122RD Page 1 of 6		
I	nspec	tor/C	Office		Checked B	y: Bo	orehole Di	ameter:	Sa	creer nd T	n Dia vpe:	met	ter		Slot	Size:	ſ	Total Boring Depth (ft)		
	REH/ Saddle	AJT/2 River	SW/Uppe :, NJ	er	JLM		12"/8.2	5"/4"		" PV					0.0	20"		100.0 ft.		
S	tart/I	Finisł	n Date	Drilli Nothr	ing Contrac	tor:	Samplin	ling: SS/Cont. Core Developm							ent Method:					
7/10)/18 -	8/9/	18	Drillin	ig, Inc.		Hamme	her Type: 140 lb. Surge & Pu Automatic							rge w/ Whale Pump. Removed apprx: 50 gal.					
	Driller S. Lor			lling Met A/Rotary		pment: Horiz Datum/Proj: N Vert Datum: NGVD 2 Ground Surface Elev:						29		.D83	N	asting: 864122.1 ft. orthing: 1212658.5 ft. OC Elev: 319.10 ft.				
	be ef .											G	Grap	hic Log	g	pm)				
Depth (feet)	Elevation (feet)	Elevation (feet) USC Soil Type USC Soil Type							w nts (%)	Sample No.	Sample Int Recovery	T 1	Lithology	W o Traffic Vault I	Rated	ppm Readings (ppm)		Remarks		
-		GW		rown cmf ace (-) Silt	FILL GRAVEL, s . Dry.	mf _			1			XX			0.0	Boring BGS.	hand cleared to 5'			
-		GW	Brown o fragmen Dry.	cmf GRA ats), some	VEL (some o cmf Sand, tr	concret ace (-)	te _ Silt			2			***			0.0				
-		SW	Brown o Silt. Dry	emf SANI 7.	el, little _			3			***			0.0	0.0.20					
-	215	SW	Brown o Gravel.	cmf SANI Moist.	D, some Silt,	trace r	mf _			4			***			0.0	0.0-25 Casing	5.0' BGS: 8" Steel ?;		
-	315	SW	Brown o Gravel.		D, some Silt,	little ((+)			5			\bigotimes			0.0				
5		SW	Brown o Gravel.	GLA cmf SANI Dry. Den:	CIAL TIL D, some Silt, se.	little (·	-) f	13-11-2	0-25	6	\mathbb{N}					1.8				
-		SW		above. M		r	-	1-69-3	2-5	5 7						1.3				
-		GP SP	Sand. D Brown/	ry.	mf GRAVE AND, some	-					\mathbb{A}	0	$\overline{\mathbf{n}}$							
-	310	SP			, little Silt, tr	ace f C	Gravel.	5-1-1	-1	8	\bigvee					1.8				
10-		SP	Brown f	SAND, l	-				\mathbb{A}						0.0-55 Casing	5.0' BGS: 4'' Steel ?				
-		SP	Brown r	Gravel.	4-6-3	-3	9	$\left(\right)$					1.9							
-		SP	Brown 1 Saturate	Gravel. –																
-		SP	Same as	_	2-7-8-	-11	10						2.0							
-	305	SW SP	Brown 1	emf SANI nf SAND Saturated.					\mathbb{A}	•••	**** ***									

	Brov Cald	vn AN wel	Project Name: Fulton (Ontari Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	er M	GP S	Site	Permi	N/A	MW-122RD Page 2 of 6
Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts RQD (%)	Sample No.	Sample Int Recovery		well	ppm Readings (ppm)	Remarks
-		SP SP	Same as above. Saturated. Brown mf SAND, some Silt, little mf Gravel. Saturated.	6-14-19-11	11				2.1	
-		SP SP	Same as above. Saturated. Dense.	8-11-18-13	12				1.7	
	300	SP	Brown mf SAND, little Silt., trace f Gravel. Dense. Saturated from 19.5-19.8'.	9-19-6-12	13				1.9	
-		BR .	Weathered brown/grey/red sandstone.	97/3"	14				0.0	Split-spoon refusal on apparent top of rock @ 21.0' BGS.
-	295	BR	Red medium grained sandstone. @ 24.0' Near horizontal fracture, @24.5' fracture.	70%	15					
25— - - - - - - -		BR	Red medium to fine grained sandstone, highly-moderately fractured, medium bedded, slightly weathered. @ 25.4' Near horizontal fracture, slightly weathered. @ 25.8-26.0' Highly fractured disaggregated sandstone, moderate-highly weathered. @ 26.3' Near horizontal fracture, slightly weathered. @ 27.0' Mechanical fracture. @ 27.75' Near horizontal fracture, moderately weathered. @ 28.0-28.1' Highly fractured, near horizontal and inclined, moderately weathered. @ 28.35' Near horizontal fracture, slightly weathered.	74.4%	16					28.0-28.1' BGS: Near horizontal parting with strong fuel-like odor.
	290	BR	Red medium to fine grained sandstone, medium bedded, slightly weathered, moderately flat fractured. @ 30.2' Near horizontal fracture, moderately weathered, — disaggregated sandstone. 31.5-31.65' Red siltstone, near horizontal fractures, slightly weathered. @ 31.65-31.9' Red to grey (gradational) sandstone. @ 31.9-32.8' Red siltstone, thinly bedded. @ 32.8', 33.85', 33.9' Near horizontal, slightly weathered fracture. @ 34.25' Near horizontal, slightly weathered fracture, red mud clasts around and on fracture surface. @ 34.6-34.8' Red mud clasts.	94%	17					

Г	Brov	NN AI		Project Name: Fulton (Ontario	o St.) Forme	er M	GP S	Site		Permit	t Nur	nber:	Well No. MW-122RD
L	Calc	lwe	ũ :	Project Number: 152206 Project Location: Fulton, NY						Ν	N/A		Page 3 of 6
	it)	e						Gra	phic Lo	g	(mc		
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int Recovery	Lithology	w	'ell	ppm Readings (ppm)		Remarks
-	285	-		-									
35-	-	BR	weath @ 35. red m fractu	nedium grained sandstone, slightly nered, slightly fractured, thick bedded. .0-36.0' Cross bedding and sporadic nudclasts. @ 36.9' Near horizontal re, slightly weathered. @ 36.9-37.2' nudclasts.	100%	18							
- - - - - - - - -	280	BR	mode: fractu Siltsto mode: @42.5 mode: sandst 42.8',	nedium to fine grained sandstone, rately weathered, highly-moderately red, thick bedded. @ 40.3-42.65' one. @ 42.3 Near horizontal, rately weathered fracture, silt infill. 5', 42.6' Near horizontal fracture, rately weathered. @ 42.7-42.8' Grey tone. @ 42.8-43.4' Red Siltstone. @ 42.9', 43.1', 43.3' Near horizontal,	74%	19						42 3']	3GS: Near horizontal
- - - 45 - - - -	275	BR	mode: 44.55' fractu Red n thick l fractu 45.6' l fractu weath	rately weathered fracture. @ 44.5', ' Near horizontal, slightly weathered	88%	20							GGS: Near horizontal g with fuel-like odor.
- - - 50 - - - - -	270	BR	highly thick l fractu red m Near l red m @53.4 fractu	nedium to fine grained sandstone, 7 fractured, moderately weathered, bedded. @ 51.7', 52.4' Near horizontal Ire, moderately weathered, silt infill, ud clasts on fracture surface. @ 52.1' horizontal slightly weathered fracture, ud clasts on fracture surface, silt infill. 45', 53.5', 53.55' Near horizontal Ire, moderately weathered, silt infill. @ -53.55' Red siltstone. @ 53.65', 54.0'	70%	21							

	Brov Cald	vn Iwel	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	er M	GP	Site		N/A	Well No. MW-122RD Page 4 of 6
(feet)	ı (feet)	l Type		Blow	No.	[nt		phic Log Well	(mqq) s	
Depth (feet)	Elevation (feet)	USC Soil Type	Description	Counts RQD (%)	Sample No.	Sample Int	Lithology		ppm Readings (ppm)	Remarks
-	265		Near horizontal moderately weathered fracture, silt infill. @ 53.95' Mechanical fracture.							
55 —	260	BR	Red medium to fine grained sandstone, moderately fractured, slightly weathered, thick bedded. @ 55.7' Near horizontal fracture, moderately weathered, trace silt infill and slightly irregular fracture surface. @ 55.85' Near horizontal fracture, moderately weathered, trace silt infill. @ 56.15', 56.7' Near horizontal fracture, slightly weathered, trace silt infill. @ 58.2' Near horizontal fracture, moderately weathered, trace silt infill. @ 59.7' Near horizontal fracture, slightly weathered, trace silt infill.	84%	22					1.5' BGS: nt/Bentonite Grout
60	255	BR	Red medium to fine sandstone, slightly fractured, slightly weathered, thick bedded. @ 60.85' Near horizontal fracture, slightly weathered.	100%	23					
65 — - - - - - - - - - - - - - - - - - - -	250	BR	Red medium to fine sandstone, slightly fractured, slightly weathered, thick bedded. @ 68.85' Near horizontal fracture, moderately weathered, trace silt infill. @ 69.05' Near horizontal fracture, slightly weathered, trace silt infill.	100%	24					
70		BR	Red medium to fine sandstone, slightly fractured, moderately weathered, thick – bedded. @ 70.8' Near horizontal fracture, moderately weathered, little silt infill. @71.35' Near horizontal fracture, moderately weathered.	100%	25					

	Brov Calc	wn Al Iwe	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	er M	GP	• Si	te	Per	mit Nu N/A	MW-122RD
	÷	e						Graphic 1	Log		
Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts RQD (%)	Sample No.	Sample Int	Recovery	Lithology	Well	ppm Readings (ppm)	Remarks
- - - - 75 — - - - - -	_245	BR	Red medium to fine grained sandstone, slightly fractured, slightly weathered, thick bedded. @ 76.9', 77.85' Mechanical fracture. @ 79.5' Near horizontal fracture, moderately weathered, silt infill.	100%	26						
	240	BR	Red medium to fine grained sandstone, moderately fractured, moderately weathered, – thick bedding. @ 80.85' Horizontal fracture, slightly weathered. @ 80.9', 81.1' Horizontal fracture, moderately weathered, silt infill. @ 81.3' Horizontal fracture, highly weathered, multiple broken pieces. @ 82.4' Horizontal fracture, moderately weathered, silt infill. @ 83.5' Horizontal fracture, highly weathered, silt infill. @ 84.1' Horizontal fracture, slightly weathered. @ 84.35' Horizontal fracture, moderately weathered, silt infill. @84.9' Horizontal fracture, slightly weathered.	80%	27						81.5-83.5' BGS: Bentonite Seal. 83.5-84.0' BGS: #00 Finer grauned Filter Sand.
	230	BR	Red medium to fine sandstone, slightly fractured, slightly weathered, thick bedded. @ 85.75', 85.8' Near horizontal fracture, moderately weathered, trace silt infill. @ 88.7', 89.75' Near horizontal fracture, slightly weathered.	91%	28						84.0-96.5' BGS: #1 Filter Sand.
- 90		BR	Red medium to fine grained sandstone slightly fractured, slightly weathered, thick	98%	29						86.0-96.0' BGS: 0.020'' PVC Slotted Screen.

	Brov Calc	vn _A	¶6 •	Project Name: Fulton (Ontari Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	er M	GI	P Si	ite		Permi	t Nun N/A	nber:	Well No. MW- Page 6	-122RD of 6
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Recovery	Lithology Lab	vhic Loş W	g /ell	ppm Readings (ppm)		Remark	٤S
d a 	225 220	BR	Red m moder thick l fractur norize some horize some horize some	d. @ 90.4' Near horizontal fracture, to no weathering. @ 92.4' Near matal fracture, slightly weathered. @ Near horizontal fracture slight to athered. @ 93.25' Near horizontal re, unweathered. nedium to fine grained sandstone, rately fractured, moderately weathered, bedded. @ 96.1' Near horizontal re, slightly weathered. @ 96.9' Near ontal fracture, moderately weathered, silt infill. @ 97.2', 97.7' Near ontal fracture, moderately weathered, silt infill. @ 98.9', 99.1' Near ontal fracture, slightly weathered. @ Near horizontal fracture, rately-highly weathered, some silt	RQD (%)	300	Sam	Reco				ppm	96.5-1 backfil chips.	00.0' BGS: 6 led with bento	Corebole nite

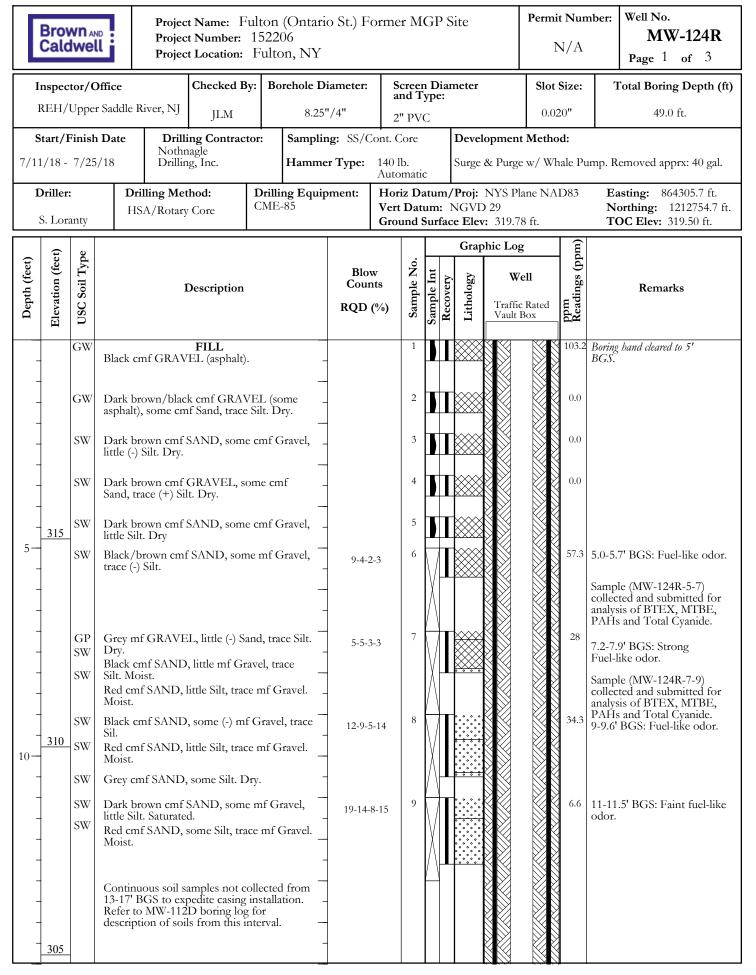
	Brov Calc	wn a lwe			Projec	tt Name: F tt Number: tt Location:	1522	206	o St.) Fe	orme	er M	GI	P S	ite]	Permi I	t Nur N/A		Well No. MW-122S Page 1 of 1
I	nspec	tor/(Offic	e		Checked B	y: B	orehole Di	ameter:	Sa	creei nd T	n D vpe	ian	neter			Slot	Size:	1	Total Boring Depth (ft)
1	REH/	Uppe	r Sad	ldle R	iver, NJ	JLM		6'	,		" PV						0.02	20"		14.0 ft.
s	tart/I	Finisł	1 Da	te	Drill i Nothr	ing Contrac	tor:	Samplin	g: Split-	Spoor	n			Devel	opme	ent N	Metho	od:		
7/10)/18 -	8/9/	/18		Drillin	ng, Inc.		Hamme	r Type:	140 l Auto	b. mati	с		Surge	& Pu	rge v	v/ Wł	nale Pu	ump. R	Removed apprx: 35 gal.
)riller 5. Lor			Dri HS	lling Met A	thod:		ling Equip E-85	ment:	Vert	Dat	um	: 1	Proj: NGVI e Elev) 29		ne NA ft.	D83	N	asting: 864121.8 ft. forthing: 1212678.2 ft. OC Elev: 318.77 ft.
Ē	et)	pe												Grap	hic L	٥g		(mq		
Depth (feet)	Elevation (feet)	USC Soil Type			1	Description			Blow Cour		Sample No.	Sample Int	Recovery	Lithology	Trai	Well ffic R ilt Bo	lated	ppm Readings (ppm)		Remarks
-		GW	Da Sai	ark bro nd, tra	own/grey ace (-) Silt	FILL cmf GRAV. . Dry.	EL, sc	ome cmf _			1		I					0.0	Boring BGS.	g hand cleared to 5'
-		GW	Da bri	ark bro ick), so	own cmf ome cmf	GRAVEL (s Sand, trace S	ome r ilt. Dr	ed _ ry			2	J	I	***				0.0	0.04	5' BGS:
-		SW	litt	le Silt	. Dry.	SAND, some	e cmf	Gravel, _			3		I					0.0	Cemen seal.	nt/Bentonite Grout
-	315	SW GW			above. M above.	loist.		-			4							0.0		
5		0 "	Sp! 5-1	lit-spo 14' BC	oon samp GS. Refer	les not collec to MW-122I soils from th) bori	ng log											4.5-6.	5' BGS: Bentonite Seal.
-																			6.5-7. Grain	0' BGS: #00 Finer wed Filter Sand.
-								-											0.0-8.	0' BGS: 2" PVC Riser.
-																			7.0-14 Sand.	4.0' BGS: #1 Filter
-	310	-						-										1 1 1 1 1		
-								_										- - - - -		
-								_										- - - - - -		
-								-												4.0' BGS: 0.020" PVC d Screen.
-								-												

	Brov Calc	wn _a Iwe	ND LL	Projec	t Name: F t Number: t Location:	15220	0 6	o St.) Fo	ormer	M	GP S	Site		Permi	it Nur N/A	nber:	Well No. MW-123 Page 1 of	
I	nspec	tor/C	Office		Checked B	y: Bo	rehole Di	iameter:	Scr	een 1 Tv	Dian pe:	meter		Slot	Size:	ר	l'otal Boring Dep	th (ft)
	REH/ River,	JLM/ NJ	Upper Sa	ıddle	JLM		8.25"	'/4"		PVC	-			0.0	20"		59.0 ft.	
s	tart/I	Finish	n Date	Drill i Nothr	ng Contract	or:	Samplin	ng: SS/C	ont. Co	re		Devel	opment	Metho	od:			
8/8/	/18 - 8	8/22/	'18	Drillin			Hamme	r Type:	140 lb. Autom		;	Surge	& Purge	e w/ Wł	nale Pu	ımp. R	emoved apprx: 30	gal.
	Driller S. Lor			illing Met SA/Rotary		Drilli CME-	ng Equip -85	oment:	Vert I	Dati	im:	NGVI	NYS Pl 29 7: 330.0		.D83	N	asting: 864486.6 orthing: 121265 OC Elev: 329.74	8.7 ft.
Depth (feet)	Elevation (feet)	USC Soil Type		1	Description			Blov Coun	v ts	Sample No.	Sample Int Recovery	Τ.	bhic Log Wo Traffic Vault 1	ell : Rated	ppm Readings (ppm)		Remarks	
		SP	Asphalt	t.	FILL					1	Ш				0.0	Boring BGS.	hand cleared to 5'	
-			Silt. Dr	у.	, some cmf (-												
-		GP	Brown trace Si	cm GRAV lt. Dry.	EL, some (-)	cmf S.	AND, _			2	Ш				0.0			
-		SP	Light b trace Si	rown mf S lt. Dry.	AND, some	cmf G	ravel, _			3	Ŭ				0.0			
-		SP	Same as	s above.			-			4	M				0.0			
-		SP	Same as	s above.			-			5					0.0			
5—	325	SP	Dark b little Sil		AND, some	mf Gra	ivel,	6-4-4	-8	6					1.1			
-		SW			ittle f Gravel	, trace S	Silt				XH	••••						
-		SW			D, some (-) n	nf Grav	el, —	1-1-1	-1	7		•••••			1.1	7.0-7.	4' BGS: Slight spo	radic
-	-	SW	little Sil Red/br Gravel.	own cmf	SAND, some	e Silt, li	ttle f				XH					discol grains	loration (black) on	sand
-		SW	Same as	s above.				1-2-2	-2	8					1.8		1.0' BGS: Discolor	ation
10-	320						-				VI					throu	:) sporadiclly ghtout, faint ball-like odor.	
-							-				\mathbb{A}						-	
-		SW	Brown Gravel.), little Silt, l	ttle (-)	mf —	1-2-2	-3	9					1.0	discol	11.6' BGS: Mottled loration (black) and	1
-		SP			ome Silt, trav	e Grav	el.				VI						mothball-like ódor	
-			1410151.				-				\mathbb{A}					discol	12.5' BGS: Minor loration (black) and mothball-like odor	
-	-	SP	Same as BGS.	s above. M	oist. Saturate	d at 14	.0' –	1-3-3	-5	10					0.8			
-			Wood o	debris.			-				\mathbb{A}							

	Brov Cald	wn a Iwe	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	er M	GP S	Site	Permi	N/A		Well No. MW-123R Page 2 of 4
Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts	Sample No.	Sample Int Recoverv		hic Log Well	ppm Readings (ppm)		Remarks
-		SW	Red/brown cmf SAND, some (-) Silt, little (-) cmf Gravel. Moist.	5-3-5-7	11				0.9	Disco mottl	l4.4' BGS: loration (black), ed soils, faint ball-like odor.
-		GW	Red/brown cmf GRAVEL, some cmf Sand, trace Silt. Moist.	5-5-5-7	12				0.4	0.0-28 Casinţ	3.0' BGS: 4" Steel 3.
20-	310	GW	Red/grey sandsotne cobbles. Continuous core through cobble zone. No recovery.		13						2.0' BGS: t/Bentonite Grout
-		SW	Red cmf SAND, some cmf Gravel, little Silt. Saturated.	1-1-1-1	14				1.1		
-		sw	GLACIAL TILL Red cmf SAND, some mf Gravel, trace Silt Moist	24-18-11-12	15						
25—	305	SW	Same as above. Moist.	24-60/6"	16		 ••••••• •••••••				
-		BR	BEDROCK Red medium grained sandstone, medium – bedded, moderately weathered, moderately fractured. @ 26.5-26.7' Red mud clasts. — @27.0' Near horizontal fracture, moderately weathered, silt infill. @ 27.1-27.3' Red mud clasts. @ 27.4' Inclined fracture, moderately weathered, silt infill. —	66%	17					Split- appar BGS.	spoon refusal on ent top of rock @ 26.0'
30	300	BR	Reddish brown fine to medium grained sandstone, moderately weathered, moderately fractured, slightly to moderately hard. @ 29.15-29.2' Clay seam. @ 29.2- 29.6' Heavily weathered fragmented sandstone. @ 29.65' Near horizontal, slightly weathered fracture. @ 30.0' Near horizontal fracture, moderately weathered, disaggregated bedrock (silt and sand) on fracture surface. @ 31.5' Near horizontal fracture, irregular surface, moderately weathered, minor disaggregated sandstone (sand) on fracture. @31.8' Near horizontal fracture, some disaggregated sandstone (sand) on fracture surface.	72%	18						

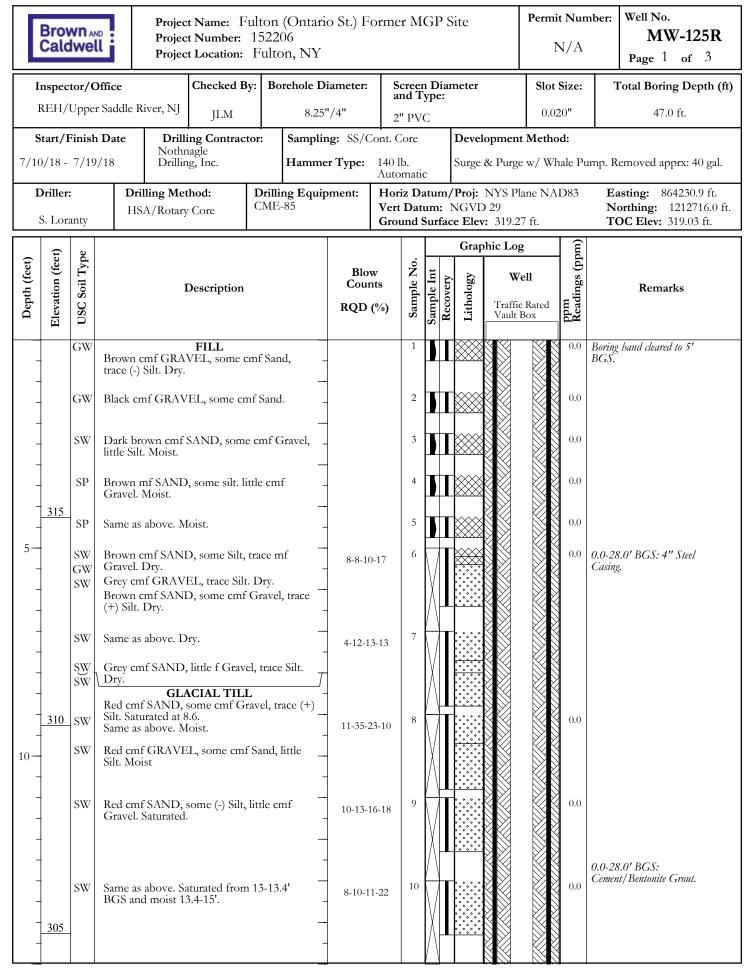
	Brov Cald	vn _a Iwe	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Form	er M	GP	Site		it Num N/A	ber: Well No. MW-123R Page 3 of 4
Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts	Sample No.	Sample Int	Crap Grap Trithology	hic Log Well	ppm Readings (ppm)	Remarks
	295	BR	Reddish brown fine to medium grained sandstone, slightly weathered, moderately hard, slightly fractured. @ 35.15' Near horizontal fracture at mud clasts, silt and clay infilling fracture. @ 37.0' Slightly inclined fracture, irregular surface, silt infill.	100%	19					
	290	BR	Reddish brown fine to medium grained sandstone, slightly weathered, moderately hard, slightly fractured. @ 40.65' Near horizontal fracture at mud clasts, irregular surface, slightly weathered. @ 41.9-42.55' Cross bedded sandstone. @ 42.55', 43.6' Near horizontal fracture, slightly to moderately weathered.	100%	20					12.0-42.5' BGS: #00 Finer Grained Filter Sand.
- 45 - - - - -	285	BR	Reddish brown fine to medium grained sandstone, slightly weathered, slightly fractured, moderately hard. @ 44.85' Slightly inclined fracture, slightly weathered. @ 45.0' Near horizontal fracture, slightly weathered. @ 45.85 Near horizontal fracture at mud clasts, irregular surface, pitted. @ 46.3'-46.5' Mud clasts throughout. @ 48.05' Near horizontal fracture, irregular surface, slightly weathered. @ 48.55' Near horizontal fracture, slightly weathered, irregular surface, mud clasts at/on surface.	98%	21					12.5-45.5' BGS: Bentonite Seal. 15.5-46.0' BGS: #00 Finer Grained Filter Sand. 16.0-56.0' BGS: #1 Filter Sand.
	280	BR	Reddish brown fine to medium brained sandstone. unfractured from 49.0-52.4' BGS, moderately hard, slightly weathered, moderately fractured from 52.4-54.0', moderately weathered. @ 52.4' Inclined fracture, moderately weathered. @ 52.8' Near horizontal fracture, irregular surface, mud clasts at depth. @ 52.95', 53.2' Near horizontal fracture, moderately weathered. @ 53.2'-53.4' Transition to siltstone/mudstone. @ 53.4' Near horizontal fracture, slightly weathered at transition back to sandstone. @ 53.8' Near	84%	22					48.0-55.0' BGS: 0.020'' PVC Slotted Screen.

	Brov Calc	wn a lwe	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Form	er M	GP	Site			N/A		Well No. MW-123R Page 4 of 4
Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts	Sample No.	Sample Int	Lithology Lithology	w	ell	ppm Readings (ppm)		Remarks
55-	275	BR	horizontal fracture, slightly weathered. @ 52.05'-52.8' Cross bedding. Reddish brown fine to medium grained sandstone, slightly weathered, moderately hard, slightly fractured.@55.0' Thin mudstone bed. @ 57.4' Near horizontal fracture, slightly weathered, irregular surface, mud clasts at depth. @ 57.9' Near horizontal fracture, slightly weathered, irregular surface, mud clasts at depth.	100%	23						56.0-5 backfu chips.	'9.0' BGS: Corebole lled with bentonite



	Brov Calc	wn a Iwe		Project Name: Fulton (Ont Project Number: 152206 Project Location: Fulton, N		o St.) Forme	r M	G	P S	ite		Permit N	t Nur J/A	nber:	Well No. MW-124R Page 2 of 3
		به								Grap	hic Log		(m		
Depth (feet)	Elevation (feet)	USC Soil Type		Description		Blow Counts RQD (%)	Sample No.	Sample Int	Recovery	Lithology	We	11	ppm Readings (ppm)		Remarks
20	300	SW SW GW GP	Same Multi- subro drill tl from uncor	cmf SAND, some (+) cmf Gravel, Silt. Saturated. n cmf SAND, some Gravel, little Silt. ited. as above. Saturated. 		20-12-18-33 60-100/6"	10 11 12						27.4	Casing 17-17 mothl sheen split-s 17.4-1 (black 17.4-1 mothl 19-19 mothl spora- sheen split-s Samp collec analys PAHs	2.6.0' BGS: 4" Steel 2.4' BGS: Faint ball-like odor and on water in poon. 7.6' BGS: Discolored) soils. 8.7' BGS: Faint ball-like odor. 7' BGS: Faint ball-like odor and dic black discoloration, on water in poon. 10 (MW-124R-19-20) ted and submitted for is of BTEX, MTBE, and Total Cyanide. 2.0' BGS: t/Bentonite Grout
25 	295	BR	Red n	BEDROCK nedium grained moderately weathered,		89%	14							Seal. Augentop of 32.1'	<i>3.0' BGS: Bentonite</i> refusal on apparent frock @ 32.0' BGS. BGS: Near horizontal
-			mediu @ 32. mode	nedium grained moderately weathered, im-thick bedded, moderately fractured .1' Near horizontal fracture, rately weathered. @ 33.35', 33.4' Near ontal fracture, moderately weathered.	l									partin of bla moth	BGS: Near horizontal g with sporadic spots ck discoloration, faint pall-like odor. 1-33.0' BGS: #00 Finer

	Brov Cald	vn Iwel		Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Forme	r M	GP	Si	te		Permi	t Nun N/A	nber:	Well No. MW-124R Page 3 of 3
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Recovery	Lithology da	hic Lo	g 'ell	ppm Readings (ppm)		Remarks
	285	BR	mediu weath horizo 34.7' l @ 35. mode horizo highly	nedium to fine grained sandstone, im bedded, highly fractured, slightly hered. @ 34.4', 34.8', 35.1' Near ontal fractures, slightly weathered. @ Inclined fracture, slightly weathered. .3' Near horizontal fracture, rately weathered. @ 35.5' Near ontal fracture, slightly weathered, v disaggregated sandstone. @ 36.6' horizontal fracture, slightly weathered.	70%	15							32-33 mothl	<i>ed Filter Sand.</i> .9' BGS: Faint ball-like odors ghout core run.
40	280	BR	slightl thin-m horize grey m horize @39.2 weath siltsto disagg weath slightl fractu disagg horize 43.0' I	nedium to fine grained sandstone, ly weathered, flat highly fractured, nedium bedded. @ 39.4' Near ontal fracture, moderately weathered, mud clast on surface. @ 39.5' Near ontal fracture slightly weathered. 9' Near horizontal fracture, moderately hered and disaggregated sandstone. @ 40.4' Near horizontal slightly hered fracture. @40.5- 40.85' Red one. @ 40.55-40.8' Highly fractured gregated siltstone, moderately hered. @ 41.0' Near horizontal fracture, ly weathered. @ 41.3' Near horizontal gregated, silt infill. @41.6', 42.1' Near ontal fracture, slightly weathered. @ Mechanical fracture.	59%	16							Sand. 35.0-4	25.0' BGS: #1 Filter 25.0' BGS: 0.020'' PVC 25.creen.
- 45 - - - - - - - - -	275	BR	slightl thick fractu mud c horizo infill. slightl	nedium to fine grained sandstone, ly weathered, moderately fractured,	93%	17								9.0' BGS: Corehole lled with bentonite



Γ	Brov Calc	wn A Iwe	1 6 	Project Name: Fulton (Onta Project Number: 152206 Project Location: Fulton, NY	,	er M	GP	Site		Permi	t Nur N/A	MW-125R
						.						Page 2 of 3
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Recovery Lithology	w	g Tell	ppm Readings (ppm)	Remarks
-	-	SW SW		as above. Moist.		11					2.1	17-21' BGS: Faint
-	300			as above. Moist.	16-26-26-30	12					1.2	mothball-like odor.
- 20-					19-20-24-29							
-	-	SW		mf SAND, some Silt, trace mf Gravel. . Compact.	18-20-20-28	14	\mathbb{N}				0.8	
-	295	SW	Same	as above. Moist. Compact.	15-22-24-28	15					0.8	23-26' BGS: Faint mothball-like odor.
25-		SW	Same	as above. Moist. Compact.	21-100/6"	16	X				2.8	o.v.
-	-	BR	fractu weath Highl	BEDROCK noderately weathered moderately red sandstone. @ 26.85' Moderately ered fracture. @ 27.0-27.2', 27.3-27.4' y weathered, fragmented sandstone.)' Disaggregated.	75%	17						Split-spoon refusal on apparent top of rock @ 26.0' BGS. 28.0-31.0' BGS: Bentonite Seal.
	290	BR	slightl mode: horizo silt cla horizo fractu beddin clasts.	nedium to fine grained sandstone, ly weathered, medium bedded, rately fractured. @ 29.0' Near ontal fracture moderately weathered, asts on fracture surface. @ 29.2' Near ontal, moderately-highly weathered re with silt infill. @ 29.5-29.8' Cross ng. @ 29.8-30.6' Intervals of mud (@ 30.3' Near horizontal fracture ly weathered, silt infill.	95.8%	18						28' BGS: Trace NAPL blebs observed on surface of drilling return water, faint mothball-like odor. <i>31.0-31.5' BGS: #00 Finer</i>
-	-	BR	slightl highly horizo infill. fractu	nedium to fine grained sandstone, ly weathered, medium bedded, -moderately fractured. @ 32.25' Near ontal fracture slightly, weathered, silt @ 32.35', 32.4' Near horizontal re, slightly weathered. @ 33.0-33.8' mall mud clasts. @ 34.9' Near	- - - - -	19						Grained Filter Sand.

	Brov Cald	vn wel	• •	Project Name: Fulton (Ontario Project Number: 152206 Project Location: Fulton, NY	o St.) Fo r me	r M(GP	Site	Per	mit Nun N/A	nber:	Well No. MW-125R Page 3 of 3
Depth (feet)	Elevation (feet)	USC Soil Type		Description	Blow Counts RQD (%)	Sample No.	Sample Int	Lithology	well	ppm Readings (ppm)		Remarks
	285		clasts Small- horizo @ 35.	ontal fracture, slightly weathered, mud on fracture surface. @ 35.4-35.9' -large silt clasts. @ 35.5' Near ontal fracture, moderately weathered .7' Near horizontal fracture, slightly hered. @ 36.7-36.8' Mud clasts							31.5-4 Sand.	4.0' BGS: #1 Filter
- - - 40 -	280	BR	interb mediu fractu fractu 38.45' weath bedde moder fractu 41.6' S fractu	nedium to fine grained sandstone with bedded siltstone, slightly weathered, um-thin bedded, moderately weathered ures. @ 37.85', 38.4' Near horizontal 'Near horizontal fracture, moderately 'Near horizontal fracture, moderately ered. @ 39.0-40.0' Siltstone, thinly ed. @ 40.0' Near horizontal fracture, rately weathered. @ 40.5-40.8' Highly ured large siltstone fragments. @ 40.5- Siltstone. @ 41.1' Near horizontal ure, moderately weathered. @ 41.5' horizontal fracture, highly weathered.	71%	20						'4.0' BGS: 0.020'' PVC 'Screen.
- - - 45 - - - -	275	BR	slightl moder 42.0'-4 sandst slightl 44.5' N fractur slightl	nedium to fine grained sandstone, ly weathered, medium bedded, rately weathered fractures. @ 42.1' Disaggregated fractured tone. @ 43.1', 43.3', Near horizontal ly weathered fracture. @ 44.25', 44.35', Near horizontal moderately weathered re, silt infill. @ 46.2' Near horizontal ly weathered fracture. @ 46.7' anical fracture.	80	21					Sump annula borehou 45.0-4	5.0' BGS: 1' PVC with bentonite in the r space between the le and sump. 7.0' BGS: Corebole led with bentonite

Appendix B: Packer Pressure Testing Tables



Location	Borehole Diameter	Borehole Radius (R)	Test Int	enval	١٥	ngth (L)	Iniec	tion Rate (q)	Gauge Pressure	Approx. Depth to Groundwater		ted Total d (H)	Hydraulic Conductivity (K)
Looudon								n) (cm ³ /sec)					
MW-120R	(inches)	(cm)	(ft)		(ft)	(cm)	(gai/iiii	ii) (ciii / sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
WW-120R	4	5.1	24.0 -	31.0	7	213	> 5	315.5	8.0	19.8	38.3	1167 38	> 7.5E-04
	4	5.1	31.0 -	36.0	5	152	> 5	315.5	10.0	19.8	42.9		> 8.6E-04
	4	5.1	36.0 -		5	152	< 0.05	3.2	12.0	19.8	47.5	1449.02	
	4	5.1	36.0 -	41.0	5	152	< 0.05 < 0.05	3.2	20.0	19.8 19.8	66.0	2012.29	< 5.6E-06
	4	5.1	36.0 -	41.0	5	152	< 0.05	3.2	20.0 29.0	19.8 19.8	86.8		< 4.2E-06
	4	5.1	36.0 -	41.0	5	152	< 0.05 < 0.05	3.2	29.0 20.0	19.8 19.8	66.0	2043.37	< 5.6E-06
	4	5.1	36.0 -		5	152	< 0.05 < 0.05	3.2	12.0	19.8 19.8	47.5		< 7.7E-06
	4	5.1	41.0 -	46.0	5	152	< 0.05	3.2	12.0	19.8	49.9		< 7.4E-06
	4	5.1	<i>41.0</i> -	46.0	5	152	0.06	3.8	23.0	19.8	73.0	2223.52	6.1E-06
	4	5.1	41.0 -	46.0	5	152	0.30	18.9	<i>33.0</i>	19.8	96.1	2927.60	2.3E-05
	4	5.1	41.0 -	46.0	5	152	0.18	10.5	23.0	19.8	73.0	2223.52	1.8E-05
	4	5.1	<i>41.0</i> -	46.0	5	152	0.02	1.3	13.0	19.8	49.9	1519.43	3.0E-06
	4	5.1	46.0 -		5	152	0.58	36.6	15.0	19.8	54.5	1660.25	7.8E-05
	4	5.1	46.0 -	51.0	5	152	0.86	54.3	26.0	19.8	79.9	2434.74	7.9E-05
	4	5.1	46.0 -	51.0	5	152	0.92	58.1	36.0	19.8	103.0	3138.83	6.6E-05
	4	5.1	46.0 -		5	152	0.56	35.3	26.0	19.8	79.9	2434.74	5.2E-05
	4	5.1	46.0 -	51.0	5	152	0.23	14.5	15.0	19.8	54.5	1660.25	3.1E-05
	4	5.1	51.0 -	56.0	5	152	0.01	0.6	16.0	19.8	56.8	1730.65	1.3E-06
	4	5.1	<i>51.0</i> -	56.0	5	152	0.13	8.2	28.0	19.8	84.5	2575.56	1.1E-05
	4	5.1	<i>51.0</i> -	56.0	5	152	0.07	4.4	40.0	19.8	112.2	3420.47	4.6E-06
	4	5.1	<i>51.0</i> -	56.0	5	152	< 0.05	3.2	28.0	19.8	84.5	2575.56	< 4.4E-06
	4	5.1	<i>51.0</i> -	56.0	5	152	< 0.05	3.2	16.0	19.8	56.8		< 6.5E-06

Notes:

1. Field data (in bold italics) obtained from borehole tests.

where:

2. Calculations made in accordance with US Bureau of Reclamation, (1990), Earth Manual, Method No. USBR 7310-89.

3. Flows (q) as low as approximately $3 \text{ cm}^3/\text{sec}$ (0.05 gpm) could be measured with the field equipment.

4. For intervals with measurable flow (q), injection rate was averaged over five minute period.

$$\mathbf{K} = \frac{\mathbf{q}}{2\pi \,\mathrm{LH}} \ln \frac{\mathrm{L}}{\mathrm{r}}$$

K = hydraulic conductivity (cm/sec) q = constant flow water injection rate (cm³/sec); 3 cm³/sec used as injection rate for intervals that did not take any water L = test interval length (cm) H = differential head during test (cm). H = Gravity head (H_g) + Pressure head (H_p). H_g = vertical distance from pressure gage to static groundwater level, H_p = water injection pressure from gauge. r = radius of borehole (cm)

Location		Borehole Radius (R)	Test Ir	nterval	Le	ngth (L)	Injectio	on Rate (q)	Gauge Pressure	Approx. Depth to Groundwater		nted Total ad (H)	Hydraulic Conductivity (K)
	(inches)	(cm)	(f	ft)	(ft)	(cm)	(gal/min)	(cm ³ /sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
MW-121R													
	4	5.1	22.0 ·	- 27.0	5	152	0.12	7.6	7.4	<i>19.3</i>	36.4	1108.68	2.4E-05
	4	5.1	22.0 ·	- 27.0	5	152	0.04	2.5	<i>12.9</i>	<i>19.3</i>	49.1	1495.93	6.0E-06
	4	5.1	22.0 ·	- 27.0	5	152	0.24	15.1	18.4	<i>19.3</i>	61.8	1883.18	2.9E-05
	4	5.1	22.0 ·	- 27.0	5	152	0.02	1.3	<i>12.9</i>	<i>19.3</i>	49.1	1495.93	3.0E-06
	4	5.1	22.0 ·	- 27.0	5	152	< 0.05	3.2	7.4	<i>19.3</i>	36.4	1108.68	< 1.0E-05
	4	5.1	27.0 ·	- <i>32.0</i>	5	152	> 5	315.5	8.8	16.5	36.8	1121.91	> 1.0E-03
	4	5.1	32.0 ·	- 37.0	5	152	> 5	315.5	10.4	16.5	40.5	1234.56	> 9.1E-04
	4	5.1	37.0 ·	- 42.0	5	152	2.5	157.8	11.8	16.5	43.7	1333.13	4.2E-04
	4	5.1	42.0 ·	- 47.0	5	152	> 5	315.5	13.4	16.5	47.4	1445.79	> 7.8E-04

Notes:

1. Field data (in bold italics) obtained from borehole tests.

2. Calculations made in accordance with US Bureau of Reclamation, (1990), Earth Manual, Method No. USBR 7310-89.

3. Flows (q) as low as approximately 3 cm³/sec (0.05 gpm) could be measured with the field equipment.

4. For intervals with measurable flow (q), injection rate was averaged over five minute period.

where:

 $K = \frac{q}{2\pi LH} \ln \frac{L}{r} \begin{cases} K = hydraulic conductivity (cm/sec) \\ q = constant flow water injection rate (cm³/sec); 3 cm³/sec used as injection rate for intervals that did not take any water \\ L = test interval length (cm) \\ H = differential head during test (cm). H = Gravity head (H_g) + Pressure head (H_p). H_g = vertical distance from pressure gage to static groundwater level, H_p = water injection pressure$ from gauge.

r = radius of borehole (cm)

Location		Borehole Radius (R)	Test I	nterval	Le	ength (L)	Injecti	on Rate (q)	Gauge Pressure	Approx. Depth to Groundwater		ited Total nd (H)	Hydraulic Conductivity (K)
	(inches)	(cm)	(ft)	(ft)	(cm)	(gal/min)	(cm ³ /sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
MW-122R													
	4	5.1	24.0	- 29.0	5	152	< 0.05	3.2	8.0	<i>13.4</i>	31.9	972.31	< 1.2E-05
	4	5.1	24.0	- 29.0	5	152	< 0.05	3.2	14.0	<i>13.4</i>	45.8	1394.76	< 8.0E-06
	4	5.1	24.0	- 29.0	5	152	1.3	82.0	20.0	<i>13.4</i>	59.6	1817.22	1.6E-04
	4	5.1	29.0	- 34.0	5	152	< 0.05	3.2	10.0	<i>13.4</i>	36.5	1113.13	< 1.0E-05
	4	5.1	29.0	- 34.0	5	152	< 0.05	3.2	17.0	<i>13.4</i>	52.7	1605.99	< 7.0E-06
	4	5.1	29.0	- 34.0	5	152	< 0.05	3.2	24.0	<i>13.4</i>	68.9	2098.85	< 5.3E-06
	4	5.1	29.0	- 34.0	5	152	< 0.05	3.2	17.0	<i>13.4</i>	52.7	1605.99	< 7.0E-06
	4	5.1	29.0	- 34.0	5	152	< 0.05	3.2	10.0	<i>13.4</i>	36.5	1113.13	< 1.0E-05

Notes:

1. Field data (in bold italics) obtained from borehole tests.

2. Calculations made in accordance with US Bureau of Reclamation, (1990), Earth Manual, Method No. USBR 7310-89.

3. Flows (q) as low as approximately 3 cm³/sec (0.05 gpm) could be measured with the field equipment.

4. For intervals with measurable flow (q), injection rate was averaged over five minute period.

where:

 $K = \frac{q}{2\pi LH} \ln \frac{L}{r} \begin{cases} K = hydraulic conductivity (cm/sec) \\ q = constant flow water injection rate (cm³/sec); 3 cm³/sec used as injection rate for intervals that did not take any water \\ L = test interval length (cm) \\ H = differential head during test (cm). H = Gravity head (H_g) + Pressure head (H_p). H_g = vertical distance from pressure gage to static groundwater level, H_p = water injection pressure$ from gauge.

r = radius of borehole (cm)

									Approx.			
	Borehole	Borehole						Gauge	Depth to		ted Total	Hydraulic
Location	Diameter	Radius (R)	Test Interval	Le	ngth (L)		on Rate (q)	Pressure	Groundwater	Неа	id (H)	Conductivity (K)
	(inches)	(cm)	(ft)	(ft)	(cm)	(gal/min)	(cm ³ /sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
MW-122RD												
	4	5.1	35.0 - 40.0	5	152	< 0.05	3.2	11.0	11.5	36.9	1125.02	< 1.0E-05
	4	5.1	35.0 - 40.0	5	152	< 0.05	3.2	20.0	11.5	57.7	1758.70	< 6.4E-06
	4	5.1	35.0 - 40.0	5	152	< 0.05	3.2	28.0	11.5	76.2	2321.97	< 4.8E-06
	4	5.1	35.0 - 40.0	5	152	< 0.05	3.2	20.0	11.5	57.7	1758.70	< 6.4E-06
	4	5.1	35.0 - 40.0	5	152	< 0.05	3.2	11.0	11.5	36.9	1125.02	< 1.0E-05
	4	5.1	40.0 - 45.0	5	152	1.67	105.4	<i>13.0</i>	11.5	41.5	1265.83	3.0E-04
	4	5.1	45.0 - 50.0	5	152	< 0.05	3.2	14.0	11.5	43.8	1336.24	< 8.4E-06
	4	5.1	45.0 - 50.0	5	152	> 5.00	315.5	25.0	11.5	69.3	2110.74	> 5.3E-04
	4	5.1	50.0 - 55.0	5	152	0.07	4.4	15.8	11.5	47.9	1459.46	1.1E-05
	4	5.1	50.0 - 55.0	5	152	0.09	5.7	27.6	11.5	75.2	2290.99	8.8E-06
	4	5.1	50.0 - 55.0	5	152	0.13	8.2	39.4	11.5	102.5	3122.87	9.3E-06
	4	5.1	50.0 - 55.0	5	152	0.05	2.8	27.6	11.5	75.2	2290.99	4.4E-06
	4	5.1	50.0 - 55.0	5	152	< 0.05	3.2	15.8	11.5	47.9	1459.46	< 7.7E-06
	4	5.1	55.0 - 60.0	5	152	0.03	1.9	17.0	12.0	51.3	1562.10	4.3E-06
	4	5.1	55.0 - 60.0	5	152	0.04	2.5	30.0	12.0	81.3	2477.41	3.6E-06
	4	5.1	55.0 - 60.0	5	152	0.05	3.2	43.0	12.0	111.3	3392.73	3.3E-06
	4	5.1	55.0 - 60.0	5	152	0.02	1.3	30.0	12.0	81.3	2477.41	1.8E-06
	4	5.1	55.0 - 60.0	5	152	0.01	0.6	17.0	12.0	51.3	1562.10	1.4E-06
	4	5.1	60.0 - 65.0	5	152	< 0.05	3.2	<i>18.7</i>	12.0	55.2	1681.79	< 6.7E-06
	4	5.1	60.0 - 65.0	5	152	< 0.05	3.2	<i>32.7</i>	12.0	87.5	2667.52	< 4.2E-06
	4	5.1	60.0 - 65.0	5	152	< 0.05	3.2	46.7	12.0	119.9	3653.24	< 3.1E-06
	4	5.1	60.0 - 65.0	5	152	< 0.05	3.2	32.7	12.0	87.5	2667.52	< 4.2E-06
	4	5.1	60.0 - 65.0	5	152	< 0.05	3.2	<i>18.7</i>	12.0	55.2	1681.79	< 6.7E-06
	4	5.1	65.0 - 70.0	5	152	< 0.05	3.2	20.0	12.0	58.2	1773.33	< 6.3E-06
	4	5.1	65.0 - 70.0	5	152	< 0.05	3.2	35.0	12.0	92.8	2829.46	< 4.0E-06
	4	5.1	65.0 - 70.0	5	152	< 0.05	3.2	51.0	12.0	129.8	3956.00	< 2.8E-06
	4	5.1	65.0 - 70.0	5	152	< 0.05	3.2	35.0	12.0	92.8	2829.46	< 4.0E-06
	4	5.1	65.0 - 70.0	5	152	< 0.05	3.2	20.0	12.0	58.2	1773.33	< 6.3E-06

	Borehole	Borehole							Gauge	Approx. Depth to	Calcula	ted Total	Hydraulic
Location		Radius (R)	Test Inte	erval	Le	ngth (L)	Injectio	on Rate (q)	Pressure	Groundwater		d (H)	Conductivity (K)
	(inches)	(cm)	(ft)		(ft)	(cm)	(gal/min)	(cm ³ /sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
MW-122RD													
	4	5.1	70.0 -	75.0	5	152	< 0.05	3.2	22.0	12.0	62.8	1914.14	< 5.9E-06
	4	5.1	<i>70.0</i> -	75.0	5	152	< 0.05	3.2	38.0	12.0	99.8	3040.68	< 3.7E-06
	4	5.1	<i>70.0</i> -	75.0	5	152	< 0.05	3.2	54.0	12.0	136.7	4167.23	< 2.7E-06
	4	5.1	<i>70.0</i> -	75.0	5	152	< 0.05	3.2	38.0	12.0	99.8	3040.68	< 3.7E-06
	4	5.1	<i>70.0</i> -	75.0	5	152	< 0.05	3.2	22.0	12.0	62.8	1914.14	< 5.9E-06
	4	5.1	75.0 -	80.0	5	152	0.01	0.6	23.0	12.0	65.1	1984.55	1.1E-06
	4	5.1	75.0 -	80.0	5	152	0.03	1.9	41.0	12.0	106.7	3251.91	2.1E-06
	4	5.1	75.0 -	80.0	5	152	0.13	8.2	58.0	12.0	146.0	4448.86	6.6E-06
	4	5.1	75.0 -	80.0	5	152	0.1	6.3	41.0	12.0	106.7	3251.91	6.9E-06
	4	5.1	75.0 -	80.0	5	152	< 0.05	3.2	23.0	12.0	65.1	1984.55	< 5.6E-06
	4	5.1	80.0 -	85.0	5	152	< 0.05	3.2	25.0	12.0	69.7	2125.37	< 5.3E-06
	4	5.1	80.0 -	85.0	5	152	< 0.05	3.2	43.0	12.0	111.3	3392.73	< 3.3E-06
	4	5.1	80.0 -	85.0	5	152	< 0.05	3.2	62.0	12.0	155.2	4730.50	< 2.4E-06
	4	5.1	80.0 -	85.0	5	152	< 0.05	3.2	43.0	12.0	111.3	3392.73	< 3.3E-06
	4	5.1	80.0 -	85.0	5	152	< 0.05	3.2	25.0	12.0	69.7	2125.37	< 5.3E-06
	4	5.1	85.0 -	90.0	5	152	7.96	502.3	26.0	12.0	72.0	2195.78	8.1E-04
	4	5.1	<i>90.0</i> -	95.0	5	152	> 6	378.6	27.0	12.0	74.4	2266.19	> 5.9E-04
	4	5.1	95.0 -	100.0	5	152	1.2	75.7	29.0	12.0	79.0	2407.01	1.1E-04

Notes:

1. Field data (in bold italics) obtained from borehole tests.

where:

2. Calculations made in accordance with US Bureau of Reclamation, (1990), Earth Manual, Method No. USBR 7310-89.

3. Flows (q) as low as approximately $3 \text{ cm}^3/\text{sec}$ (0.05 gpm) could be measured with the field equipment.

4. For intervals with measurable flow (q), injection rate was averaged over five minute period.

$$\mathbf{K} = \frac{\mathbf{q}}{2\pi \, \mathrm{LH}} \ln \frac{\mathbf{L}}{\mathbf{r}}$$

K = hydraulic conductivity (cm/sec) q = constant flow water injection rate (cm³/sec)

L = test interval length (cm)

H = differential head during test (cm). H = Gravity head (H_g) + Pressure head (H_p). H_g = vertical distance from pressure gage to static groundwater level, H_p = water injection pressure from gauge. r = radius of borehole (cm)

	_					_		_				Approx.			
	Borehole	Borehole									Gauge	Depth to	Calcula	ted Total	Hydraulic
Location	Diameter	Radius (R)	Test l	Inte	erval	Lei	ngth (L)		Inject	tion Rate (q)	Pressure	Groundwater	Неа	d (H)	Conductivity (K
	(inches)	(cm)	((ft)		(ft)	(cm)		(gal/mi	n) (cm ³ /sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
MW-123R															
	4	5.1	29.0	-	34.0	5	152	>	5	315.5	9.0	23.0	43.7	1333.20	> 8.4E-04
	4	5.1	34.0	-	39.0	5	152	<	0.05	3.2	11.0	23.0	48.4	1474.01	< 7.6E-06
	4	5.1	34.0	-	39.0	5	152	<	0.05	3.2	19.0	23.0	66.8	2037.28	< 5.5E-06
	4	5.1	34.0	-	39.0	5	152		0.02	1.3	27.0	23.0	85.3	2600.55	1.7E-06
	4	5.1	34.0	-	39.0	5	152	<	0.05	3.2	19.0	23.0	66.8	2037.28	< 5.5E-06
	4	5.1	34.0	-	39.0	5	152	<	0.05	3.2	11.0	23.0	48.4	1474.01	< 7.6E-06
	4	5.1	39.0	-	44.0	5	152	<	0.05	3.2	12.0	23.0	50.7	1544.42	< 7.3E-06
	4	5.1	39.0	-	44.0	5	152	<	0.05	3.2	22.0	23.0	73.8	2248.51	< 5.0E-06
	4	5.1	39.0	-	44.0	5	152		0.02	1.3	31.0	23.0	94.6	2882.19	1.6E-06
	4	5.1	39.0	-	44.0	5	152		0.03	1.9	22.0	23.0	73.8	2248.51	3.0E-06
	4	5.1	39.0	-	44.0	5	152	<	0.05	3.2	12.0	23.0	50.7	1544.42	< 7.3E-06
	4	5.1	44.0	•	49.0	5	152	<	0.05	3.2	14.0	23.0	55.3	1685.24	< 6.7E-06
	4	5.1	44.0	-	49.0	5	152	<	0.05	3.2	24.0	23.0	78.4	2389.33	< 4.7E-06
	4	5.1	44.0	-	49.0	5	152		0.01	0.6	35.0	23.0	103.8	3163.82	7.1E-07
	4	5.1	44.0	-	49.0	5	152	<	0.05	3.2	24.0	23.0	78.4	2389.33	< 4.7E-06
	4	5.1	44.0	-	49.0	5	152	<	0.05	3.2	14.0	23.0	55.3	1685.24	< 6.7E-06
	4	5.1	49.0	•	54.0	5	152		0.05	3.2	16.0	23.0	59.9	1826.06	6.1E-06
	4	5.1	49.0	-	54.0	5	152		0.15	9.5	27.0	23.0	85.3	2600.55	1.3E-05
	4	5.1	49.0	-	54.0	5	152		0.79	49.8	39.0	23.0	113.0	3445.46	5.1E-05
	4	5.1	49.0	-	54.0	5	152		0.53	33.4	27.0	23.0	85.3	2600.55	4.6E-05
	4	5.1	49.0	-	54.0	5	152		0.31	19.6	16.0	23.0	59.9	1826.06	3.8E-05
	4	5.1	54.0	-	59.0	5	152	<	0.05	3.2	17.0	23.0	62.2	1896.47	< 5.9E-06
	4	5.1	54.0	-	59.0	5	152		0.04	2.5	30.0	23.0	92.3	2811.78	3.2E-06
	4	5.1	54.0	-	59.0	5	152		0.10	6.3	42.0	23.0	120.0	3656.69	6.1E-06
	4	5.1	54.0	-	59.0	5	152		0.03	1.9	30.0	23.0	92.3	2811.78	2.4E-06
	4	5.1	54.0	-	59.0	5	152	<	0.05	3.2	17.0	23.0	62.2	1896.47	< 5.9E-06

Notes:

1. Field data (in bold italics) obtained from borehole tests.

2. Calculations made in accordance with US Bureau of Reclamation, (1990), Earth Manual, Method No. USBR 7310-89.

3. Flows (q) as low as approximately 3 cm³/sec (0.05 gpm) could be measured with the field equipment.

4. For intervals with measurable flow (q), injection rate was averaged over five minute period.

where:

 $K = \frac{q}{2\pi LH} \ln \frac{L}{r} \int_{u}^{u} \frac{L}{r} \int_$

r = radius of borehole (cm)

Location		Borehole Radius (R)	Test	Inte	erval	Le	ngth (L)	Inject	ion Rate (q)	Gauge Pressure	Approx. Depth to Groundwater		ted Total Id (H)	Hydraulic Conductivity (K)
	(inches)	(cm)		(ft)		(ft)	(cm)	(gal/min) (cm ³ /sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
MW-124R														
	4	5.1	34.0	-	39.0	5	152	> 5	315.5	11.0	11.6	37.0	1126.54	> 1.0E-03
	4	5.1	39.0	-	44.0	5	152	0.33	20.8	12.0	11.6	39.3	1196.95	6.2E-05
	4	5.1	39.0	-	44.0	5	152	1.06	66.9	22.0	11.6	62.4	1901.04	1.3E-04
	4	5.1	44.0	-	49.0	5	152	0.10	6.3	14.0	11.6	43.9	1337.77	1.7E-05
	4	5.1	44.0	-	49.0	5	152	0.23	14.5	24.5	11.6	68.1	2077.06	2.5E-05
	4	5.1	44.0	-	49.0	5	152	0.29	18.3	35.0	11.6	92.4	2816.35	2.3E-05
	4	5.1	44.0	-	<i>49.0</i>	5	152	0.13	8.2	24.5	11.6	68.1	2077.06	1.4E-05
	4	5.1	44.0	-	49.0	5	152	0.1	6.3	14.0	11.6	43.9	1337.77	1.7E-05

Notes:

1. Field data (in bold italics) obtained from borehole tests.

2. Calculations made in accordance with US Bureau of Reclamation, (1990), Earth Manual, Method No. USBR 7310-89.

3. Flows (q) as low as approximately 3 cm³/sec (0.05 gpm) could be measured with the field equipment.

4. For intervals with measurable flow (q), injection rate was averaged over five minute period.

where:

 $K = \frac{q}{2\pi LH} \ln \frac{L}{r} \begin{cases} K = hydraulic conductivity (cm/sec) \\ q = constant flow water injection rate (cm³/sec) \\ L = test interval length (cm) \\ H = differential head during test (cm). H = Gravity head (H_g) + Pressure head (H_p). H_g = vertical distance from pressure gage to static groundwater level, H_p = water injection pressure$ from gauge.

r = radius of borehole (cm)

Location		Borehole Radius (R)	Test Interval	Le	ngth (L)	Injecti	on Rate (q)	Gauge Pressure	Approx. Depth to Groundwater		ted Total Id (H)	Hydraulic Conductivity (K)
	(inches)	(cm)	(ft)	(ft)	(cm)	(gal/min)	(cm ³ /sec)	(psi)	(ft)	(ft)	(cm)	(cm/sec)
MW-125R												
	4	5.1	28.0 - 32.0	4	122	0.58	36.6	9.0	11.9	32.6	994.87	1.5E-04
	4	5.1	28.0 - 32.0	4	122	> 5	315.5	15.8	11.9	48.2	1470.13	> 8.9E-04
	4	5.1	32.0 - 37.0	5	152	< 0.05	3.2	10.3	10.9	34.6	1055.92	< 1.1E-05
	4	5.1	32.0 - 37.0	5	152	< 0.05	3.2	18.1	10.9	52.7	1605.11	< 7.0E-06
	4	5.1	32.0 - 37.0	5	152	< 0.05	3.2	25.9	10.9	70.7	2154.30	< 5.2E-06
	4	5.1	32.0 - 37.0	5	152	< 0.05	3.2	18.1	10.9	52.7	1605.11	< 7.0E-06
	4	5.1	32.0 - 37.0	5	152	< 0.05	3.2	10.3	10.9	34.6	1055.92	< 1.1E-05
	4	5.1	42.0 - 47.0	5	152	< 0.05	3.2	<i>13.4</i>	10.9	41.8	1274.19	< 8.8E-06
	4	5.1	42.0 - 47.0	5	152	< 0.05	3.2	23.8	10.9	65.8	2006.44	< 5.6E-06
	4	5.1	<i>42.0 - 47.0</i>	5	152	< 0.05	3.2	33.4	10.9	88.0	2682.36	< 4.2E-06
	4	5.1	<i>42.0 - 47.0</i>	5	152	< 0.05	3.2	23.8	10.9	65.8	2006.44	< 5.6E-06
	4	5.1	<i>42.0 - 47.0</i>	5	152	< 0.05	3.2	<i>13.4</i>	10.9	41.8	1274.19	< 8.8E-06

Notes:

1. Field data (in bold italics) obtained from borehole tests.

2. Calculations made in accordance with US Bureau of Reclamation, (1990), Earth Manual, Method No. USBR 7310-89.

3. Flows (q) as low as approximately 3 cm³/sec (0.05 gpm) could be measured with the field equipment.

4. For intervals with measurable flow (q), injection rate was averaged over five minute period.

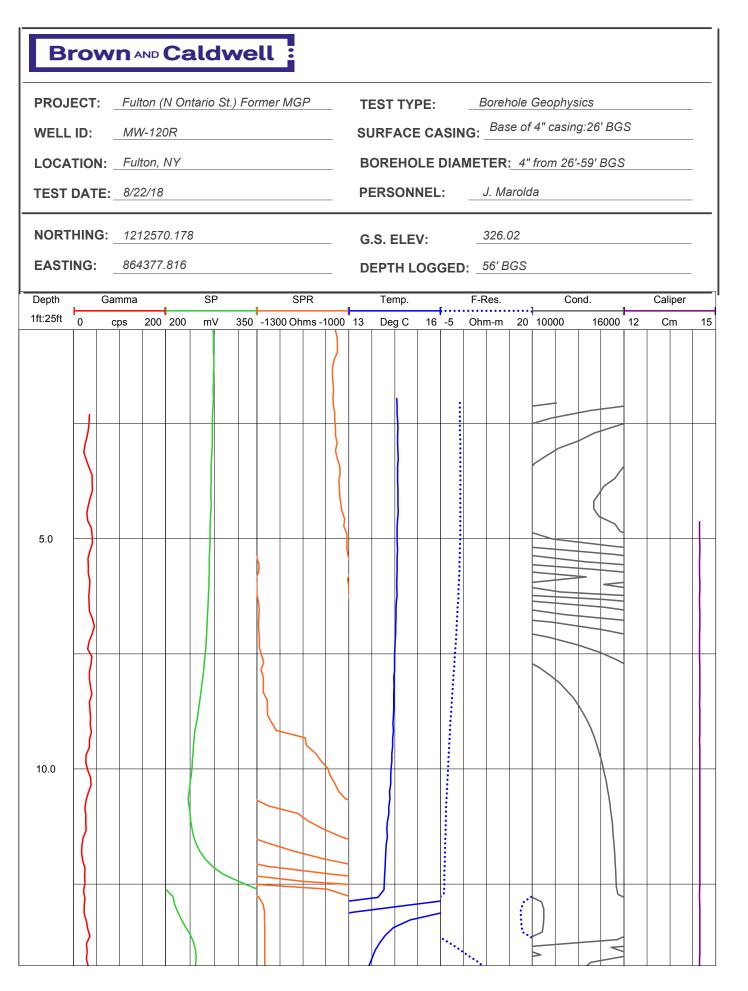
where:

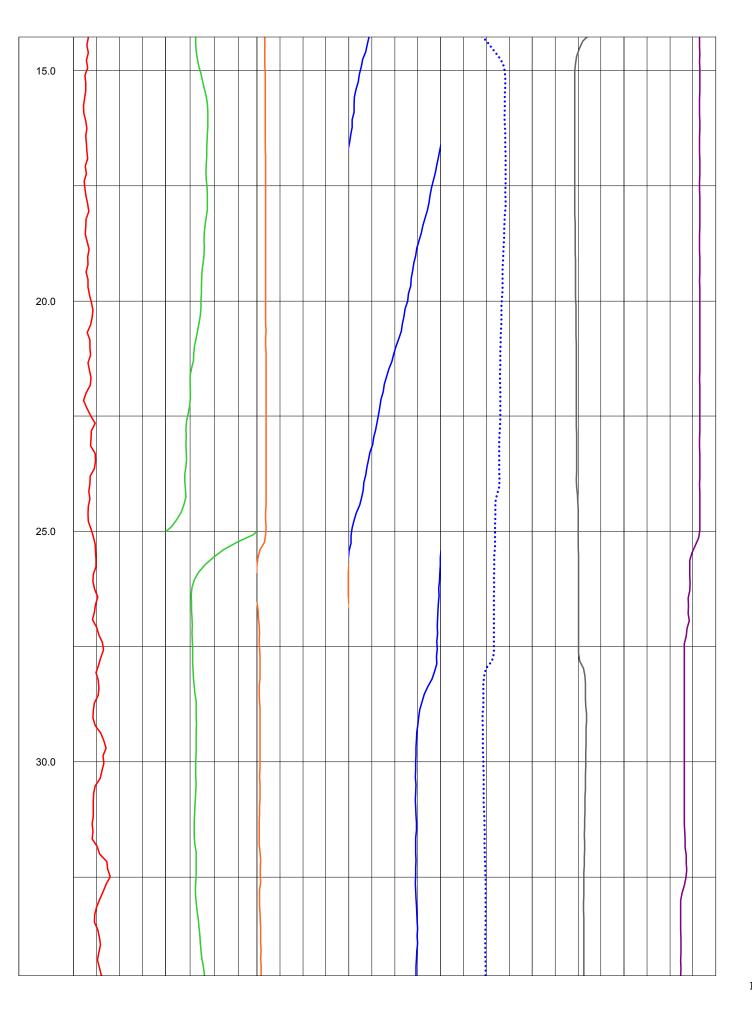
 $K = \frac{q}{2\pi LH} \ln \frac{L}{r} \begin{cases} K = hydraulic conductivity (cm/sec) \\ q = constant flow water injection rate (cm³/sec); 3 cm³/sec used as injection rate for intervals that did not take any water \\ L = test interval length (cm) \\ H = differential head during test (cm). H = Gravity head (H_g) + Pressure head (H_p). H_g = vertical distance from pressure gage to static groundwater level, H_p = water injection pressure$ from gauge.

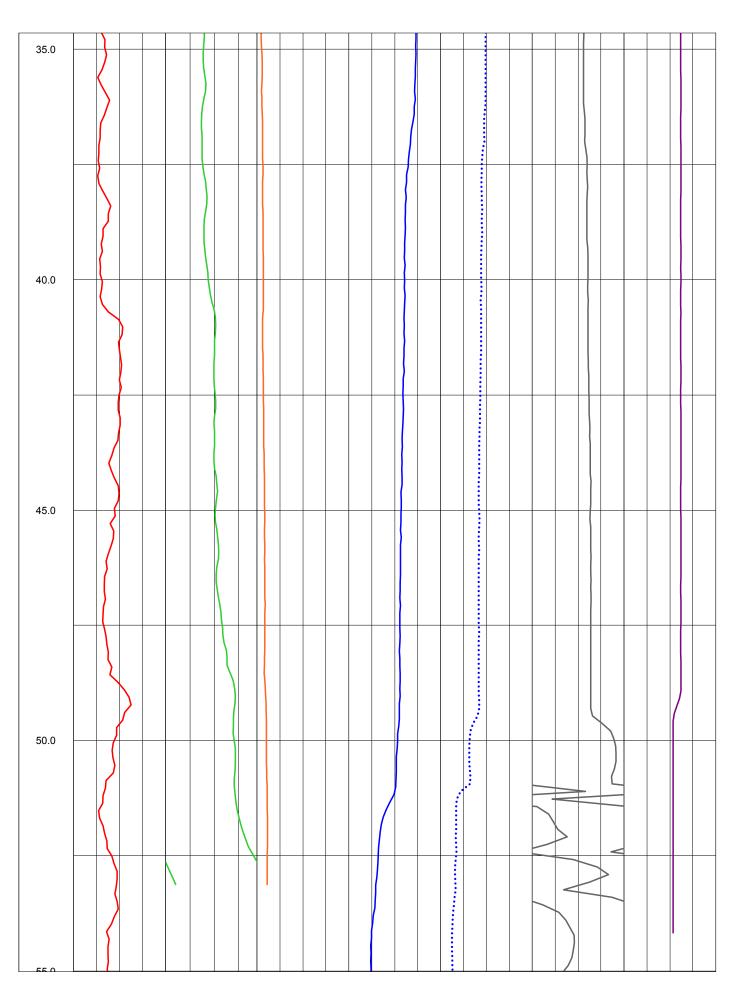
r = radius of borehole (cm)

Appendix C: Geophysical Logs

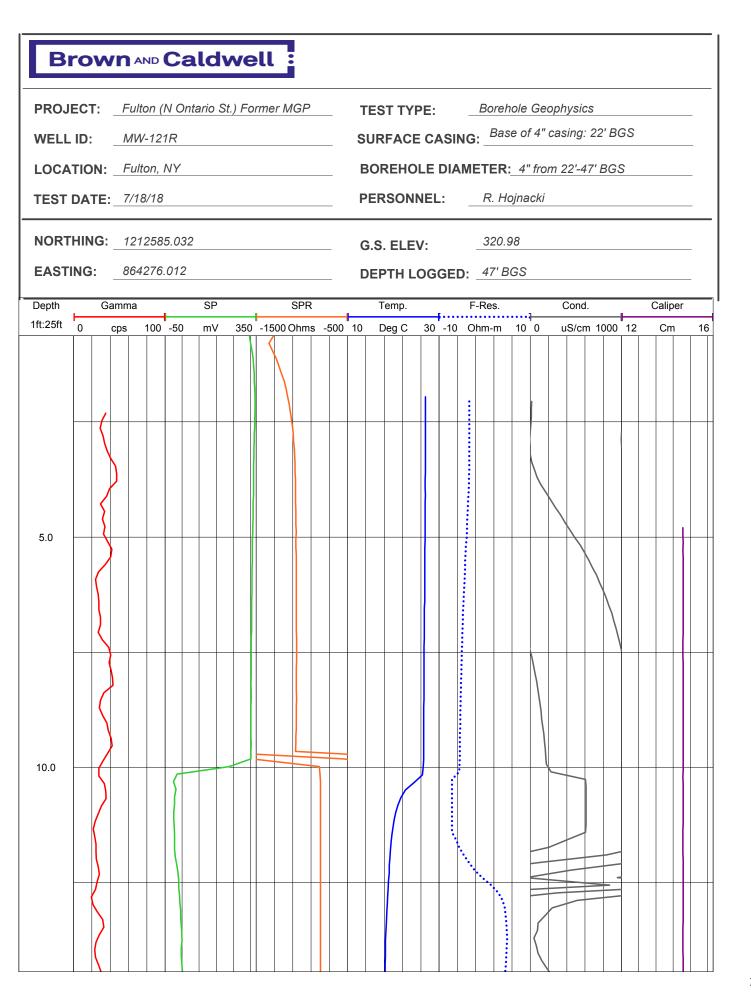


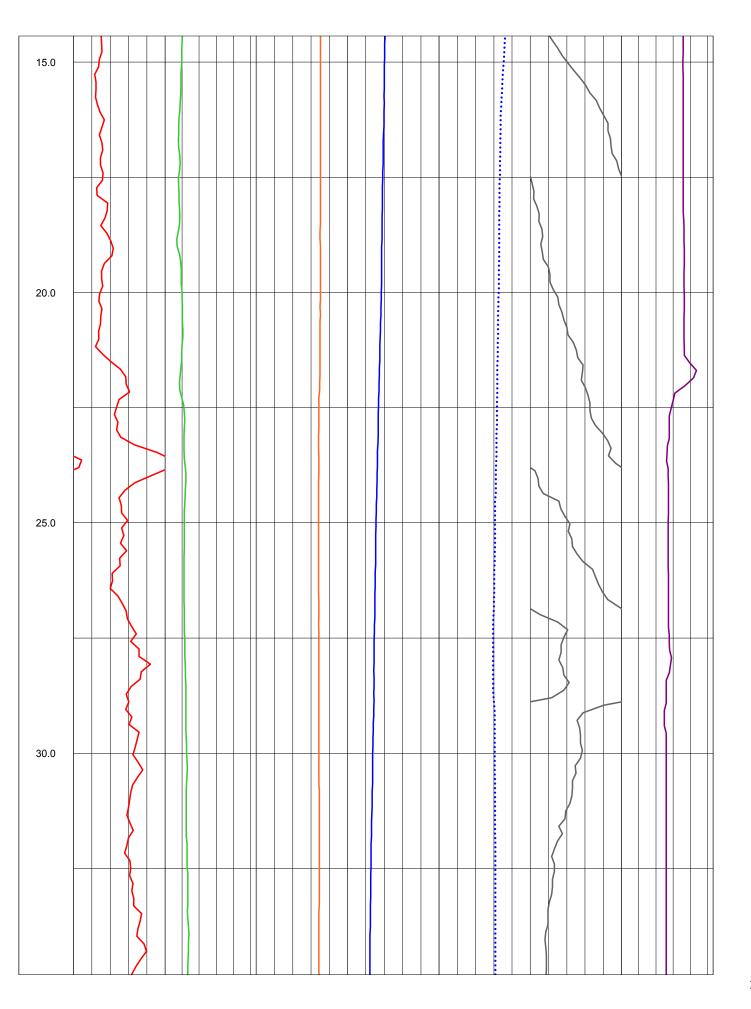


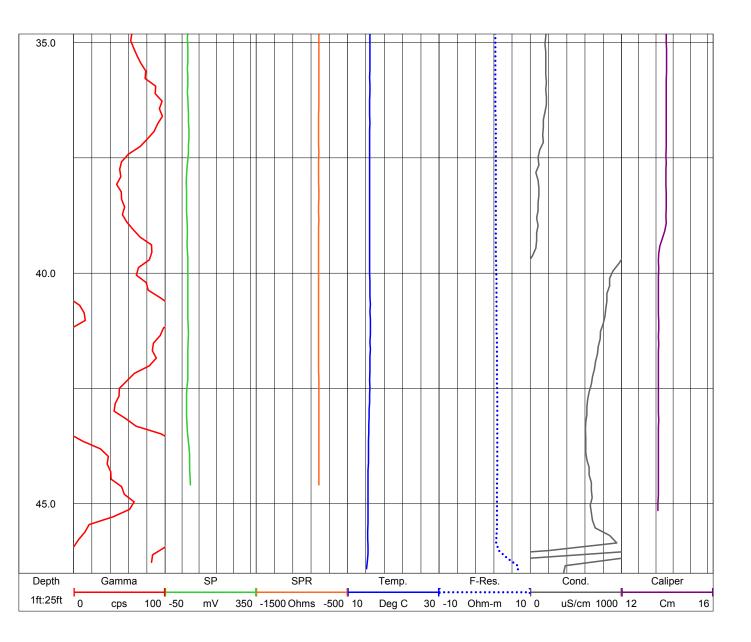


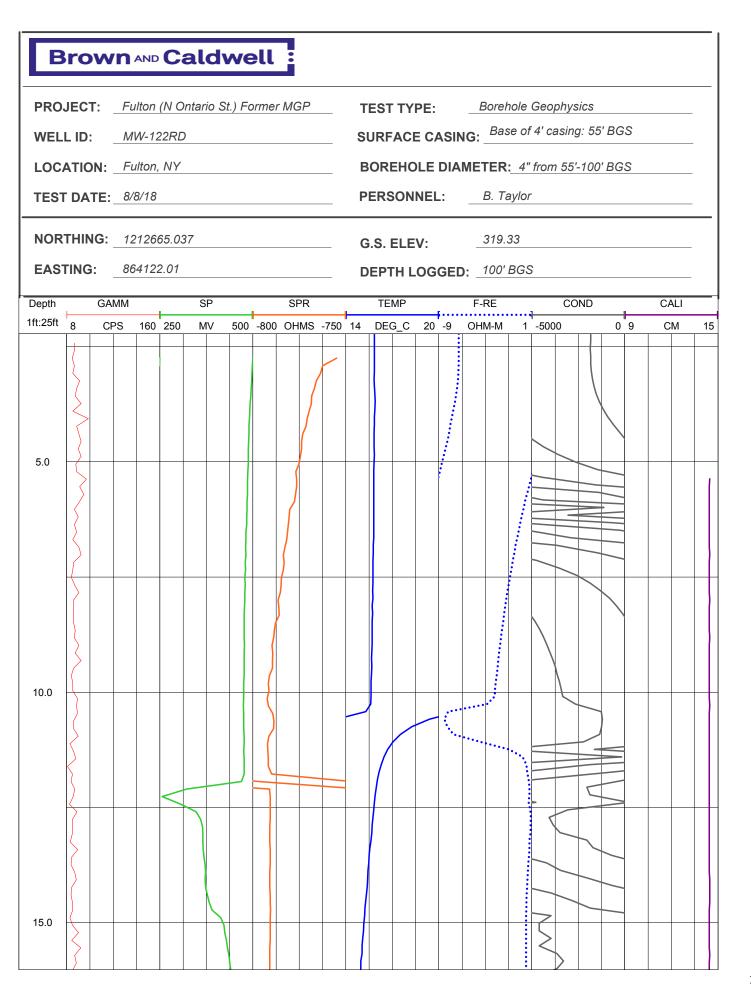


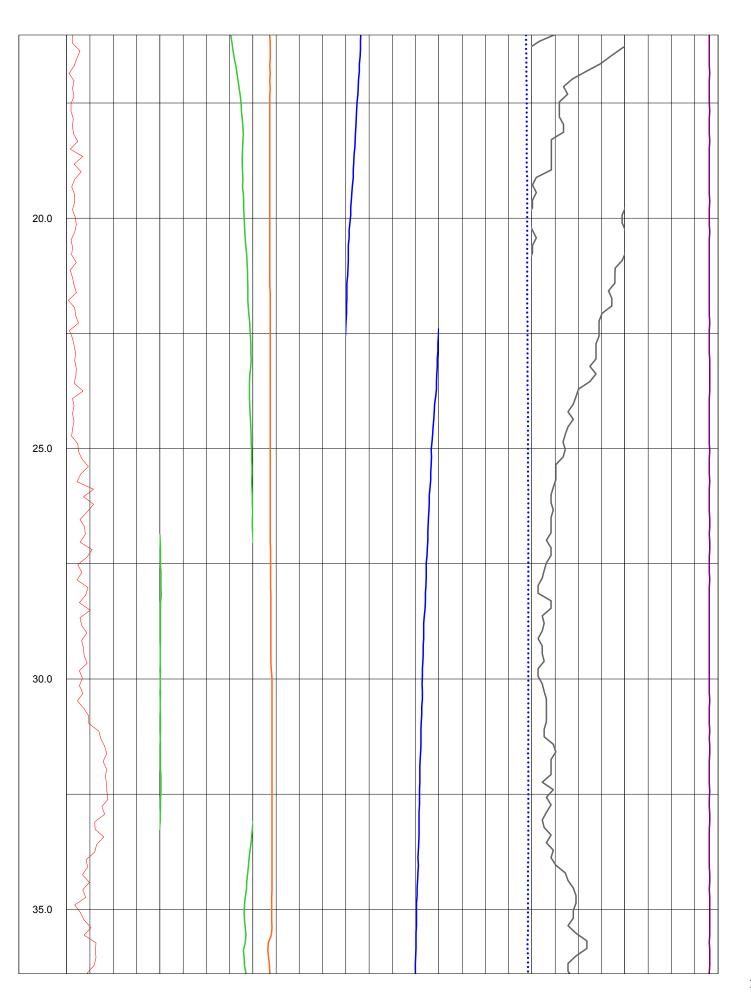
33.0)															
Depth		Gamma			SP		SPR			Temp.		F-Res.		ond.		Calipe	
1ft:25ft	0	cps	200	200	mV	350	-1300 Ohms -1	1000	13	Deg C	16	Ohm-m		16000	12	Cm	15

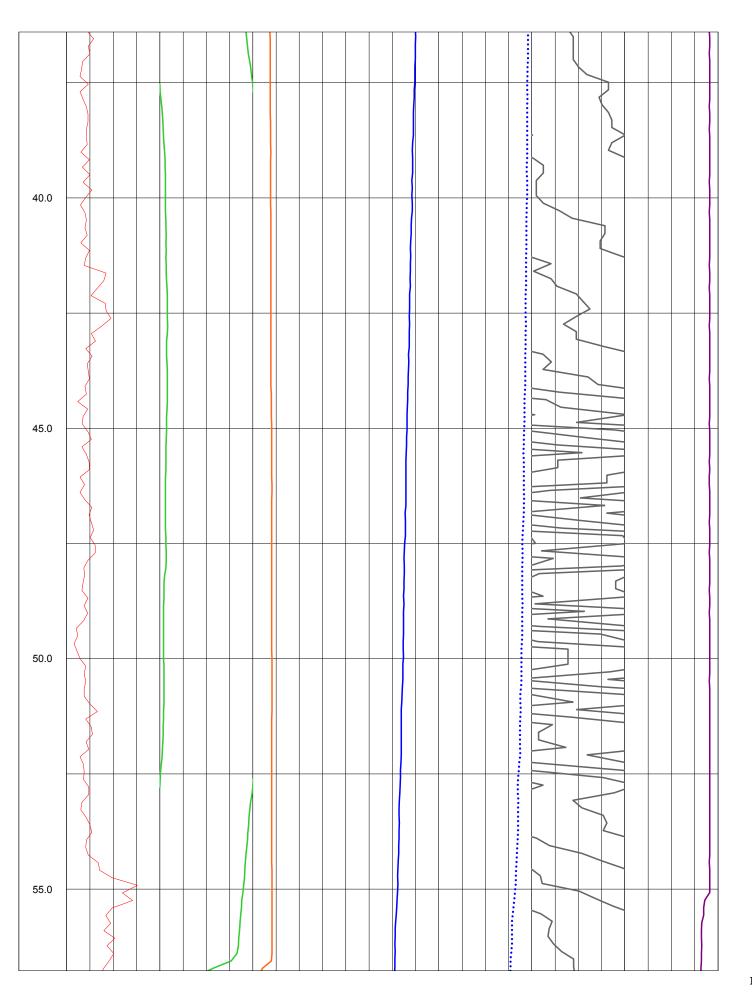


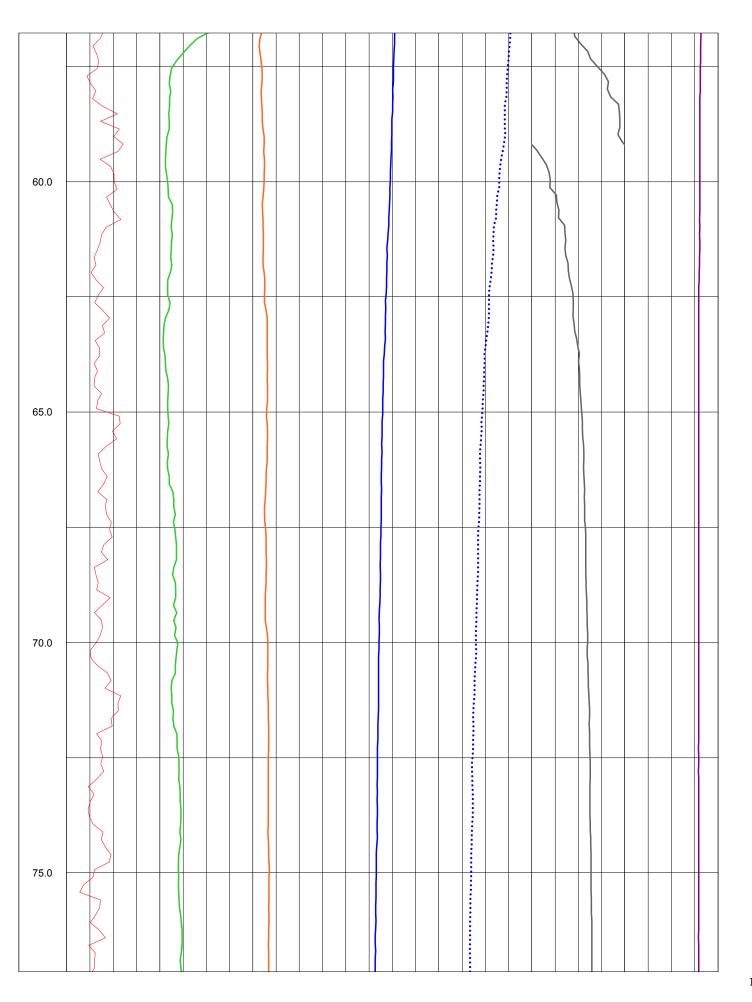


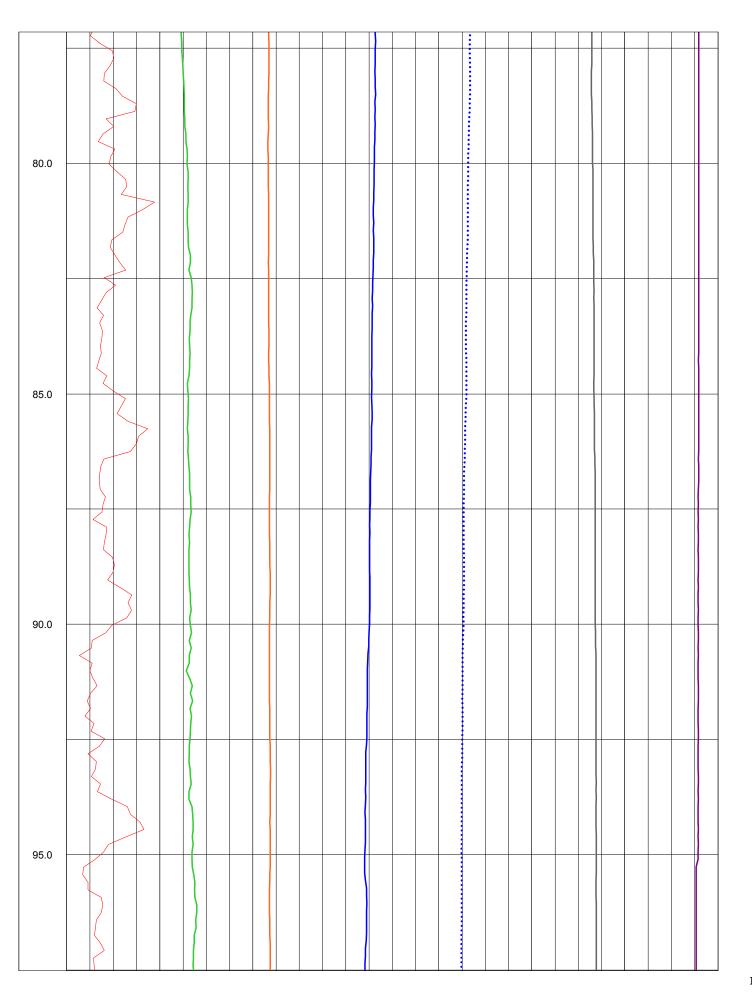


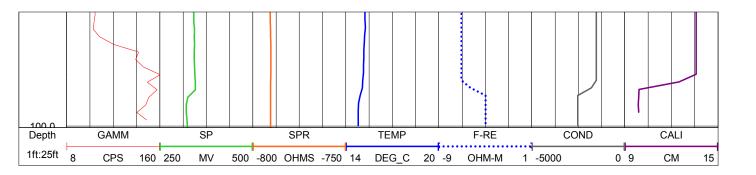


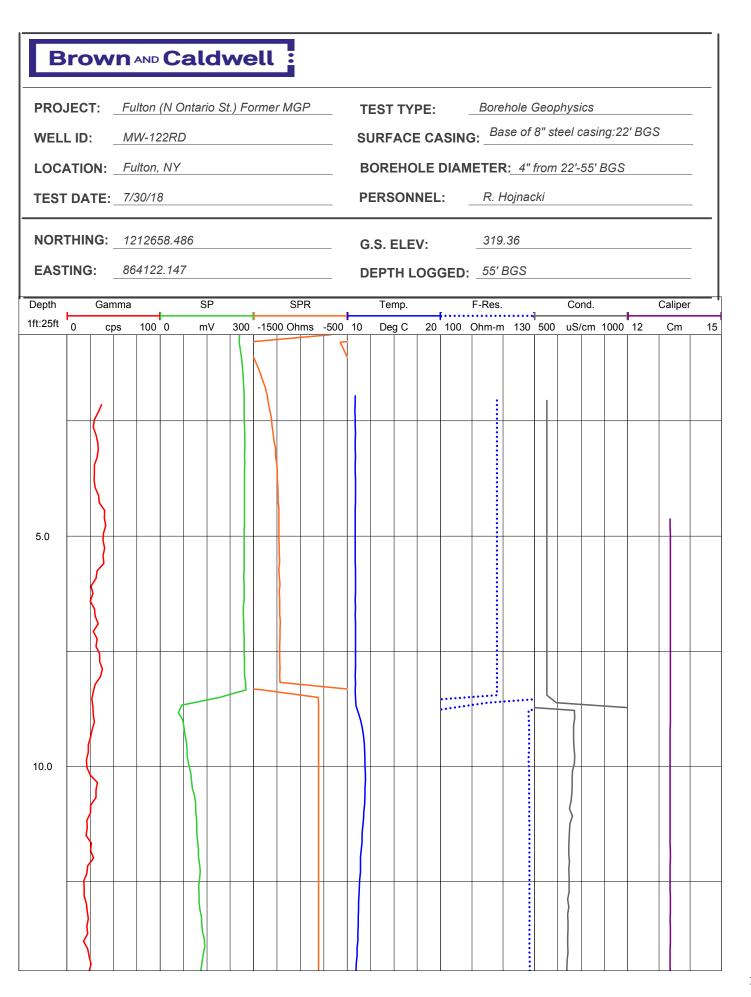


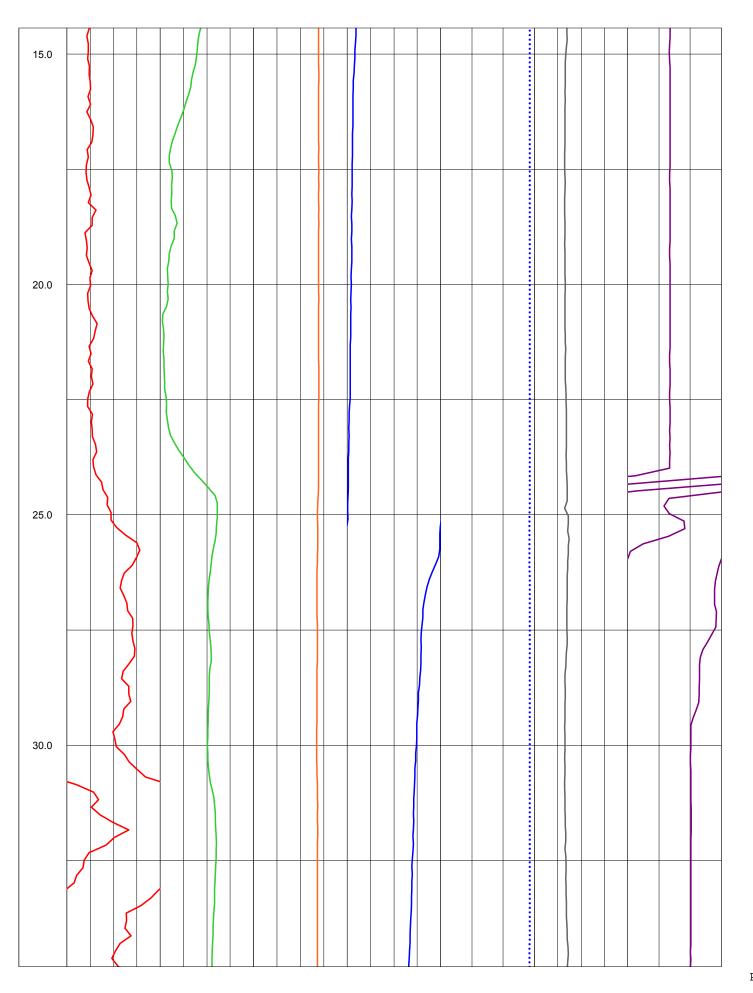


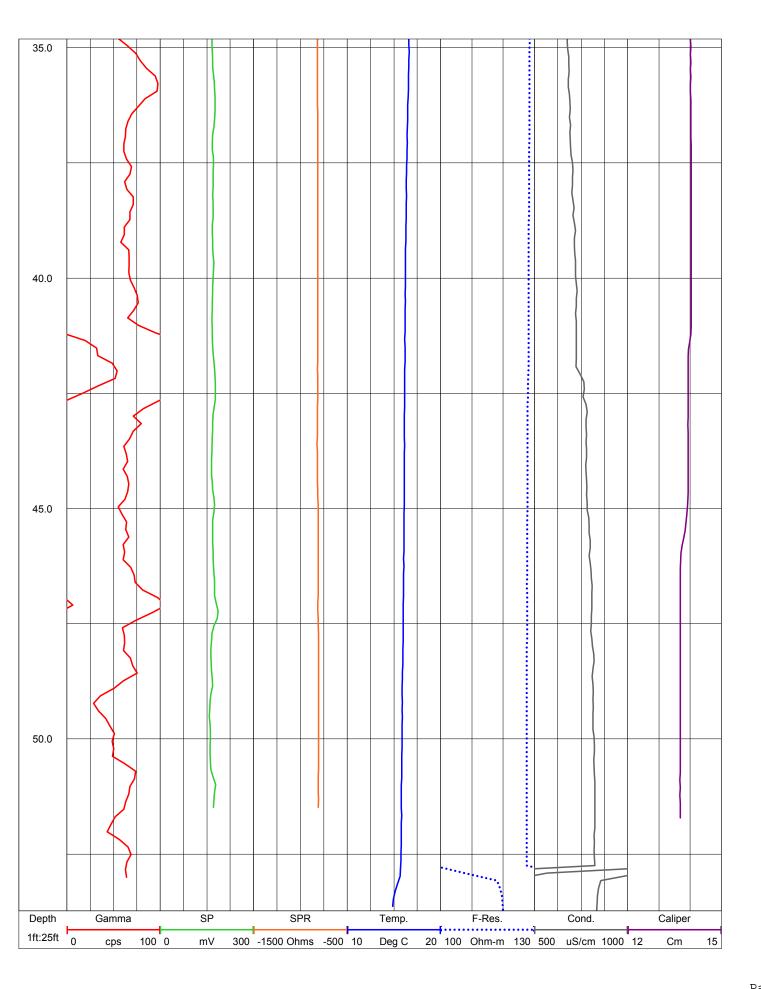










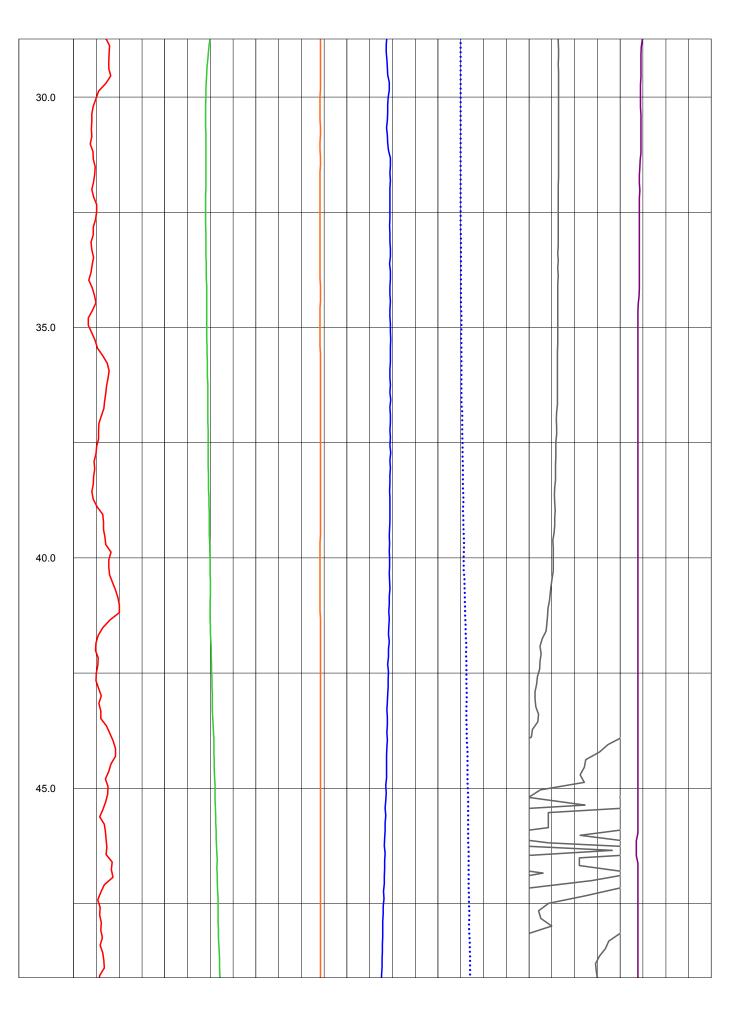


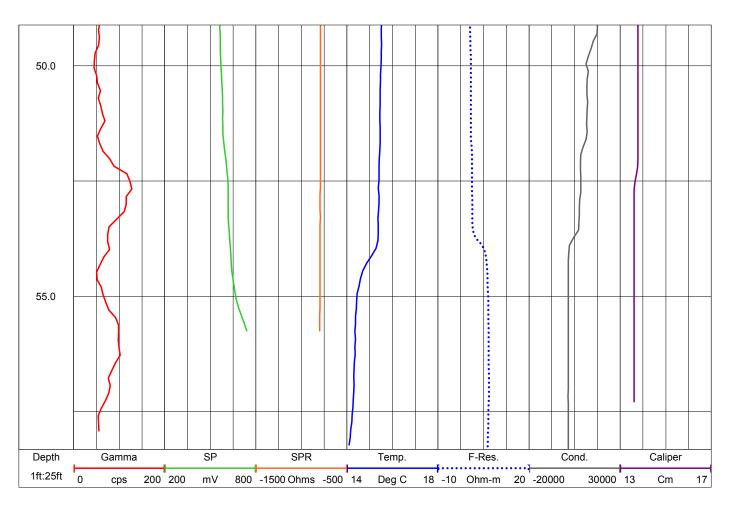
Brown AND Caldwell

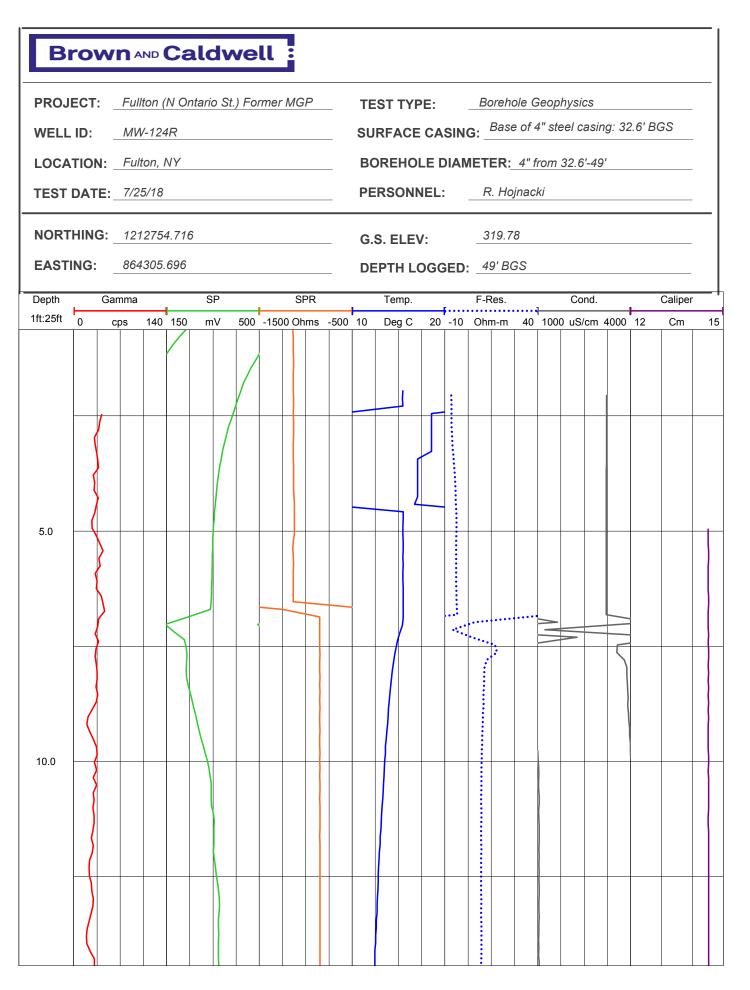
PROJECT:	Fulton (N Ontario St.) Former MGP	TEST TYPE:	Borehole Geophysics
WELL ID:	MW-123R	SURFACE CASING:	Base of 4" Steel Casing: 28' BGS
LOCATION:	Fulton, NY	BOREHOLE DIAME	TER: 4" from 28'-59'
TEST DATE:	8/22/18	PERSONNEL:	J. Marolda
NORTHING:	1212658.667	G.S. ELEV:	330.01
EASTING:	864486.595	DEPTH LOGGED:	59' BGS

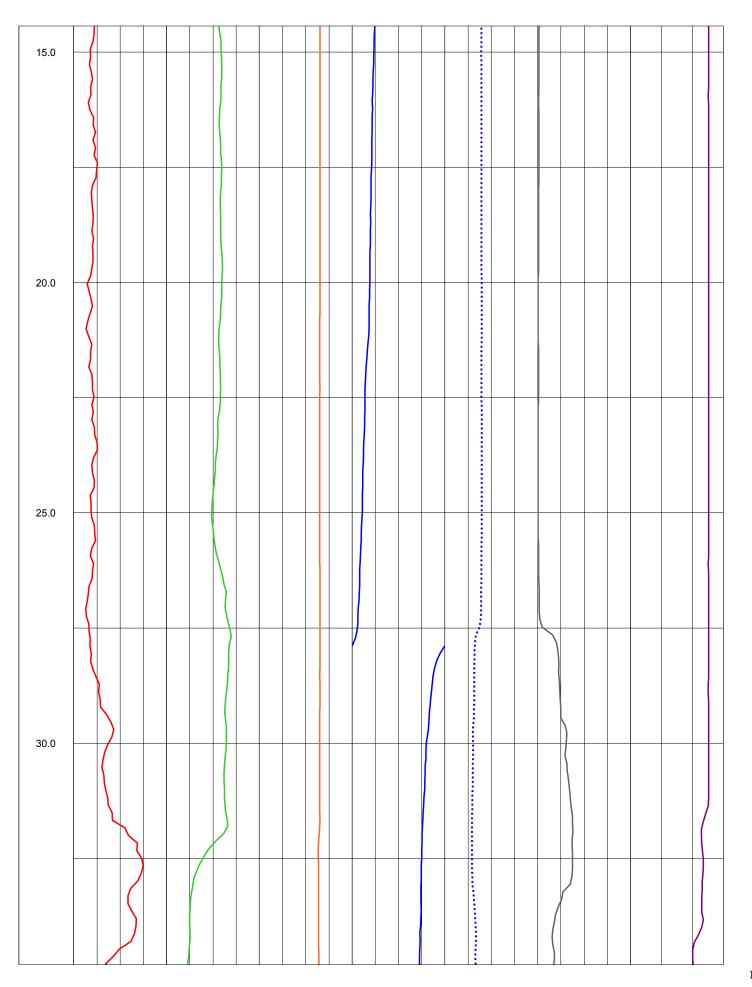
Depth		Gar	nma			S	P				PR			Те	mp.		r	F-F	Res.			Co	nd.			Cal	iper	
1ft:25ft	0	c	ps	200	200	m	١V	800	-150	0 Oh	ms	-500	14	De	g C	18	-10	Ohr	n-m	20	-200	000	30	0000	13	С	m	17
-5.0																												
0.0																												
												X																
5.0											<																	
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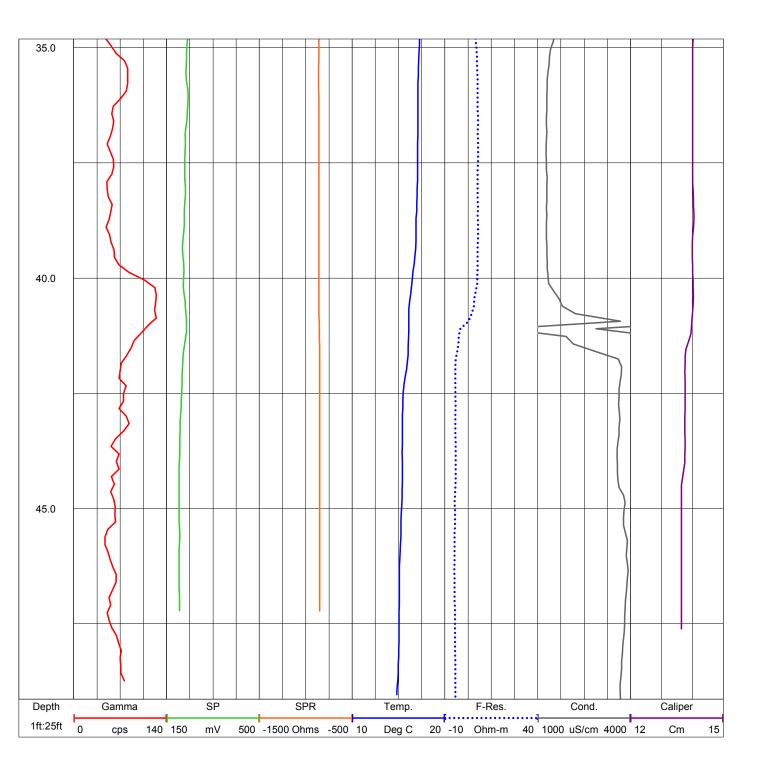


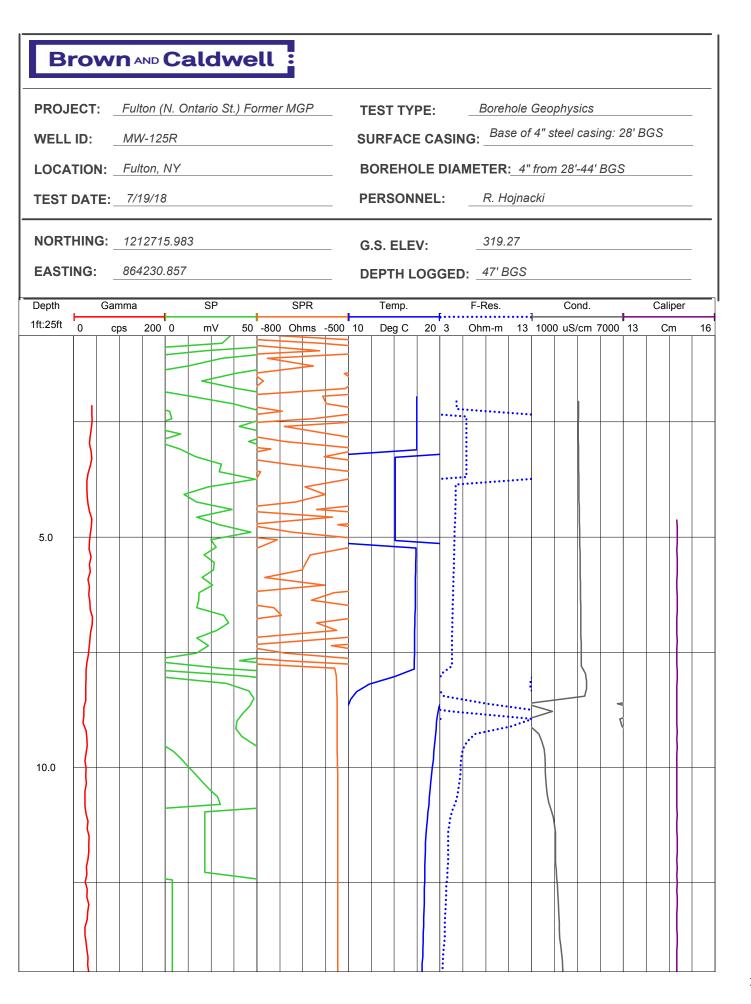


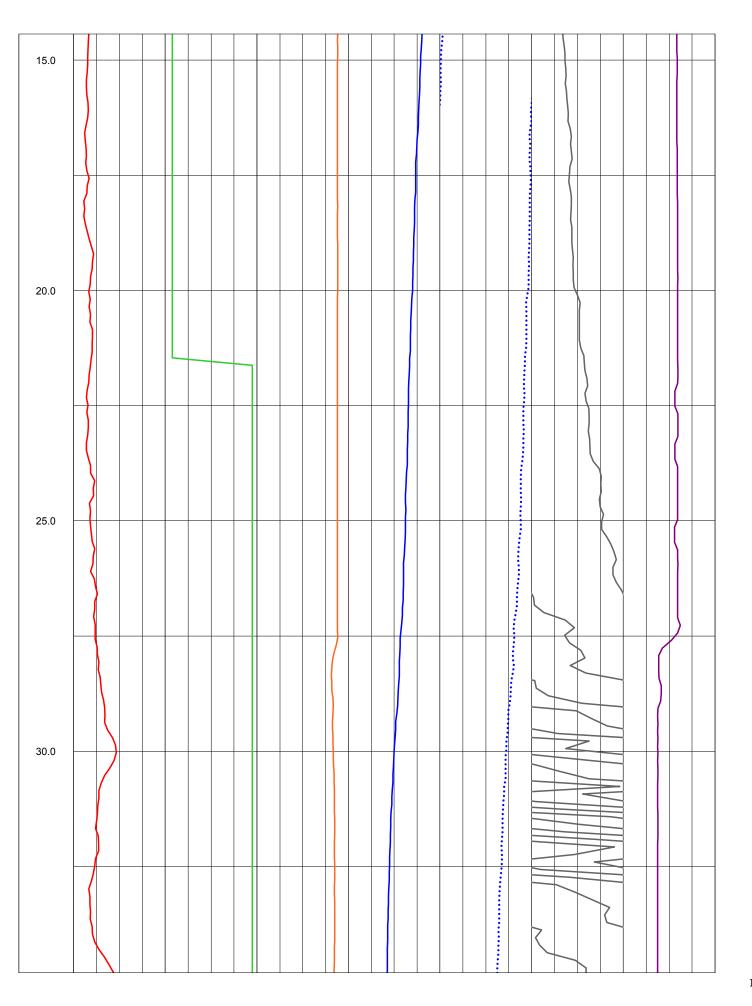


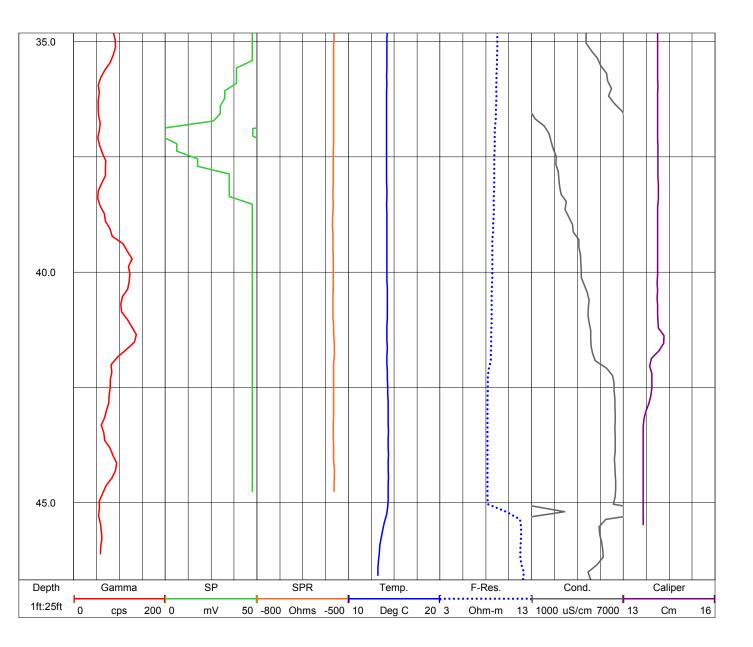






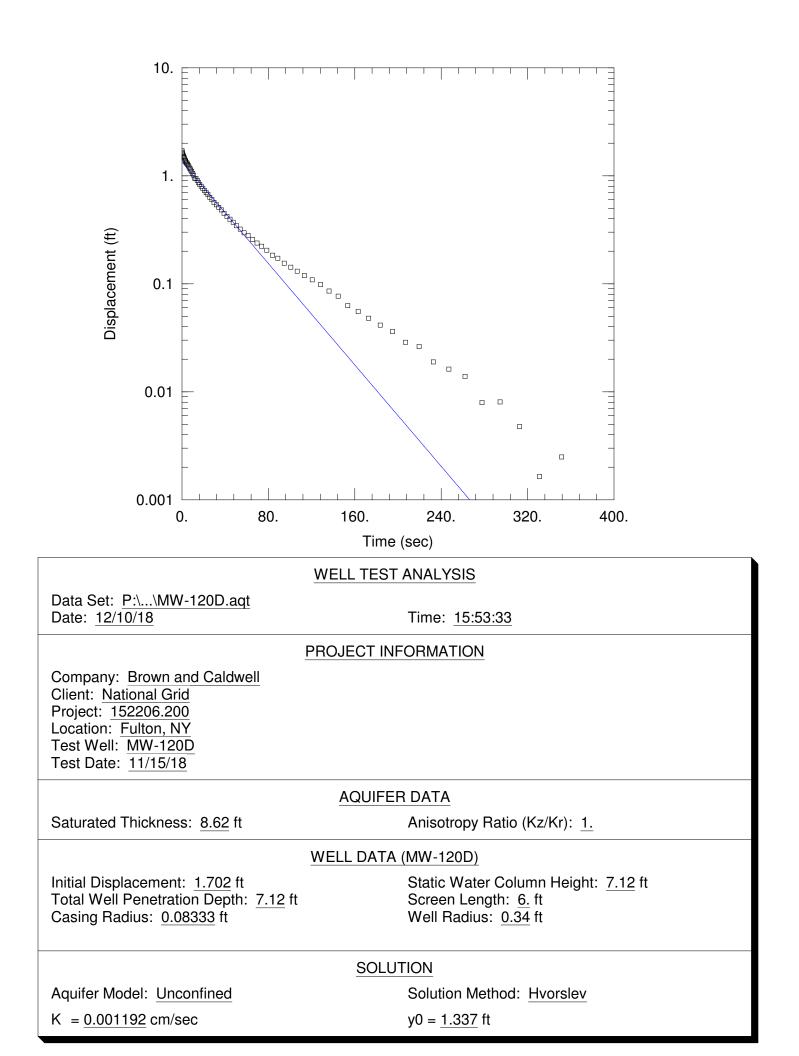


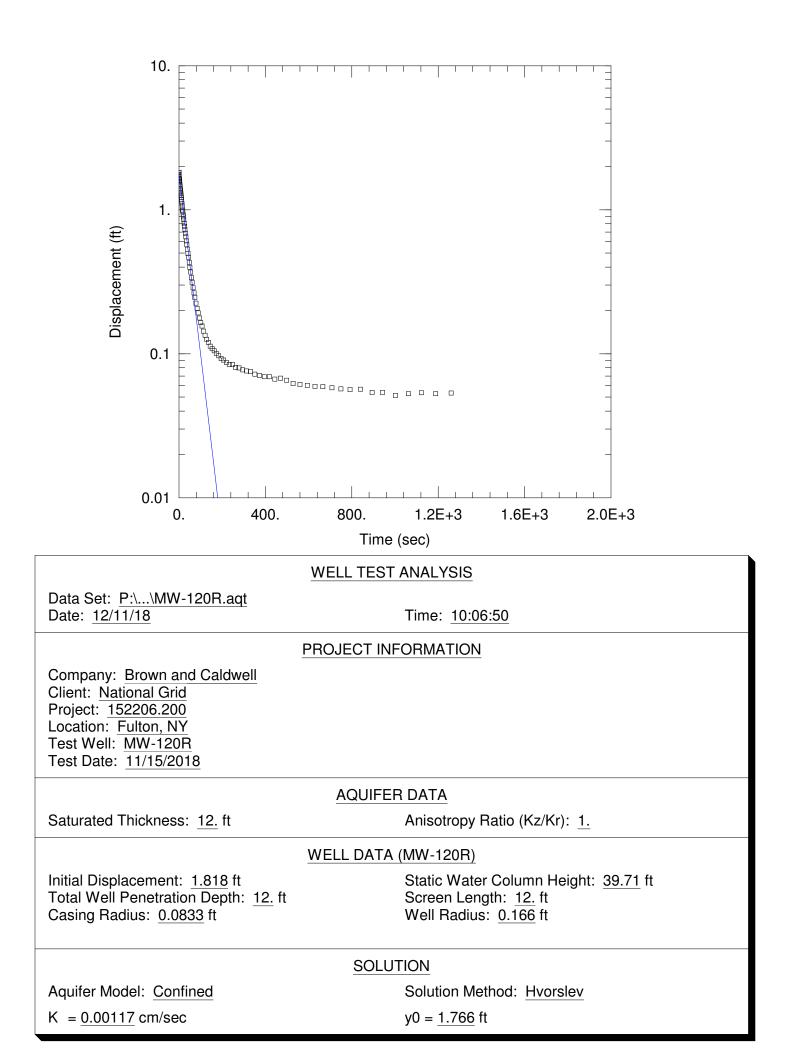


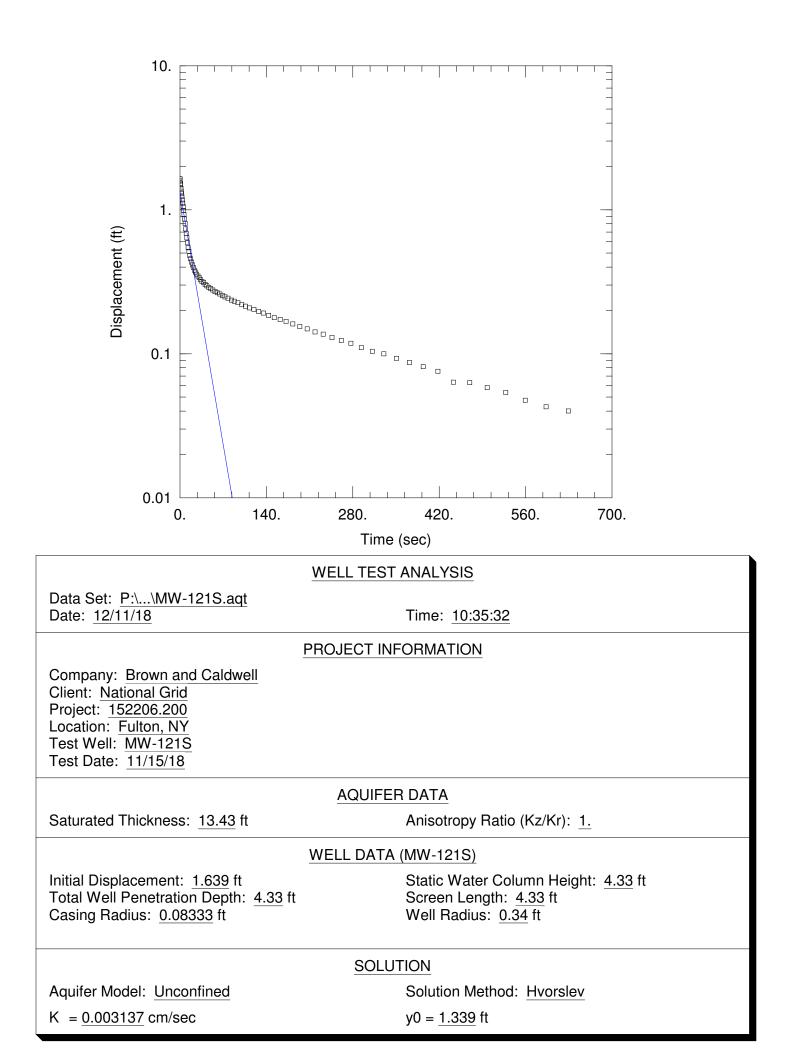


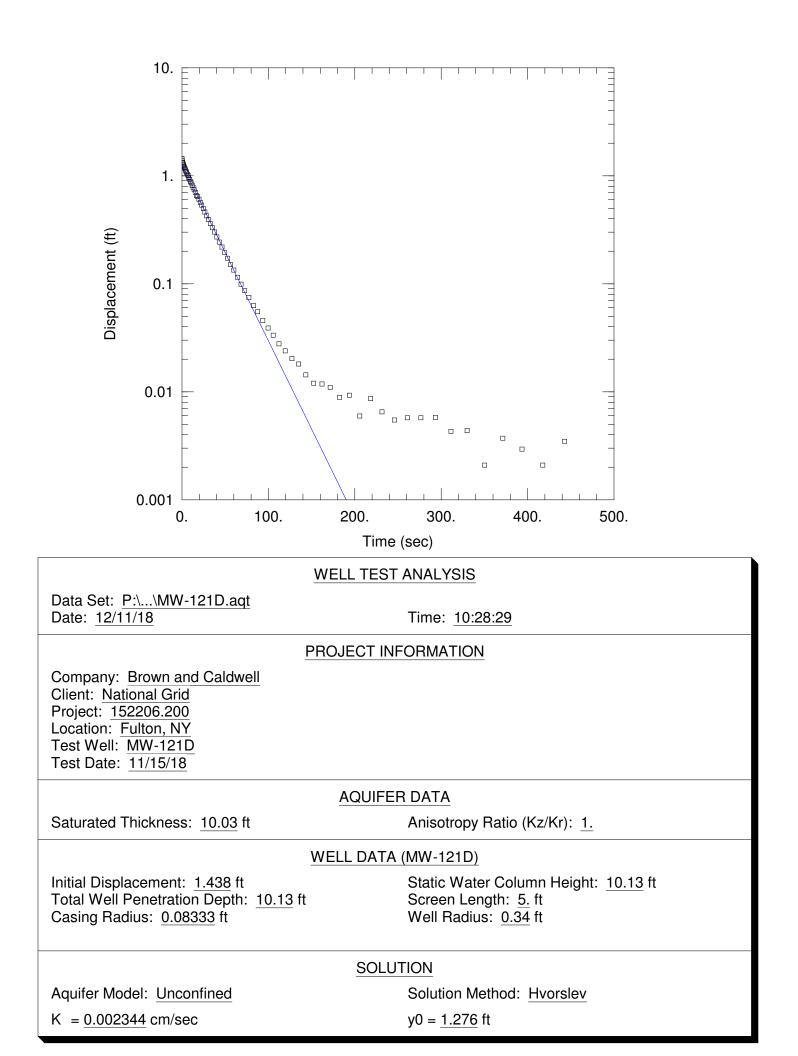
Appendix D: In-Situ Hydraulic Conductivity Plots

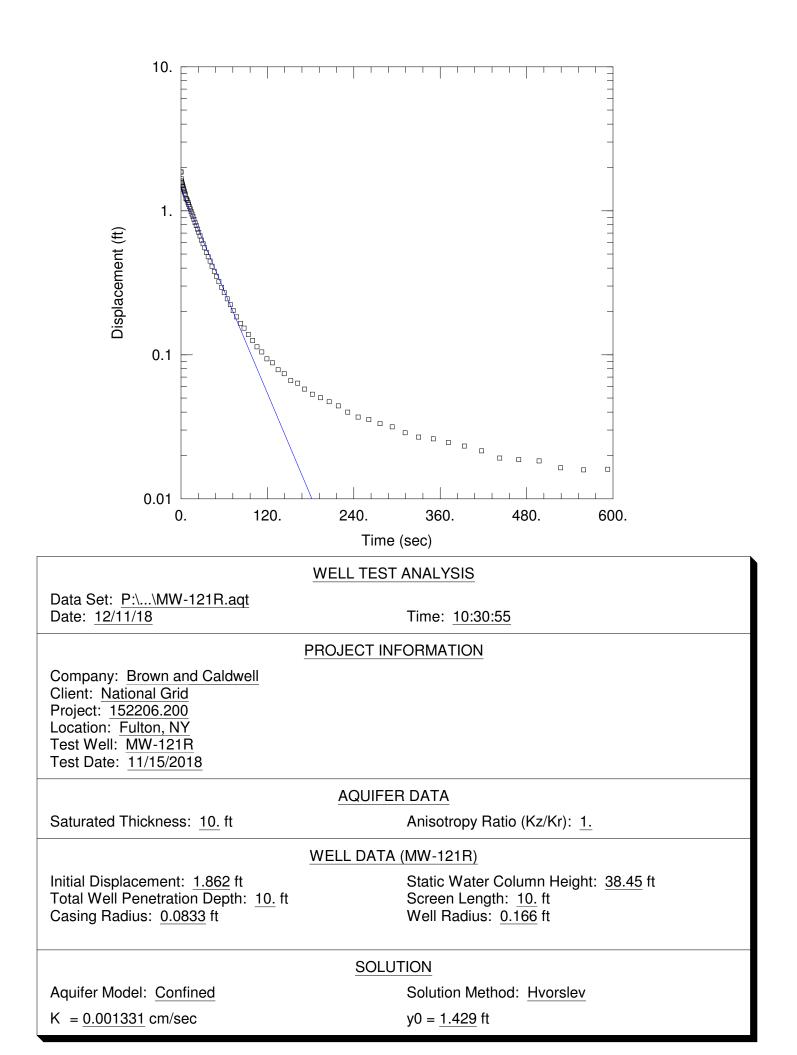


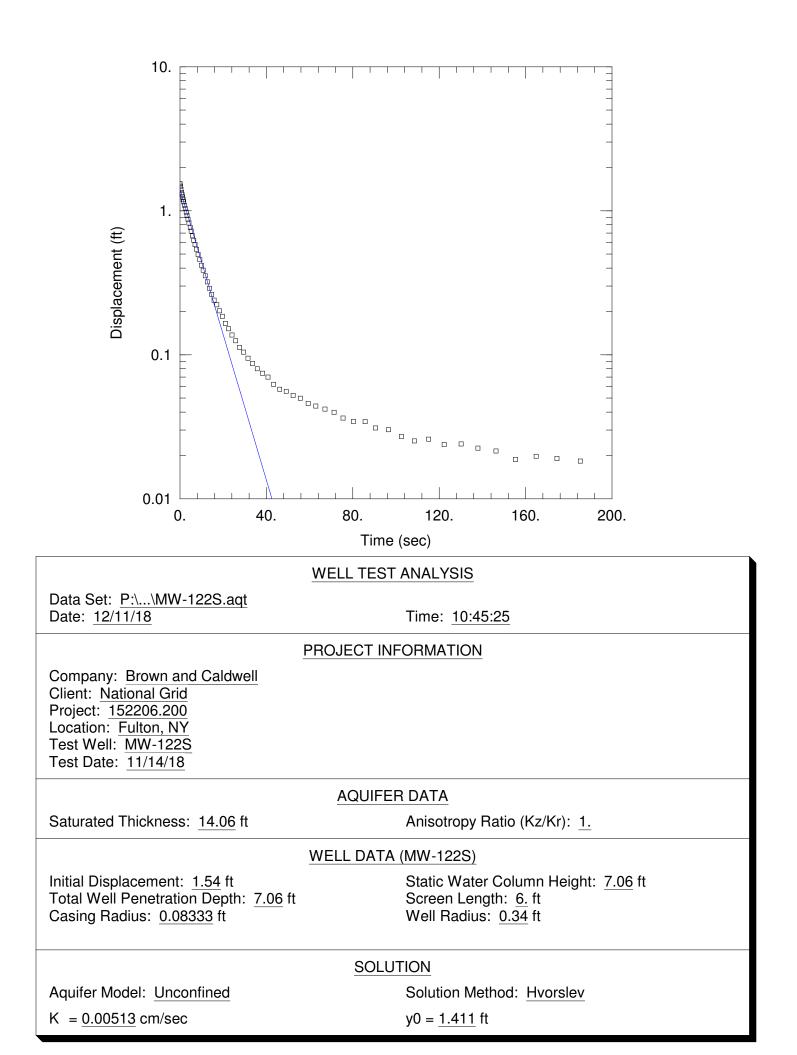


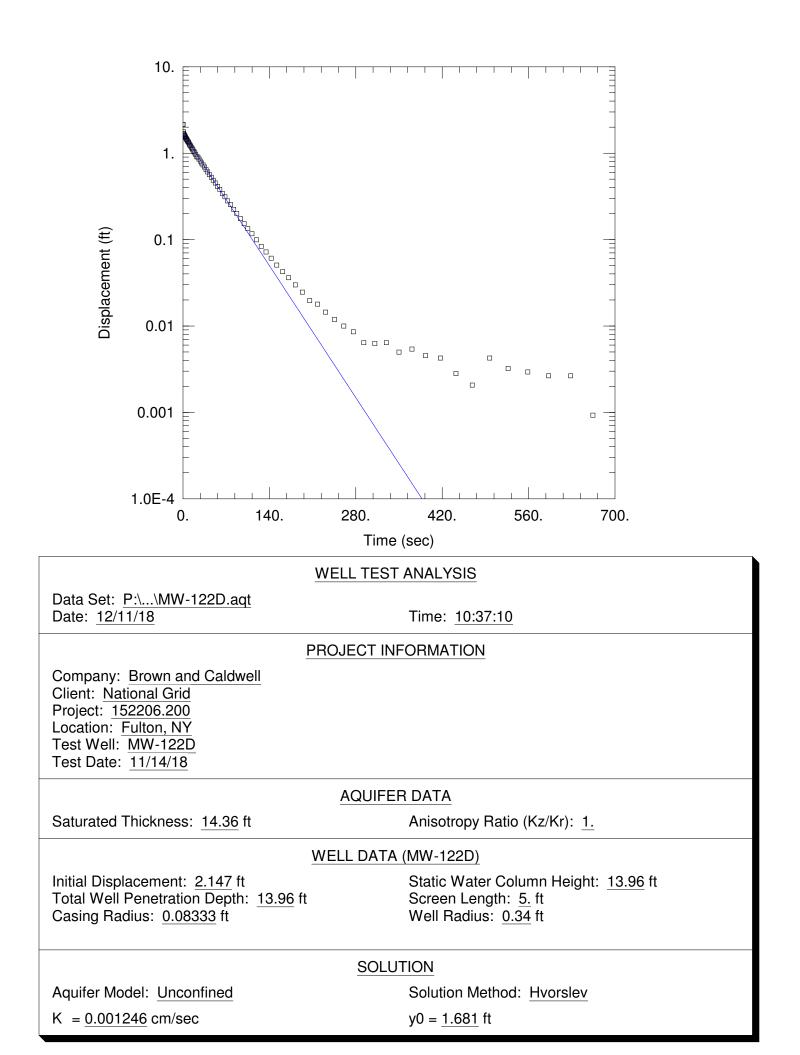


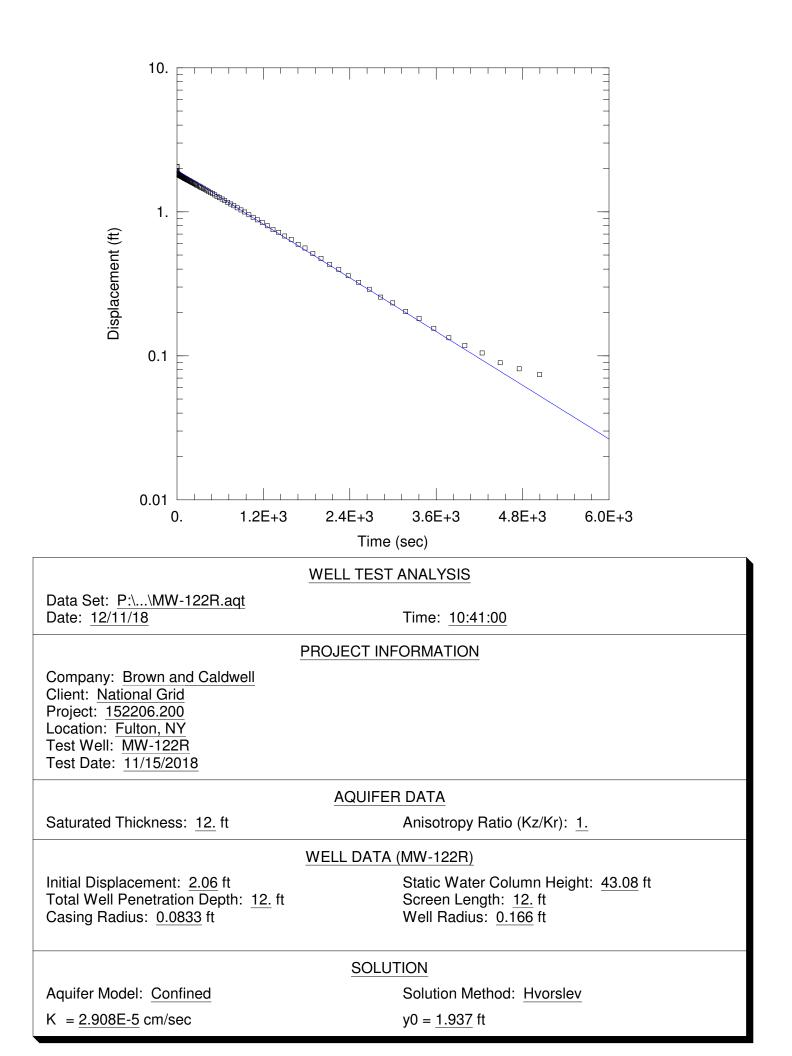


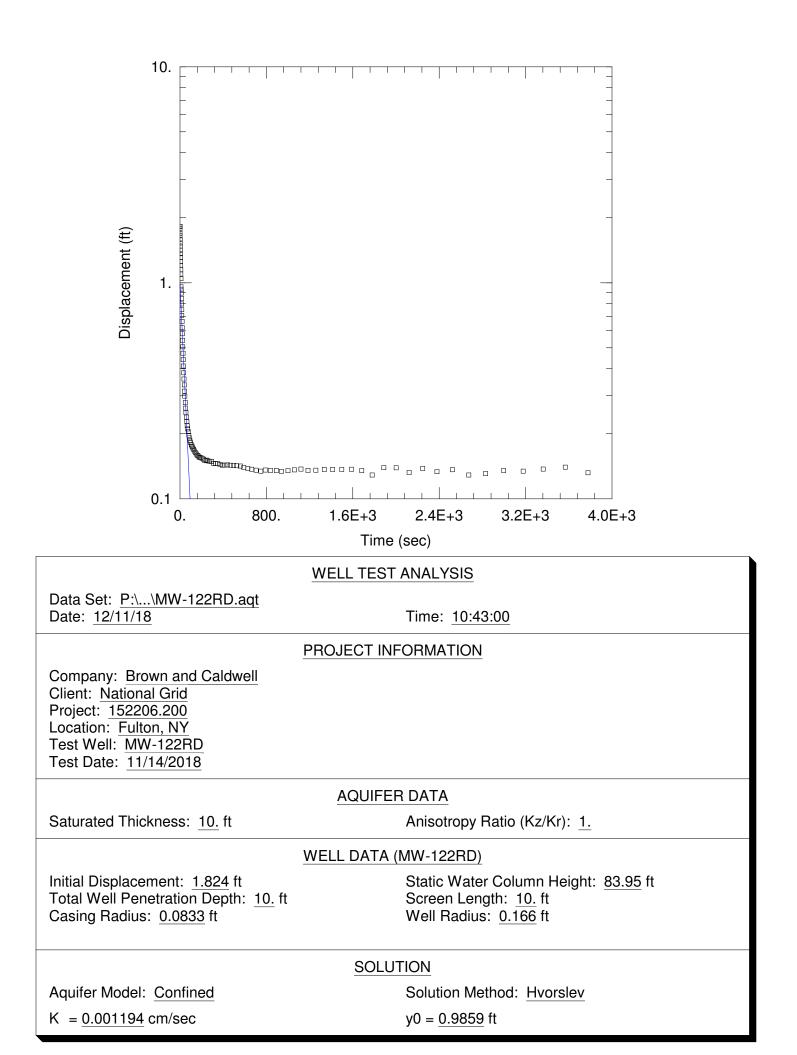


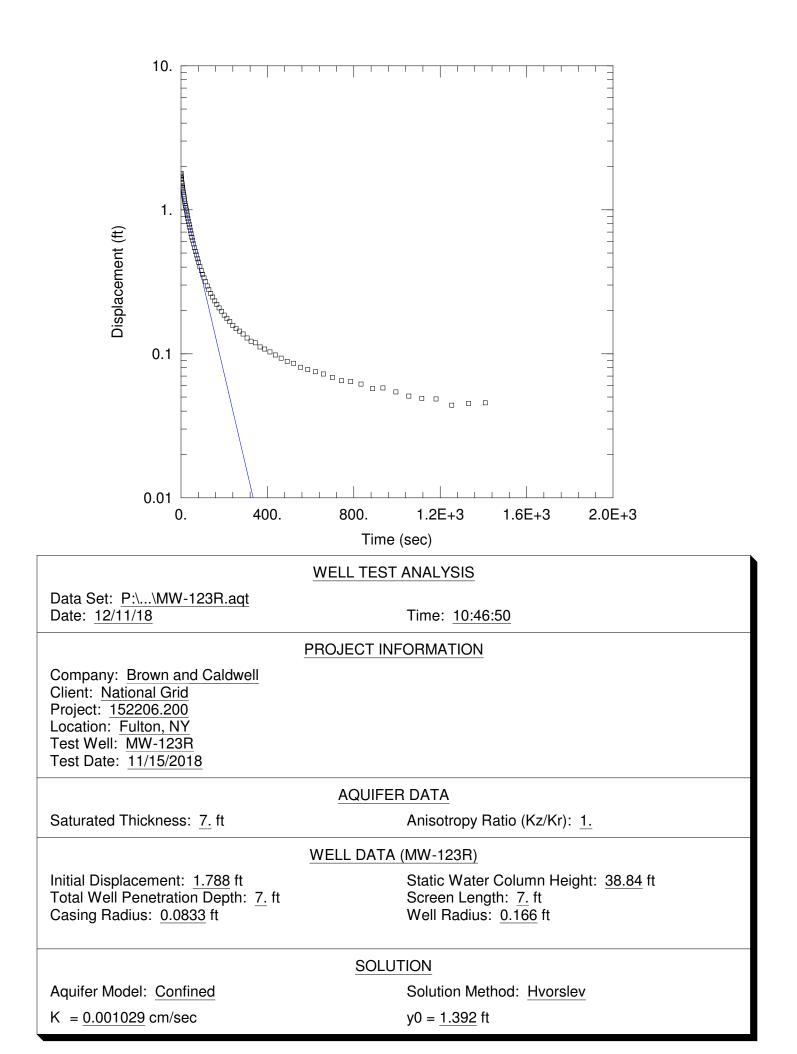


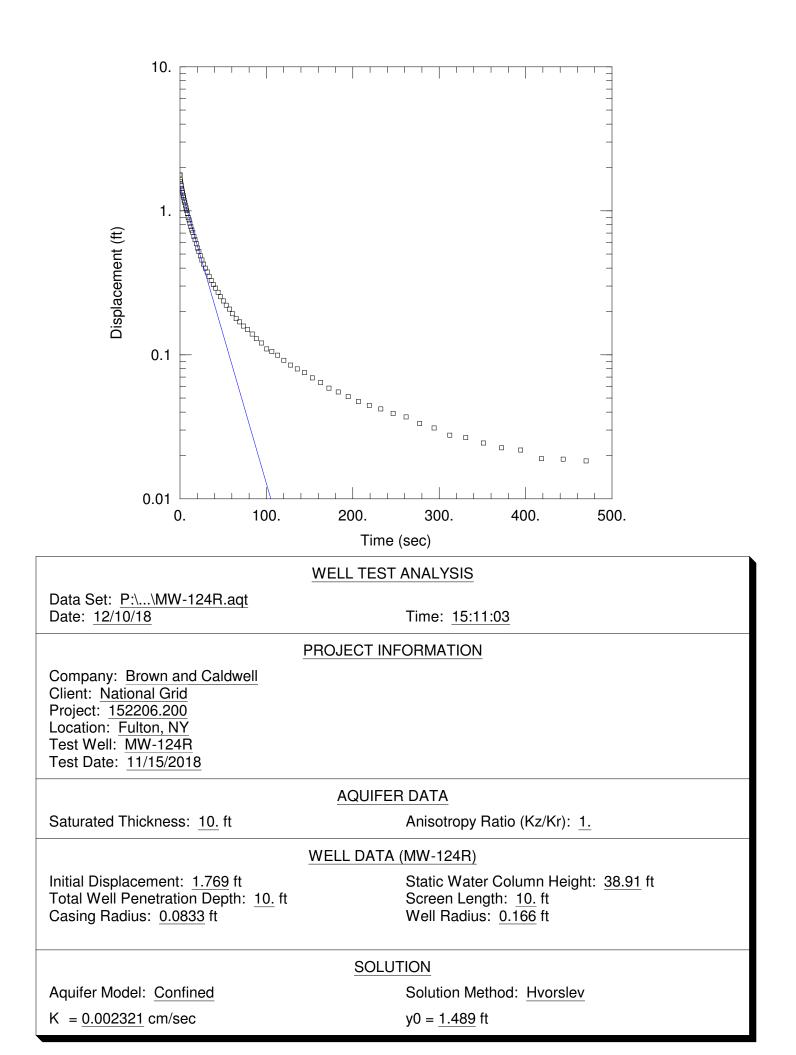


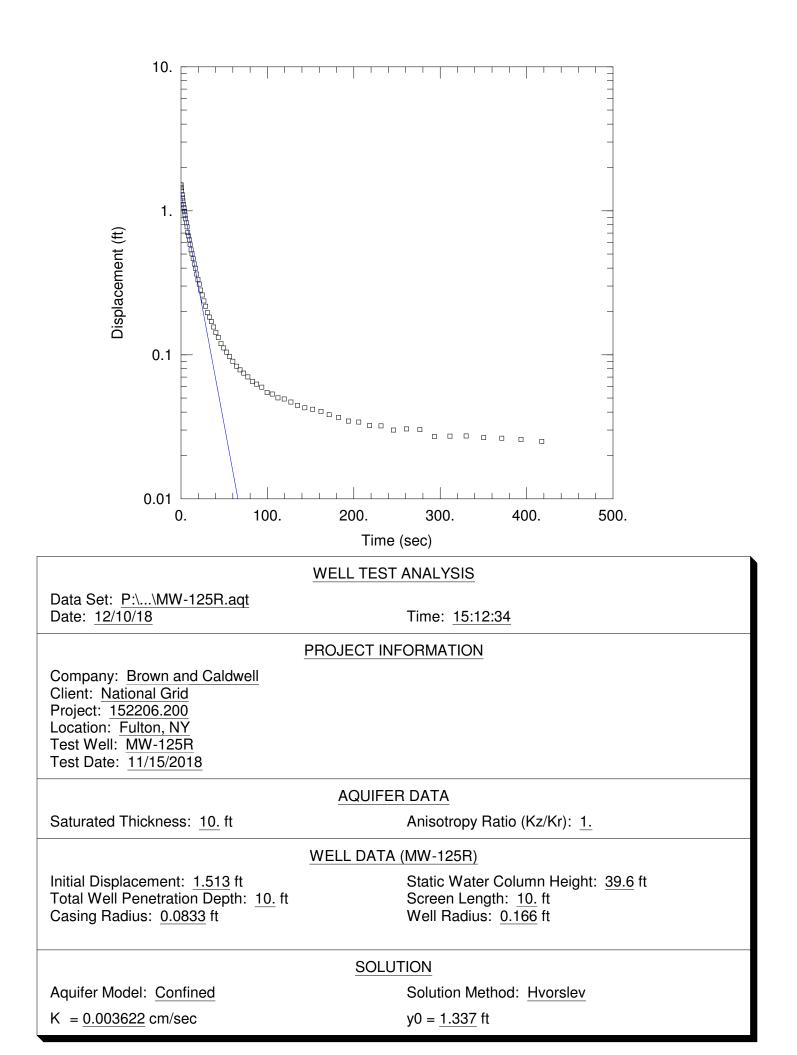












Appendix E: Groundwater Sampling Field Data Sheets



Brown AND	Caldwell
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2 Park Way,	Upper Sad	dle River,	NJ 07458
Phone: (201)	574-4700	Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

a: 7/(8/(8
D: MW-122RD
MW-122RD-20180818

	Certified Parameters				1	1.	100 11					
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments			
0910	10.42	21,89	75.8	2.77	174	29	14.01	1715				
913	7.82	19,78	1100.04	de la	NO.0"	~ 324	14.03	147				
2916	7,20	18.82	"100.0"	1.63	10,0	-314	14.06	24	C			
2919	7.05	1734	"100.0"	1.79	0.0"	-286	14.08					
9912	7.02	17:57	4100.0"	1.74	"0.0"	-259	14.08		NU SA EDBOAT			
0925	7.01	17.22	(00.0)	1.85	"0.0"	-240	14.08		dorrer av			
0928	7.00	17.34	"100.0"	1.84	"0.0"	-729	1408					
0931	7.01	16.72	100.04	1,28	"0.0"	-219	14.08					
0934	7.00	17.03	100.0"	1.79	0.0"	-212	4.08	「「「「「「「「」」」	19 NA 48			
0937	7.00	17.26	" 00.0"	1.71	"0.0"	-207	14.08		clamber			
0943	688	17:64	"1000"	0:56	978	-152	14.05		1. 1. 1. 1.			
0946	6.95	17.52	" 100.0°	0.54	942	-178	14,07	1942 (Martin 1977)	10 11 1 1 1 W			
2949	6.99	17.18	1'(00.0'	0.60	8-40	-199	14.03	14.50	*0• *C			
0952	7,00	17.40	"100.0"	0.64	805	- 203	14.05		ALL LOTAN			
0455	1.02	17.14	·* (00.0 h	0.73	675	-206	14.08					
2958	7.03	17.62	"100.0"	0.75	658	-208	14.08	10				
1001	7,02	18,20	11000	0.79	605	-209	14.07					
1004	7.02	18 72	100.0	0.79	560	- 209	14-08		194E			
1007	7.02	18.71	"100.0	0.80	202	~209	14.0%					
1010	1.03	18,75	"100.0	080	516	- 211	14.08					
1013	7.03	18.56	"(00.0"	0.81	510	-212	14.08	V				
1016	Collect	- say	6 M	0-122	RD - 20	120918			1 1 3			
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			4		OF							
		$65^{\circ} = 10^{\circ}$		1×	M							
				4	T							
				-	()							
Time of Instrumen	f Sample: t Data: /anufactur	formation	Horiba U-	52		- -	Signature:		Ginel			
<u> </u>		No. Unit:	9/13(1		2	Serial No. I	Handheld:	PLF909B				

Are low-flow parameters subject to field lab certification? 🗆 Yes 🖾 No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Fleld Calibration Record, Horiba U-52" form or equivalent.

Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: MW-122 RD Sample I.D.: MW-122 RD - 2018 (of different from well no.)
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / PFP	Date: <u>118/18</u> Time: O910 Weather: Sunny Air Temp.: 72
DEPTH TO : Static Water Level: 4.05 ft Bottom of We DATUM: Top of Protective Casing CONDITION: Is Well clearly labeled? Yes No Is we Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? Is Is Concrete Pad Intact? (not cracked or frost hea Is Padlock Functional? Yes No Xo Is Inner Casing Properly Capped and Vented?	Image: PVC □ Teflon® □ Open rock Il:ft □ Other: Il clean to bottom? □ Yes □ No not bent or corroded) Image: Yes □ No FYes □ No Image: Yes □ No FYes □ No Image: Yes □ No Is Inner Casing Intact? □ Yes □ No
PURGE DATA:	2" Submersible Pump
ATERIALS: Pump/Bailer: Pumping Rate: Pumping Rate:	mber of Well Volumes Removed:
SAMPLING DATA: METHOD: □ Bailer, Size: □ Syringe Sampler □ Peristaltic Pump □ Inert	
MATERIALS: Cump/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? I Yes No Method APPEARANCE: I Clear I Turbid I Color:	I: Contains Immiscible Liquid
DUP : So I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re Signature:	gulatory and project protocols. Date:8

Brown AND	Cal	ldwe	I
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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 238-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 7/18/18
Personnel: REH / PFP	Well ID: MW- 123R
Purge/Sample Depth:1 '	Sample ID: 1238 - 201809 (8

No. Alternation		Cert	fied Para	meters	tion of excitors.	-40.50 X-123		2.84.00 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	
Actual Time	pН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
044	0008.6	20.30	11-7	2,81	49.7	-185	1802	150	
047	7.63	17.83	13.0	1.67	23.5	-187	18.08	120	
122	7.30	16.20	13.1	0.81	8.5	-164	18.13		<u> </u>
056	7.19	16.72	17.2	0.40	30.8	-162	8.22		11 1 1 4 4 4 1 1 1 1
059	7.19	16.71	18.9	037	93.2	-163	18,22	5	245 8
102	7.19	14.54	197	0.34	79.7	-164	18:22		
1108	7.10	16.29	2014	0.31	10.5	-160	18.72		- 0.10 A
1111	7:20	16.17	20.6	0:26	52,9	-1107	18 20	N/	
1114	7.20	16.17	20.8	0.24	42.1	-168	18.22	Y	112
117	Colle	t sa	y (P	MW-1	23R-2	218091	8	1. 1 1. 1	<u> </u>
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Time of strumen	f Sample: t Data: Ianufactui		 Horiba U-				Signature:		forack;
Ca	Serial libration D	I No. Unit: ate/Time:	WEWB 9/13/	OUL 18	0	Serial No. I	Handheld:	PLYF909B	

Are low-flow parameters subject to field lab certification?
Yes IN No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: MW- 123R Sample I.D.: MW- 123R- 20(80918
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH /PFP	Date: <u>9/18/18</u> Time: <u>1044</u> Weather: <u>Summy</u> Air Temp.: <u>75</u>
Intake Diameter: 2 Galv. Stainless Steel Galv. Sta DEPTH TO: Static Water Level: 783 ft Bottom of W DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes ANO Is w Is Prot. Casing/Surface Mount in Good Cond.? Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost he	a Dother: vell clean to bottom? Yes No (not bent or corroded) Yes No Yes No eaved) Yes No Is Inner Casing Intact? Yes No Yes No
VOLUME OF WATER: Standing in well:	To be purged:
	2" Submersible Pump 4" Submersible Pump ump Inertial Lift Pump Other:
F	Number of Well Volumes Removed:
PURGING EQUIPMENT: Dedicated X Prepared Of	ff-Site Field Cleaned
SAMPLING DATA: METHOD: Bailer, Size: Syringe Sampler Peristaltic Pump International Internationa	
MATERIALS: PurperBailer: Teflon® SAMPLING EQUIPMENT: Metals samples field filtered?	
APPEARANCE: APPEARANCE: Clear D Turbid Color: FIELD DETERMINATIONS: See attached form for field para	Contains Immiscible Liquid
DUP : PNO I Yes Name: MS/MSD : No I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable Signature: Hachel Har Hack	regulatory and project protocols. Date:

Brown	AND C	ald	well
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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 238-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9//8//8
Personnel: REH/ PFP	Well ID: MU-120R
Purge/Sample Depth: ~ 4C	Sample ID: MW-1208-20190918
20 (4 0000 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	

	Certified Parameters			e — e	- e	Alternatives and a state				
Actual Time	pН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)		ing Rate L/min)	Comments
1227	6,82	20.59	4.45	9.89	21.6	-54	16.14			к. К.
1230	7.17	17.14	5,84	2,90	19.0	-130	16,16	1	15	
1233	7.28	16.15	6.40	7.18	8.5	-159	14.18			
1236	7.31	15.18	6.65		4.2	-170	6.20	-		
1239	7 31	14.99	6.72	2.12	210	-179	14.21			N.1 . 1977 St
1212	7.31	14.85	6.74	7.12	3.4	(172		1		- 8 _3 _3 199 -
1245	7.31	14.78	6.78	2,22	2015	-179	16.24	- N2		
12 51	7:31	14.31	6.92	2.04	15.0	-180	14.25		-	2011 241 26 0322 L 24042
1257	7.31	14.66	7.31	2.15	12,4	-190	16.28			and the second part back
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			20						Tarti-	11. 一一一一日本作在12
Certified Sample Information: Time of Sample: 1200 Toron Ref Analyst Signature: Porlut Horiba U-52										
						Handheld: WEPVE08V				

Are low-flow parameters subject to field lab certification?
Yes
No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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Brown AND .	· · · · · · · · · · · · · · · · · ·	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA					
Caldwell	Upper Saddle River, NJ Office	Well Number: MW-120R Sample I.D.: MW-120R - Withferent from well no.) Sample I.D.: MW-120R - Withferent from well no.)					
Project: Fulton (N. Ontario St. Personnel: REH / FFP) Former MGP	Date: 9/18/18 Time: 1227 Weather: 50005 Air Temp.: 75					
WELL DATA: Casing Diameter:							
	Standing in well:	To be purged:					
PURGE DATA: METHOD: D Baile	entrifugal Pump 🖸 Peristaltic Pum	2" Submersible Pump					
MATERIALS: Pump/Bailer:	□ Teflon® Sa Stainless Steel □ PVC □ Other:	Tubing/Rope: AC Polyethylene Polypropylene C Polypropylene					
Other: Other:							
SAMPLING DATA: METHOD: Bailer, Size:							
MATERIALS: Rump/Bailer:	Teflon® S Stainless Steel	Tubing/Rope: Station®					
SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned Metals samples field filtered? Yes & No Method:							
APPEARANCE: Clear Curbid Color: Contains Immiscible Liquid FIELD DETERMINATIONS: See attached form for field parameter data.							
DUP: 125–No ⊒ Yes MS/MSD: 127–No ⊒ Yes	Name: Name:						
I certify that this sample was collected a Signature:	nd handled in accordance with applicable re	gulatory and project protocols. Date: 9/18/18					

(X, z)

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/18(18
Personnel: REH / FFP	Well ID: MU-120D
Purge/Sample Depth: ~/8	Sample ID: M4/ - 1200 - 20180918

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			ified Para	-	111.28	1.1 5.	S 1962	24	
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	The color in the
Time	рН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
315	7.50	18,70	4.09	3.90	114	_191	14.7		
318	7,49	17.22	1.05	2.10	91.9	-202	14.53	$ \rightarrow \leq \leftarrow $	
321	7.51	11/20	4.07	1.93		-202	14.52	-N	
324	5 =1	16.52	4.09	1.90	81.5	-210	14.57		(100 D)
777	7,53	16.18	4.11	1.87	74.3	-212	14.60		28.9 52 1.02
1330	7.82	15,91	4.11	1.90	- X0.5	-212	111 111	25 X 1 1 1	
1773	7.54	15.96	4.10	1.88	76,9	-213	14.69	THE SOLE I	11 (498)
1336	5-4	15.84	1,10		72.5050	-215	1418		
1339	2.21	15,20	4,09	1,86	67.9	-215	14,68		1.4 - Traticity
1342	5-4	1515	4.08	1.91	53.8	-216	14.68	V/	and the second second
1385	7.53	15,62	4.07	1.97	38.7	-215	16.68		Slahtsheeg
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Time o Istrumen	f Sample: t Data:	formation	: 134 Horiba U-	t8 -52	5	Analyst	Signature:	header	Aginad
		No. Unit:	VTBB	5671	G	Serial No. I	Handheld:	WEPUE	081

Brown AND		LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell	Upper Saddle River, NJ Office	Well Number: $\mathcal{M} \psi - 120D$ Sample I.D.: $\mathcal{M} \psi - 120D - 20(\frac{1}{2}0918)^{\text{well no.}}$
Project: Fulton (N. Ontario St.) Personnel: REH /PFr		Date: 9/18/18 Time: 13/5 Weather: SUGNYAir Temp.: 75
DEPTH TO : Static Water Lev DATUM: D Top of Protective CONDITION: Is Well clearly Is Prot. Casing Does Weep H Is Concrete Pa Is Padlock Fur Is Inner Casing	rel: <u>14.43</u> ft Bottom of We Casing 25-Top of Well Casing labeled? 25-No Is we of/Surface Mount in Good Cond.? (fo ole adequately drain well head? (fo ad Intact? (not cracked or frost hea nctional? I Yes I No 21 NA g Properly Capped and Vented? 25	I Carlettones □ Open rock afit:ft □ Other: Il clean to bottom? □ Yes □ No not bent or corroded) ⊉: Yes □ No Ves □ No ved) S Yes □ No Is Inner Casing Intact? □ Yes □ No Yes □ No
	Standing in well:	To be purged: 2 " Submersible Pump
MATERIALS: Pumping Rate: 250 mL/m	entrifugal Pump Peristaltic Pun	Inertial Lift Pump I Other: Tubing Rope: A Polyethylene Polypropylene Other: Volume Pumped: 2.5 C7 Imber of Well Volumes Removed:
SAMPLING DATA: METHOD:	: \g[Bladder Pump	ubmersible Pump
MATERIALS: Pump/Bailer: SAMPLING EQUIPMENT: C Metals samples field filtered? APPEARANCE: QC Clo FIELD DETERMINATIONS:	Teflon® Stainless Steel Dedicated Yes X No Method ear Turbid Color: See attached form for field param	Contains Immiscible Liquid
DUP : S No I Yes MS/MSD : No I Yes	Name: Name:	
I certify that this sample was collected an Signature:	nd handled in accordance with applicable re	gulatory and project protocols. Date:8/18

Brown AND	Cald	well
DI CALL LUND		

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 238-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/18/18
Personnel: <u>REM / PF1</u>	Well ID: MU-115D
Purge/Sample Depth: ~ 22	Sample ID: MW ~ 1(5D - 20180918
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Certified Parameters	National Res Construction of the second

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Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	a manager of
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
1413	7.65	19.56	2.67	10.43	67.7	-129	8.48	200	
1416	7.37	17.90	3.62	1.33	0	-145	8.50	1/X	
1419	7.37	16.91	3.90	1,49	301	-152	8.52		11 - 394
1422	7.37	16.60	3,99	1.15	215	-158	8.52	= $ -$	
1425	7.38	16.51	4.01	1.15	153	-159	8.52		COLUMN STATE
1428	7.38	16.40	4.02	1.15	113	-110	8.52	CC - 1/589044432, 111	 31 131534
1431	7.38	16.32	4.02	1.11	971	- 161	8.52	120000	
1434	7,38	16.19	4.02	117	71.3	-163	2.52		
1437	7,38	16.17	4.02	1,25	55.0	-163	8.32	e Salar	1 MPS 13 L
1440	7.38	16.09	4.02	1.15	43.9	-164	8.94		
1443	7,38	16.01	4.01	115	41.8	-164	8.53		
1446	Corre	et son	ele	N 4 1		10.00 BANK	paral (%)		State 199 and the second se
		115V8117			ROEL		1086 A.	4a22 =1	- Surgerstand
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BrownAND	LOW-FLOW GROUNDWATER
Caldwell Upper Saddle River, NJ Office	Well Number: MW-(15D
	Sample I.D.: $MW - 1(5D - 20(80718))$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH (PFP	Date: <u>9/18/18</u> Time: <u>1413</u> Weather: <u>Sunny</u> Air Temp.: <u>75</u>
DEPTH TO : Static Water Level: <u>8.91</u> ft Bottom of W DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes Store Is we Is Prot. Casing/Surface Mount in Good Cond.? (Does Weep Hole adequately drain well head? & Is Concrete Pad Intact? (not cracked or frost hea Is Padlock Functional? Yes No XA Is Inner Casing Properly Capped and Vented?	I DKPVC □ Teflon® □ Open rock ell:ft □ Other: ell clean to bottom? □ Yes □ No not bent or corroded) ♀ Yes □ No ⊈Yes □ No Is Inner Casing Intact? □ Yes □ No ♀Yes □ No
VOLUME OF WATER: Standing in well:	To be purged:
	2" Submersible Pump 4" Submersible Pump np Inertial Lift Pump Other:
MATERIALS: Fump Bailer: MATERIALS: Fump Bailer: D Teflon® Stainless Steel D PVC Other:	Tubing/Rope: Tellone 419 Cubing/Rope: Complete 419 Cubing/Rope: Polypropylene Cubing/Rope: Other:
Pumping Rate: 200 ml/ hit Elapsed Time: 30m in	_ Volume Pumped: <u>2G</u> umber of Well Volumes Removed:
SAMPLING DATA: METHOD: □ Bailer, Size: □ Syringe Sampler □ Peristaltic Pump	
MATERIALS: Cump/Bailer: D Teflon®	Tobng/Rope: Tenone H
SAMPLING EQUIPMENT: Dedicated Prepared (Metals samples field filtered? Ves A No Method	Off-Site Field Cleaned d:
APPEARANCE: Clear D Turbid D Color: FIELD DETERMINATIONS: See attached form for field parar	Contains Immiscible Liquid
DUP : SE No I Yes Name: MS/MSD : DK No I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re Signature:	agulatory and project protocols. Date: $\underline{\gamma(l\vartheta(l\vartheta))}$

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 238-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Second Se
Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/19/18
Personnel: REM /PFP	Well ID: MW- 116D
Purge/Sample Depth: ~ 26	Sample ID: MW-1160-20180919
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	Certified Parameters					11 10 ⁴ 10 ⁴ 00 - 00 ⁴				
Actual Time	рH	Temp (°C)	Cond (mS/cm)	DO		ORP	DTW	Pumping Rate		
1 IIII O	рп	(-0)	(maxim)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments	
0842	7.66	17.50	2.54	11.65	204	-136	19.25	200	6	
0845	7,38	15.31	317	2.04	303	-167	19.26	A	9	
2848	7.35	14.36	2.92	1.62	188	~174	19.26	9 J.	 () Su = 0. 	
0851-	1.29	4,21	2.96	1.55	10.0	-174	19.27	= : :=		
0857	7.35	14.10	2,41	1.52	62.2	-180	19,28	100000		
0900	7.35	14.05	3,48	1.51	47.3	-183	19.27			
0903	7,34	14.00	3.51	1.50	359	-183	19.27			
0906	7.34	13,95	3,52	1.50	27,3	-183	19,28		and a state and a state of the	
0909	7.34	13,63	3,53	1,49	20.3	-185	19.27	ч V /		
0912	7.34	13.93	3.54	1.48	18.	- 185	19,28	· · ·		
0915	ouec	t samp	rle	nu m	on College de la		7 8	- 2		
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	Certified Sample Information: Off 15					Analyst	Signature	Rochi	Mount.	
N	ent Data: Manufacturer/Model: Horiba U-52 Serial No. Unit: <u>VTBB 5 レ チム</u> Calibration Date/Time: <u>のタ/13/19</u>					Serial No. I	Handheld:	WEPUED	81	

BrownAND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: MW-116P Sample I.D.: MW-116D-2010 Marine Marine Com
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / PFP	Date: 9/19/18 Time: 0842 Weather: 10/04/2 Air Temp.: 64
DEPTH TO: Static Water Level: <u>9,20</u> ft Bottom of DATUM: Dop of Protective Casing De Top of Well Casin CONDITION: Is Well clearly labeled? Des <u>29</u> -No Is Is Prot. Casing/Surface Mount in Good Cond. Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost I	teel 2442VC Teflon® Dopen rock Well:ft ng Dother: well clean to bottom? Yes No ? (not bent or corroded) 25 Yes No ? (mot bent or corroded) 25 Yes No A Is Inner Casing Intact? Yes No ? (mot bent or corroded) 25 Yes No
PURGE DATA: METHOD: Image: Construction of the second sec	2" Submersible Pump
Image: Stain and Stain an	Tubing/Rope: Tubing/Rope: Tubing/Rope: Polyethylene Image: Difference Image: Difference Polypropylene Image: Difference Image: Difference Other: Image: Difference Image: Difference Image: Difference Imag
SAMPLING DATA: METHOD:	"Submersible Pump
MATERIALS: Cump Bailer: Control Teflon® Stainless Steel SAMPLING EQUIPMENT: Control Control Control Metals samples field filtered? Control Yes A No Met	Tobleg/Rope: Teflon® Polyethylene hod:
	Contains Immiscible Liquid
DUP : X No Yes Name: MS/MSD : Xo Yes Name:	
I certify that this sample was collected and handled in accordance with applicable Signature:	e regulatory and project protocols. Date: <u>9/19/18</u>

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 57,4-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/19/18
Personnel: REH (PFP	Well ID: MW ~ 108
Purge/Sample Depth: ~/3	Sample ID: <u>MW - 108 - 20180919</u>

		Certi	fied Para	neters	Lat	8 10 10		-can	10 Sale
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	9161 m. Ba
Time	рH	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
0938	7.32	17.10	2.13	3,54	563	-110	8.88	5.00	
2941	7.13	17.64	209	1.85	589	-122	8.97	Lee	*
0944	7.08	17.6	2.07	1.41	489	-127	9.09	- 11 o	$n \ge 1.60$
0947	7.22	17.50	2.06	1.5	380	-140	9.15	<u>s – – – – – – – – – – – – – – – – – – –</u>	ANNAL MARKA
9953	7.5	17.00	2.06	1.29	340	~136	9.17		ALTEN - 108 74.1
103	7,05	1741	2.01	1.18	729	-137	9.20		
0956	4 9	17.12		1.00	2179	- 140	9.20		
1002	7,21	17.41	211	0.99	33	-145	9.21		- SARU . M.
1005	7.21	17.41	2.12	0.92	91.9	-146	9.21		-
1008	7.21	17.41	213	0.49	70.4	-147	9.22		
1011	7.19	12.40	2.14	0.95	48.1	-147	9,22		
1014.	colle	+ son	29	MW-10	9-201	10919		2014 Bit 1	10.01100-0110V
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Time o nstrumen	f Sample: t Data:		101			Analyst	Signature:	Pachell	Hindle,
Ň			Horiba U-						. .
	Seria	No. Unit:	VTBB	5470	7	Serial No.	Handheld:	VEPUED	08V

Calibration Date/Time: 09/13(18

Are low-flow parameters subject to field lab certification?
Yes Ø No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW = 108$ Sample I.D.: $MW = 108 - 20180919$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / FP	Date: <u>9/19/18</u> Time: <u>0938</u> Weather: <u>Cloud</u> <u>Air Temp.: 65</u>
WELL DATA: % Casing Diameter: Intake Diameter: DEPTH TO : Static Water Level: Stainless Steel	I JBCPVC □ Teflon® □ Open rock ell:ft □ Other: Il clean to bottom? □ Yes □ No not bent or corroded)
PURGE DATA:	2" Submersible Pump 4" Submersible Pump Inertial Lift Pump Other:
Image: Stain Point Pumping Rate: Image: Stain Point Pumping Rate: Image: Pumping Rate: Image: Stain Point Pumping Rate: Image: Pumping Rate: Image: Pumping Rate: </td <td>Imber of Well Volumes Removed:</td>	Imber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: PupperBailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Ves SC No Method APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field param	t: Contains Immiscible Liquid
DUP : 10 No I Yes Name: MS/MSD : 10 No I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re Signature:	gulatory and project protocols. Date: <u>9/19/18</u>

Actual	Client: Client: Personnel: ple Depth:	National Grid	LOW-FLOW	mer MGP			2	in and a start
Actual	ple Depth:	NEH /P	<u> </u>		Pr	Olect Numb	Legisla Correspondences	
Actual	and the second	- 1415	_ <u>T</u>		-	oject Numbe Date	D: 9/19/18	1 diana
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		Certified F	arameters	NY IN	titor -	all all all	2010-11.9-	20180919
Time	рН	(°C) (mS/		Turbidity	ORP	DTM		19 (19 (19 (19 (19 (19 (19 (19 (19 (19 (
1048	7.54 1	855 7.1		(NTU)	(mV)	DTW (ft)	Pumping Rate (mL/min)	19400 Televis
1054	7.341		20.91	698	-34	846		Comments
1057	3311	7.91 2.4	10.70	204	-27	8.49	2251	
1103 17	321	7.78 2.9	00.57	346	-25	8.58		
106 7	133 17	62 2.3	8057	1741	-25	8.65		
1112 7	33 17	59 2.3	0.59	127	56	8.69		1.941 (Jal) (1.17)
118 2	34 17	53 2.27	20.54	1201	-42	8.71	+	- 100 (D. 1941)
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	year .	49 2.23	10 51 21-	83.81	64 2	691	H/F	150V
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ed Samela I.	5 m		No. of Concession, Name of Con	126-0-0				
ed Sample In ne of Sample: ment Data:	iormation:	1127	10010-002	19	other Designation of the local division in which the local division in which the local division in which the local division is not the local division of the local division in t			the second se

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	LOW-FLOW GROUNDW
	SAMPLING FILLD
	Well Number: $MW - 119$ Well Number: $MW - 119 - 20180919$
Brown AND	ISantole net
Caldwell Upper Saddle River, NJ Office	Time: Coll
Project: Fulton (N. Ontario St.) Former MGP	Date: 9/19/08 Air Temp.: _ Weather: partly cloudy Air Temp.: _
Project: Fulton II. Sharphy Personnel: KEH/IPH	- Company Ch. Other:
Personnel: 12 13 14 <th14< th=""> 14 14</th14<>	Steel PVC Teflon® Cother:
Chaine Diameloi	-6 MOIL
Casing Diameter:	asing Other: UYes No
UNION A MAIN CLEARLY INDOUGH	
is prot. Casing adequately drain won the	oet heaved) to yes untact? Yes unto
Is Padlock I diversion Capped and Vo.	
VOLUME OF WATER: Standing in well:	Pump 2 2" Submersible Pump 4" Submersible Pump altic Pump 1 Inertial Lift Pump 1 Other:
PURGE DATA:	Pump 2" Submersible Pump 1 4 Outmin altic Pump 1 Inertial Lift Pump 1 Other: Tubica/Rope: 7 Polyethylene
	Tubic (Rope: DK Polyethylene
Teffonw	
MATERIALS: Fump/Bailer: D Teflon® MATERIALS: Fump/Bailer: D PVC O Other:	Pumped: 2:5 G
D Other	Number of Well Volumes Removed:
MATERIALS: Fump/Bailer: X Stainless Steer PVC U Other: Elapsed Time: Z Was well Evacuated? Ves X No Predicated Pre	opared Off-Site Field Cleaned
Pumping Kato: Ves (A tho Was well Evacuated?	
SAMPLING DATA: Size: Bladder Pun	np I 2" Submersible Pump I 4" Submersible Pump mp I Inertial Lift Pump I Other: Tubiog/Rope: I Teflon® Polyethylene
METHOD: Bailer, Size. Peristaltic Pul	Tubing/Rope: Delyethylene
	Prepared On one
SAMPLING Eddon managed?	Color: Contains minute
APPEARANCE: See attached form f	for field parameter data.
GIELD DETERMINATION	
DUP: X No DYes Name:	
DUP: No I Yes Name: MS/MSD: No I Yes Name: I certify that this sample was collected and handled in accordance	e with applicable regulatory and project protection
I certify that this sample was collected and handled when	Date: 1/19/10
Signature: Maching the start	
Signatory	
	()*: **
N	

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

1	Details Faller (N. Ostada Ot.) Francis MOD		50000
4	Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: _	
3	Client: National Grid	Date:	9/19/18 -
1	Personnel: REH/PFP	Well ID:	MW-112
	Purge/Sample Depth:	Sample ID:	MW-112D
		22 914 1	

		Certi	ified Para	meters	90~E		1.1 PP-	w de spinster a	10 A.C
Actual Time	pН	Temp (℃)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1240	7.44	19.59	2.87	2.40	808	-61	7,55	7707	
243	7.40	19.10	2.92	1.51	"0.0"	~71	7.53	470	
1246	7.46	18,35	2.99	0.96	VO.04	-93	7,50	- +	97 1694 COV
1249	7,40	18.14	3.0	0,72	"n 0"	~ 972	7.50		
12 52	7,40	18.08	3.01	0.59	"0.0"	-93	7.44		
1255	7.40	18.04	3.02	0,59	"0.0"	-95	7,48		31/215
1258	7,40	18.06	3.02	0.55	"1000"	-97	7,45		
1301	7.40	18.05	3,02	0.52	841	-98	7.44	70	cleaned hor be
(304					$\sim w$		11000-5	15 - 1916255	diampor
1307	7.46	18.04	3.02	0.72	456	-108	7.46	5	
1310	7140	17.99	3.02	0.52	367	-102	7.45	deo -	
1313	7,39	17.99	3,02	0.50	303	-102	7.45	22	Service and the service of the servi
13 6	7,37	10.03	3.01	0.42	212	~102	7.48		unity and the second
1319	7.37	18.0	3.01		198	- 03	7.44		
1322	7137	19.03	7,00 3,00	0.49	143	-104	7.46	K:	(AS) 54 8271839
325	7,37	18.03			126	-105	7.45	12 CAN 14 2	2 A 1898
1328	7.39	18.08	2,99	0.48	112	-10 8	442	alus - Sumasof	
1331	7,43	2,00		0.49	96.7	~111	5.76		- 822
1334	7,43		2.98	0,50	77.9	-1/2	7145		
1337	7.42	1900	2,98	04Z		-112	7.46		NUSS - Variation -
1343	Calle	at a		0,45	1-1-		0180	er ci	A THE STREET, AND LADAR
1242	Cane		anpl-	M	1/- 11-	p-2	en a v	7/7	
		1.2				100.00		74. 54	
					ALC: NO REAL PROPERTY	20 300000	7	2.2 (4) (1)	100 Philes 211 - 26 - 26 04
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	25						-M Life	(a.).	-S. 405.005.01
		10 T	£	14					
			3	3 1				- 1. A.	C 1007
·			SHU		1	1.000		-	
Instrumen	f Sample: t Data:		: <i>_134⁻</i> Horiba U·		- -		Signature:		1 Ho mack
			VTBB.		7	Serial No.	Handheld:	WEPVE	08V
Ca			09/13						

Are low-flow parameters subject to field lab certification?
Yes IN (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

20180919

Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: MW - 112-D Sample I.D.: MW - 112 D. 201 80 919
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/PFP	Date: <u>9/19/18</u> Time: <u>12.40</u> Weather: <u>Schny</u> Air Temp.: <u>70°</u>
DEPTH TO : Static Water Level: <u>7.44</u> ft Bottom of M DATUM: Top of Protective Casing Stop of Well Casing CONDITION: Is Well clearly labeled? Stop of Well Casing Is Prot. Casing/Surface Mount in Good Cond.? Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost h Is Padlock Functional? Yes No XA Is Inner Casing Properly Capped and Vented?	eel >SIPVC
	2" Submersible Pump 4" Submersible Pump ump Inertial Lift Pump Other:
ATERIALS: Fump/Bailer: B Stainless Steel PVC Other: Pumping Rate: 250 mL/n.☆ Elapsed Time:0 Was well Evacuated? □ Yes A No PURGING EQUIPMENT: □ Dedicated □ Prepared O	Number of Well Volumes Removed:
SAMPLING DATA: METHOD: □ Bailer, Size: Syringe Sampler □ Peristaltic Pump	
Metals samples field filtered? 🛛 🖓 Yes 🖄 No 🛛 Meth	Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field para DUP : ⁽¹⁾	ameter data.
I certify that this sample was collected and handled in accordance with applicable Signature:	regulatory and project protocols. Date:
0	

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/19/18
Personnel: REH / PFP	Well ID: MW-1125
Purge/Sample Depth: <u>~ 9,5</u>	Sample ID: MW-1125-20180919
er og order second av av det en et en en en en et e	

	Certified Parameters								
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	13015
Time	pH II	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
			Series			2.194.10	12-11-121		
1352	7.33	20,83	3.47	1,75	937	-61	7.48	7 PM	D D
135/0	7.20	20.74	3.48	0.76	448	-64	7.48	2701	
1259	7,26	20.69	348	0.44	278	-65	7.48		1939at 10
140z	7.27	20.63	249	0.46	122	-64	7.48		
1405	7.77	20,55	349	0.43	85.7	-64	7.48		14 mar 14 mar 14 mar 14
1408	7,28	20.51	3,49	0.39	\$7.5	-63	7.48	1.1 - 2690, 24	A 15 T 100
1411	7.29	20,49	3.49	0.37	47.4	-63	7.48	and the second second	
1414	7,29	20.52	3.49	0.35	71+3	-63	7.48	15	
1417	7.28	20.40	3.49	0.35	64,5	-104	7.48	ES DEEPS .	a tak (tak)
1470	7.28	20.47	3,49	0.35	37.1	-63	7.48		
1422	7.27	20.44	3,48		25.9	-62	7.48	No.	
14 27	coller	FMU	- 1125				430	The second part of the	 – 3 1/60
124	Concer	1	123	and		<u>ea 101 27</u>	22	897 (A PERMIT
		214	1000	- 16	SERVER NO	acente din	11	191 1 1.012	 negacine or control
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		107		~	CONTRACTOR INC.		1.2°07		
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	the state					~	- 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1	1.2	
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			76 = 24			1.1.2		2. 0	8 K.
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					1.1				(31.2874) BE
Certified S Time o Instrumen	f Sample:		:	0		Analyst	Signature:	adal	Storight
		rer/Model:	Horiba I I-	52				-	
						Sorial No	Handhold	WE PLER	QL
Ca	libration D	No. Unit:	9/151	18				WEPVER	
Calibration Date/Time: 9/13/18					•				

Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: MW - 112 S Sample I.D.: MW - 112 S - 20188919
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH /PFP	Date: <u>4/14/18</u> Time: <u>1353</u> Weather: <u>Sunny</u> Air Temp.: <u>70°</u>
WELL DATA: Casing Diameter: Intake Diameter: DEPTH TO : Static Water Level: DEPTH TO : Static Water Level: DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes Yes Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost he Is Padlock Functional? Yes No VOLUME OF WATER: Standing in well:	el PVC Teflon® Open rock fell:ft Other: ell clean to bottom? Yes No Yes No Yes No Yes No Is Inner Casing Intact? Yes No Yes No
PURGE DATA: METHOD: □ Bailer, Size: □ Stailedder Pump □ Centrifugal Pump □ Peristaltic Pum □ Teflon® □ Teflon® MATERIALS: Fump/Bailer: □ Stainless Steel □ PVC □ Other: □ □ Pumping Rate: 2 Toflon% □	2" Submersible Pump
SAMPLING DATA: METHOD: Denistaltic Pump D 2" S Denistratic Pump D 2" S Denistratic Pump D Iner	rtial Lift Pump Other:
MATERIALS: Fump/Bailer:	Contains Immiscible Liquid
DUP : Image: No Image: Yes Name: Murch 1/2 S - 2018 MS/MSD : No Image: No Image: No I certify that this sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restriction of the sample was collected and handled in accordance with applicable restrested and handled in accordance with applicab	

P:\^Office\^Field_Lab\Field_Data_Sheets\Excel_Files\Low_F	low_Well_Info_Sheet_Revision_2-1_102014.xls
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If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

	NJ FIEI	L D LAB	ID# 020	23	
LOW-FLOW	GROUN	IDWATI	ER FIEL	D DATA	SHEET

Project Number: 152206

Brown AND Caldwell

Project Name: Fulton (N. Ontario St.) Former MGP

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

	Client: National Grid Personnel: REH (PFP					Date: 9/20/19 Well ID: MU - 1210				
Pume/Sam	Personnel: ple Depth:	REH ~15	<u>/ { + r</u>	10 ⁻¹	Ω 3Ω	ĕ. d	0-20180920			
r argorean	,pre bopini			(8 - C		a de		7-1-1-1		
		Certi	fied Para	meters	99. X.(?			100 B 100 B		
Actual Time	ρН	Temp (℃)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments	
0837 0840 0843 0843 0846	7.32 7.08 7.11 7.13	15,43 15,69 15,48 15,48	1.85 1.85 1.86 1.86	1.7 0.88 0.75 069	474 365 291 237	161 150 147 147	8.78 8.78 7.76 8,80	250	r K New ORD	
0849 0852 0855 0858 0958	7.15 7.16 7.10 7.17	15.68 15.68 15.69 15.69 15.69	1.87 1.97 1.87 1.87 1.87	0.65	142 111 90.3 70.5	130 130 121 123	8.79 8.79 8.78 8.80 8.80			
0907 0907 0910	7.19 7.19 Coller	15.67 15.67 15.67 15.67	1.87	0.47	61,8 53.6 10-201	111 107 80920	8.78		n enemana.	
							240 240 240		n - siel produktion n - siel produktion	
	10 4 85° - 10730	+	X	X		10. Feb	thas i Altonia		x - (2015kg) (414) - (2005 (1001) - (2005) - (2005 (1001) - (2005) - (2005)	
	<u>т</u>				\sum		den La La prestation		04 100 150 150	
			5470 1	1. <u>199</u> -198		14. 14.			alder to 10 Terribly solidar confi the	
			1.01		84.1		2		a al marcar	
Instrumen	f Sample: t Data:		: <u> </u>	.52	2	Analyst	Signature:	Auch	10 mich	
Ca	Seria alibration D	I No. Unit: Date/Time:	VTBB 9/20/1	5LZ 18				WEPVEO	-	
Are low-flow	/ parameten	s subject to	field lab ce	rtification? [🛛 Yes 🖾 No	(not require	d for CERCI	A sites or sites out	side of NJ)	

Revision 2.1: 10/20/14

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW - 1210 Sample I.D.: MW - 1210 - 2018 0 9 20
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / PFP	Date: <u>9120119</u> Time: <u>0837</u> Weather: <u>Sunny</u> Air Temp.: <u>54</u> °
WELL DATA: Casing Diameter:	Image: Second state sta
PURGE DATA: METHOD: Image: Construction of the second sec	2" Submersible Pump 4" Submersible Pump Inertial Lift Pump Other:
Image: Constraint of the second state of the second st	
SAMPLING DATA: METHOD:	ubmersible Pump □ 4" Submersible Pump ial Lift Pump _□ Other:
MATERIALS: Ump/Bailer:	I: Contains Immiscible Liquid neter data.
Signature: A ACCU OFO UDGA	Date. <u>(/20/1/0</u>

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Brown AND Caldwel	Br	'OWI	AND	Ca	ld	vel	l
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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 238-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/20/18
Personnel: REH (PSP	Well ID: MW-1215
Purge/Sample Depth: ~10,5	Sample ID: MW - 1215-20180920
(a) Construction of Second Se Second Second Seco	

	14	Cert	ified Para	neters	- 14 - 10	Comes Siles			
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
9927	7.27	6.30	1,34	2.77	219	107	8.42		
0930	7,05	16.80	1.36	1.39	218	10	8.68	270	15
8933	7.08	16.96	1,35	1.24	188	107	8.73	anti di ser	5 O 185
0936	7.12	17.05	1.39	0.99	147	103	8:76		
0939	7.12	17.06	1.40	0.89	139	103	8.80	a	11311343194313
0942	7.14	11.08	1.44	0.74	126	100	8.76		30 dto 100
0945	7.14	17.09	1.46	0.67	126	99	8.79		
0948	2.14	17.08	1.49	0.62	129	98	8.74		с;
0951	1.15	17,10	1.50	0.58	125	96	8,75	NN 19798000 -	
0954	7.12	[]/.{(1.1	0.55	121	95	8,77	0 0 0	
0957	7119	14.11	1.52	0.52	115		8.74	- 5.4 - 1	- H29
	416	17.10	1:52	0.51	115	97 91	8,76		
1003	7.16	17.10	1,53	0.50	110	90	8.80		1111 23WH-1
1009	7.15	17.14	1.54	0.49	110	89	8.77		17. 19.14
1012	715	17.15	1.54	0.48	110	29	8.79	- V	10 5 005
1015	Colle				-20150		011		
	Cont4	RA	Mary -	W 12	- 49100	100		KORC 21 TORS 2	~
	carrill	8 0		3521				Lever mar Se	in No. 5 white
				46258			with the	625	
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95. 1		1. K	t ^{er} lin.			- 16- N	n 10 ¹⁷ - 328		546161 DA
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		- 39 - 39	···)		1930			S
			100	5.0		05-866			
			2 <u>2</u>	a - No 9	6.530		- * ×		
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Instrumen	f Sample: t Data:		1015			Analyst	Signature	Goold	to neets
34 1	Seria	I No. Unit:	Horiba U- V T B B S 4 / 20 /	5-676		Serial No.	Handheld:	WEPVEDS	3V

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW - 1215 Sample I.D.: MW - 1215 - 20180920
Project: Fulton (N. Ontario St.) Former MGP Personnel: REM (IF1	Date: $\frac{9/20118}{5000}$ Time: 0927 Weather: 5000 4 Air Temp.: 54
DEPTH TO: Static Water Level: 8.51 ft Bottom of We DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes 24No is we Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? 2 Is Concrete Pad Intact? (not cracked or frost hea Is Padlock Functional? Yes No 74NA Is Inner Casing Properly Capped and Vented? 2	VC Teflon® Other:
PURGE DATA:	
METHOD. D Bailer, Size: ZifBladder Pump C	2" Submersible Pump
	Tobing/Rope: Teflon® Polyethylene Polypropylene Other: Other: mber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump Q 4" Submersible Pump
MATERIALS: HURA/Bailer: C Teflon® Z Stainless Steel SAMPLING EQUIPMENT: C Dedicated C Prepared O Metals samples field filtered? C Yes & No Method	Typing/Rope:
	Contains Immiscible Liquid
DUP: 25 No	
I certify that this sample was collected and handled in accordance with applicable reg	pulatory and project protocols.
	·

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	oject Name: Fulton (N. Ontario St.) Former MGP Client: National Grid Personnel: <u>REH / PFP</u> nple Depth: <u>~13</u>					Former MGP Project Number: 152206 Date: 9/20//8 Well ID: 4W - 1105 Sample ID: MU - 105				
Astual			ified Para		Truchtelter	080	DTW	Dura	-ine Deta	M141 D - C
Actual Time	pH ³⁶	Temp (ºC)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)		ping Rate nL/min)	Comments
047	6.46	17.37	6.99	10.08	258	-2	9.28	Z	60	
m70	6.01	17.43	6,69	1,90	201	~25	9,43	A pri	(4.11 Ba	
253	6.70	17.65	7,03	0.91	172	-20	9.45	- 44	16 -	- 3
056	6.7(17.81	7.08	0.47	300	- 14	9.88			
1059	6.70	17.81	7.10	0.35	425	-13	9,88			- 1 1× 342
102	6.71	17.77	713	0,22	530	-14	9.90			CE ET ES
1105	6.71	17.27	1:13	0.17	527	-15	990			
1108	6.72	17.71	7.06	0.00	437	-12	9.91	č.		
LUN	6,72	17.69	7.02	0100	417	-17	9.92	\sim	2112052	1.56
114	6173	17.69		0,00	280	-19	9.93	Sec.		
ITTY -	677	17.67	6.89	0.00	174	-70	995	8 G.	,	
1120	677.	1.67	6.53	B.00	162	-70	9,99	- 11		

	6173	17.69	6,95	0,00	280	-19	9.95	2005	
1117	6.72	17.67	6.89	0.00	174	-zo	995		3.
1120	6.72	1167	6.55	6,00	163	-20	9,99		0
1123	5172	17.65	6.81	0.00	133	-20	9.99		-2 ⁸² (45) =(1)=
1126	6171	17.64	6183	000	128	-20	9.99	14	
1129	6,73	17,65	6.82	6,00	107	-20	9.99		19 X X 1
1132	6,72	17,66	6181	0.00	BS B	-20	9.99		WHEAT AND
1135	6173	17,69	6.00	0,00	84.2	-20	0.00	- V/	
11 38	6,72	17,72	6.79	0.00	\$2.7	-20	0.00	V	
1141	Co	lect	MW-11	05-20	180920	<u> </u>	3.8941	l= = == == == == == == == == == == == ==	\otimes
						297.160	Sold matter	N	
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	 		52.000						$ \psi_{3}\psi_{3} = = \psi_{1} \psi_{1} $
Time o	Certified Sample Information: Time of Sample:					Analyst	Signature:	back	Copinark;
	Manufacturer/Model: Horiba U-52 Serial No. Unit: <u>Wらwらのルレ Ø</u> Calibration Date/Time: <u>9/20/(3</u>)					Serial No. Handheld: <u>PLF909B</u>			

Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Off	Well Number: $\mathcal{M}\mathcal{W} \sim \{(O \} \}$ fice Sample I.D.: $\mathcal{M}\mathcal{W} \sim \{(O \} - 20) \{(0,0,0,1)\}$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH (PFP	Date: <u>9/20/19</u> Time: <u>1047</u> Weather: <u>Sunny</u> Air Temp.: <u>C0</u>
Intake Diameter: <u>2</u> " Stainless Steel Galv. DEPTH TO : Static Water Level: <u>116</u> ft Bottom DATUM: Dop of Protective Casing Top of Well Ca CONDITION: Is Well clearly labeled? DYs DANo Is Prot. Casing/Surface Mount in Good Con Does Weep Hole adequately drain well hea Is Concrete Pad Intact? (not cracked or fro	Is well clean to bottom?
	mp
Centrifugal Pump D Peristalti	c Pump Inertial Lift Pump Other:
□ Teffon® MATERIALS: Implementation □ PVC □ Other: □ Other: □ Other: Pumping Rate: 200 mL/47 Elapsed Time: 21 Was well Evacuated? □ Yes PURGING EQUIPMENT: □ Dedicated □	Number of Well Volumes Removed:
SAMPLING DATA: METHOD:	2" Submersible Pump
	Tubing/Rope: Teflon® Polyethylene ared Off-Site STField Cleaned lethod:
APPEARANCE: 🛛 🗹 Clear 🛛 Turbid 🖵 Color:	Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field DUP : Image: Compare: Compare	
I certify that this sample was collected and handled in accordance with applic Signature:	able regulatory and project protocols. Date: $\frac{9/20/18}{20}$

P:\^Office\^Field_Lab\Field_Data	_Sheets\Excel_Files\Low	Flow_Well_Info_Sheet	_Revision_2-1_102014.x
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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Date: 9/20/(8

	Personnel:	REH /	PFP		Well ID: MW-101				
Purge/Sam				1.12.2		Sample ID:	MW-101-	2980920	
					"test (the		1.9.1	1.	но Экотор и стал
		Certi	fied Parar	neters		- 12 10 10	··· =!!!		L
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	830 - SEL
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
	·	. ,		0.00		34144			
1250	6.86	19,23	5,21	12,44	10001	-139	14.93	1-0	
1253	6.95	18,29	5.16	1.75	"0.0"	-157	14.96	150	
1256	7,03	17.90	5,20	0.83	"0.0"	-162	14,98	Maret 193	to the off theat Month
1259	7.08	17.75	5.29	0.12	657	-171	1501	920 - 990	
1302	7.13	17.70	5.73	0.00	262	-176	15,04		图 网络 《复水海》
1305	7.16	17.74	5.34	0.00	169	-178	1503		A 10 1 A 202 .
1308	7.18	17.70	5.34	000	103	- 90	15,03		
1311	7.18	17-62	5 34	000 00.00	75,5	- 180	15.01		1111111111111111
13 4	7.19	17.74	5,50	0.00	71,9,	-100	(5.03		i And Att
1317	7.17	17.62	5,29	0.00	544	-178	15.02	¥/	
1320	7.7	17.61	5,27		67.7	-177	15.02	V	0.0000000000000000000000000000000000000
1323	Colle	1 20	uply -	VW-1	01-201	0105 4	0		and the second second
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\rightarrow		1258		1,093	- 070.0200	D949/11 11 11			EST MEETING CO
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				100		nas Africana	8		NULL THE PARTY OF
Instrumen N	f Sample: <b>t Data:</b> Manufactu Seria	rer/Model:	(72) Horiba U- WEW(	-52	Ø			PLF909	By nack
Ca	libration E	Date/Time:	9/20(						

Are low-flow parameters subject to field lab certification? 🗆 Yes 🗵 No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

**Brown AND Caldwell** 2 Park Way, Upper Saddle River, NJ 07458

**Client: National Grid** 

Project Name: Fulton (N. Ontario St.) Former MGP

Phone: (201) 574-4700 Fax: (201) 236-1607

Upper Saddle River, NJ Office       Sample 1.D.: Mij ~ (bl > 20 (##more than we inc)         Project: Fulton (N, Ontario St); Former MGP       Date: 1/20/15       Time: 12-70         Personnel:       Ref 1/20/15       Time: 12-70         Weither:	Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Project: Fulton (N, Ontario St.) Former MGP       Date: 1/201/5       Time: 12:5         Personnet: R (M, P, F)       Weather: 2010, 2020, Air Temp: 70°         WELL DATA:       Stainless Steel (Steel PVC ) Teflon® 0 Other:         Intake Diameter: 2.       Istainless Steel (Steel PVC ) Teflon® 0 Other:         Intake Diameter: 2.       Istainless Steel (Steel PVC ) Teflon® 0 Open rock         DEFTH TO: Static Valer Level: 11:21 ft ft Bottom of Well: ft       Top of Protective Casing I Top of Well Casing 0 Other:         CONDITION: Is Well clearly labeled?       I'Yes I No       No         Des Weep Hole adequately drain well head?, Yes No       Is concrete Pad Intact? (not cracked or frost heaved) B'Yes No         Is Padlock Functional?       Yes I No, Al NA       Is Inner Casing Intact?       Yes I No         Is Padlock Functional?       Yes I No, Al NA       Is Inner Casing Intact?       Yes I No         Is Padlock Functional?       Yes I No, Al NA       Is Inner Casing Intact?       Yes I No         Is Inner Casing Properly Capped and Vented? EYes No       Ino       Is inner Casing Properly Capped Intect?       Yes I No         PURGE DATA:       Is aller, Size: 2.       Teflon®       Intertial Lift Pump I Other:       Polypropylene         MatterNALS:       Pumping Rate: 1.       Teflon®       Intertial Lift Pump I Other:       Other:       Polypropylene	Caldwell Upper Saddle River	
Casing Diameter:		Date: 1/201/8 Time: 1250
PURGE DATA: METHOD:       Bailer, Size:	Casing Diameter: Latake Diameter: 2. 4 DEPTH TO : Static Water Level: DATUM: Top of Protective Casing Top of CONDITION: Is Well clearly labeled? Stainless Steel DATUM: Top of Protective Casing Top of CONDITION: Is Well clearly labeled? Stainless Steel Top of Conditional Stainless Steel Stainless Steel	□ Galv. Steel □ PVC □ Teflon® □ Open rock Bottom of Well:ft Well Casing □ Other: □ No Is well clean to bottom? □ Yes □ No ood Cond.? (not bent or corroded) ☑ Yes □ No well head? ☑ Yes □ No ed or frost heaved) ☑ Yes □ No No ∠S NA Is Inner Casing Intact? □ Yes □ No nd Vented? ☑ Yes □ No
METHOD:       Baller, Size:       Teflon®       Image: Terlon®       Terlon®         MATERIALS:       Pump/Bailer:       Teflon®       Image: Terlon®       Terlon®         MATERIALS:       Pump/Bailer:       Teflon®       Image: Terlon®       Image: Terlon®         Pumping Rate:       Terlon®       Image: Terlon®       Image: Terlon®       Image: Terlon®         Pumping Rate:       Terlon®       Image: Terlon®       Image: Terlon®       Image: Terlon®         Pumping Rate:       Terlon®       Image: Terlon®       Image: Terlon®       Image: Terlon®         Pumping Rate:       Terlon®       Image: Terlon®       Image: Terlon®       Image: Terlon®         Pumping Rate:       Terlon®       Image: Terlon®       Image: Terlon®       Image: Terlon®         PURGING EQUIPMENT:       Dedicated       Prepared Off-Site       Field Cleaned         SAMPLING EQUIPMENT:       Dedicated       Prepared Off-Site       Terlon®         Image: Stainless Steel       Image: Terlon®       Image: Terlon®       Image: Terlon®         SAMPLING EQUIPMENT:       Dedicated       Prepared Off-Site       Field Cleaned         MATERIALS:       Terlon®       Image: Terlon®       Image: Terlon®         SAMPLING EQUIPMENT:       Dedicated       Prepare	VOLUME OF WATER: Standing in well:	To be purged:
MATERIALS:       Putrol/Bailer:       Stainless Steel       Tubing/Rope:       Polyethylene         PVC       Other:       Other:       Other:       Other:       Other:         Pumping Rate:       Image: Project in the stain of the sta	Bailer, Size: 🔀 Bla	dder Pump 🔲 2" Submersible Pump 🗔 4" Submersible Pump Peristaltic Pump 🔲 Inertial Lift Pump 🖵 Other:
METHOD:       Bailer, Size:       ABladder Pump       2" Submersible Pump       4" Submersible Pump         MATERIALS:       Pump/Bailer:       Teflon®       Tubing/Rope:       Teflon®         MATERIALS:       Pump/Bailer:       Teflon®       Tubing/Rope:       Teflon®         SAMPLING EQUIPMENT:       Dedicated       Prepared Off-Site       Field Cleaned         Metals samples field filtered?       Yes       No       Method:         APPEARANCE:       AClear       Turbid       Color:       Color:         DUP:       No       Yes       Name:       Mammeter data.         DUP:       No       Yes       Name:       Mammeter data.         Icertify that this sample was collected and handled in accordance with applicable regulatory and project protocols.       Material Action	MATERIALS: Pump/Bailer: Stainless Ste PVC Other: Pumping Rate: <u>190m(4,7</u> Elapsed Time: Was well Evacuated? Stainless Ste	el Tubing Rope: A Polyethylene D Polypropylene Other: <u>30 min</u> Volume Pumped: <u>1.50</u> Number of Well Volumes Removed:
SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned Metals samples field filtered? Yes No Method: APPEARANCE: Clear Turbid Color: Contains Immiscible Liquid FIELD DETERMINATIONS: See attached form for field parameter data. DUP: No Yes Name: No Yes Name: I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.	METHOD: 🛛 Bailer, Size: 🔛 🔏 Bladder P	ump
Metals samples field filtered?       Yes       No       Method:         APPEARANCE:       Ø       Clear       Turbid       Color:       Contains Immiscible Liquid         FIELD DETERMINATIONS:       See attached form for field parameter data.         DUP:       No       Yes       Name:         MS/MSD:       No       Yes       Name:         I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.       Ø	Stainless Stee	Polyethylene
FIELD DETERMINATIONS:       See attached form for field parameter data.         DUP :       No       Yes       Name:         MS/MSD :       No       Yes       Name:         I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.       If the set of the	Metals samples field filtered?	No Method:
MS/MSD: A No Yes Name:		
Contractor and		
Signature: Cachil Ho watch Date: 9/20/18	I certify that this sample was collected and handled in accordance	with applicable regulatory and project protocols.
	Signature: Cachy to wack	Date: <u>7/20/18</u>

P:\^Office\^Field_Lab\Field_Da	ta Sheets\Excel Files\Low	Flow Well Info She	et Revision 2-1 102014.xls

# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Client: National Grid Personnel: <u>REN /PFP</u> Purge/Sample Depth: <u>19</u>							Date: <u>1/20/18</u> Well ID: <u>MW - 10 2</u> Sample ID: <u>MW - 10 2 - 201809 20</u>				
Actual			fied Para Cond	meters DO	ORP	DTW	Rumping Rate	101100			
Time	pН	Temp (°C)	(mS/cm)	( mg/L )	Turbidity (NTU)	(mV)	(ft)	Pumping Rate (mL/min)	Comments		
347	6.48	17.90	2.74	5.45	"0.0"	-37	12,00	15-			
350	4.40	16.47	2.62	140	726	-35	12,13	147			
332	9.31	12 99	2,30	0.29	276	-29	12,24	(19) 2 (1)	191 - 2. APPAQ		
359	6.31	14.91	198	0.00	45,0	-31	12.47		CAN PARAT		
402	6.30	14.79	2,03	0.00	57.6	-32	12.53		SOH 7.M		
405	6.29	19,68	2,23	0.00	52.3	-29	12,60				
419	6.29	14.57	2,29	0.00	33,0	~40	12.47		5 STAND 105		
414	6.29	14.52	2.3%	0,00	27.1	-43	12.70				
417	10,30	14.46	2,41	0.00	21.3	-45	12.74	V			
420	Colle	x sa	ghe.	MW-	102-76	18092	2 CUE				
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Time o strumen	f Sample: t Data:	formation	14-	V				Pachel	• )		
	Seria	l No. Unit: Date/Time:	WEW	B OVL	0	Serial No.	Handheld:	PLF9091	3		

Are low-flow parameters subject to field lab certification? 
Yes Ø No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell 2 Park Way, Upper Saddle River, NJ 07458

Project Name: Fulton (N. Ontario St.) Former MGP

Phone: (201) 574-4700 Fax: (201) 238-1607

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BrownAND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $\mathcal{M}\mathcal{W} - \mathcal{IOZ}$ Sample I.D.: $\mathcal{M}\mathcal{W} - \mathcal{IOZ} - \mathcal{D}$ (Second from well no.)
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH (PPP	Date: <u>1/20//8</u> Time: <u>1347</u> Weather: <u>uovdy</u> Air Temp.: 70
DEPTH TO : Static Water Level: 11,86 ft Bottom of W DATUM: Top of Protective Casing Conditional Top of Well Casing CONDITION: Is Well clearly labeled? Yes No Is we Is Prot. Casing/Surface Mount in Good Cond.? ( Does Weep Hole adequately drain well head? Conditional Interference Pad Interference	I SEPVC Teflon® Dopen rock ell:ft Dother: I clean to bottom? Yes No not bent or corroded) SE Yes No Yes No aved) Se No Is Inner Casing Intact? Yes No Yes No
VOLUME OF WATER: Standing in well:	To be purged:
PURGE DATA:         METHOD:         Centrifugal Pump         Peristaltic Pump	2" Submersible Pump     4" Submersible Pump     np     Inertial Lift Pump     Other:
MATERIALS: Fump/Bailer: Pumping Rate: (75 m (/m)) Was well Evacuated? Pumping EquipMENT: Dedicated Ptefon® Stainless Steel PVC C Other: No No Prepared Off-	umber of Well Volumes Removed:
SAMPLING DATA:         METHOD:       □         Bailer, Size:          Syringe Sampler       □	ubmersible Pump
MATERIALS: Pump/Bailer: D Teflon® SampLing EQUIPMENT: D Dedicated D Prepared ( Metals samples field filtered? D Yes (No Method APPEARANCE: Clear D Turbid D Color:	d: Contains Immiscible Liquid
FIELD DETERMINATIONS:       See attached form for field parameter         DUP :       Image: Compared to the second	
I certify that this sample was collected and handled in accordance with applicable re Signature:	agulatory and project protocols. Date:

(III)					_
Brown		Cal	م د الم	- All	
<b>⊨1</b> €●17774€1	AND	Lid		Vell.	- é

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 238-1607

# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Client: Personnel:	111 802100	arid /PPP		er MGP		ct Number: Date: Well ID: Sample ID:	9/20 MW-	102	D D-20180920
			fied Parar				17 - 19 Million -	and Britter		Contraction for the
Actual Tim <del>e</del>	pН	Temp (ºC)	Cond (mS/cm)	DO (mg/L) {(.45	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping (mL/mi		Comments
1435	6.90	16.70	2.75		316	-84	12.74	120	1.5	
1438	6.95	1509	3.93	2,39	387	- 107	12.74		7 1	
1441	7,00	14.57	3,39	0.20	395	-16	12.74	Zano Si		Shiright and H
1444	7.07	14.36	3.46	0.15	334	~ 20	12.74		- 21	
1447	7.06	14.27	3,49	000	207	-124	12.72			Adding States
19 70	7.05	14,29	3.49	0.00	139	-125	12,15	A 444 4		10.00
1466	766	14,17	3,49	0.00	70,2	-126	1272		+	
1454	7.06	14.15	3,49	0.00	353	-126	12.73		Contract 1	ALL THE REAL
1502	706	14 07	3.49	0.00	27.7	-127	2.72	$\mathbb{N}$		
1505	7.06	14.07	3.50	0.00	21.7	-128	12.72	V		
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Instrumen N	f Sample: <b>t Data:</b> /lanufactu Seria	rer/Model: I No. Unit:	1,50 Horiba U- WE W	BØVL	-Ø	Analyst	Signature: Handheld:		09 B	Hower 3
Ca	libration E	)ate/Time:	9/2010	<8	/			3	7	

Are low-flow parameters subject to field lab certification? 
Yes X No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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<b>Caldwell</b> Upper Saddle River, NJ Office Well Number: $\mathcal{M}\mathcal{W} - [\mathcal{O}\mathcal{D}\mathcal{D}]$ Sample I.D.: $\mathcal{M}\mathcal{W} - [\mathcal{O}\mathcal{D}\mathcal{D}\mathcal{D}]$	
Project: Fulton (N. Ontario St.) Former MGP       Date: <a href="mailto:self">20/1/8</a> , Time: <a href="mailto:self">1/3 5</a> Personnel:       REM / 1 FT       Weather: <a href="mailto:self">Cloud S</a>	<u>, e</u>
WELL DATA:         Casing Diameter:       9'         Intake Diameter:       2''         Stainless Steel       Galv. Steel         Galv. Steel       9VC         Top of Protective Casing       Galv. Steel         ONDITION:       Is Well clearly labeled?         Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded)       Yes         No       Is Concrete Pad Intact? (not cracked or frost heaved)         Is Padlock Functional?       Yes         No       Is Inner Casing Properly Capped and Vented?	
VOLUME OF WATER: Standing in well: To be purged:	
PURGE DATA:         METHOD:         Image: Constraining and Pump         Image: Constraining and Pump	×.
MATERIALS: Ump/Bailer: Teflon® Tubing/Rope: Delyethylene PVC Delyethylene Other:	
Pumping Rate: <u>125 mU/m</u> 4 Elapsed Time: <u>20mm</u> Volume Pumped: <u>125 G</u> Was well Evacuated?	
SAMPLING DATA: METHOD:	
MATERIALS: Fump/Bailer: Teflon® Tubrig/Rope: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned Metals samples field filtered? I Yes To No Method:	
APPEARANCE: Glear Clear Turbid Cloor: Clear Contains Immiscible Liquid FIELD DETERMINATIONS: See attached form for field parameter data.	
DUP: DNO SKYES Name: DUP 201809 20 MS/MSD: DX No DYES Name:	
I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols. Signature:	

	IN AND Ca	aldwel	le costa						Address Contraction (1995)
	oper Saddle Riv 74-4700 Fax: (2		LOW-F			ID# 02023 ER FIELD (		ET	an an San San Ing wala Ng Dia
122.1	ject Name: Client: Personnel: nple Depth:	National C	Grid		er MGP			9121118 MW-103	- 2018992
Actual Time	рН	Certi Temp (°C)	fled Parar Cond (mS/cm)	neters DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
0928 0931 0937 0937 0937 0947 0947 0947 0955 0955 0955 0955 0955 0955 0955 095	4.20 4.71 4.75 4.75 4.75 4.75 4.75 4.75 4.75 4.75	17.45 15.15 19.99 19.99 19.69 19.65 19.87 19.87 19.87 19.87 19.87 19.95 19.95 19.95 19.95 19.95 19.95 19.95 15.07 15.07 15.03 15.03	1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,	747 747 747 747 747 747 747 747 747 747	153 133 214 144 133 136 138 12 104 12 104 14 104 14 104 14 107 106 93.7 99.1 93.7 99.1	-42 -51 -52 -67 -74 -74 -74 -792 -977 -100 -100 -108 0(809) -108 0(809)	14.72 14.74 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75 14.75		
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BrownAND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $\mathcal{M}\mathcal{W} = 103$ Sample I.D.: $\mathcal{M}\mathcal{W} = 103 = 20(8092)$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REHCIFP	Date:         9/21/18         Time:         0928           Weather:         SOMA         Air Temp.:         75
DEPTH TO: Static Water Level: <u>19, 03</u> ft Bottom of W DATUM: Dop of Protective Casing Broop of Well Casing CONDITION: Is Well clearly labeled? Yes Of No Is we Is Prot. Casing/Surface Mount in Good Cond.? ( Does Weep Hole adequately drain well head? & Is Concrete Pad Intact? (not cracked or frost-head Is Padlock Functional? Yes No 10 NA Is Inner Casing Properly Capped and Vented?	I DEPVC I Teflon® I Open rock ell:ft I Other: ell clean to bottom? I Yes I No not bent or corroded)>B Yes I No Yes I No aved) Z Yes I No Is Inner Casing Intact? I Yes I No
VOLUME OF WATER: Standing in well:	To be purged:
PURGE DATA:         METHOD:         Centrifugal Pump         Peristaltic Pump	2" Submersible Pump      4" Submersible Pump     Inertial Lift Pump      Other:
MATERIALS: Purp/Bailer: Stainless Steel PVC	Tubing/Rope: DC Polyethylene DC Polypropylene DC Polypropylene DC Polypropylene
Pumping Rate: 150 ml/m. Elapsed Time: 195	_ Volume Pumped: <u>Z v2 (n</u> umber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: Rump/Bailer: D Teflon® VAL Stainless Steel SAMPLING EQUIPMENT: D Dedicated D Prepared (	Tubirg/Rope:
Metals samples field filtered?	d: Contains Immiscible Liquid
DUP : D No D Yes Name: MS/MSD : No D Yes Name:	
I certify that this sample was collected and randled in accordance with applicable re Signature:	Date: 9/21/18

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 1/24//18
Personnel: REN / PFP	Well ID: MW - 1030
Purge/Sample Depth: 23	Sample ID: <u>MW-103D-70180924</u>

		Cert	ified Para	neters	1.00	X = (X = 240)	H M P	A 110	U
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1257	630	15.99	2.17	233	191	-63	14.85	750	
1203	6.88	13:48	2.43	0.19	193		14.86	2	
1209	6 90	13.17	246	0.00	78.2	-140	14.85		2.00% = 2.00%
1212	629	3.00	2.47	0.00	439	142	14 87		U ALLER ALLER ALLER
1318	6.89	12,97	2.49	000	73.1	144	4.85		
1324	6.88	12.96	2.49	0.00	17.9	-145	14.86		
1327	10.87 Colle	12.91	2,49	000 MW	12,5	20 (804	14.86	V	· · · · · · · · · · · · · · · · · · ·
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Certified S Time o Instrumen	f Sample:		: [ ⁷ ]	30		Analyst	Signature:	Jacht	Spinack.
ł	Aanufactu Seria	I No. Unit:	Horiba U- $\frac{WEW}{9/2}$	BOVI	<u>~0</u>	Serial No. I	Handheld:	PLF90	9 B
U a				410		-			

Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: MW-L03D Sample I.D.: MW-103D-20190924
Project: Fulton (N. Ontario St.) Former MGP Personnel: 吊白行 ノイテイ	Date: <u>9/24/18</u> Time: <u>1257</u> Weather: <u>Sunny</u> Air Temp.: <u>45</u>
DEPTH TO: Static Water Level: <u>14,79</u> ft Bottom of We DATUM: Dop of Protective Casing Dop of Well Casing CONDITION: Is Well clearly labeled? Deves No Is we Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost hea Is Padlock Functional? Yes No / NA Is Inner Casing Properly Capped and Vented?	Image: Second state sta
VOLUME OF WATER:       Standing in well:         PURGE DATA:       Relation Simulation	To be purged:
Centrifugal Pump Deristaltic Pum	
	Tubing Rope:       Teflon®         Tubing Rope:       Polyethylene         Polypropylene       Other:         Other:       Other:         Imber of Well Volumes Removed:       Imber of Well Volumes Removed:         Site       Field Cleaned
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: Fum /Bailer:	I: Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field param DUP : TO No Pes Name: MS/MSD D. No Pes Name: I certify that this sample was collected and handled in accordance with applicable re-	
Signature: Japon to Maria	Date: <u>9/24/18</u>

Bro	Cal	dwe	all

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/24/18
Personnel: REM / YFP	Well ID: 1/W~ 1095
Purge/Sample Depth: 13	Sample ID: MU - 1093 20180924

	Certified Parameters					25. N. N.	0.8.39655		
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1352 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355 1355	6.987 6.988 6.988 6.988 7.088 7.07 7.0 8 7.0 8 8 7.0 8 8 7.0 8 8 7.0 8 8 7.0 8 8 7.0 8 8 7.0 8 8 7.0 8 8 7.0 8 8 7.0 8 8 8 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9			000	328 173 90.1 44.4 36.1 26.9 23.1 23.1 23.1 23.1 12.2 15.1 15.1 15.1	132 1-37 2-37 2-37 2-37 2-37 2-37 2-37 2-37 2	8,27 8,26 9,28 9,28 8,28 8,28 8,28 8,28 8,28 8,28	200	21 - 22 (201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201 - 201
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Instrumen N	f Sample: <b>t Data:</b> /anufactu Seria	rer/Model:	<u>) 4 2</u> Horiba U- W EW	52 Cg Q√L	-0		Signature: Handheld:	PLE 909	B

BrownAND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW - 109S$ Sample I.D.: $MW - 109S - \frac{(rdifferent from well no.)}{20180924}$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH(PFP	Date: <u>9/24/18</u> Time: <u>352</u> Weather: <u>SUNN</u> Air Temp.: <u>45</u>
DEPTH TO : Static Water Level: DATUM: Top of Protective Casing CONDITION: Is Well clearly labeled? Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost head Is Padlock Functional? Second Property Capped and Vented?	OXEVC       Teflon®       Open rock         II:ft       Other:         II clean to bottom?       Yes       No         not bent or corroded)       Yes       No         Is Inner Casing Intact?       Yes       No
PURGE DATA:         METHOD:         Image: Construction of the second sec	2" Submersible Pump      4" Submersible Pump     Inertial Lift Pump      Other:
	Tribing/Rope:       Teflon®         Polyethylene       Polypropylene         Volume Pumped:       2.5         Imber of Well Volumes Removed:
SAMPLING DATA: METHOD:	
MATERIALS: Furp/Bailer:	
APPEARANCE: Clear D Turbid D Color:	Contains Immiscible Liquid
DUP:       No       Yes       Name:         MS/MSD:       No       Yes       Name:         I certify that this sample was collected and handled in accordance with applicable re         Signature:       I certify that this sample was collected and handled in accordance with applicable re	
Orginature. Wry, Vry Wy XVLou 4	

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Brown	AND	Cal	dv	<i>i</i> el
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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/24/18
Personnel: REM/PEP	Well ID: MW-110D
Purge/Sample Depth: ~ 2_0	Sample ID: MU - 1/00 - 20120924
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		Cert	fied Para	meters	trone an		AV DUD		
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
ापपप	7.08	21.05	2.30	3.17	188	-115	9.46	100	· · · · · · · · · · · · · · · · · · ·
1447	7.01	619.68	3.12	0 85	160	-122	948	150	
1450	7.03	18,99	3,43	0.25	150	-127	948		
453	7.05	18,57	3 52	0.03	144	-130	9.48		
1456	7.05	18.78	3.56	0.00	137	132	9.48	_	A STATE OF STATES
1459	7.06	18.00	3,57	000	130	-132	9.48		Kight (j. 1
DOL	1.07	17.07	3.51	6.00	122	-133	9.48		
283	1,01	1114	3.57	0.00	117	-133	948	No. In Composition	The second second
500	706	1 4/04	3.57	0.00	112	127	9.49	Contraction of the second s	CONTRACTOR CONTRACTOR
1514	5.05	17.03		0.00	106	32	9.48	1	
1517	7.05	17.36	3.58	000	105	-132	948	NS 5 5 1	PERCEPTION PROPERTY
1520	7.05	17.28	5 78	0.00	105	- 82	9.48	100 m	1 - 2N N.Y
1523	7.05	12.22	3,59	0,00	985	-132	9.48	N/	10-14 - 11-2
1526	7:05	17.12	3.59	0.00	96.5	-132	9.48	1/	1 20 1 1 80
1529	7.05	17.01	3,60	0.00	1513	-132	1.48	V	morterate
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l ime c nstrumen	f Sample:		15	52		Analyst	Signature	Allin	
		ror/Model·	Horiba U-	52				189	1
ſ			WEWR		<u>Y</u>	Serial No	Handheld	PLF909	) R
Ca	libration F	)ate/Time:	1/24	py - y	<u> </u>			FED	
			<u></u>	10		-			

Are low-flow parameters subject to field lab certification? 🗆 Yes 🛛 No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW - 1100$ Sample I.D.: $MW - 1100 - 20$ (# different from well no.)
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / CFP	Date: <u>4/24/18</u> Time: <u>1444</u> Weather: <u>5000</u> Air Temp.: <u>65</u>
DEPTH TO: Static Water Level: <u>4,435</u> ft Bottom of We DATUM: Dop of Protective Casing ScTop of Well Casing CONDITION: Is Well clearly labeled? Ves 2000 Is we Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? D Is Concrete Pad Intact? (not cracked or frost hea Is Padlock Functional? Yes No 2000 Is Inner Casing Property Capped and Vented? 2000	Image: Second state st
VOLUME OF WATER: Standing in well:	To be purged:
	□ 2" Submersible Pump □ 4" Submersible Pump □ Inertial Lift Pump □ Other:
MATERIALS: Fump/Bailer: C Stainless Steel PVC O Other:	Tu <b>bing</b> /Rope: Dolyethylene Dolypropylene Dolypropylene Dolypropylene
Pumping Rate: 150m4 high Elapsed Time: 45 high	Volume Pumped: 2254 mber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: Comp/Bailer: D Teflon® Stainless Steel	Tubing/Rope: D Teflon® Polyethylene
SAMPLING EQUIPMENT: D'Dedicated Derepared C Metals samples field filtered? Device Ves QC No Method	
APPEARANCE:  Q Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field param	
DUP : XC No I Yes Name: MS/MSD : XK No I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re-	gulatory and project protocols.
Signature: wach de nach	Date: 9/24/18
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Brow	IN AND C	aldwei			n fo				N. Y. S. Y. C. M. SHEW
2 Park Way, Up Phone: (201) 57			LOW-F			ID# 02023 ER FIELD			
	Client: Personnel:	Fulton (N. National ( RSH 12		St.) Forme	er MGP	Proje	ect Number: Date: Well ID: Sample ID:	1/24/18 MW-1115	20100924
					(mee) 12-13	n	* <u>83</u> .0	Cheve - Ministry II	022 OF 1 - 1
Actual Time	рН	Certi Temp (°C)	fled Parar Cond (mS/cm)	neters DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1551	6.92 6.96 7.00	19.41 19.14 19.14	1,70	18.94	157	-49 -19 -74	7.52 7.53 7.56	150	2 1 1
1600	7.04 7.02 7.02	18,99	1.67 1.67 1.107	0.00	154	-67 -67 -69	7,55		Pelices IAC IS
$\frac{1609}{1612}$	7.02 7.00 7.00	19.00	1.68	000 000 000 000 000	157 139	-72.	7.58 7.57 7.55		10 1940 - 18 - 18 -
1621	7.02	18,93	1.70	0.00 0.00 MW	96.7 90.4 68.3	-80 -82 -83 20180	7.55		and and a second a
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Instrumen N	f Sample: t Data: Manufactu Seria		Horiba U-	BOVLO	90			Rechter	B B

Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW - 111S$ Sample I.D.: $MW - 111S - 20180924$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REAPFP	Date: <u>9/24//8</u> Time: <u>1557</u> Weather: <u>Sunny</u> Air Temp.: <u>65</u>
Intake Diameter: <u>7.4</u> Stainless Steel Galv. Stee DEPTH TO : Static Water Level: <u>7.4</u> ft Bottom of We DATUM: Top of Protective Casing Conditions CONDITION: Is Well clearly labeled? Yes Conditions Is Prot. Casing/Surface Mount in Good Cond.? ( Does Weep Hole adequately drain well head? Is Is Concrete Pad Intact? (not cracked or frost head Is Padlock Functional? Yes No X NA	PVC □ Teflon® □ Other: □ Q4.PVC □ Teflon® □ Open rock ell:ft □ Other: Il clean to bottom? □ Yes □ No not bent or corroded) Q2 Yes □ No PYes □ No Is Inner Casing Intact? □ Yes □ No
Is Inner Casing Properly Capped and Vented? X VOLUME OF WATER: Standing in well:	To be purged:
	2" Submersible Pump      4" Submersible Pump     Inertial Lift Pump      Other:
MATERIALS:       Cump/Bailer:       Teflon®         MATERIALS:       Cump/Bailer:       Stainless Steel         PVC       Other:       Other:         Pumping Rate:       150 mL/mn       Elapsed Time:       33 min         Was well Evacuated?       Yes       No       Nu         PURGING EQUIPMENT:       Dedicated       Prepared Off-	Imber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: Complexiter: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Yes A No Method	d:
APPEARANCE: See attached form for field paran	
DUP: ⊅A No □ Yes Name: MS/MSD: SK No □ Yes Name:	K
I certify that this sample was collected and handled in accordance with applicable re Signature:	Date: <u>9/24//8</u>

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 4/25/18
Personnel: REM/PFP	Well ID: 110-122-R
Purge/Sample Depth: ~ 72,5	Sample ID: <u>M41 - 122R- 20180925</u>
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		Certi	ified Parar	neters		- 70x	768	4 10.	E DOGESHOT
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
				in the second			100 10		T.2
7757	7.50	14.56	7,16	20.76	44.6	43	8.18	2001	· · · · · · · · · · · · · · · · · · ·
0800	7.39	14.36	808	2.77	44.9	-33-	8.92	24U	
2603	7.34	14.19	8,29	0.94	52.7	-41	9.59	- 44° 8 - 1 - 1 - 1	6 36 AR 0
<u>9806</u>	7.32	19.12	8.00	0.50	52.8	-64	10,44		H HATE MALLO
0804	2.61	14,13	7.66	0.28	49.0	-7		- 10 	THE LET DAY DAY
2812	1,50	14.14	7.18	0.0	40.0	-78	169%		- 2630 //1 (0565
2815	7.30	1415	6.74	0.00	50,7	- 83	12,64		
2210	1.30	14.14	6.72	0.00	26.6	- 87	13,53	· ·	AND REPART OF
<u>9821</u>	1,29	14.12	4.49	0.00	25.5	- 88	14.22		42 JUL2P (MATT) 1361
<u>2824</u>	7.28	14.06	6.44	0.00	22.9	-90	15.43		moderat -
227	7,2%	14.06	6.43	0.00	21.0 -122R	2018	0925		Side A
9 \$ 30	Call	1 2	apply.	MU	-122K	~ 10 18	4125		watybat like
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nstrumen				8	~		1		13-1-1
		rer/Model:	Horiba U	-52					
•			WEWI		Ø	Serial No.	. Handheld:	PLF90	1B
				(W/ N					

Are low-flow parameters subject to field lab certification? 
Yes IN No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Read

Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW - 122R$ Sample I.D.: $MW - 122R$ (if different from well no.) 20180925
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH FF	Date: $\frac{9/25/19}{Rainy}$ Time: $\frac{0757}{Air Temp.: 53}$
WELL DATA:       4       □ Stainless Steel       Steel       1         Intake Diameter:       2.4       □ Stainless Steel       □ Galv. Steel         DEPTH TO :       Staic Water Level:       8.21       ft       Bottom of W         DATUM:       □ Top of Protective Casing       © Top of Well Casing         CONDITION:       Is Well clearly labeled?       □ Yes       © File         Is Prot. Casing/Surface Mount in Good Cond.?       Does Weep Hole adequately drain well head?       Is Concrete Pad Intact? (not cracked or frost he is Padlock Functional?       □ Yes       □ No       Q. NA         VOLUME OF WATER:       Standing in well:	el ﷺ PVC
PURGE DATA:         METHOD:         Image: Construction of the second sec	2" Submersible Pump      4" Submersible Pump     mp      Inertial Lift Pump      Other:
	umber of Well Volumes Removed:
SAMPLING DATA:	-Site Field Cleaned
METHOD:      Bailer, Size:      Syringe Sampler      Peristaltic Pump      Iner     MATERIALS:      Marterial      Material      Material      Material      Syringe Sampler      Teflon®	tial Lift Pump  Other:
SAMPLING EQUIPMENT: Dedicated Prepared ( Metals samples field filtered? Yes Steel	
APPEARANCE: SC Clear D Turbid D Color: FIELD DETERMINATIONS: See attached form for field parar	
DUP : 🖉 No 🗆 Yes Name: MS/MSD : 🌱 No 🖾 Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re Signature:	aguiatory and project protocols. Date: $\frac{2}{25/18}$
· · · · · · · · · · · · · · · · · · ·	

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

# LOW-FLOW GROUNDWATER FIELD DATA SHEET

Devicest Names Fullion (NL Onterio Ot ) Former MOD	
Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/25//8
Personnel: REM / P F V	Well ID: MU-122D
Purge/Sample Depth: ~18,5	Sample ID: 111 -1220 - 20180925
Announced and a second se	

		Cert	ified Para	meters	Kar Minerer		in press	and the manual of the	· ···
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
2845	7.07	15,71	1.94	24.06	108	45	8.34	2.00	114
<u>) 848</u>	6.99	15,65	1.90	1.62	117	52	8.35	200	
<u> 9851</u>	6.97	15.57	1.88	Dily	224	57	8.35	고난화: 요구	E 194.4 - 2591
2854	6.96		1.88	000	273	62	8.35		
<u>0857</u>	6.98	15.52		0.00	210	64	8.33		ALCC "Stabil
	7.02	15.51	1.88	0.00	130	65	8.33		m. The Bar
2903	7.00	15.49	1.88	0.00	99.7	67	8.32		
0906	7,00	15.47	1.88	0.00	70.7	69	8.32		
0909	7.01	15.50		0.00	56.9	71	8.32		ATERNIES, K.
0912	7.03	15,47	1.88	000	52.8	71	8.35		
0915 0918		17.47	1.88		47.	72	834	15 M (S) (S)	
0418	colle.	et M	W-12	0-20	80925	and	ms/ms	P	and the state of t
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Time o	f Sample:		091	8		Analyst	Signature:	Conchel (	Hinack
nstrumen N		rer/Model:	Horiba U	-52					
	Seria	No. Unit:	WEWM	SOVLO	1	Serial No.	Handheld:	PLF90	9 B
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Calibration Date/Time: 9/24/(8

Are low-flow parameters subject to field lab certification? 
Yes 2 No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell	Well Number: MW - 122D
Upper Saddle River, NJ Office	Sample I.D.: MW - (220-201980925
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / PFP	Date: <u>9/25718</u> Time: <u>0845</u> Weather: <u>Rain</u> Air Temp.: <u>53</u>
WELL DATA:       Image: Construct of the state of the st	I GYCPVC ☐ Teffon® ☐ Open rock ell:ft ☐ Other: Il clean to bottom? ☐ Yes ☐ No not bent or corroded) ੴ Yes ☐ No XYes ☐ No Is inner Casing Intact? ☐ Yes ☐ No SYes ☐ No
VOLUME OF WATER: Standing in well:	To be purged:
	2" Submersible Pump      4" Submersible Pump     Inertial Lift Pump      Other:
□ Teflon® MATERIALS: Rump/Bailer: □ Stainless Steel □ PVC □ Other: Pumping Rate: 200 m/m Elapsed Time: <u>30 m/m</u> Was well Evacuated? □ Yes 2 No No PURGING EQUIPMENT: □ Dedicated □ Prepared Off-	Imber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: Cump/Bailer: C Teflon®	Tubing/Rope: Teflon® Polyethylene
• •	d:
APPEARANCE: Clear D Turbid D Color: FIELD DETERMINATIONS: See attached form for field paran	
DUP: 25 No DiYes Name: MS/MSD: Di No 285Yes Name: <u>Muv - 1220 - 2018</u> 0	2925-MS/MSP
I certify that this sample was collected and handled in accordance with applicable re	gulatory and project protocols.
Signature: Walter Marcha	Date: 9/25/18

3" -13 ⁻ 10 ⁻¹

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Client: Personnel:	National (	Ontario S Grid MPPP	St.) Forme	Project Number: <u>152206</u> Date: <u>9/25//8</u> Well ID: <u>MW-1225</u> Sample ID: <u>MW^1225^20(80925</u>				
Actual Time	pН	Cert Temp (°C)	fled Parar Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
0936	6.83	16.26	2.09	0.31	45.8	131	7:93	700	
0939 0942	6.73	16.90	2.11	0.00	31.4	127	7.95	40	1 1-11
0945	6.79	17.08	2.11	0.00	14.1	118	7-98		
na st	4.76	17.13	2.11	0.00	10.3	108	7.97		NUL MELLINE
0957	6.75	17,13	2.10	0.00	6.1	94	2.95		·····
1000	6.73	17,11	2.10	2.00 0.00	5.4	89	7.90		1090 - 353639911AM
006	6.73	16,99	2.07	0.00	7.6	59	7.98		paring
1009	6000		nyit	-7942	-/225	201801	230		Parg -
		7.01	3692	0.52		1224111	1.1545	190	Ploosed
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					363 77				
				<u>a</u> :			8		
Instrumen	it Data:		$\rightarrow$		collecte	Analyst	Signature:	Do che	Pollo rach
Manufacturer/Model: Horiba U-52 Serial No. Unit: <u>ルテ W &amp; Ø y レ Ø</u> Calibration Date/Time: <u> </u>						Serial No.	Handheld:	PLF9P	18
Are low-flow	/ parameter	s subject to	field lab cer	rtification? (	⊐Yes ⊠ No	(not require	d for CERCL	A sites or sites ou	itside of NJ}

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND . LOW-FLOW GROUNDWATER SAMPLING FIELD DATA	
Caldwell       Well Number: MW-122-S         Upper Saddle River, NJ Office       Sample I.D.:	
Project: Fulton (N. Ontario St.) Former MGP Date: Time: Personnel: Weather: Air Temp.:	
WELL DATA:         Casing Diameter:	
VOLUME OF WATER: Standing in well: To be purged:	
PURGE DATA:         METHOD:         Description	-8
Image: Constraint of the sector of the se	
Pumping Rate:        Elapsed Time:        Volume Pumped:          Was well Evacuated?       I Yes       No       Number of Well Volumes Removed:          PURGING EQUIPMENT:       I Dedicated       I Prepared Off-Site       I Field Cleaned	~
SAMPLING DATA:         METHOD:       □ Biadder Pump □ 2" Submersible Pump □ 4" Submersible Pump □ Syringe Sampler □ Peristaltic Pump □ Inertial Lift Pump □ Other:	>
MATERIALS: Pump/Bailer: C Teflon® Tubing/Rope: C Teflon® C Stainless Steel C Polyethylene SAMPLING EQUIPMENT: D Dedicated C Prepared Off-Site C Field Cleaned	
Metals samples field filtered?	
DUP :	
I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.	
Signature: Date:	

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 4/2-5/(8
Personnel: REM PEP	Well ID: MUU-124R
Purge/Sample Depth: n- 40	Sample ID: MW-124R-20180925
The second	16 - 540 AUGA (Service

рН 9.56 8.42 7.30 7.14 7.12	Temp (°C) 15-90 15-91		DO (mg/L) 0.24 0.00	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
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	1 2 37	4.52 4.69	000	108	-130	7.43		
	13:53	4.73	000	580	-127	7.47		ATAS SELVES
7.11	15,12	4.76	0.00	50.0	-120	7.50		19 三桥
7.11	15.16	477	0.00	44.1	-126	7,50		
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					-127	7.48		1.65 1.5.7
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20180925       60925         CMUCL Frample       MW-124       R - 20180925         Analyst       Mucl Frample       Mucl Frample         Mucl Frample       Mucl Frample       Mucl Frample         Mucl Frampl</td><td>2/12       15.04       4.78       0.04       45.4       -126       7.49         7/3       14.98       4.79       0.00       69.0       -127       7.49         7/3       14.98       4.81       0.00       73.4       -1.28       7.53         7/4       14.93       9.83       0.00       63.1       -1.28       7.53         104101       94.98       0.00       63.1       -1.28       7.53         104101       94.98       0.00       63.1       -1.28       7.53         104101       94.99       1.24       8.20       8.0925       -1.28       7.53         104101       94.99       1.98       9.90       63.1       -1.28       7.53         104101       94.99       1.98       9.90       63.1       -1.28       7.53         104101       94.99       1.99       1.99       1.99       -1.28       7.53         104101       94.99       9.99       9.99       9.99       -1.28       7.53         10411       94.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99</td><td>2.17_       15.64       4.78       0.05       45.4       -126       7.48         7.13       14.98       4.79       20.00       69.00       -12.7       7.48         7.13       14.98       4.81       0.00       73.4       -1.28       7.53         7.14       1.98       4.83       0.00       63.1       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         ample Information:       Sample:      </td></t<>	2.17_       15.04       4.78       0.00       45.4       -126         7.13       14.98       4.79       0.00       69.0       -123         7.13       14.98       4.81       0.00       73.4       -128         7.14       14.93       4.83       0.00       63.1       -128         CMUCL Frample       4.83       0.00       63.1       -128         CMUCL Frample       MW-124       R - 20180925       60925         CMUCL Frample       MW-124       R - 20180925         Analyst       Mucl Frample       Mucl Frample         Mucl Frample       Mucl Frample       Mucl Frample         Mucl Frampl	2/12       15.04       4.78       0.04       45.4       -126       7.49         7/3       14.98       4.79       0.00       69.0       -127       7.49         7/3       14.98       4.81       0.00       73.4       -1.28       7.53         7/4       14.93       9.83       0.00       63.1       -1.28       7.53         104101       94.98       0.00       63.1       -1.28       7.53         104101       94.98       0.00       63.1       -1.28       7.53         104101       94.99       1.24       8.20       8.0925       -1.28       7.53         104101       94.99       1.98       9.90       63.1       -1.28       7.53         104101       94.99       1.98       9.90       63.1       -1.28       7.53         104101       94.99       1.99       1.99       1.99       -1.28       7.53         104101       94.99       9.99       9.99       9.99       -1.28       7.53         10411       94.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99       9.99	2.17_       15.64       4.78       0.05       45.4       -126       7.48         7.13       14.98       4.79       20.00       69.00       -12.7       7.48         7.13       14.98       4.81       0.00       73.4       -1.28       7.53         7.14       1.98       4.83       0.00       63.1       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         CMULL F Sample MW-124       R - 20(20925       -1.28       7.53       -1.28       7.53         ample Information:       Sample:

Are low-flow parameters subject to field lab certification? 
Yes IN No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

BrownAND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW - 124R$ Sample I.D.: $MW - 124R - 2^{\text{if different from well no.}}$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH (PFP	Date: <u>9/25/18</u> Time: <u>(036</u> Weather: <u>Rainy</u> Air Temp.: <u>5</u> 3
DEPTH TO : Static Water Level: 7,36 ft Bottom of We DATUM: Dop of Protective Casing B=Top of Well Casing CONDITION: Is Well clearly labeled? Ves Servo Is we Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? D Is Concrete Pad Intact? (not cracked or frost hea Is Padlock Functional? Yes No Z NA Is Inner Casing Property Capped and Vented? 2	APPVC      Teflon®      Open rock     ft     Other:     Other:     Il clean to bottom?     Yes      No     No     No     Yes      No     Is Inner Casing Intact?     Yes      No
VOLUME OF WATER: Standing in well:	To be purged:
PURGE DATA:         METHOD:         Centrifugal Pump         Peristaltic Pump	□ 2" Submersible Pump □ 4" Submersible Pump □ Inertial Lift Pump □ Other:
MATERIALS:       Pump/Bailer:       Imp/Bailer:       Stainless Steel         PVC       Other:       Other:         Pumping Rate:       200 ml/a/a       Elapsed Time:       30 mu         Was well Evacuated?       Implement       No       Nu         PURGING EQUIPMENT:       Implement       Implement       Implement	mber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump □ 4" Submersible Pump ial Lift Pump □ Other:
MATERIALS: Pupp/Bailer:	: Contains Immiscible Liquid
FIELD DETERMINATIONS:       See attached form for field param         DUP :       Image:	
I certify that this sample was collected and handled in accordance with applicable reg Signature:	gulatory and project protocols. Date: $9/25/18$

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/25//8
Personnel: REM / PFP	Well ID: M4/-1225
Purge/Sample Depth: $\tau/2$	Sample ID: 441~ (225-20180925
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Actual Time		- 10 M							
	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1158	7.21	16.67	0.887	11.44	1º0.04	92	7.84	17-	
1201	7.14	17.25	0.833	6.41	0.04	101	7.84	1/5	
204	7.31	17,30	0.793	4.84	263	102	7,86		
1207	7.37	17.29	0.788	4.53	"1000"	101	7.88	in and	
1210	7.30	17,29	10.791	4.40	879	iol	7.87		이 종일 - 유민리
12 3	7.49	17,19	0.796	4.34	572	101	7.88		111111
1216	7.48	17.17	0. 749	-4,22	466	103	7.86		
12.19	7.49	17.16	0.798	9.15	382	Inci	7.88	С.,	
1722	7,48	17.15	0 798	4.14	345	104	7.88	169 Juli	લ્લા છેલ્લા પ્રચ
1225	7.48	17.12	0.794	4.14	308	108	7.87	6ar	
1228	7145	17.10	0.788	4.19	273	110	7.86		
1231	7.39	17.09	0, 780	4.23	232	NY	7.86	3.6 31.8	Q 4 408 [[\$3300000.
1234	7.49	17.08	0.772	4.19	149	UT	7.88	662 - K	STORE REPORT
1237	7.50	17.06	0.767	4.23	180	109	7.88		294(2)(2)) \$2%
1240	7.52	17.07	0,759	4.26	166	10	7.88	14-1	- THERE AND AND
1243	7.60	17.06	0.739	4.37	32	109	7.87		
1296	7.61	17,07	0.731	4.38	123	109	7.86		
1249	7.63	17,09	0.725	4.34	109	109	7.86		
1257	7.64	17.09	OT	4.42	99.8	108	7.88		a 11(a):
12.55	7.61	17.10	0.715	445	82.2	110	7.88		
1258	7.63	17.10	6.712	ं पं.पंप	76.5	109	7.88		- 800
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nstrumen	t Data:						-	e	P
N	/lanufactur	rer/Model:	Horiba U-	-52					

Calibration Date/Time: 9/24/18

The Fill Indiana in the Fill ID

Are low-flow parameters subject to field lab certification? 🗆 Yes 🖾 No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

	Brown AND	2	LOW-FLOW GR SAMPLING F	IELD DATA
	Caldwell	Upper Saddle River, NJ Office	Well Number: MW - 122 Sample I.D.: MW - 1225 -	20(80975)
	Project: Fulton (N. Ontario St.) Personnel: <u><u>REM</u> (1F1</u>	Former MGP	Date: <u>9/25/18</u> Time: _ Weather: <u></u>	
C In D C	DATUM: Dop of Protective CONDITION: Is Well clearly Is Prot. Casing Does Weep He Is Concrete Pa Is Padlock Fur Is Inner Casing	□ Stainless Steel □ Steel □ P □ Stainless Steel □ Galv. Steel el: 7-79 ft Bottom of We Casing □ Top of Well Casing labeled? □ Yes □ StNo Is we /Surface Mount in Good Cond.? (r ble adequately drain well head? □ bd Intact? (not cracked or frost head inctional? □ Yes □ No □ NA 9 Properly Capped and Vented? D	Image: Second state of the second s	I No □ No
P		tanding in well: , Size: 2ABladder Pump C entrifugal Pump D Peristaltic Pum	2" Submersible Pump 24"	
P	MATERIALS: Pump/Bailer: Pumping Rate: <u>175 mUar m</u> Vas well Evacuated? PURGING EQUIPMENT:	es 🖬 Νο 👘 Νι	Volume Pumped: <u>3,5 6</u> mber of Well Volumes Remove Site SField Cleaned	Other:
	SAMPLING DATA: IETHOD:	: SeBladder Pump	ubmersible Pump	rsible Pump
S	ATERIALS: Part Bailer:	□ Teflon® ¬ Stainless Steel I Dedicated □ Prepared 0 □ Yes 14 No Method	Off-Site 25 Pield Cleaned	Teflon® ⊂ Polyethylene
A	•	ear D Turbid D Color: See attached form for field param	Contains Immiscible L	iquid
	DUP: 250 No De Yes MS/MSD: 250 No De Yes	Name: Name:		
	certify that this sample was collected an signature: <u>() () () () () () () () () () () () () (</u>	d panoled in accordance with applicable re	gulatory and project protocols. Date: $\frac{9/251/8}{251}$	_

:

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fu	ulton (N. Ontario St.) Former MGP	Project Nu	mber: 152206	N. A.A.	10
Client: Na	ational Grid		Date: 9/ 2.5/	118	
Personnel: 🥂	EHIPEP		ell ID: Mu/~	125R	
Purge/Sample Depth: 🗠	L 40	Samp	ble ID: M.W -	125R.	-20180925
11.1	1	100		1.14	March Sec.
	Cartified Deservators	10	Deller 11 - 401 - 11 - 11		

		Cert	ified Para	meters 👘	Res STRW		and construct	1.121	
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1318	8.51	16.04	1.89	117	267	-217	6.70		
1321	7.28	(5.7)	1.15	0.33	228	145	6.70	+5()	
12-4	7,09	1.2.21	3.15	0.00	268	-124	6.72	- 10	
1325	7.06	14.08	3 25	0.00	2.66	-137	6.72	12.41. 21	14 MIC 10 4101
1330	7.06	14 72	2 47	0.00	239	- 37	6.72		- TAU - DANS
1333	7.06	14.03	3,48	0.00	Táy'	-139	6.72		150011154741
336	7.05	14.80	3,50	6.00	183	-139	672	S - 20	
1339	7.01	14.96	3.49	0.00	159	-128	6.72	d 0	
1342	7.02	1492	3.47	0.00	161	-124	6.72	10 AB430	IN CROSSING
1345	7,01	14.91	3.47	0.00	161	~127	6.72		
1248	7.02	14.93	3.47	0.00	158	~130	6.72		morteate.
1351	coll.	ets	angh	P MW	~125	15-201	80920	and to react the	mulphall
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	Seria	I No. Unit:	WEWB	OVLO		Serial No.	Handheld:	PLF901	15
Ca		Date/Time:		4/18					
			4	• 1		-			

Are low-flow parameters subject to field lab certification? 
Yes 
No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Altra

Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW - 125R$ Sample I.D.: $MW - (25R - 20) = 0.000000000000000000000000000000000$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REM P F1	Date: <u>9/25/18</u> Time: <u>(318</u> Weather: <u>Aercost (rain</u> Air Temp.: <u>60</u>
DEPTH TO : Static Water Level:ft Bottom of We DATUM: I Top of Protective Casing Arop of Well Casing CONDITION: Is Well clearly labeled? Yes Sino Is we Is Prot. Casing/Surface Mount in Good Cond.? (I Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost-hea Is Padlock Functional? Yes No Q NA Is Inner Casing Property Capped and Vented?	Image: Second state state       Image: Second state         Image: Second state       Image: Second s
VOLUME OF WATER: Standing in well:	To be purged:
PURGE DATA:         METHOD:         Image: Construction of the sector of	2" Submersible Pump      4" Submersible Pump     Inertial Lift Pump      Other:
MATERIALS: Pump Bailer: MATERIALS: Pump Bailer: Description Ba	Tubing/Rope: Teflon® Tubing/Rope: Polyethylene Polypropylene Other:
Pumping Rate: 190 m4 m 1 Elapsed Time: 30 m n Was well Evacuated? I Yes A No Nu PURGING EQUIPMENT: I Dedicated I Prepared Off-	mber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: Cump/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Derepared C	Tubing/Rope:  Teflon® Folyethylene
Metals samples field filtered?	
APPEARANCE:  Clear Curbid Color: FIELD DETERMINATIONS: See attached form for field param	
DUP: SF No Se Name: MS/MSD: SF No Se Name:	
I certify that this sample was collected and handled in accordance with applicable re	gulatory and project protocols.
Signature: John Houck	Date: <u>9/25118</u>

 $365^{1/3}$ 

Brown	AND	Ca	ld	we	l
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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Date: 9/25/18 Well ID: MW ~ 12. | R

Sample ID: MW - 1218-20180925

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/2
Personnel: REH/PPP	Well ID: MW
Purge/Sample Depth: ~ 39	Sample ID: MW -
	and the second s

	Certified Parameters						53	The Production of the Producti		
Actual Time	pН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments	
1408	2.95	531	2.83	0.34	84.2	-237	8.82	200		
1411	8,24	15.19	2.08	0.00	95.6	-242	8.82	200	1	
1414	7.31	14,81	3,40	0.00	168	-159	8.82	Sudding 1		
1417	7.10	14.54	3.57	0.00	266	-HO	8.82			
1420	7.06	14.39	3,61	0.00	229	-137	8.84		新日期间的100 (FE)	
1423	2.06	14.35	3406	0.00	190	-137	8.84	网络拉拉 对下答	11024 <u>9</u> 10	
1426	7.07	14.27	3.68	0.00	161	-137	8.85			
1429	7.09	14,22	3.70	0.00	127	1-140	8.86	101 I I I I I I I I I I I I I I I I I I		
1432	7.10	14,23	3,72	0.00	123	~140	8,87	DE STRUGE	THE DESTROYES APPLY	
1425	7.12	14.23	3.73	0.00	11G	-141	8.87	16.)		
1428	7,12	14.23	3.75	000	105	-141-	8-89			
1441	7,11	1413	3.76	0.00	97.6	-140	8.89	12 M	The month of the second s	
1444	7.10	14.34	3.76	0.00	94.5	-14I	892		stoht sheep	
1447	7.10	14.71	3.78	0.00	8412	-140	8.92		munter	
1450	Colles	* Sar	ble M	41-121	R - 2018	0925		a.n	and nodrak	
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	f Sample in		149	0		> Analyst	Signature:	Achl	Creek,	
Instrumen						-	<i>2</i>			
N			Horiba U-			_				
	Seria	I No. Unit:	WEYB	DVLO		Serial No.	Handheld:	PLF909B		
Ca	libration D	ate/Time:	9/241	18		-				

Are low-flow parameters subject to field lab certification? 🗆 Yes 🖾 No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Caldwell       Upper Saddle River, NJ Office       Well Number: MW-121R_Sample 1.D:: M	Bro	WIT AND		LOW-FLOW GRO SAMPLING FI	
Personnel:       BM/PFA       Weather:				Well Number: <i>MW-</i> 121R Sample I.D.: <i>MW-</i> 121R-2e	(if different from well no.) $\mathcal{N} \otimes \mathcal{S} \otimes \mathcal{S}$
Casing Diameter:				Date: <u>9/25/19</u> Time: <u>(</u> Weather: <u>wercare</u> +	408 Air Temp.: <u>40</u>
PURGE DATA: METHOD:       Bailer, Size:	Casing D Intake Dia DEPTH T DATUM: CONDITI	ameter: <u>6</u> meter: <u>2</u> D: Static Water Le Top of Protectiv DN: Is Well clearly Is Prot. Casin Does Weep H Is Concrete P Is Padlock Fu Is Inner Casir	□ Stainless Steel □ Galv. Stee vel: <u>\$,7</u> (ft Bottom of Wel e Casing ₽ Top of Well Casing r labeled? □ Yes ♀ No Is we g/Surface Mount in Good Cond.? (i lole adequately drain well head? □ ad Intact? (not cracked or frost hea nctional? □ Yes □ No ♀ NA ig Properly Capped and Vented? §	ISEPVC ☐ Teflon® ☐ Open ro ell:ft ☐ Other: Ill clean to bottom? ☐ Yes ☐ not bent or corroded)	No J No
METHOD:       □ Baller, Size:       □ Seliadder Pump □ 2" Submersible Pump □ 0ther:         MATERIALS:       Pump/Bailer:       □ Teflon®       □ Teflon®         MATERIALS:       Pump/Bailer:       □ Teflon®       □ Teflon®         Pumping Rate:       □ Other:       □ Other:       □ Other:         Pumping Rate:       □ Other:       □ Other:       □ Other:         Pumping Rate:       □ Other:       □ Other:       □ Other:         PURGING EQUIPMENT:       □ Dedicated       □ Prepared Off-Site       I eldeneed         SAMPLING DATA:       □ Syringe Sampler       □ Peristaltic Pump □ 12" Submersible Pump □ 04" Submersible Pump □ Syringe Sampler       □ Peristaltic Pump □ 12" Submersible Pump □ 0ther:         MATERIALS:       Pump/Bailer:       □ Teflon®       □ Tubing/Rope:       □ Teflon®         SAMPLING EQUIPMENT:       □ Dedicated       □ Prepared Off-Site       □ Teflon®         MATERIALS:       Pump/Bailer:       □ Teflon®       □ Prepared Off-Site       □ Teflon®         SAMPLING EQUIPMENT:       □ Dedicated       □ Prepared Off-Site       □ Feldoleaned         MATERIALS:       Pump/Bailer:       □ Dedicated       □ Prepared Off-Site       □ Field Cleaned         APPEARANCE:       □ Clear       □ Turbid       □ Color:       □ Contains Immiscible Liq			Standing in well:	To be purged:	
MATERIALS:       Pumplailer:       Stainless Steel       Tubing Rope:       Polyethylene         PVC       PVC       Other:       Other:       Other:       Other:         Pumping Rate:       PCO       Number of Well Volume Pumped:       2.75 G.       Other:       Other:         Was well Evacuated?       Yes       Yes       No       Number of Well Volumes Removed:       Other:         PURGING EQUIPMENT:       Dedicated       Prepared Off-Site       Steinless Steel       Steinless Steel       Tubing/Rope:       Teflon®         MATERIALS:       Pump/Bailer:       Teflon®       Tubing/Rope:       Teflon®         MATERIALS:       Pump/Bailer:       Teflon®       Tubing/Rope:       Teflon®         MATERIALS:       Pump/Bailer:       Dedicated       Prepared Off-Site       Field Cleaned         MATERIALS:       Pump/Bailer:       Dedicated       Prepared Off-Site       Field Cleaned         MATERIALS:       Pump/Bailer:       Dedicated       Prepared Off-Site       Field Cleaned         SAMPLING EQUIPMENT:       Dedicated       Prepared Off-Site       Field Cleaned       Polyethylene         SAMPLING EQUIPMENT:       Dedicated form for field parameter data.       Other:       Teflon®       Polyethylene         APP		🗆 Baile			
Pumping Rate:       200 // 42;       Elapsed Time:       201 / 42;       Volume Pumped:       2.75 / 5;         Was well Evacuated?       Yes       No       Number of Well Volumes Removed:	MATERIA	LS: Pupp/Bailer:	Stainless Steel	Tubing Rope:	Polyethylene Polypropylene
METHOD:       Bailer, Size:       Seladder Pump       2" Submersible Pump       4" Submersible Pump         MATERIALS:       Pump/Bailer:       Teflon®       Tubing/Rope:       Teflon®         MATERIALS:       Pump/Bailer:       Teflon®       Tubing/Rope:       Teflon®         SAMPLING EQUIPMENT:       Dedicated       Prepared Off-Site       Field Cleaned         Metals samples field filtered?       Yes       No       Method:         APPEARANCE:       See attached form for field parameter data.       Clear       Turbid       Color:         DUP:       No       Yes       Name:       Mamme:	Was well	Evacuated? 🛛	Elapsed Time: <u>50m</u> Yes D No Nu	Volume Pumped: <u>2.756</u> Imber of Well Volumes Removed	8 Ta an III
Stainless Steel     Polyethylene     SAMPLING EQUIPMENT:     Dedicated     Prepared Off-Site     Field Cleaned     Metals samples field filtered?     Polyethylene     APPEARANCE:     Clear     Turbid     Color:     Contains Immiscible Liquid     FIELD DETERMINATIONS:     See attached form for field parameter data.  DUP:     No     Yes     Name:     Icertify that this sample was collected and handled in accordance with applicable regulatory and project protocols.      Polyethylene     Polyethylene     Field Cleaned     Field Cleaned     Icertify that this sample was collected and handled in accordance with applicable regulatory and project protocols.		🛛 🖸 Bailer, Size			ible Pump
Metals samples field filtered?       I Yes St No       Method:         APPEARANCE:       St Clear       Turbid       Color:       I Contains Immiscible Liquid         FIELD DETERMINATIONS:       See attached form for field parameter data.         DUP :       No       I Yes       Name:         MS/MSD :       No       I Yes       Name:         I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.       I Certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.		0.	Stainless Steel	Sec. Sec.	
FIELD DETERMINATIONS:       See attached form for field parameter data.         DUP :       U No       Yes       Name:		•	C Yes S No Method	1: :	
MS/MSD : No I Yes Name:					ια
12 D Rts della					
Signature: 1/25/18	I certify that	his sample was collected a	nd handled in accordance with applicable re	gulatory and project protocols	
	Signature	Gach	12 rocki	Date: 9/25/18	

:

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 9/2/2/18
Personnel: REH / PFP	Well ID: MW-1140
Purge/Sample Depth: ~ (3)	Sample ID: 10- 11410-20180926

	Q	Certi	fied Para			114	19 N J	67	ം പ്രം		
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate (mL/min)		Comments	
Time	рН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)				
0843	6.96	18.19	1.06	12,94	339	-49	7.10	1-	10-		
0896	10,01	17.61	1.33	3-5	209	-73	7.05	12 1.2	17		
0849	7.05	17.20	1,62	1,27	25.4	-88	7.05	and a	25	2017 0 2027	
0852	104	-16,95	1.75	0.57	52,7	-92	7.04	-			
0955	7.06	16.81	1.81	0.22	34.7	-99	7.06		124	1992 Month President	
0853	7.04	16.72	1.82	0,11	3.0.3	- 98	7,07	5	15	= Har and	
0901	5.08	16.59	1.84	0.00	25.1	-100	\$7.08	00 CP			
0904	7.10	16.48	1,84	0.00	20.9	-104	7,08	9.		is a second s	
0907	7.1	16:47	1,87	0.00	19.1	-105	7.06	15	1	1.8 0 <u>1%</u> //3=_1.9490	
0910	7,14	16142	1,98	0.00	17,8	-108	7.05				
0413-	7.14	16,37	-1.89	0.00	15.0		7.08	, v	J	Slight matthe	
0916	Colle	et S	apply	MW-	1140-	201809	26	101	360 - M.	like odor	
<u> </u>		SQ.	= <b>1</b>   2	HILOCOE	• • [	-	[2] (석)	0	1971 - 1984	1(BV64851111352 (Do.))	
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<b>Certified S</b>	ample in	formation							1 1	(m	
	f Sample:		0910	,		Analyst	Signature	$\left( \right) $	mlil.	Acracht.	
Instrumen			<u>v 11 4</u>			- Analyst	oignature.	¥-U	mar	un x ual/m/	
		rer/Model·	Horiba U.	52				-			
Manufacturer/Model: Horiba U-52 Serial No. Unit: WEWBØVレØ						Serial No.	Handhold	<b>₽</b> 1-	EMM	912	
<b>.</b>	libration F	ate/Time:		<u>sur-</u> q					10 L P		
			7/ 4/1	0							

Are low-flow parameters subject to field lab certification? 
Yes 
No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

	Brown AND Caldwell	E.	LOW-FLOW GROUP SAMPLING FIELD Well Number: MW - IIYD	) DATA
		Upper Saddle River, NJ Office	Sample I.D.: MW-114D-2019	1
9. July	Project: Fulton (N. Ontario St.) Personnel: REH/PFP	) Former MGP	Date: $\frac{q/26/19}{\sqrt{\alpha(9)}}$ Time: $\mathcal{O}$	84- <u>7</u> Air Temp.: <u>70</u>
R. 8 5	DATUM: D Top of Protective CONDITION: Is Well clearly Is Prot. Casing Does Weep H Is Concrete Pa Is Padlock Fut Is Inner Casin	vel: <u>4.9</u> ft Bottom of We e Casing Top of Well Casing labeled? I Yes School Is we g/Surface Mount in Good Cond.? (r ole adequately drain well head? I ad Intact? (not cracked or frost hea nctional? I Yes I No School g Property Capped and Vented?	BCPVC       Teflon®       Open rock         II:      ft         I Other:       Yes       No         II clean to bottom?       Yes       No         to bent or corroded)       Yes       Yes         Yes       Yes       No         Yes       No       Is Inner Casing Intact?       Yes         Yes       No       Yes       No	
	VOLUME OF WATER:	Standing in well:	To be purged:	<u> </u>
		entrifugal Pump 🖸 Peristaltic Pum	] 2" Submersible Pump 🔲 4" Subn p 🔲 Inertial Lift Pump 🔲 Other:	<u></u>
3	Was well Evacuated?	□ Teflon® Teflon® Teflon® Stainless Steel PVC □ Other:	Tubing/Rope: De Po De Po Volume Pumped: <u>1.756</u> mber of Well Volumes Removed:	hflon® blyethylene blypropylene her:
		n:19⊂8ladder Pump □ 2" Si npler □ Peristaltic Pump □ Inert	ubmersible Pump  □ 4" Submersible ial Lift Pump □ Other:	Pump
	MATERIALS: Marterials: SAMPLING EQUIPMENT: Control of the samples field filtered?	Stainless Steel	ff-Site ∫Q Field Cleaned	iflon® blyethylene
		ear D Turbid D Color: See attached form for field param	Contains Immiscible Liquid	
	DUP: 15 No I Yes MS/MSD: 15 No I Yes	Name: Name:		
0.6	I certify that this sample was collected and Signature:	nd handled in accordance with applicable re	gulatory and project protocols. Date:	

i,

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

	NJ FIELD LAB ID# 02023
LOW-FLOW	<b>GROUNDWATER FIELD DATA SHEET</b>

Project Number: 152206

Client: National Grid							Date: <u>7/2</u> <i>4</i> /78 Well ID: <u>MW - 1(3)</u>				
Personnel: <u>REH / PFP</u>							Well ID:	MW	- 113	$\mathcal{D}$	
Purge/Sam	Purge/Sample Depth: ~/ 7.5							MU	~ <u>  3</u>	0-20180926	
						6 III - 1	· · · · · · · · ·	100		-45 - 7 7 7 7 7 990	
		Certi	fied Para	meters	2000	and the second s	A 31	응. 분	- 9 A 89	AL 146	
Actual		Temp	Cond	DO	Turbidity	ORP	DTW		ing Rate	A subsemular sub-	
Time	рΗ	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(ml	L/min)	Comments	
								- AND	. A		
0936	6.90	18.18	1.71	1,69	110	-80	7.03	2	$\bigcirc 0$		
0939	6.97	17.80	1.78	1.34	92.2	-86	7.03		$\underline{\gamma}$		
0942 0945	6.97	17.53	192	0.23	82.2 78.4	-86	7.03			8-1 BO 104(4)000	
0948	6.97	17.38	1:85		73.5	-86	7.03		-	Service and Provident Address	
0951	6,97	17.34	1.86	0,00	71.9	-86	7.03		ST	Contraction of the	
0954	6.98	17.32	1.87	6.00	68.1	-87	703	27		04.80111-011-0110-010-0	
0957	6,99	17.34	1.87	0.00	05.8	-98	1.03	2. 2.		· · · · · · · · · · · · · · · · · · ·	
000	6,98	17.37	1.86	000	64.6	- 89	7.03	~	36328 NK	(2) 2537. C 1024	
1003	6.97	17.37	1.86	000	63.8	- 89	7.03			-	
1006	697	17.37	1.86	0.00	63-3	- 89	703	V		rart mothball	
1009	Celle	01 50	eng ft	MW-	1(30-20	0(80126	局許支援		internal mode	life oder	
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			$- \frown$							25	
	NO DOC			-/-	L	WRG=C=	11 TQ73 24	_	3 S S	91.0 (C 11.626) (M	
	1901 1904	1			A. C. MINTRE			- 1.	1-10	-98	
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<b>Certified S</b>			: 10C	9			,	()	. 0 1	Konork!	
						Analyst	Signature:	( A	Cul	Man Mary	
Instrumen			Llaviba I I	50				$\sim$			
N		rer/Model:				Serial No. Handheld: <u>PLF909</u> B					
<u></u>		I No. Unit: )ate/Time:		10		Serial INO. I	nanonelo:	TLP	707	<i>p</i>	
Ua Ua			7/24/	/ 26		3					
Are low-flow parameters subject to field lab certification?  Yes X No (not required for CERCLA sites or sites									or sites ou	tside of NJ)	

Project Name: Fulton (N. Ontario St.) Former MGP

Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $\mathcal{M} \mathcal{W} \sim 113\mathcal{D}$ Sample I.D.: $\mathcal{M} \mathcal{W} \sim 113\mathcal{D} - 2018092\mathcal{G}$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/PPP	Date: <u>9/26/18</u> Time: <u>09.36</u> Weather: <u>Rainy</u> Air Temp.: <u>71</u>
DEPTH TO : Static Water Level: <u>7,03</u> ft Bottom of Wei DATUM: Dop of Protective Casing Cop of Well Casing CONDITION: Is Well clearly labeled? Ves 24No Is we Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost hea Is Padlock Functional? Yes No 29-NA Is Inner Casing Properly Capped and Vented?	Cherce       Teflon®       Open rock         Il:ft       Other:         Il clean to bottom?       Image: Section for Corroded         It clean to corroded       Image: Section for Corroded         If Yes       No         If Yes       No         Is Inner Casing Intact?       If Yes       No         If Yes       No
VOLUME OF WATER: Standing in well:	To be purged:
	□ 2" Submersible Pump □ 4" Submersible Pump p □ Inertial Lift Pump □ Other:
Teflon®     MATERIALS: @@mp/Bailer: Stainless Steel     PVC     Other: Pumping Rate: 200 m(/un Elapsed Time: Was well Evacuated? □ Yes SKNo Nu PURGING EQUIPMENT: □ Dedicated □ Prepared Off-t	mber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump  □ 4" Submersible Pump ial Lift Pump □ Other:
MATERIALS: Pump/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Dedicated No Method	Tubing/Rope: Teflon® >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
APPEARANCE: 🛛 🖾 Clear 🖬 Turbid 🖬 Color:	Contains Immiscible Liquid
FIELD DETERMINATIONS:       See attached form for field paran         DUP :       Yes       No         MS/MSD :       Yes       Name:	×
I certify that this sample was collected and handled in accordance with applicable re	gulatory and project protocols.
Signature: Rachinderinaction	Date: <u>9/26/18</u>

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NJ FIELD LAB ID# 02023							
LOW-FLOW	GROU	NDWATER	FIELD	DATA	SHEET		
	· · · · · · · · · · · · · · · · · · ·		$\hat{r} \rightarrow 0$				

Pume/Sam	Personnel:	REH ~ 18	1999	é ante	in a	- 3 - a	Well ID: Sample ID:	MW-111	D-20180926
- alge/San			0.000 (1991) (1990) (1990)	2400 1947 1	and the second	1997 y 1998		<u> </u>	2010-120
2		Certi	fled Para	meters	- 12 ⁴ ····-		P.1.14	- musice y	1 - 4000
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pH	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
1048	7.17	1209	1.65	0.38	TOT	-102	7.54	1-2-	
051	7.18	17.27	1.67	0.00	100	-116	7.89	1/15	
1054	7.18	16.94	1.169	0.00	142	-120	8,23		- mil 1996-1996-1996
1057	7.20	16.87	1.70	0.00	146	-123	8.51		· · · · · · · · · · · · · · · · · · ·
100	7162	16.95	1.73	0.00	134	-126	8.60		818-1 2014
103	410	16.94	1.0	0.00	108	-124	8.71		3 10 11 51 11 2
409	716	16.94	1.76	0.00	89.0	-123	8.92	dae .	12 13
1112	7.14	16.87	1.80	0.00	6811	-122	9.02		ARREN AR
1(17)	7.15	16.93	1.82	0.00	66.8	-122	9.02		
1118	7.15	16.88		0.00	57.7	-121	9.03		mallett
1121	coller	- samp	he Mu	- 11D	-20190	926	- Upgler	158 I 158	withen
		LI VOV	105 8 St 1 1 10	10	salat novit		1.11		like coder
	<u> </u>	191	210-1025	9 B	912-11	144	Philips	<u>66 28 5 5</u>	
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			-/					1.000	
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	<u> </u>						1072494 [ 11] A		
Instrumen	of Sample: It Data:		112			Analyst	Signature	Joched a	to uck
	Seria	I No. Unit: Date/Time:	WEB	OVLO		Serial No.	Handheld:	PLF90	9 B
Are low-flow	v naramotor	s subject to	field lab ce	rtification? (		(not require	d for CERCI	A sites or sites or	uteide of N.I.

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

# Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

Project Name: Fulton (N. Ontario St.) Former MGP

**Client: National Grid** 

Project Number: 152206

Date: 9/26

Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA						
Caldwell Upper Saddle River, NJ Office	Well Number: MW - (1( D - Sample I.D.: Mu - (1) D - 20 (809 26						
Project: Fulton (N. Ontario St.) Former MGP Personnel: $R \in M / P \in P$	Date: <u>9/2//(8</u> Time: <u>1048</u> Weather: <u>OverCect</u> Air Temp.: <u>71</u>						
DEPTH TO : Static Water Level: 7.2 ft Bottom of DATUM: Top of Protective Casing For Top of Well Casin CONDITION: Is Well clearly labeled? Yes No Is Is Prot. Casing/Surface Mount in Good Cond. Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost h	eel <27 RVC I Teflon® I Open rock Well:ft well clean to bottom? I Yes I No ? (not bent or corroded) M Yes I No * OYes I No neaved) 2 Yes I No A Is Inner Casing Intact? I Yes I No ? CIYes I No						
	□ 2" Submersible Pump □ 4" Submersible Pump ump □ Inertial Lift Pump □ Other:						
MATERIALS: Fump/Bailer: DC Stainless Steel	Tubing/Rope: Toping/Rope: Polyethylene Polypropylene Other:						
Pumping Rate: <u>175 ml/an</u> Elapsed Time: <u>30 mi</u> Was well Evacuated? □ Yes X No PURGING EQUIPMENT: □ Dedicated □ Prepared C	Yolume Pumped:       1.75 Contemporation         Number of Well Volumes Removed:						
SAMPLING DATA: METHOD:							
MATERIALS: Pump/Bailer: D Teflon®	Cubing/Rope: C Teflon® Polyethylene						
SAMPLING EQUIPMENT: Dedicated Depare Metals samples field filtered? Dedicated Ves S No Meth APPEARANCE: S Clear D Turbid D Color:	d Off-Site Pield Cleaned						
FIELD DETERMINATIONS: See attached form for field par							
DUP : ﷺ No □ Yes Name: MS/MSD : ﷺ No □ Yes Name:							
I certify that this sample was collected and handled in accordance with applicable Signature:	e regulatory and project protocols. Date: $\underline{7/26/18}$						

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 0/20/18
Personnel: KEH/RPP	Well ID: MW- LILR
Purge/Sample Depth: ~ 31, 5	Sample ID: <u>MW ~ (11R - 20180926</u>
2000 (11) Grant (11403) (144) 44 (110)	

		Certi	fled Para	neters	11 III050	er = 1 - 240	199 - 189 - H	5	
Actual Time	pН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1124 1124 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1142 1157 1200 1203 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 1207 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1221 1224	7.04 Coll	15.11	3.49	0.00 Mul	198 - UIR-	-132	924		moderate notibull like oder
Certified Sample Information: Time of Sample: / 2 2 4 Instrument Data: Manufacturer/Model: Horiba U-52 Serial No. Unit: <u>UE 30 V L</u> Calibration Date/Time: <u>9/2 4 1 8</u>						-	Signature: Handheld:	PLF909	B

Are low-flow parameters subject to field lab certification? 
Yes X No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Office	Well Number: $MW - 11R$ Sample I.D.: $MW - 11R - 20(80726)$
Project: Fulton (N. Ontario St.) Former MGP Personnel: KEH/ pCP	Date: <u>7/26/8</u> Time: <u>1/36</u> Weather: <u>ouercast</u> Air Temp.: <u>7/</u>
WELL DATA:       8 '         Casing Diameter:       9 '         Intake Diameter:       2 '         Stainless Steel       Galv. Steel         DEPTH TO :       Stainless Steel         DEPTH TO :       Stainless Steel         Galv. Steel       Galv. Steel         DEPTH TO :       Stainless Steel         Galv. Steel       Galv. Steel         DEPTH TO :       Stainless Steel         Galv. Steel       Galv. Steel         DEPTH TO :       Stainless Steel         Galv. Steel       Galv. Steel         DEPTH TO :       Stainless Steel         Galv. Steel       Galv. Steel         DEPTH TO :       Stainless Steel         Galv. Steel       Galv. Steel         DEPTH TO :       Stainless Steel         Is Pool Protective Casing       Top of Well Casing         CONDITION:       Is Well clearly labeled?         Is Prot. Casing/Surface Mount in Good Cond.? (         Does Weep Hole adequately drain well head?         Is Padlock Functional?       Yes         Is Inner Casing Property Capped and Vented?	I SKPVC I Teflon® I Open rock ell:ft I Other: ell clean to bottom? I Yes I No not bent or corroded) ST Yes I No I Yes STNo aved) SPYes I No Is Inner Casing Intact? I Yes I No SPYes I No
VOLUME OF WATER: Standing in well:	To be purged:
PURGE DATA:         METHOD:         Centrifugal Pump         Peristaltic Pump	2" Submersible Pump      4" Submersible Pump     Inertial Lift Pump      Other:
MATERIALS: Rump Bailer: Teflon® MATERIALS: Rump Bailer: Stainless Steel PVC Other:	Cubing/Rope: Teflon® Polyethylene Polypropylene Other:
Pumping Rate: 250 ml/ win Elapsed Time: 45 min	Volume Pumped: <u>3756</u> Imber of Well Volumes Removed:
SAMPLING DATA: METHOD:	ubmersible Pump
MATERIALS: Fump/Bailer: G Teflon®	Tubiag/Rope: D Teflon®
SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Dedicated No Method	Dff-Site Field Cleaned
APPEARANCE:  Clear TK Turbid  Color:  FIELD DETERMINATIONS: See attached form for field param	Contains Immiscible Liquid neter data.
DUP : ~5 No	
I certify that this sample was collected and handled in accordance with applicable re Signature:	gulatory and project protocols. Date: $\frac{9/26/18}{}$

1000

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Client: Personnel:	Fulton (N. National ( REM ~38	Grid	St.) Forme	er MGP	Autor		BRB-1	-6/18 - 201800426
Actual Time	рН	Certi Temp (°C)	fied Parar Cond (mS/cm)	neters DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
41222222222222222222222222222222222222	740	16.07 15.2( 14.73 14.73 14.73 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.28 14.29 14.29 13.99 13.99 13.99 13.99 13.99 14.28 13.99 13.99 13.99 13.99 14.28 13.99 14.28 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 14.29 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Time o nstrumen N	f Sample: <b>t Data:</b> /anufactur Seria	formation {5 rer/Model: I No. Unit: Date/Time:	07 Horiba U- WEBA	OVLY			Signature:	Achu PLF9 0	Mosino de 9 B

Are low-flow parameters subject to field lab certification? 
Yes IN No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA						
Caldwell Upper Saddle River, NJ Of	fice Well Number: SRB-1 Sample I.D.: $BRB-1-2018092G$						
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH PFP	Date: <u>6/26/18</u> Time: <u>1419</u> Weather: <u>Rain</u> Air Temp.: <u>68</u>						
Intake Diameter: <u>2</u> ¹ Stainless Steel Galv. DEPTH TO : Static Water Level: <u>16,17</u> ft Bottom DATUM: Top of Protective Casing Top of Well Ca CONDITION: Is Well clearly labeled? Yes Shio Is Prot. Casing/Surface Mount in Good Con Does Weep Hole adequately drain well hea Is Concrete Pad Intact? (not cracked or fro Is Padlock Functional? Yes No 2 Is Inner Casing Properly Capped and Vent	of Well:ft asing □ Other: Is well clean to bottom? □ Yes □ No nd.? (not bent or corroded) ② Yes □ No ad? ☑ Yes □ No St heaved) ☑ Yes □ No ŪNA Is Inner Casing Intact? □ Yes □ No ed? ☑Yes □ No						
VOLUME OF WATER: Standing in well:	To be purged:						
	Imp 🖸 2" Submersible Pump 🔲 4" Submersible Pump ic Pump 🔲 Inertial Lift Pump 🗋 Other:						
MATERIALS:       Fump/Bailer:       Implement of the stainless Steel       Tubing/Rope:       Implement of the stainless Steel         PVC       Implement of the stainless Steel       Implement of the stainl							
SAMPLING DATA: METHOD:	2" Submersible Pump						
MATERIALS: Pomp/Bailer: D Teflon®	Tubina/Rope: Teflon®						
	Aethod: : Grown ロ Contains Immiscible Liquid						
DUP : A No D Yes Name: MS/MSD : A No D Yes Name:	\						
I certify that this semple was collected and handled in accordance with applic Signature:	Cable regulatory and project protocols.						

10-2018 34 21

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

# LOW-FLOW GROUNDWATER FIELD DATA SHEET

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Project Name: Fulton (N. Ontario St.) Former MGP	
Client: National Grid	
Personnel: KEH/IPP	
Purge/Sample Depth: 2 19	
Advanced respective like termination with a termination of the second	

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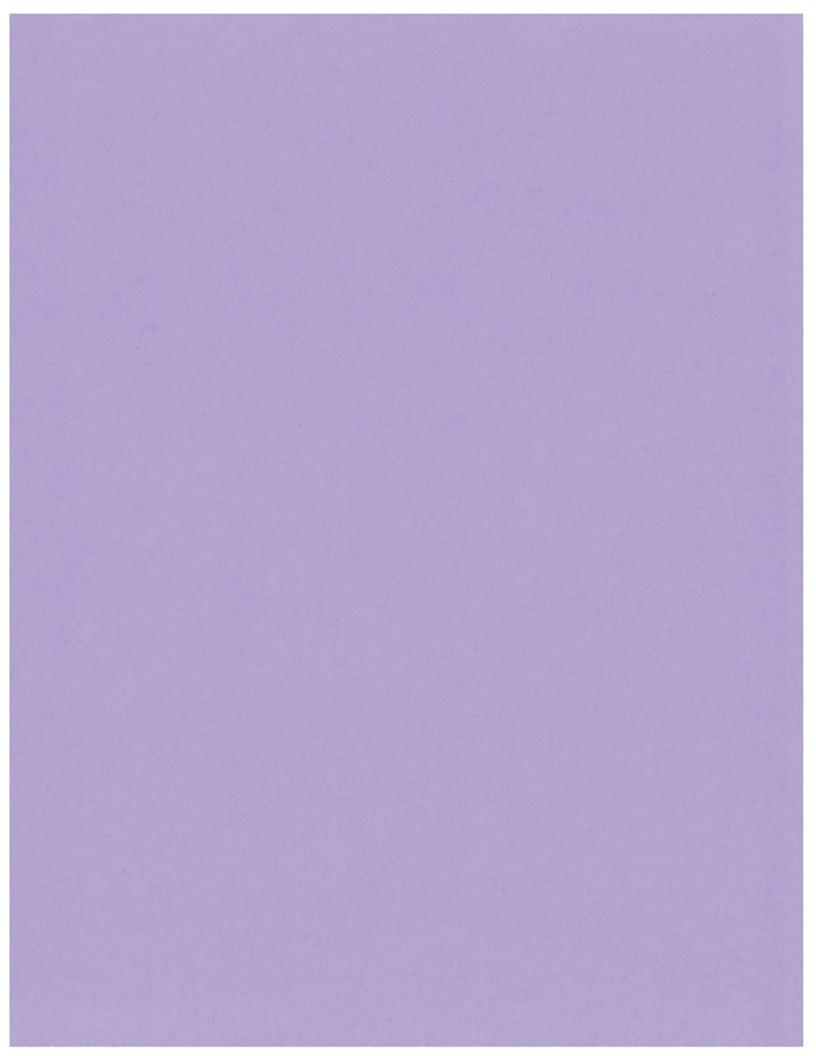
Project Number:	152206
	9126118
Well ID:	MW-109D
Sample ID:	MW-1090-20180924
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		Certi	ified Para	meters		1945 - N		100 C 100	1011 22 June 10-
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.
Time	рН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
1545	6.89	17,47	3,07	15.68	257	-104	7.58	1570	
1548	6.12	16.88	3.11	2.19	289	-109	7.40	1 JO	
1551	6.28	16.00	3.15	0.41	249	-115	7,60	- 8 ¹⁰	W HINK I NOT
1554	6.98	16.33	3,19	0.00	147	-116	7.63		= +F
1557	6.99	14.29	3,22	0.00	12.7	-114	7.63		THE REPART
1600	6.15	16.24	3,27	0.00	74.5	-113	7.63		- 115-3Ka I
603	6.45	4.24	3.25		66.2	-1(2	7.63		
606	6.9.4	16.28		0.00	67.6	-11-3	767	10) 245	NO. INCOMENDATION
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612	4.4	16.25	3.27	0.00	57.0	~114	7.05		3
1917	4.97	16.24	3.28	0.00	45.4	-114	7.63		
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62	411	16.17		0.00	50.0	-113	7.63		TIMES SETTING THE ALL INC.
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0.	liberation D	ate/Time:	al-	1 7					

Are low-flow parameters subject to field lab certification? 
Yes IN No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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Brown AND	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
Caldwell Upper Saddle River, NJ Off	Well Number: $\mathcal{M}\mathcal{W} = 109D$ Sample I.D.: $\mathcal{M}\mathcal{W} = 109D = 20(8092C)$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REU / PFP	Date: <u>9/24/18</u> Time: <u>1545</u> Weather: <u>overcest</u> Air Temp.: <u>48</u>
DEPTH TO : Static Water Level: 7.50 ft Bottom DATUM: Top of Protective Casing Top of Well Ca CONDITION: Is Well clearly labeled? Yes Sto Is Prot. Casing/Surface Mount in Good Cor Does Weep Hole adequately drain well hea Is Concrete Pad Intact? (not cracked or fro Is Padlock Functional? Yes No St Is Inner Casing Properly Capped and Ventor	Steel 25 PVC Teflon® TOpen rock of Well:ft using TOther: Is well clean to bottom? TYes INO nd.? (not bent or corroded) Yes No ad? Yes TNO st heaved) Yes INO NA Is Inner Casing Intact? Yes INO ed? Yes INO
VOLUME OF WATER: Standing in well:	To be purged:
PURGE DATA:         METHOD:         Centrifugal Pump         Peristalti	mp 🛛 2" Submersible Pump 🗔 4" Submersible Pump c Pump 🔲 Inertial Lift Pump 🗅 Other:
□ Teflon® MATERIALS: Pupp/Bailer: □ Stainless Steel □ PVC □ Other: Pumping Rate: 150 mL/m, 7 Elapsed Time: 45 Was well Evacuated? □ Yes 4 No PURGING EQUIPMENT: □ Dedicated □ Prepared	Tubing/Rope: Teflon® Polyethylene Polypropylene Other: Number of Well Volumes Removed: d Off-Site Ø Field Cleaned
SAMPLING DATA:	
	2" Submersible Pump
	Teflon® Polyethylene lethod:
	Contains Immiscible Liquid
DUP: INO ZEYES Name: <u>PUP - 28(</u> MS/MSD: 75K No IYes Name:	80926
I certify that this sample was collected and handled in accordance with applic Signature:	able regulatory and project protocols. Date: 9/26/18



0	descriptions, such as the second description of
Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: $MW - 123R$ Sample I.D.: $MW - 123R - 20181100G$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH (KW	Date: 11/0/18 Time: 0834 Weather: <u>Rainy</u> Air Temp.: <u>47°</u>
WELL DATA: ² ¹	I SEFPVC □ Teflon® □ Open rock ell:ft □ Other: ell clean to bottom? □ Yes □ No not bent or corroded) SEFY Yes □ No □ Yes □ No aved) SEFYes □ No Is Inner Casing Intact? □ Yes □ No
	To be purged:
Image: Contribution of the state of the	2" Submersible Pump     4" Submersible Pump     Inertial Lift Pump     Other:     Tubhg/Rope:     Volume Pumped:     26     Volume Pumped:     Site     Field Cleaned
SAMPLING DATA:         METHOD:               Bailer, Size:                  Syringe Sampler                  Peristaltic Pump                  Inert	
MATERIALS: Pump/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Yes X No Method APPEARANCE: Clear Durbid Color: FIELD DETERMINATIONS: See attached form for field param	d: Contains Immiscible Liquid
DUP: XXI No DIYes Name: MS/MSD: XXI No DIYes Name:	
I certify that this sample was collected and handled in accordance with applicable re- Signature: Racha Handled in accordance with applicable re-	pulatory and project protocols.

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

## NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

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2

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/6/18
Personnel: <u>REM/KW</u>	Well ID: MW-123R
Purge/Sample Depth: ~ 50	Sample ID: <u>MW - 123R - 20181106</u>

	Certified Parameters								
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
0634	8,23	13.20	8.38	2.08	49.1	-182	15,93	700	
0837	7,29	13.52	10.6	1.23	52.8	-135	15.96	TU	
0890	7,24	13.47	10.8	1.14	50.3	-131	15.98		
0843	7.18	13.43	11.0	1.00	56,9	-124	16.01		
0846	7.16	13.43	11.6	0.03	71.6	-124	16.06		··
0949	7.13	13.42	15:0	0.99	82.1	-124	16.13		· · · · · · · · · · · · · · · · · · ·
0852	7.14	13,29	17.2	0.88	49.9	-127	16.21		
08.55	7.15	13.23	18.0	0.83		-126	16.25		
0858	7.15	3,21	18.5	0.78	37.8		16.29		
0901	7-16	13.20	18.2	0.26	17.8	-132	11.20		
0904	7.16	13,20	14.2	0.77	15.7	-133		<u>₩/</u>	
0907		it sa	noll	MW-		2018110		V	
	Cervi -	<u>v. 2</u>		<u>/////////////////////////////////////</u>			<i>v</i>		
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Certified S	ample In	formation							dia no
	f Sample:		0901	7		Analyst 9	Signature:	( echil	Conochi
Instrumen			- 10			id the state of th	- 9	Thomas	yester
		rer/Model:	Horiba U-	52					
		I No. Unit:				Serial No. I	Handheld	BOGTOTE	2
Ca	libration D	ate/Time;	10/20	TIZ	1000				·
			for w	+ 0	Credition.				
Are low-flow	parameters	s subject to	field lab ce	rtification? [	🗆 Yes 🖾 No	(not required	I for CERCL	A sites or sites out	side of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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Brown	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
	Well Number: MW-120R
Upper Saddle River, NJ Office	Sample I.D.: MW- 120 R - 2018 110 G
1	
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/KW	Date: 11/6/18 Time: 0954 Weather: Rain Air Temp.: 46
NELL DATA:	
Casing Diameter: 4 Di Stainless Steel ØKSteel D	
ntake Diameter: 2 Galv. St DEPTH TO : Static Water Level: <u>13.90</u> ft Bottom of	eel ØKPVC U Tetion® U Open rock Well: ft
DATUM: 🔲 Top of Protective Casing 🖉 Top of Well Casir	g 🛛 Other:
CONDITION: Is Well clearly labeled? I Yes Who Is	
Is Prot. Casing/Surface Mount in Good Cond. Does Weep Hole adequately drain well head?	
Is Concrete Pad Intact? (not cracked or frost h	neaved) 🕅 Yes 🖸 No
	A Is Inner Casing Intact?  Ves INO
Is Inner Casing Properly Capped and Vented? /OLUME OF WATER: Standing in well:	
PURGE DATA:	2" Submersible Pump     1 4" Submersible Pump
	ump 🗋 Inertial Lift Pump 🖨 Other:
	□_ Teflon®
ATERIALS: Pupp/Bailer: 78 Stainless Steel	Tubing/Rope: 🔁 Polyethylene
Other:	Polypropylene     Other:
Pumping Rate: 175 m4/m h Elapsed Time: 30m	Volume Pumped: 1.75 Other:
Nas well Evacuated?   Yes  No	Number of Well Volumes Removed:
PURGING EQUIPMENT: Dedicated 🛛 🛠 Prepared C	Off-Site  Field Cleaned
SAMPLING DATA:	
METHOD: 🛛 Bailer, Size: 😿 Bladder Pump 🗅 2'	
Syringe Sampler D Peristaltic Pump D Ir	ertial Lift Pump D Other:
MATERIALS: 🖓 Bailer: 🔍 Teflon®	Tubing/Rope: 🖵 Teflon®
Stainless Steel	Polyethylene
SAMPLING EQUIPMENT: Dedicated QC Prepare	
APPEARANCE: 52 Clear D Turbid D Color:	
FIELD DETERMINATIONS: See attached form for field part	
53% , 🖬 👘 👘 👘	26
DUP: No IYes Name:	
MS/MSD : KNO I Yes Name:	
certify that this sample was collected and handled in accordance with applicabl	e regulatory and project protocols.
certify that this sample was collected and handled in accordance with applicable Signature.	e regulatory and project protocols. Date: 11/6/18

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/6(18
Personnel: <u>REM/KW</u>	Well ID: MW-120R
Purge/Sample Depth: ~~ 49	Sample ID: MW- 120R-2018 06

	Certified Parameters								
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
	P	( - )	(	(119,2)					Comments
0.51	07	14		6					
0954	7.86	11.97	5,37	6.61	17.8	-118	14.04	175	
0957	4.24	12.12	7.31	1.76	17.6	-122	14.08	$(\langle \cdot \rangle)^{\circ}$	
(000)	6,88	12.09	7,76	1,25	18,0	-124	14,10		
1003	7 84	12.08	9,11	0.97	13.7	174	14.12		
1006	6.88	12.07	4,99	0.89	12.4	-125	14.14		
1009	6.88	12.08	12.7	0.81	10.5	-124	14.15		
1012	6.88	12.07	14.7	0,80				·	
		12.07	-		9,4	-123	1417		
1015	U ~ 0 I		16.4	0.74	8.7	-122	14.18		· · · · ·
1018	6.89	12.06	17.5	0.71	7.7	-122	14.20		
1021	6.89	12.07	18.5	0.70	7.7	-122	14.21		
1024	6.90	12.07	19,3	0.69	7.3	-122	14,23		
1027	Colle	et so	nole	MW-1	20R-20	181106		V	
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Certified S	amole inf	ormation						1111	110 1
		ornation	102	7		A male in the		(m/ 1	Howark
	Sample:		104	1		Analyst S	Signature:	Kallyn	youn
Instrument									
N			Horiba U-						
	Serial	No. Unit:	W25Y	LZOK		Serial No. H	landheld:	BOG TOTE	:2
Cal	ibration D	ate/Time:	10/30	112	0		-		
			10/ 70					9	
Ann Inus Bass									

Are low-flow parameters subject to field lab certification? 
Yes Ø No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: 44 - 1200 Sample I.D.: MW - 1200 - 2018 1006
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / KW	Date: <u>11/4/18</u> Time: <u>1042</u> Weather: <u>Rain</u> Air Temp.: <u>46</u>
	a ☐ Other: vell clean to bottom? ☐ Yes ☐ No (not bent or corroded) 20 Yes ☐ No Served) S2 Yes ☐ No a Is Inner Casing Intact? ☐ Yes ☐ No 25 Yes ☐ No
PURGE DATA:	2" Submersible Pump
MATERIALS: Wind/Bailer: Teflon® MATERIALS: Wind/Bailer: A Stainless Steel PVC Other: Pumping Rate: 200 mL/mb Elapsed Time: 30m;	Imp I Inertial Lift Pump Other: Tubing/Rope: Tubing/Rope: Teflon® Polyethylene Polypropylene Other: Tubing/Rope: Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Other: Teflon® Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Polypropylene Po
SAMPLING DATA:         METHOD:           Bailer, Size:          Syringe Sampler       Peristaltic Pump         Index	Submersible Pump
MATERIALS: Fump/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes No Meth APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field para	od: Contains Immiscible Liquid
DUP: X No Yes Name: MS/MSD: No XYes Name: MW- 200-	20181106-MS/MSD
I certify that this sample-was collected and handled in accordance with applicable	regulatory and project protocols.

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

## NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Fulton (N. Ontario St.) Former MGP	P Project Number: 152206	
	National Grid	Date: 11/6/18	
1977 - 197 - 1978	REH/KW	Well ID: MU- (20D	
Purge/Sample Depth:		Sample ID: <u>MW-1200-2018</u>	31104
		4	

	L.	Cert	ified Para	meters					
Actual Time	pН	Temp (°C)	(mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1011-	- 07		1110						
1042	7.03	12.24	4.18	1.91	204	-134	13.05	700	
	7.01	12.40	4.01	1.19	355	-141	13.06	<u>~~</u>	
1048	201			0.84	341	-149	13.06		
1031	7.04		3194	0.83		-157	13.07		
1054	7.06	12.95	3.92	0.77	262	-161	(3.08		
1000			3.91	0.72	176	-165	13.09		
	7.11	13.00		0.74	149	-168	13.09		
	7.13		3.90	0.65	102	-172	13.09		
1106		13.03	3.91	0.60	88.(	-174	P3.09	_ \ /	
1109-	7.14		390	057	78.3	-175	13110	N/	
1112		7.05	3.10	0'51	5-9.4	-17.6	13.10	V	
.11.7.	Collee	r n	N-170	P - H	81106				
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	Sample:		1115	5		Analyst S	Signature: _	Bodu	1 Hough
Instrument		and the state of the	المعالمة الح	50					5
ĩV		er/Model:							
~	Serial	No. Unit:	W 25 Y	LZUK		Serial No. H	landheld:	BOGTOTE	52
Calibration Date/Time: 10(30/18									
Are low-flow	parameters	subject to t	field lab cer	tification? [	Yes 🛛 No	(not required	for CERCL	A sites or sites out:	side of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell Upper Saddle River, NJ Office	<b>LOW-FLOW GROUNDWATER</b> <b>SAMPLING FIELD DATA</b> Well Number: $MW - 115D$ Sample I.D.: $MW - 1(5D - 2018110G$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH (KAH)	Date: 11/6(18 Time: 1250 Weather: <u>39404</u> Air Temp.: <u>58</u>
WELL DATA:       B         Casing Diameter:       Stainless Steel         Intake Diameter:       Stainless Steel         DEPTH TO:       Stain Vater Level:         DEPTH TO:       Stain Vater Level:         DATUM:       Top of Protective Casing         CONDITION:       Is Well clearly labeled?         Is Prot.       Casing/Surface Mount in Good Cond.?         Does Weep Hole adequately drain well head?         Is Concrete Pad Intact? (not cracked or frost headlock Functional?         Is Inner Casing Properly Capped and Vented?	PVC □ Teflon® □ Other: eel 经PVC □ Teflon® □ Open rock Well:ft g □ Other: well clean to bottom? □ Yes □ No ? (not bent or corroded)
PURGE DATA:	
Centrifugal Pump D Peristaltic Pu	2" Submersible Pump      4" Submersible Pump     ump      Inertial Lift Pump      Other:
MATERIALS: Pump Bailer: Teflon® Stainless Steel PVC Dother: Pumping Rate: 225mL/mm Elapsed Time: 45 nin	Tubbg/Rope:     Teflon®     Polyethylene     Polypropylene     Other:
Was well Evacuated?  Ves V No PURGING EQUIPMENT: Dedicated Prepared Of	Number of Well Volumes Removed:
SAMPLING DATA:         METHOD:          Bailer, Size:         Syringe Sampler         Peristaltic Pump         Interior Content of the second secon	Submersible Pump
SAMPLING DATA:         METHOD:          Bailer, Size:         Syringe Sampler          Syringe Sampler        Peristaltic Pump          MATERIALS:       PumpBailer:          Teflon®	ertial Lift Pump  Other: Tubing/Rope:
SAMPLING DATA:         METHOD:          Bailer, Size:          Syringe Sampler          Peristaltic Pump           MATERIALS:          PumpBailer:          PumpBailer:          Teflon®          Stainless Steel	ertial Lift Pump I Other: Tubing/Rope: I Teflon® I Off-Site I Field Cleaned
SAMPLING DATA:         METHOD:       Bailer, Size:         Syringe Sampler       Peristaltic Pump         MATERIALS:       PumpBailer:         SAMPLING EQUIPMENT:       Dedicated         Metals samples field filtered?       Yes	ertial Lift Pump DOther: Tubing/Rope: D Teflon® 2 Polyethylene ad Off-Site Strield Cleaned add: Contains Immiscible Liquid
SAMPLING DATA:         METHOD:       Bailer, Size:         Syringe Sampler       Peristaltic Pump         MATERIALS:       PumpBailer:         SAMPLING EQUIPMENT:       Dedicated         Metals samples field filtered?       Yes         APPEARANCE:       Clear	ertial Lift Pump DOther: Tubing/Rope: D Teflon® Polyethylene d Off-Site SC Field Cleaned nod: Contains Immiscible Liquid ameter data.

P:\^Office\^Field_Lab\Field_Data_Sheets\Excel_Files\Low_Flow_Well_Info_Sheet_Revision_2.1_102014.xis

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206
Date: 11/6/18
Well ID: MW-115D
Sample ID: <u>MW-15D-20181106</u>

	Certified Parameters				-				
Actual Time	рH	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate	Commonte
	рп		(moreniy	(mg/c)	1 201	(1917)	(11)	(mL/min)	Comments
1250	6.86	13.76	2.44	5.25	868	-94	6.30	0.5	
1253	6.70	13.80	3.49	1.72	548	= 10'5	6-81	ムイフ	· · · · · · · · · · · · · · · · · · ·
1256	6.71	13.79	3.54	1.43	480	-108	6.81		
(259	6.73	13,79	3.59	1.07	348	111-000-111	6.82		
1302	6.74	13.79	3.61	0.84	242	-115	6.84		
1305	6.76	13.81	3,61	0,78	216	-116	6.85		
1308	6.76	13.81	3.6	0.75	188	-117	6.86		
1311	6.77	13,83	3.61	0.70	174	-119	6.86		1 ad task
1314									changed har by
1317	6.81	13.85	3.60	8 56	135	-118	6.83		
1320	6.80	13.88	3.60	1.50	129	-116	6.80		
1323	6.81	13.93	3.60	0.67	124	-118	6,81		
1326	6.81	13.93	3,60	6.69	115	-119	6.82		
1329	6.94	13.87	3.60	0.62	124	-122	6.84		
1332	6.86		3.60	0.63	119	-123	4.82		
1335	6.87		3,60	0.58	114	-125			
1338	coue	of Sc	uples	Mu-	115P -	2018110	6	V	
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	Sample:		10	38		Analyst S	Signature:	(Adul	the work
Instrument	• •		K					Charles and	45 an
		er/Model:	Horiba U-	52					
	Serial No. Unit: W25YL 20K Serial No. Handheld: BOGTOTEZ			62					
Calibration Date/Time: 10/30/18									
		-	101.30	<u> </u>					

Are low-flow parameters subject to field lab certification? 
Yes IN No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

	streamaing a transmission of a stream of the state of the
Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER         SAMPLING FIELD DATA         Well Number: $\mathcal{M} W \sim \mathcal{U}(\mathcal{G})$ Sample I.D.: $\mathcal{M} W \sim \mathcal{U}(\mathcal{G}) \sim \mathcal{D}(\mathcal{G})$
Project: Fulton (N. Ontario St.) Former MGP Personnel: ドビザイ ドイル	Date: 11/0/16 Time: 1402 Weather: 5 May Air Temp.: 58
WELL DATA: Casing Diameter: I Stainless Steel Steel I Intake Diameter: I Stainless Steel Galv. Steel DEPTH TO: Static Water Level:34 ft Bottom of W DATUM: I Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? I Yes Steven Is V Is Prot. Casing/Surface Mount in Good Cond.? Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost heads in the steven Is Protectional? Steven Is Protectional? Is Inner Casing Properly Capped and Vented?	eel CARVC C Teflon® C Open rock Well:ft q C Other: well clean to bottom? C Yes No (not bent or corroded) C Yes No Veryes No eaved) C Yes No Is Inner Casing Intact? Yes No Yes No
VOLUME OF WATER: Standing in well:	To be purged:
Image: Marterial State       Image: Centrifugal Pump       Image: Peristaltic Pump         Marterial State       Image: Peristaltic Pump       Image: Peristaltic Pump         Pumping Rate:       Image: Pump       Image: Peristaltic Pump         Pumping Rate:       Image: Pump       Image: Pump         Was well Evacuated?       Image: Peristaltic Pump         PURGING EQUIPMENT:       Image: Peristaltic Pump         Pumping Rate:       Image: Peristaltic Pump         Pumping Ra	2" Submersible Pump     4" Submersible Pump     Inertial Lift Pump     Other:     Troirg/Rope:     Volume Pumped:     2 G     Volume Pumped:     Field Cleaned
SAMPLING DATA: METHOD:	
MATERIALS: Ump/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Drepared	Tubing/Rope: Teflon® Polyethylene
Metals samples field filtered?  Yes S No Meth APPEARANCE:  FIELD DETERMINATIONS: See attached form for field para	od: D Contains Immiscible Liquid ameter data.
DUP : No Yes Name: MS/MSD : No Yes Name: I certify that this same was collected and handled in accordance with applicable	and a state of the second s



## NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/6/18
Personnel: REH/KAW	Well ID: MW- 1160
Purge/Sample Depth: 226	Sample ID: MW-116D-70181(06

						[		[	
Actual Time	pН	Temp (ºC)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Commente
1 MILE	hu hu		(moron)	(mg/c)		(mix)	. (it)	(mizmin)	Comments
1402	6.72	14,38	2.71	3.76	379	-104	17.40	000	
1405	6.72	14.07	2.71	1.31	369	-121	17.41	2011	-
190 5	6.74	75.93	3.36		304	-120	1742	20	
1411									deaned won box
नेयां में	6.76	13.81	3.58	2.40	184	-129	17.42		chample
1417	6.76	13.75	3.58	1.52	146	-122	17.92		
	6.77	13.73	3.58	1,07	118	-32	17.42		
1423	6.78	13,71	3,58		103	-138	17.43	·····/··	
1426	6.78	13.73	3,50	0,73	96.8	-139	17.43		
1429	6.79	13.72	3.58	0.72	75.1	-141	17.42		
1432	6.80		2 54	0.72	60.7		17.43	<u>+;/</u>	
1435	Call		endy	MW-	116D-		06		
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	f Sample:		11>	)		Analyst S	Signature:	Ellelu	ingo rade
Instrumen				50			14		
N		rer/Model:						ROLT-	- 0
•	Seria	No. Unit:	W25	1-201	<u>\</u>	Serial No. I	Handheid:	<u>B06T0-</u>	127
Ca	libration D	ate/Time:	10/3	01(8					

Are low-flow parameters subject to field lab certification? 
Yes 🛛 No (not required for CERCLA sites or sites outside of NJ)

Brown AND			
Caldwell	Upper Saddle River, NJ Office	Sample I.D.: MW- 108 - 20	(if different from well no )
Project: Fulton (N. Ontario St.) Personnel: REH //54	Former MGP	Date: <u>U/6/18</u> Time: <u>14</u> Weather: <u>Sunn</u>	69
DEPTH TO : Static Water Lev DATUM: I Top of Protective CONDITION: Is Well clearly Is Prot. Casing Does Weep Ho Is Concrete Pa Is Padlock Fur	el: 7,40 ft Bottom of We casing 29 Top of Well Casing labeled? I Yes 29 No Is we /Surface Mount in Good Cond.? ( ble adequately drain well head? I ad Intact? (not cracked or frost hea	Other:     Other:	o No
VOLUME OF WATER: S	tanding in well:	To be purged:	K 13
MATERIALS: MATERIALS: MATERIALS: Marching Bailer: Pumping Rate: <u>175 m 44</u> Was well Evacuated? <u>v</u> PURGING EQUIPMENT: <u>u</u>	entrifugal Pump  Peristaltic Pum Teflon® Stainless Steel PVC Other:	Tubiog/Rope: St.	Teflon® Polyethylene Polypropylene Other:
SAMPLING DATA: METHOD: D Bailer, Size Syringe Sam	: SBladder Pump □ 2" S pler □ Peristaltic Pump □ Iner	ubmersible Pump  ם 4" Submersib tial Lift Pump   Other:	le Pump
Metals samples field filtered? APPEARANCE: Cle FIELD DETERMINATIONS: DUP : No UYes MS/MSD : No UYes	ear D Turbid D Color: See attached form for field parar	Off-Site Sc Field Cleaned d: Contains Immiscible Liqu neter data.	Teflon® Polyethylene iid
Signature:	no nangleg in accoroance with applicable re	Date: <u>U/G/18</u>	
	L V		

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Revision 2.1: 10/20/14



# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

- de Si

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/6/18
Personnel: <u>REH / ISAW</u>	Well ID: MIN - LOB
Purge/Sample Depth: ~ 13	Sample ID: <u>MW- 108-20181104</u>

	Certified Parameters						1		
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
1459	6.56	15,40	2.41	2,36	394	- 64	7.49	1	
1502	6.45	15,27	2,31	1,34	339	- 65	1.52	+75	
1505	6.45	15,20	2.37	0.81	306	-68	7.54		
1508	6.46	15.19	2.35	0.64		- 71	7.56		
1511	6.47	15.17	2.35	0.58	249	- 74	7.58		
1514	6.47	15.21	2.35	0,58	173	- 75	7.56	· · · · · · · · · · · · · · · · · · ·	
1517	6.48	15.21	2,36	0.54	149	1-74	7.54		
1520	6.47	15.26	2.35		103	-73	7.54		
1523	6.47	15.17	2.37	0.54	57.0	-71	7.56		
1526	6.47	15.07	2.57	0.54	43.6	-69	7.56		
528	6.48		2.38	0.58	38.0	-69	1.51	$\mathbb{W}/\mathbb{W}$	
1532	Colle		sple	Nu -	108-7	218/10	C		
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Certified S	ample Inf	ormation						0	A A
Time of	Sample:		153	52		Analyst 9	Signature	Frank 1ª	Hojuack;
Instrument						Analyst	ngriature.	U CAIM	4 Sugar
		er/Model	Horiba U-	52					
			4251		<	Serial No. F	- landheid	BOGTOT	c 7
Cal	libration D	ate/Time:	10/30	2/18	<b>\</b>		, an onloid,	· Ne lo l	
Are low-flow parameters subject to field lab certification?   Yes 🛛 No (not required for CERCLA sites or sites outside of NJ)									

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA         Well Number:       MW-119         Sample 1.D.:       MW-119-201891(07)
Project: Fulton (N. Ontario St.) Former MGP Personnel: $R \in H/KAW$	Date: <u>UIO7/18</u> Time: <u>0737</u> Weather: <u>cycecast</u> Air Temp.: <u>47°</u>
WELL DATA:       Image: Stain Stain Steel       Image: Steel	a □ Other: vell clean to bottom? □ Yes □ No (not bent or corroded) ⊠< Yes □ No ⊠Yes □ No eaved) ≌=Yes □ No Is Inner Casing Intact? □ Yes □ No ▷ Yes □ No
	2" Submersible Pump      4" Submersible Pump     mp     Inertial Lift Pump      Other:
MATERIALS: Rump/Bailer: Teflon® Stainless Steel PVC Other: Pumping Rate: 200m U/wig Elapsed Time: ~45	Lubing/Rope:     Teflon®     Polyethylene     Polypropylene     Other:     Volume Pumped: <u>4 G</u> Number of Well Volumes Removed:
SAMPLING DATA: METHOD:	
MATERIALS: Completailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes Complete APPEARANCE: See attached form for field para	od: Contains Immiscible Liquid
DUP : The No	
I certify that this sample was collected and handled in accordance with applicable Signature: Machine Manachi	regulatory and project protocols. Date:



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/7/18
Personnel: REH/KAW	Well ID: MW-119
Purge/Sample Depth: ~12.5	Sample ID: MW-119-20181107

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	ρН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
0737	6.77	12.95	2,35	7.81	546	140	7.32	200	
0740	6.50	13.67	2.37	2,95	"1000"	150	7.32	<u> </u>	
0743	6.45	14.05	2.41	1.84	769	143	7.32	* <b>•</b> C	
0746	6,43	14.30	2.42	1.33	583	134	7.32		
0749	6.44	14.55		1,10	459	12.4	7,33		
0752	4.45	14.64	2.42	1.08	419	120	7.33		
0755	6.47	14:78	2,40	1.10	333	101	7,35		
0758	6.47	14.79	2.39	1.02	295	75	7.36		
0801	6.49	14,85	2.35	0.93	225	35	7.36		
0804	6.50	14.86	2.34	0,90	200	18	7.37		· · · · · · · · · · · · · · · · · · ·
0807	6.50	14.88	2.32	0.87	157	<u> </u>	7.37		
0810	6,52	14.89	2.30	0,85	122	3	7.37	·····	
0816	6.53	14.88	2.29	0.84	85.4	-1	7.37		
0819	6.55	14.91	2.27	0.80	74.9	-3	7.37		
		14.94	2.26	0.80	61.7		7.37		
0825				NW - 11		- 1	(.3)		
Č S S	an~i	1 300	414 -	1.47	1-213	1107			·····
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	-								
Certified Sample Information: Time of Sample: 0825 Analyst Signature: Roch Houck:									
	Time of Sample: 082.5						Signature:	Good	Hongok.
instrument Data:									
Manufacturer/Model: Horiba U-52									
			W251		5	Serial No. I	Handheld:	BO 6TOT	22
Calibration Date/Time: 10/30/18									

Are low-flow parameters subject to field lab certification? 
Yes 
No (not required for CERCLA sites or sites outside of NJ)

Brown AND Caldwell Upper Saddle River, NJ Office	<b>LOW-FLOW GROUNDWATER</b> SAMPLING FIELD DATA Well Number: $\mathcal{M}W - 1/2\mathcal{D}$ Sample I.D.: $\mathcal{M}W - 1/2\mathcal{D} - \mathcal{D}B$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/KAW	Date: 11/7/18 Time: 0848 Weather: Overast Air Temp.: 47
WELL DATA:         Casing Diameter: ¹ Stainless Steel ² Stainless Steel ² Galv. Steel         Intake Diameter: ² Stainless Steel ³ Galv. Steel         DEPTH TO:       Stainless Steel ³ Galv. Steel         DATUM: ¹ Top of Protective Casing ³ Top of Well Casing         CONDITION: ¹ S Well clearly labeled? ¹ Yes         S Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? ³ Is Concrete Pad Intact? (not cracked or frost heat Is Padlock Functional?         Is Inner Casing Properly Capped and Vented? ³ NA Is Inner Casing in well:	AFPVC I Teflon® I Open rock II:ft I Other: II clean to bottom? I Yes I No tot bent or corroded) Sc Yes No Yes No Yes No Yes No Yes NoIs Inner Casing Intact? I Yes No
	2" Submersible Pump
MATERIALS: P(m)/Bailer: Teflon® Stainless Steel PVC Other: Pumping Rate: 225 m (457 Elapsed Time: 40 min	mber of Well Volumes Removed:
SAMPLING DATA:         METHOD:       □         Bailer, Size:       Stadder Pump         Syringe Sampler       □         Peristaltic Pump       Inert	ubmersible Pump    4" Submersible Pump ial Lift Pump   Other:
MATERIALS: Fump/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Yes Yr No Method	10 - 21120 - 2000 - 2000 - 2021 - 20
APPEARANCE: Clear Clear Curbid Color:	Contains Immiscible Liquid
DUP: 12 No I Yes Name: MS/MSD: 25 No I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re Signature: Anclud Hai nack	pulatory and project protocols. Date: $11/7/18$

Revision 2.1: 10/20/14



# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/7/18
Personnel: <u>BEH/KAW</u>	Well ID: 11W-CED 1120
Purge/Sample Depth: ~17	Sample ID: 1120-20181107

		👘 Certi	ified Parai	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	Saf.
Time	pН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
	· ·								
0848	6.91	14.91	2,70	4.79	550	-49	6.02	0	· · · · · · · · · · · · · · · · · · ·
0851	6.73	15.42	3.02	4.62	"10004	-70	6.02	225	
0854	6.69	15.78	3.08	5.14	"00	-72	6.02		· · · · · · · · · · · · · · · · · · ·
0857	6.69	15.79	3108	3.83	"0.0"	-71	6.02		
0900	6,68	15.88	3.08	4.40	*0-0"	-70	6.02		
0903	6.68	16.04	3.07	1.88	154	-67	6.02		
	6.68	16.01	3.07	1.77	VO.O	-65	6.02		
1909	~								cliques er
0912	6.69	16.27	3.06	0.73	703	-64	6.02		
	6.68	16.28	3.06	0.62	605	-63	6.02		
0919	6.68	16.33	3,07	0.63	509	~62	6.02		
0921	6.69	16.35	3.06	0.65	420	.62	6.02		
0924	6.70	16.32	3.06	0.62	420	-63	6.02		
D927	6.75	16.35	3.05	0.70	266	-66	6.02		
0930	6.71	16.33	3.04	0,73	249	-64	6.02	· · · · · · · · · · · · · · · · · · ·	
0933	6.30	16.32	3,03	0,93	215	~65	10.02		
0936	6.72	16.32	<b>\$</b> 03	0,86	193	-46	6.02		
0939	6.72	16,33	3.03	p. Colo	164	-67	6.02		
0942		16.33	3.02	6.72	151	- 10 4	6.02	<u> </u>	· · · · · · · · · · · · · · · · · · ·
0945	6,74	16.33	3,02	0.99	157	-69	6.02	<u> </u>	
0948	Collec	For		Mu-	1120-1	201811	07		
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Instrumen				50					
IV.		rer/Model:			10	Out of Michigan		O DE TAT	* - <b>7</b>
0-		No. Unit:			<u>n</u>	Serial No. I	Hanoneid:	BOGTOTE	
Calibration Date/Time:									

Are low-flow parameters subject to field lab certification? 
Yes 🗵 No (not required for CERCLA sites or sites outside of NJ)

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Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: $\mathcal{M}\mathcal{W} - 1/2\mathcal{D}$ Sample I.D.: $\mathcal{M}\mathcal{W} - 1/2\mathcal{D} - \mathcal{D}/8^{\text{if different from well no}}$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/KAW	Date:         11/7/19         Time:         0958           Weather:         Overcest         Air Temp.:         47
WELL DATA:       Image: Casing Diameter:	el PVC Teflon® Open rock /ell:ft Other: ell clean to bottom? Yes No (not bent or corroded) Yes No Yes No aved) Yes No Is Inner Casing Intact? Yes No Yes No
MATERIALS: Rump/Bailer: Decomposition Control	umber of Well Volumes Removed:
SAMPLING DATA: METHOD: D Bailer, Size: Bladder Pump 2 2" S Syringe Sampler D Peristaltic Pump Iner	Submersible Pump
MATERIALS: Pupp/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Departed Metals samples field filtered? Yes Steel	od:
APPEARANCE: Clear D Turbid D Color: FIELD DETERMINATIONS: See attached form for field parar	
DUP : KAT No I Yes Name: MS/MSD : A No I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable r Signature:	regulatory and project protocols. Date: $(1/7/(8))$



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 1//7/18
Personnel: REH KAW	Well ID: MW - 1/2.5
Purge/Sample Depth: ~- ( 0	Sample ID: 1125-20181107

		Certi	ified Para	neters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
	'		` '	/	, . = ,			(	o on monto
0958	6.90	15.28	3.18	9.31	130	-3	6.05	5 A	
001	6.73	15.85	3,22	8,37	79.9	Ø	6.06	~ 50	
1004	6.74	1411		808		41	6.05		
1007	6.76	16.22		7.69	47.9	~2	6.08		
00		16.24	3.22			-3	6.08		
1013	6.80	16.31	3.22	7.26	22.9	-5	4.08		
1016	6,81	16.33	3.22	7.01	22.5	-7	6.08		
1019	6183	16.34		6.79	16.0	-9	6.08		
1022	1.04	16.34	3,23	6.48		-9	6.08		
1025	6.85	16.38		6.07	15.0	- 10	608		
		16.39	3.23	5.90	15,9	-11	6.08		
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Certified S				1		Ameliati		Cochet	Bi la ala
Instrument			163	Į		Analyst	Signature:	and a	yuarre_
		er/Model:	Horiba II	52					$\checkmark$
IV						Coriol Ma		RALTOYS	7
0.0		No. Unit: ate/Time:				Selial NO, I	nanoneio:	BOG TOTE	6
Ca		ale/ I inte.	10/3	0118					1
Are low-flow	parameters	subject to	field lab cer	tification? [	∃Yes ⊠ No	(not required	for CERCL	A sites or sites out	side of NJ)

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW-121D Sample I.D.: MW-121D-2018/107
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH (KAW	Date: 11/7/18 Time: 1050 Weather: overcast Air Temp.: 47
WELL DATA:       Image: Stain Stain Steel       Image: Steel	I V PVC Teflon® Open rock ell:ft Dother: ell clean to bottom? Yes No not bent or corroded) SC Yes No SYes No aved) ZYes No Is Inner Casing Intact? Yes No SYes No
	2" Submersible Pump      4" Submersible Pump     nertial Lift Pump      Other:
MATERIALS: Pump/Bailer: Teflon® MATERIALS: Pump/Bailer: Stainless Steel PVC Pumping Rate: 300 m(/m/n) Elapsed Time: 30 m/n	Tubing/Rope: Teflon® Polyethylene Polypropylene Other: umber of Well Volumes Removed:
SAMPLING DATA: METHOD: Deristaltic Pump 2 2" S Syringe Sampler Deristaltic Pump Iner	ubmersible Pump  ם 4" Submersible Pump tial Lift Pump ם Other:
MATERIALS: Upp/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared O Metals samples field filtered? Ves 2 No Method APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field parar	Contains Immiscible Liquid
DUP: 52 No IYes Name: MS/MSD: 54 No IYes Name:	
I certify that this sample was collected and handled in accordance with applicable re Signature: Signature:	egulatory and project protocols. Date: $1/7/8$

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# NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Client: National Grid Date: 1/7//8	
Personnel: <u>REH/ KAW</u> Well ID: <u>MW ~ 121 D</u>	
Purge/Sample Depth: ~16 Sample ID: MW - 1210 - 201811	07

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	4
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
·								· · · · · ·	
1050	7.08	14.17	2.24	3.00	487	~35	7.88	200	-12 
1053	6,64	14.40	2.39	2.06	514	-37	7.87	40	
1056	6:58	14.50	2.45	1.38	415	- 39	7.87		
1059	6.55	74.51	2.47	1.09	318	- 40	7-88		
1102	6.54	14.55	2.49	0-67	251	-41	7.88		
1105	6,54	14.57	2.49	0.62	194	-42	7.88	T.	
1108	6.53	14,62	2.49		70	~44	7.88		62 B
1111	6.53	14.63	2,50	0.63	122	-44	7,88		
1114	6.53	19.63	2,50	0.60	94.5	-45	7.88		
1117	4,53	14.71	2.51	0.59	76.5	-46	7.87		
1120	6.55	14.71	2.51	0.56	57.2	-47	7.88		
1123	colle	et s	aple	MW	-1210-	2018110	27		
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Certified S			:	`				Deal 10	la alla
Instrument	f Sample:		1123	>		Analyst S	signature:	would	Jonack .
		or/Modal-	Horiba U-	52					
IV			1125V			Serial No. 4	-blodhoel-	BOGTOTE	2

Calibration Date/Time: 0/30/18

ial No. Handheld: 1306707E2

Brown AND Caldwell		
	Upper Saddle River, NJ Office	
Project: Fulton (N. Ontario S Personnel: REM (5A		Date: 11/7/18 Time: 11/1 Weather: Orceast Air Temp.:
CONDITION: Is Well clea Is Prot. Cas Does Weep Is Concrete Is Padlock	Level: 7. ((ft Bottom of tive Casing Top of Well Casin rry labeled? Yes KNo Is sing/Surface Mount in Good Cond. b Hole adequately drain well head? Pad Intact? (not cracked or frost I Functional? Yes No X N. sing Properly Capped and Vented?	eel @ PVC Teflon® Open rock Well:ft well clean to bottom? Yes No ? (not bent or corroded) 2 Yes No ? Yes No heaved) 2 Yes No A Is Inner Casing Intact? Yes No
MATERIALS: Pupp/Bailer: Pumping Rate: <u>200m4</u> Was well Evacuated? □	□ Teflon® Æ Stainless Steel □ PVC □ Other: ₩, μ Elapsed Time: <u>30</u> m	Tubing/Rope: Teflon® Polyethylene Polypropylene Other: Other: Number of Well Volumes Removed:
SAMPLING DATA:	ize: ∕≊≪Bladder Pump □ 2'	Submersible Pump
	ampler 🗅 Peristaltic Pump 🗅 Ir	ertial Lift Pump 🗅 Other:
Syringe S	Teflon®	Tubing/Rope: Teflon®
	☐ Teflon® ਓ── Stainless Steel ☐ Dedicated ☐ Prepare	Turne/Rope: Teflon® Polyethylene
□ Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE:	☐ Teflon®	d Off-Site 2 Field Cleaned Polyethylene
□ Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: FIELD DETERMINATIONS:	☐ Teflon® ☐ Stainless Steel ☐ Dedicated ☐ Prepare ☐ Yes <u>@</u> No Met	d Off-Site 2 Field Cleaned Polyethylene
Grand Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: FIELD DETERMINATIONS: DUP : EL No GYE	☐ Teflon® ☐ Stainless Steel ☐ Dedicated ☐ Prepare ☐ Yes 2 No Mether Clear ☐ Turbid ☐ Color: _ See attached form for field parts s Name:	d Off-Site 25 Field Cleaned Polyethylene hod: Contains Immiscible Liquid rameter data.
□ Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: A FIELD DETERMINATIONS: DUP : B No □ Yes MS/MSD : D No □ Yes	☐ Teflon® ☐ Stainless Steel ☐ Dedicated ☐ Prepare ☐ Yes 2 No Mether Clear ☐ Turbid ☐ Color: _ See attached form for field parts s Name:	d Off-Site 25 Field Cleaned Polyethylene hod: D Contains Immiscible Liquid rameter data.
□ Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: A FIELD DETERMINATIONS: DUP : B No □ Yes MS/MSD : D No □ Yes	 Teflon® Stainless Steel Dedicated Prepare Yes 22 No Meth Clear Turbid Color: See attached form for field part s Name: 	d Off-Site 25 Field Cleaned Polyethylene hod: D Contains Immiscible Liquid rameter data.
□ Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: FIELD DETERMINATIONS: DUP : PS No □ Yes MS/MSD : D No □ Yes I certify that this sample was collecte	 Teflon® Stainless Steel Dedicated Prepare Yes 22 No Meth Clear Turbid Color: See attached form for field part s Name: 	Turne/Rope: Teflon® Polyethylene d Off-Site 25 Field Cleaned hod: O Contains Immiscible Liquid rameter data.
□ Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: FIELD DETERMINATIONS: DUP : PS No □ Yes MS/MSD : D No □ Yes I certify that this sample was collecte	 Teflon® Stainless Steel Dedicated Prepare Yes 22 No Meth Clear Turbid Color: See attached form for field part s Name: 	Turne/Rope: Teflon® Polyethylene d Off-Site 25 Field Cleaned hod: O Contains Immiscible Liquid rameter data.
□ Syringe S MATERIALS: (Pump/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: A FIELD DETERMINATIONS: DUP : A No □ Yes MS/MSD : No □ Yes certify that this sample was collected Signature: A A A A A A A A A A A A A A A A A A A	Teflon® Stainless Steel Dedicated Prepare Yes 2 No Met Clear Turbid Color: _ See attached form for field par s Name: s Name: d and handled in accordance with applicable	Turne/Rope: Teflon® Polyethylene d Off-Site Ør Field Cleaned hod: Or Contains Immiscible Liquid rameter data. Or Contains Immiscible Liquid e regulatory and project protocols. Date: $u/z/R$

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Revision 2.1: 10/20/14

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: <u>Fulton (N. Ontario St.) Former MGP</u> Client: <u>National Grid</u> Personnel: <u>BEM / K(MW</u> Purge/Sample Depth: <u>~{0</u>	Date: 11/7/18 Well ID: <u>MW - 12-15</u> Sample ID: <u>MW - 12-15-70181107</u>

		Cert	ified Para	meters						
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate		
Time	рН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments	
								N 3		
7141	6.67	14.36	1.60	6.59	412	-7	7.80	500		
(14 Y	6.46	19.74	156	1.73	299	(3)	7.82	LAR		
1147	6.47	14.98	1.55	1,27	228	23	7.84			
1150	6.48	15.04	1.55	1.02	161	30	7.86			
1653	6.49	15.07	1.58	0.91	117	33	7.88			
1156	4.50	15.10	1.55	0.86	101	37	7.88			
1159	4.5	1512	1.55	0.76	88.8	40	7.87 7.81			
1202	6.53	15.13	1.75	0.73	67.4	44	1.81	/		
1205	6.54	15.15	1.55	0.73	63.4	46	7.89			
1208	6.55	1519	1.55	0.73	46.9	49	7.88	$ \downarrow \downarrow / $		
1211	6.57	15.18	1.55	0.72	45.0	50	7.88	<u> </u>		
1217	Caller	1 500	ple M	N-12	15-20	181107				
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Certified S	ample Inf	formation						0	10 1.	
	f Sample:		1214			Analyst S	Signature:	(ada)	George unde	
Instrumen	t Data:		· · · ·			*	-	and the second	75	
N			Horiba U-					_		
	Serial	No. Unit:	W25 Y	L20K		Serial No. I	Handheld:	BOGTOTE	2	
<u> </u>			101	1.0	· · · ·					

Serial No. Unit: 4/25 4/20 K Calibration Date/Time: 10/30/12

Brown AND Caldwell Upper Saddle River, NJ	$\begin{array}{c} \text{LOW-FLOW GROUNDWATER} \\ \text{SAMPLING FIELD DATA} \\ \text{Well Number: } \mathcal{M}\mathcal{W} - 110 \text{ S} \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 110 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} - 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ \text{Sample I.D.: } \mathcal{M}\mathcal{W} - 100 \text{ S} + 200(8(008)) \\ Sa$
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/KAW	Date: 1/7/18 Time: 132.8
DEPTH TO : Static Water Level: 7.30 ft Bott DATUM: Top of Protective Casing Partop of Wel CONDITION: Is Well clearly labeled? Yes Sin Is Prot. Casing/Surface Mount in Good Does Weep Hole adequately drain well Is Concrete Pad Intact? (not cracked or	tom of Well:ft Il Casing ☐ Other: Io Is well clean to bottom? ☐ Yes ☐ No Cond.? (not bent or corroded) / ST Yes ☐ No head?
VOLUME OF WATER: Standing in well:	To be purged:
METHOD: MATERIALS: Pumping Rate: Pumping Rate: MATERIALS: MAT	Number of Well Volumes Removed: <u>< </u>
SAMPLING DATA: METHOD:	o □ 2" Submersible Pump □ 4" Submersible Pump o □ Inertial Lift Pump □ Other:
MATERIALS: Furp/Bailer: Teflon® A Stainless Steel SAMPLING EQUIPMENT: Dedicated P Metals samples field filtered? Dedicated No	Tubing/Rope: Teflon® Polyethylene Method:
	olor: Contains Immiscible Liquid
DUP: 18 No IYes Name: MS/MSD: P No IYes Name:	

P:\^Office\^Field_Lab\Field_Data_Sheets\Excel_Files\Low_Flow_Well_Info_Sheet_Revision_21_102014.xls

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Date: <u>11/7(78</u> Well ID: <u>11W-105</u> Sample ID: <u>1105</u>

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Project Name: Fulton (N. Ontario St.) Former MGP	
Client: National Grid	
Personnel: REM/KuW	
Purge/Sample Depth: ~/ 2	
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			fied Para					2	
Actual		Temp	Cond	DÔ	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
	1911								8
1328	6 70	13.91	9,29	6.86	247	157	7.36	2 00	
1331	6.39	14.45	9.41	2.63	217	122	7.45	200	
1334	6.39	14,70	1.55	1,97	166	11	7.53	<u> </u>	
1337	6.39	14.53	2.56	1.80	147	83	7.62		
1340	6.40	14.78	9.56	1.29	126	76	7.66		·······
1343	6,41	14-80	9,50	0,98	103	71	7.70		
1346	6.41	14,82	9.39	0.96	85.6		7.76		
1349	6.42	14,84	9,20	0.93	66.4	()(7.78		
1352	6,43	14.85	9,10	0.91	54.3	5-8	7.80		
1355	1.44	14 87	d .99	0.92	4 510	-u	2.81		
1358	6.45		8/92	0.93	380	54	7.82		,
1401	Colles			-1105	- ZEX8110		1.02	V	
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Certified S			1401			A L - L		Medu	Bounds
Instrumen	f Sample:		101			Analyst	Signature:	CARRIN	ACTING
		rer/Model:	Horiba I.I.	52					
n						Corint Ma	والمطامما	BOGTON	C.7
0-	Seria Dibration	i NU. UIIIC Nato/Time:	W 45	YL201	<u> </u>	Senal NO. I	nanuneid:	00000	
Ca	moration L	ate/Time:	10	20118					

Are low-flow parameters subject to field lab certification?
Yes 🗵 No (not required for CERCLA sites or sites outside of NJ)

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: $MW - 101$ Sample I.D.: $MW - 101 - 2018$ H 07
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/KAW	Date: <u>11/7/(8</u> Time: <u>1425</u> Weather: <u>Partly cloudy</u> Air Temp.: <u>46</u>
WELL DATA: Stainless Steel	PVC Teflon® Other: I SPVC Teflon® Open rock ell:ft Other: ell clean to bottom? Yes No not bent or corroded) Yes No KYes No aved) XYes No Is Inner Casing Intact? Yes No Yes No
VOLUME OF WATER: Standing in well:	To be purged:
Image: State of the state	umber of Well Volumes Removed:
SAMPLING DATA: METHOD: Bailer, Size: Syringe Sampler Syringe Sampler Peristaltic Pump I Iner	
MATERIALS: Fumb/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared of Metals samples field filtered? Yes No Method	d:
APPEARANCE: Image: Clear Image: Turbid Image: Clear Image: Clear<	
DUP : No I Yes Name: MS/MSD : No I Yes Name:	
I certify that this sample was collected and bandled in accordance with applicable re	egulatory and project protocols

 $\label{eq:posterior} P^{Office} \ E_Lab \ E_$



NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/7/18
Personnel: <u>BEM/KAW</u>	Well ID: MW - 101
Purge/Sample Depth: ~14,5	Sample ID: <u>MW - 101- 20181107</u>

		Certi	ified Parar	neters					
Actual Time	pН	Temp (°C)	Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Commonts
Time	pri		(morein)	(119/2)	(1410)	(117)		(ເຄບາແຫ)	Comments
1425	6.80	15.01	4.03	3,19	961	-120	1314	1	//
1428	6.74	15,69	4.35	1.88	10.01	-141	13.15	1/5-	
421	6.77	1595	4.47	075	721	~152	17.16	· · ·	
1424	19	15.07	4.54	0.57	810	-156	13.17		
1037	6.77	110.06	4.41	0,57	550	-150	13,18		
1440	6.75	16.15	4.66	0.51	241	- 34	12 20		
14 11 3	6.78		9,68			- 153	13.21		
1446	4.10		4.68	0.87	177	-153	1 2 2		
14 49		16.09	4.67	0.73	133		13,23		
	6.79	16.01		0.61		-157	13,25		
	6.79	16:11	4.66	6.60	81.4	-158	13.28	V	(i)
1495		16.14	4.67	0.40	\$5.6	-160	12,30		
1458	Colle	<u>CZ 3/1</u>	splil	NU	-101 - 7	0181107			
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Instrument		or Mandal.		60			C		
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O -	Serial Ilbertion D	IND. URIT:	W254	LZOK		Serial No. I	handheid:	BOGTOTE	4
Ca	ilbration D	ale/ I me:	10(30)	18					

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW-102 Sample I.D.: MW-102-20[#different from well no]
Project: Fulton (N. Ontario St.) Former MGP Personnel: KERD/ KAW	Date: 1/8/18 Time: 0900 Weather: 0verce St Air Temp.: 42
Intake Diameter: 2" Stainless Steel Galv. Steel DEPTH TO: Static Water Level: 10752 ft Bottom of We DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes No Is we Is Prot. Casing/Surface Mount in Good Cond.? (In Does Weep Hole adequately drain well head? Z Is Concrete Pad Intact? (not cracked or frost head Is Padlock Functional? Yes No ZCNA Is Inner Casing Properly Capped and Vented?	□ Other: Il clean to bottom? □ Yes □ No not bent or corroded).
VOLUME OF WATER: Standing in well:	To be purged:
MATERIALS: Proposaler: Pumping Rate: Pumping Rate: PURGING EQUIPMENT: Centrifugal Pump Peristaltic Pumping Rate: Pumping Rate: P	2" Submersible Pump 4" Submersible Pump Inertial Lift Pump Other: Teflon® Polyethylene Polypropylene Other: Volume Pumped: 1.756 Site Site Field Cleaned
SAMPLING DATA: METHOD: Bailer, Size: Syringe Sampler Peristaltic Pump Inertial	
MATERIALS: DP/Bailer: Teflon® DC Stainless Steel SAMPLING EQUIPMENT: Dedicated DPrepared C Metals samples field filtered? DYS C No Method	
APPEARANCE: St Clear D Turbid D Color: FIELD DETERMINATIONS: See attached form for field paran	Contains Immiscible Liquid
DUP : S No S Yes Name: MS/MSD : S No Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re	
	Date: 4/8/18



NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

2000 - 100 - 1	Name: Fulton (N. Ontario St.) Former MGP Client: National Grid onnel: REH/KLW	Proj 		152206 11/8/18 MW-102	
Purge/Sample [MW-102	
Actual	Certified Parameters		DTM	Durraing Data	

Time	рΗ	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
0800 0803 0804 0812 0815 0815 0815 0821 0821 0824 0824 0827 0827 0827	6.00 6.00 5.97 5.90 5.87 5.87 5.87 5.87 5.89 5.89 5.89 5.89 5.99 5.99 5.99 5.99	13.64 13.03 12.89 12.70 12.93 12.93 12.98 12.98 12.56 12.60 12.60	2,39 2,59 2,53 2,53 2,35 2,35 2,39 2,39 2,39 2,39 2,39 2,39 2,39 2,39	5.61 1.57 1.10 1.09 1.09 1.09 1.09 1.04 1.04 0.82 0.82	"1000" "0.0 "0.0 "0.0 "0.0 266 221 83.1 67.6 52.0	4 -23 -28 -20 -20 -20 -20 -21 -21 -22 -26 -29	10.41 10.53 10.62 10.67 10.74 10.82 10.88 10.85 10.95 11.00 11.00		Comments
Instrumen N	f Sample: t Data: /anufactur Serial	rer/Model: No. Unit:	: 083 Horiba U- w25Y LO/30	52 1-20K				Rochu BOGTOTE	Ulforada z

Are low-flow parameters subject to field lab certification?
Yes
No (not required for CERCLA sites or sites outside of NJ)

CN	Brown AND .	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA
	Caldwell Upper Saddle River, NJ Office	Well Number: $(02D - 102D)$ Sample I.D.: $MW - (02D - 20)$
	Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / KAW	Date: 11/8/18 Time: 0843 Weather: 01/8/18 Air Temp.: 42
	WELL DATA: Casing Diameter: 3 Intake Diameter: 2 DEPTH TO: Static Water Level: DEPTH TO: Static Water Level: DATUM: Top of Protective Casing CONDITION: Is Well clearly labeled? Is Prot. Casing/Surface Mount in Good Cond.? (Does Weep Hole adequately drain well head? Is Padlock Functional? Yes NA Is Inner Casing Properly Capped and Vented? VOLUME OF WATER: Standing in well:	ell SaLPVC I Teflon® I Open rock ell:ft I Other: ell clean to bottom? I Yes I No not bent or corroded) Sat Yes I No I Yes I No aved) SatYes I No Is Inner Casing Intact? I Yes I No XYes I No
	PURGE DATA: METHOD: Bailer, Size: ØCBladder Pump MATERIALS: Centrifugal Pump Peristaltic Pum MATERIALS: Pump/Bailer: Teflon® MATERIALS: Pump/Bailer: Stainless Steel PVC Other: Pumping Rate: Poto Vas well Evacuated? Yes	2" Submersible Pump I 4" Submersible Pump np I Inertial Lift Pump I Other: Inertial Lift Pump I Other: Tubing/Rope: I Polyethylene Polyethylene Other: Other:
	SAMPLING DATA: METHOD: □ Bailer, Size: ~ 🖬 Biadder Pump Syringe Sampler □ Peristaltic Pump □	
	MATERIALS: Fump/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Yes DNo Method	d:
	APPEARANCE: See attached form for field paran	neter data.
	DUP : OF No CI Yes Name: MS/MSD : OF No CI Yes Name:	
	Signature:	agulatory and project protocols.

 $\label{eq:posterior} P'\ Office\ Field\ Lab\ Field\ Data\ Sheets\ Excel\ Files\ Low\ Flow\ Well\ Info\ Sheet\ Revision\ 2.1\ 1020\ 14\ xls$



NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Date: $\frac{11/8}{18}$ Well ID: $\frac{MW - 102}{2}$

Sample ID: 102 p-20181108

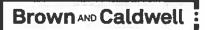
Project Name:	Fulton (N. O	ntario St.)	Former MGP
Client:	National Gri	d	
Personnel:	REH / E	SAW	
urge/Sample Depth:			

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Actual Time	pH	Cert Temp (°C)	fied Parar Cond (mS/cm)	meters DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
0843 0849 0849 0852 0855 0955 0907 0907 0907 0907 0910 0913	6.57 6.57 6.57 6.60 6.60 6.60 6.60 6.60 6.60 6.60 6.6	$ \begin{array}{c} 11.98 \\ 12.10 \\ 12.27 \\ 12.35 \\ 12.35 \\ 12.39 \\ 12.3$	2.90 2.98 3.10 3.17 3.20 3.17 3.20 3.17 3.20 3.17 3.20 3.17 3.20 3.17 3.20 3.17 3.20 3.20 3.20 3.20 3.20 3.20 3.20 3.20	2.57 2.12 1.7(1.35 0.99 0.99 0.97 0.83 0.90 0.78 MW	(110) 560 602 484 304 153 114 69.7 48.3 45.3 45.3 29.5 - 1021	-79 -91 -91 -91 -1100 -117 -120 -122 -124	10,58 10.60 10.63 10.65 10.83 10.99 11,20 11,21 11,21		
Instrumen N	f Sample: t Data: /lanufactur Seria	rer/Model: I No. Unit:	:)9(3 Horiba U- W2-9 10/3	YLZOK				BOGTOE:	Ag'rack: 2

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW-103 Sample I.D.: MW-103-2018 (different from well no.)
Project: Fulton (N. Ontario St.) Former MGP Personnel: REM/KAW	Date: 1(/8/18 Time: 0932
WELL DATA: Casing Diameter: Distainless Steel Destination Steel Depth TO : Static Water Level:3, ft Bottom of W DATUM: Dop of Protective Casing A Top of Well Casing CONDITION: Is Well clearly labeled? Destination Steel Destinati	PVC Teflon® O Other: el SCPVC Teflon® O Open rock /ell:ft O Other: ell clean to bottom? O Yes No (not bent or corroded) 2 Yes No SY Yes No aved) S Yes No Is Inner Casing Intact? O Yes No
VOLUME OF WATER: Standing in well:	
METHOD: □ Centrifugal Pump □ Peristaltic Pump MATERIALS: • Imp/Bailer: • Teflon® MATERIALS: • Imp/Bailer: • Stainless Steel • PVC • Other: • Pumping Rate: • • • • • • • • • • • • • • • • • • •	Volume Pumped: 2,5 6 Well Volumes Removed:
SAMPLING DATA: METHOD: Bailer, Size: Size:	Submersible Pump ם 4" Submersible Pump rtial Lift Pump ם Other:
MATERIALS: PropBailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Ves No Metho APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field para	Contains Immiscible Liquid
DUP : SE No I Yes Name: MS/MSD : SE No I Yes Name: I certify that this sample was collected and handled in accordance with applicable r Signature: Rachal Aba Machai	

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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/8/18
Personnel: REMIKAW	Well ID: MW-103
Purge/Sample Depth:/ 🕤	Sample ID: MW- 103 ~ 2018/108
	Anna Antonia di Anna Anna Anna Anna Anna Anna Anna Ann

	1	Cert	ified Para	meters			1 . A.		
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	=(mV)	(ft)	(mL/min)	Comments
	pre	()		(1 (19)		Comments
0972	774	11 -11		~ 211		4.7	12 21		
0932	6.34	11.74	1.56	7.34	121	-43	13.34	\neg (γ)	
0935	6.24	12.38	1.54	1.50	96.5	-35	13.36	2,0	
0938	6.27	2.55	1.56	1.12	74.4	-36	13.37		
0941	1,28	12.65	1.58	0.94	63.5	-38	13.39		
0994	6.29	12.69	1.59	0.83	51.2	-39	13.40		
0947	6.31	12.71	0.82	0.85	41.7	-44	13.40	· · · · · · · · · · · · · · · · · · ·	
0950	6.33	12.67	1.20	0.83	37.4	-49	13.40		
	6.35	12.69	1.75	0.79	29.5	- 5%	13.41		
	6 37	12.70		0.78	25.8	-63	13.41	<u> </u>	
	6.38	12.69	1.80		23,3			─ <u>₹</u>	
		12:01	1.8/	0.77	210	~66	13-41	V	
1002	6.38	12.70	1.85		21.9	-70	13.41		
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-	Serial	No. Unit:	W2541	- 40K		Serial No. H	anoneld:	130670EZ	
Ca	libration D	ate/Time:	50/30	2/18					

Brown AND Caldwell	Upper Saddle River, NJ Office	LOW-FLOW GR SAMPLING FI Well Number: MW-103 Sample I.D.: MW-103D -	ELD DATA
Project: Fulton (N. Ontari Personnel: REH/W	io St.) Former MGP くよい		1017 Air Temp.: _42
Intake Diameter: 2 DEPTH TO : Static Wate DATUM: Interpreter CONDITION: Is Well of Is Prot. Of Does Well Is Concr Is Padloo	Stainless Steel Steel Steel Steel Stainless Steel Galv. Steel Stainless Steel Galv. Steel ter Level: Steel Galv. Steel Stearly labeled? Steel Galv. Steel Casing/Surface Mount in Good Cond.? Steep Hole adequately drain well head? No rete Pad Intact? (not cracked or frost he ock Functional? Yes No Casing Properly Capped and Vented? Standing in well:	el 94 PVC	No I No
PURGE DATA:	Bailer, Size:		Submersible Dura
METHOD: U	Centrifugal Pump C Peristaltic Pump		
MATERIALS: Pupp/Bail Pumping Rate: <u>20mL</u> Was well Evacuated?	ם PVC Dother: לאוא Elapsed Time:	Typing/Rope:	Polypropylene Other:
PURGING EQUIPMENT:			
	r, Size: \Seladder Pump II 2" S e Sampler II Peristaltic Pump II Ine		sible Pump
a cynng			
MATERIALS: Pupp/Ball	D Stainless Steel	Tubing/Rope:	Teflon® Polyethylene
	Dedicated Depared	Off-Site S Field Cleaned	
MATERIALS: Fump/Bail SAMPLING EQUIPMENT: Metals samples field filtere APPEARANCE: C	72 Stainless Steel □ Dedicated □ Prepared ed? □ Yes ⊠ No Metho ズ Clear □ Turbid □ Color:	Off-Site S Field Cleaned	Polyethylene
MATERIALS: Fump/Bail SAMPLING EQUIPMENT: Metals samples field filtere APPEARANCE: C FIELD DETERMINATIONS	Image: Stain Intersection Image: Stain Intersection Image: Stain Intersection Image: Stain Intersection	Off-Site S Field Cleaned od: Contains Immiscible Li meter data.	Polyethylene
MATERIALS: Fump/Bail SAMPLING EQUIPMENT: Metals samples field filtere APPEARANCE: G FIELD DETERMINATIONS DUP :	72 Stainless Steel □ Dedicated □ Prepared ed? □ Yes ⊠ No Metho ズ Clear □ Turbid □ Color:	Off-Site S Field Cleaned od: Contains Immiscible Li meter data.	Polyethylene
MATERIALS: Fupp/Bail SAMPLING EQUIPMENT: Metals samples field filtere APPEARANCE: C FIELD DETERMINATIONS DUP : No WS/MSD : No	Ø Stainless Steel □ Dedicated □ Prepared ed? □ Yes Max No Method K Clear □ Turbid □ Color:	Off-Site S Field Cleaned Contains Immiscible Li meter data. Contains Immiscible Li regulatory and project protocols.	Polyethylene
MATERIALS: Fupp/Bail SAMPLING EQUIPMENT: Metals samples field filtere APPEARANCE: C FIELD DETERMINATIONS DUP : K MS/MSD : No	Image: Stain Intersection Image: Stain Intersection Image: Dedicated Image: Stain Intersection Image: Stain Intersection Image: Stain Intersection Imag	Off-Site S Field Cleaned Dd: Contains Immiscible Li meter data.	Polyethylene
MATERIALS: Fupp/Bail SAMPLING EQUIPMENT: Metals samples field filtere APPEARANCE: C FIELD DETERMINATIONS DUP : No WS/MSD : No	Image: Stain Intersection Image: Stain Intersection Image: Dedicated Image: Stain Intersection Image: Stain Intersection Image: Stain Intersection Imag	Off-Site S Field Cleaned Contains Immiscible Li meter data. Contains Immiscible Li regulatory and project protocols.	Polyethylene
MATERIALS: Fupp/Bail SAMPLING EQUIPMENT: Metals samples field filtere APPEARANCE: C FIELD DETERMINATIONS DUP : No WS/MSD : No	Image: Stain Intersection Image: Stain Intersection Image: Dedicated Image: Stain Intersection Image: Stain Intersection Image: Stain Intersection Imag	Off-Site S Field Cleaned Contains Immiscible Li meter data. Contains Immiscible Li regulatory and project protocols.	Polyethylene

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2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Sample ID: MW-1030-20181108

Project Name:	Fulton (N. Ontario St.) Former MGP
	National Grid
Personnel:	RENTKAW
Purge/Sample Depth:	~22

						(48) -		·	
			fied Para				10		
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	. (ft)	(mL/min)	Comments
								-	
1017	6.57	12.11	1.93	8.95	186	-96	13.97	7 A	
1020	6.54	12,30	2.07	3.16	132	-104	13.47	~JU	10. v
1023	6.56	12.39	2.13	1.58		-13	13.47)	
1026	6.57	12.40	2.19		59.3	-117	13.47		
1029	6.59	12.44	2.25	0.88	37-7	-121	13.47		
1035	6.62	12.45	2.31	0.80	49.0	-125	13.47		
1038	664	12.48	2,35	0.72	3511	-12-8	13,47		
1041	6.66	12.46	2.36	0.70	33.4	-130	13.47		
JO44	6:67	12.45	2:37	0.68	24.7	-132	13.47		
1047		12.42	2,38		24.0	-133	13.47		
1050	Corto				30-20	181108	↓ 		
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Certified S Time o Instrumen	f Sample:	formation	: C	50		Analyst \$	Signature:	Rochell	Hojuadi
N			Horiba U-					_	
	Seria	No. Unit:	W254	120K		Serial No. I	Handheld:	BOGTOR	2 TET
Ca	libration D	ate/Time:	10[30]	(8					

	。因此是你是你就会这些我们的是你的问题,我们就是你们的问题。"
Brown AND Caldwell Upper Saddle River, NJ Office	1 2018/008
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / KAW	Date: <u>[1/8](8</u> Time: <u>1204</u> Weather: <u>Condy</u> Air Temp.: <u>47</u> ?
WELL DATA: Image: Stain Stain Stain Steel Image: Stee	ell:ft □ Other: ell clean to bottom? □ Yes □ No not bent or corroded) 名 Yes □ No □ Yes 회4No aved) 名 Yes □ No Is Inner Casing Intact? □ Yes □ No S Yes □ No
METHOD. Centrifugal Pump Peristaltic Pum MATERIALS: Mailer: MATERIALS: Mailer: Pumping Rate: 225 ml/m. Elapsed Time: 30 mb	amber of Well Volumes Removed:
SAMPLING DATA: METHOD: De Bailer, Size: Seladder Pump D 2" Se Syringe Sampler D Peristaltic Pump D Inert	ubmersible Pump
MATERIALS: Rumo/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Yes Yes APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field parant DUP: No Yes Name: MS/MSD: No Yes Name: I certify that this sample was collected and handled in accordance with applicable re Signature: Signature:	d: Contains Immiscible Liquid neter data.

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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206
Date: 11/8//8
Well ID: M41-1095
Sample ID: <u>MW-109 S = 2018108</u>

		Cert	ified Parar	neters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	ρН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
				25		11			
1204	6.45	12.68	299	9.24	373	20	7.03	225	
1207	6.59	13.18	3.02	2.54	362	21	7.03	ムムノ	
1210		13,34	3.03	1.58	311	16	7.03		
1213	6.61	13.40	3.03	1.23	265	14	7.03	/	
124		13.44	5.0%	1.04	195	13	703		
1219	6.63	13.47	3.02	0 90	112		7.03	<u> </u>	
1222	6,64		3-01	0.86	64.5	011			
1225	6-65	13.45	2 02	0.85	3.8	11	7.03	⊢	
	6.45		2.97	0.75	34.6	11	7.03		
1231		13.46	2.94	0.70	245		7.03		
1237	6.67	13.44	2.93	0.1	5-201	21103	7.03		
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	200								
Instrument	f Sample: t Data:		12	•		Analyst	Signature:	Radul	Beinecki
	Serial	er/Model: No. Unit:	W25	YLZOK		Serial No. I	Handheld:	BOGT JE	2
Ca	libration D	ate/Time:	10/70	[3	5				

Are low-flow parameters subject to field lab certification?
Yes 🛛 No (not required for CERCLA sites or sites outside of NJ)

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Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW-110D Sample I.D.: MW-110D - 2018 1108
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH / K + W	110/10
WELL DATA: Casing Diameter: 2 Intake Diameter: 2 Intake Diameter: 2 Stainless Steel Galv. Steel DEPTH TO: Staic Water Level: 6 DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes Is Prot. Casing/Surface Mount in Good Cond.? (n Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost head Is Padlock Functional? Yes No VOLUME OF WATER: Standing in well:	Image: PVC Image: PVC </td
 PURGE DATA:	2" Submersible Pump
MATERIALS: Pump/Bailer: Teflon® Stainless Steel PVC Other: Pumping Rate: <u>200 mL/n</u> , Was well Evacuated? Yes Y No Nu	Inertial Lift Pump Tubing/Rope: Tubing/Rope: Tefton® Polyethylene Polypropylene Other: Volume Pumped: 2. G Wolume State Site Site Polypropylene Other: Polypropylene Other: Site Site Polypropylene Other: Polypropylene Other: Polypropylene Other: Polypropylene Other: Polypropylene Polypropylene
SAMPLING DATA: METHOD: ID Bailer, Size: Standar Pump Syringe Sampler Peristaltic Pump Inertification Inertification	ubmersible Pump
MATERIALS: Propagation Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Yes No Method APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field param	: Contains Immiscible Liquid
DUP : S No I Yes Name: MS/MSD S No I Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re Signature	gulatory and project protocols. Date: <u>11/8/18</u>

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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 1//8/18
Personnel: <u>REH / K</u> HW	Well ID: MW-1100
Purge/Sample Depth: ~ 20, 5	Sample ID: <u>MW - 1100 - 20181108</u>

		Certi	ified Para	meters	-				
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
				• • í.					
1255	7.01	13:02	1.89	9.15	165	-90	8.04	7.00	
1278	6.94	13,38	2155	3,51	167	-103	804	Equ	
1301	6.87	13.64	3.25	2.05	168	-116	8.04		
1304	6,89	13.68	3,37	1.33	138	-123	8.04		
1307	6.90	13,74	3,44	0.98	98.7	~129	8.04		<u> </u>
	6,90	13,73	3,45	0,88	86.1	-129	8.03		
1313	6,90	13.75	3.49	0.80	61.9	-130	8.03		
1316	6.90	13.24	3.51	0.77	45.3	-130	8.0-5		
1319	6.90	13.77	3.53	0.73		-130	8.03		······································
1322	6.90	13,78	3.54		37.6	-131	803		
1325	1.91	13,84	3.55	0.66	36.0	-132	8.03		
1328	Calle	etsa	ale N	W1-110	D-2018	RUOX			Slight mothball
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	f Sample:		: 132	8		Analyst S	Signature:	Jodul 1	forcek.
Instrumen								· · · · · · · · · · · · · · · · · · ·	
N			Horiba U-						
	Seria	No. Unit:	W25Y	LZOK		Serial No. I	Handheld:	BOGTOTS	22
Ca	libration D	ate/Time:	[0/30	118	2				

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW ~ (l(\$5) Sample I.D.: MW ~ (l(\$-2018) (0 \$8)
Project: Fulton (N. Ontario St.) Former MGP Personnel: REH/KAW	Date: 11/8/18 Time: 1347 Weather: 1847
WELL DATA: Casing Diameter: Istainless Steel Intake Diameter: Istainless Steel DEPTH TO: Stainless Steel DEPTH TO: Stainless Steel DATUM: Top of Protective Casing CONDITION: Is Well clearly labeled? Is Prot. Casing/Surface Mount in Good Cond.? (r Does Weep Hole adequately drain well head? Is Padlock Functional? Is Inner Casing Properly Capped and Vented? VOLUME OF WATER:	Image: Second state state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state Image: Second state
METHOD. □ Centrifugal Pump □ Peristaltic Pum Image: Control of the second of	2" Submersible Pump 4" Submersible Pump p Inertial Lift Pump Other: Tubing/Rope: Polypthylene Polypropylene Other:
SAMPLING DATA: METHOD: □ Bailer, Size:	
MATERIALS: Rump Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared C Metals samples field filtered? Yes ZF No Method	d:
APPEARANCE: Clear D Turbid D Color:	neter data.
DUP : Image: Constraint of the second seco	igulatory and project protocols.

Revision 2.1: 10/20/14



NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Client: Personnel:	National O	Grid	St.) Forme	er MGP	1		11/8/18 MW-US	- 20181108
Actual Time	pH	Certi Temp (°C)	ified Paran Cond (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments

1347	6.95		1.98	7.55	551	-94	6.39	2	90-		
1350	6.89	14,29	1.95	1,25	447	-99	6.41				
1353	6.99	14.52	1.06	2.30		-112	6.43		1		
1356	6.94	14.63	1.96	1.41	560	-110	6.44		1		
1359	6.94	14.69	1.97	0.80	458	-111	6.44		1		
1402	6.96	14.75	1.98	0.75	355	~113	6.45				
1405	6.97	14.75	1.99	0.74	324	-115	6.45	·			
1408	698	14.76	1.99	0.69	287	-117	6.46		+		
1411	6.99	14,74	1,00	0.68	251	-119	6.44	<u> </u>	1		
1414	7.01	14.75	2.01	0.62	189	~170	6.44				
1417	7.01	14.69	2.03	0.74	133	-121	6.43				·
1420	7.01	14.70	2:03	0.64	139	-171	6.43				
1423	7.01	14.76		0.58	115						
			2,05		114	-121	6,42				_
1426	7.00	14.78	2.05	0.58	0.0	Lans and the second	6.43				
	<u> </u>	14-80	2.06	0.61		-122	6.45		,		
	7.02	19.85	2.06	6.62	90,2	-123	6.43				
1435	7.0(14.88	2,07	0.60	84.1	- 23	6,43				
1438	Colle	1 MU	1 - 1115	- 2018	1108				Π	a i	
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	f Sample:		1438)		Analyst	Signature:	The D	Phil	XR'.	MCKY
Instrumen						,		Jul 1		-45	1.0
		rer/Model	Horiba U-	52							
				L20K		Serial No.	Handbeld	BOG	TOTA	-7-	
Ca	libration D)ate/Time	10/30	5/10		Condition into	i tanunoidi.	V	1010		
	and the second sha										

Brown AND Caldwell	Upper Saddle River, NJ Office	LOW-FLOW GROUN SAMPLING FIELD Well Number: אשרו 22 S Sample I.D.: אשרו 22 S	difforent from well no)
Project: Fulton (N. Ontario Personnel: KEH/KA	St.) Former MGP	Date: 1/9/18 Jime: 020 Weather: 1000	Air Temp.: <u>39</u>
DATUM: Dop of Prote CONDITION: Is Well cle Is Prot. Ca Does Wer Is Concre Is Padloci	□ Stainless Steel □ Steel □ F □ Stainless Steel □ Galv. Stee r Level: <u>6.54</u> ft Bottom of We active Casing □ Top of Well Casing early labeled? □ Yes ☑ No Is we asing/Surface Mount in Good Cond.? (ep Hole adequately drain well head? □ the Pad Intact? (not cracked or frost head k Functional? □ Yes □ No S NA casing Properly Capped and Vented? ↓	I SCPVC I Teflon® I Open rock ell:ft I Other: ell clean to bottom? I Yes I No not bent or corroded) I Yes I No Yes I No aved) I Yes I No Is Inner Casing Intact? I Yes	
VOLUME OF WATER:	Standing in well:	To be purged:	Line Lucke
MATERIALS: Rupp/Baile	D PVC	np Inertial Lift Pump I Other: In Tel Tubio:/Rope: 25 Po I Po	
PURGING EQUIPMENT:	Elapsed Time: Yes No Nu Dedicated Prepared Off-	imber of Well Volumes Removed:	
Was well Evacuated?	Li Yes 🖉 No 🔜 📜 Nu	umber of Well Volumes Removed:	
Was well Evacuated? PURGING EQUIPMENT: SAMPLING DATA: METHOD: Syringe MATERIALS: SAMPLING EQUIPMENT: Metals samples field filtered	Yes S No Nu Dedicated Prepared Off- Size: OxtBladder Pump □ 2" S Sampler □ Peristaltic Pump □ Iner r: □ Teflon® Stainless Steel Dedicated □ Prepared O Yes □ No Method Clear □ Turbid □ Color:	Site Image: Field Cleaned Site Image: Field Cleaned ubmersible Pump 4" Submersible Field Cleaned tial Lift Pump Other: Image: Field Cleaned Image: Field Cleaned Image: Image: Field Cleaned Image: Field Cleaned Image: Image: Image: Image: Field Cleaned Image: Image: Field Cleaned Image:	^D ump Non® lyethylene
Was well Evacuated? PURGING EQUIPMENT: SAMPLING DATA: METHOD: Bailer, Syringe MATERIALS: Pump/Bailer SAMPLING EQUIPMENT: Metals samples field filtered APPEARANCE: FIELD DETERMINATIONS: DUP: No DY	Yes Yes Yes No Nu Dedicated Prepared Off- Size: OdBladder Pump 2" S Sampler Peristaltic Pump Iner r: Teflon® Stainless Steel Dedicated Prepared Off- Clear Turbid Color: See attached form for field parameter	Imber of Well Volumes Removed: Site Site Site Field Cteaned ubmersible Pump 4" Submersible R tial Lift Pump Other: Image: Comparison of the second	lon®

Brown AND Caldwell

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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206	S. 1997
Client: National Grid	Date: 11/9/18	1 - 2.1
Personnel: <u>KEH/K/W</u>	Well ID: MU-1225	S
Purge/Sample Depth: ~ 11. 5	Sample ID: MU - 1225 - 7	018109
		21

		Certi	fied Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	5
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
0801	6.73	13,78	1.77	7.72	326	153	6.58	1-1	
0804	6.37	14.26		2.51	306	169	6.58	117	
0807	6.18_	13.81	1.78	1.50	319	183	6.58		,
0810	618	14,27	178	1.24	273	183	6.58		
0813	6-19	14.40	1.79	1.03	244	182	6.58		
0816	6.19	14.48	1.79	1.01	225	182	6.58		
0819	6.21	14.57	1.80	0.95	173	181	6.58		
0822	6.21	14.59	1.80	0.89	125	180	6.58		
0825	6.22	14.64	1,80	0.89	94.9	179	6.58	· · · / · · · ·	
0828	6.24	14.74	1-81	0.90	71.0	177	6.58		:
0831	6.25	14-75	1.8(0.83	61.5	176	6.58	V	
0834	Call	CA 52	exple	MW-	1225	2018110	Ч		
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Certified S	ample Int	formation						0.000	
Time of	f Sample:	ornation	083	ч		Analyst	Signature:	Anal II 6	Sinack
Instrument				1		Analyst	signature	KICH B	y many
		er/Model:	Horiba U-	52					
		No. Unit:				Serial No. 4	-landbeld-	BOGTOTEZ	
Ca	libration D	ate/Time:	10/2010			Scharny, I	ianoneid.		
04			ing sort	8					

Brown AND Caldwell	Upper Saddle River, NJ Office	LOW-FLOW GROU SAMPLING FIEL Well Number: MW~ (220 Sample I.D.: MW~(220-2	DDATA
Project: Fulton (N. Ontario S Personnel: REH/KAY	St.) Former MGP	Date: 11/9/18 Time: 02 Weather: 10rdy	Air Temp.: <u>38</u> °
DATUM: D Top of Protect CONDITION: Is Well clear Is Prot. Cas Does Weep Is Concreter Is Padlock Is Inner Ca	□ Stainless Steel ▲ Steel □ F □ Stainless Steel □ Galv. Steel Level: <u>6, 79</u> ft Bottom of W stive Casing ∞ Top of Well Casing any labeled? □ Yes ≥ No Is we sing/Surface Mount in Good Cond.? (b Hole adequately drain well head? b e Pad Intact? (not cracked or frost head Functional? □ Yes □ No ≥ NA sing Properly Capped and Vented?	PVC	c D No
VOLUME OF WATER:	Standing in well:	To be purged:	<u></u>
MATERIALS: Comparison of the second s	ローPVC ローOther: エア Elapsed Time: <u>てのい</u> Yes X No Ni	np Inertial Lift Pump Other:	Feflon® Polyethylene Polypropylene Other:
	Size: Sampler D Peristaltic Pump D 2" S		e Pump
\sim	 Teflon® Stainless Steel 		Feflon® Polyethylene
MATERIALS: Fump Bailer: SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: FIELD DETERMINATIONS:	Dedicated Depared	Off-Site Dr Field Cleaned d: Contains Immiscible Liqu	
SAMPLING EQUIPMENT: Metals samples field filtered? APPEARANCE: FIELD DETERMINATIONS: DUP : No Yes MS/MSD : No Yes	Dedicated Prepared Oreganised Prepar	Off-Site (2) Field Cleaned d: Contains Immiscible Liqu meter data.	



NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11/9/18
Personnel: <u>REH/K</u> fW	Well ID: MW- 1220
Purge/Sample Depth: ~ 19	Sample ID: 1220-20181109

	Certified Parameters								
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
			× 7	(((o on an or to
0845	8.41	13.27	1.81	7.42	193	140	690	0 00	
0848	7.13	13.86	1.78	1.46	213	164	6.90	2,00	
0851	6.81	14.17	1.78	1.65	249	168	6.91		
0854	6,73	14.37	1.79	0.85	321	166	6.92		
0857	6.73	14.45	1,79	0.85	295	165	6.92		
	6.71	14.49	1,78	0.81	250	163	6.94	-	
	6.70	14,58	1.77	0.74	197	160	6.94		
0906	6.71	14.53	1.78	0.71	135	158	6.95		
		14.49	1.78	0.70	90,4	154	6.95	·	
0912	6.72	14.49	1.78	0.67	77.9	151	695		
0915	4.73	19.00	1.79	0.67	60.2	149	6.95	V	
0918	Colle		inale	Mu					
0110	Corre	ex 20	uper	NU	-1220	-2018110	1		· · · · · · · · · · · · · · · · · · ·
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Certified S	ample Inf	ormation						0 11	10 0
	f Sample:		09	18		Analyst S	Signature:	Radull	hidde
Instrument		· · ·		0			- g. a.a.,	Carlon C	-S
		er/Model:	Horiba U-	52					-
						Serial No. F	-landbeld	BOGTOTO	. 7
Ca	Serial No. Unit: W25YLZOK Serial No. Handheld: BOGTOTEZ Calibration Date/Time: 10/30 109								
00			10/30	1# 3					

			ale ne the test where course on a second
Brown Caldw		LOW-FLOW GF SAMPLING I Well Number: <i>M W-</i> [ス Sample I.D.: <i>M W-</i> [228	FIELD DATA 2.R
	(N. Ontario St.) Former MGP モイノ K イゼ		09-30 Air Temp.: <u>38</u>
DEPTH TO :	Arr: 2 Gradient Stainless Steel Static Water Level: 5.74 ft Top of Protective Casing Top of Is Well clearly labeled? Yes Is Prot. Casing/Surface Mount in G Does Weep Hole adequately drain Is Concrete Pad Intact? (not crack Is Padlock Functional? Yes Is Inner Casing Properly Capped a	Well Casing Chother: Solution of the sector	No No No
PURGE DA	TA: □ Bailer, Size: Şr⁄Bla	dder Pump 🛛 2" Submersible Pump 🗍 4	
	PerperBailer: Perper		Teflon® Polyethylene Polypropylene Other:
SAMPLING METHOD:	Bailer, Size: SeBladder F	ump	ersible Pump
SAMPLING E	UIPMENT: Dedicated Stellar Yes	Prepared Off-Site Z Field Cleaned	E Polyethylene
APPEARANCI FIELD DETER	E: 🛛 🖗 Clear 🗅 Turbid 🗆	Color: Contains Immiscible for field parameter data.	Liquid
	No 🗆 Yes Name: No 🐄 Yes Name: <u>Mw~12</u>	2R-20181109 · m5/115p	
	imple was collected and handled in accordance	2 . lala	3
Signature:	wwwwwwwwwww	Date: <u>11 / 7 / 1 8</u>	



2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

152206	rmer MGP Project Number: 152206	Project Name: Fulton (N. Ontario St.)
1169168	Date: 1/69/68	Client: National Grid
MW-122R	Well ID: MW-122R	Personnel: REH/KAW
	Sample ID: MW-122R	Purge/Sample Depth: ~ 45
M	Well ID: <u>M</u>	

		Cert	fied Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
		, , , -,		((
0930	7.00	13.14	9.16	2.02	35.9	@133	5.91	12-0	
0933	7.02	13.11	10.6	1.08	38.7	62	6.78		· · · · · · · · · · · · · · · · · · ·
0936	7.06	13.08	849	0.72	29.3	-21	7.54		
0939	7.07	13.04	7.94	0.65	30.8	-46	8.47		
0942	7.07	13.03	7.72	0.62	33.8	-61	9.35		
0945	7,07	12.98	7.55	0.61	31.6	~72	9,96		
0948	7.07	12.99	7.47	0.61	30.1	~18	10.73		
095	7.07	12.96	7.75	0.60	29.1	-86	11,32		· · · · · · · · · · · · · · · · · · ·
0954	7 00	12.93	7 08	0.51	25.4	- 93	11.75		
0957	7.07	12.92		0.57	24.6	-96	12.12		
1000	7.07	12.93	B.96	0.56	24,4	-94	12.63	- (4/	
1003		7 90		VISV			12103		· · · · · · · · · · · · · · · · · · ·
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Instrument				-	<i>x</i>			a d	
N			Horiba U-						
			W25YL			Serial No. I	Handheld:	BOGTOTE	2
Ca	libration D	ate/Time:	10/30	118		1967			
Are low-flow	parameters	s subject to	field lab cer	rtification? [🛛 Yes 🖾 No	(not required	d for CERCL	A sites or sites out	side of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

-20181109

	 In Alternational Statement of Statement and Statem Statement and Statement and State Statement and Statement and Stat Statement and Statement a
Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW-122RD-2018 [11]2
Project: Fulton (N. Ontario St.) Former MGP Personnel: TMB KW	Date: <u>II/Λ/18</u> Time: <u>1055</u> Weather: <u><u><u></u></u> <u></u> Air Temp.: <u>45</u> ³</u>
DEPTH TO: Static Water Level: <u>I</u> <u>(</u> <u>+</u> ft Bottom of Well DATUM: DATUM: Top of Protective Casing CONDITION: Is Well clearly labeled? Is Prot. Casing/Surface Mount in Good Cond.? (Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost head Is Padlock Functional? VOLUME OF WATER: Standing in well: <u>MA</u>	PVC Teflon® Open rock ell:ft Other: ell:ft I Clean to bottom? Pres I No not bent or corroded) Pres No Pres I No Is Inner Casing Intact? Pres No Pres I No To be purged:MA 2" Submersible Pump I 4" Submersible Pump
MATERIALS: Europ/Bailer: Teflon® Bumping Rate: 250 - 100 -	Tobing Rope: Teflon® Polyethylene Polypropylene Other: wher of Well Volumes Removed: <u>V/t-</u>
SAMPLING DATA: METHOD:	
MATERIALS: Cump/Baiter: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared (Metals samples field filtered? Yes & No Method APPEARANCE: & Clear D Turbid D Color:	
FIELD DETERMINATIONS: See attached form for field param DUP : No Yes Name: MS/MSD : No Yes Name:	neter data.
I certify that this sample was collected and handled in accordance with applicable re Signature:	Date:
O	

Revision 2.1: 10/20/14



2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

15

Project Name:			.) Former	MGP	F	roject Number:	152200	i i			
Client:	National Gr	id			-	Date:	11	12	18		
Personnel:	mB	KW			_	Well ID:	MU	2-1	22RD		
Purge/Sample Depth:	~9	0'			-	Sample ID:	Mu-12	ZRD	-2018111	12	

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
				((((10))	(()))	(10)	(millionin)	Comments
INCE	10.11	11.87	*100 ª	2.37	911		11 10 7	72	
1055		11.24		12.51	85.4	- 54	1.07	250	
1058	7.89	12.01	"100"	0 .93	300	-290	1172		
1101	7.44	12.25	100	0.88	2 55	- 255	1177		
1104	7.31	12.25	100	0.87	218	-229	11.82		
1107	1.25	12.21	100	0,86	145	-216	11.83		
1110	7.24	12.11	"100"	0.84	205	-218	11,84	250	
1112	7.24	12.10	100	6.82	140	- 223	11 85	1	· · · · ·
1116	7.24	12.08	-100	0,80	121	- 224	11.85		
1110	7.03	12.08	1010	0.78	90.5	-230	11.86		
321		12.08	100	0 77	85.5	-236	11.84		
1126					07.7		11.00		
1125	7.72	12.05	100°	0,76	69.0	-23.8	11.80	V	
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	f Sample:		ILX			Analyst S	Signature:	1500TK	$\overline{\boldsymbol{\nabla}}$
Instrumen									
٨	/lanufactur	er/Model:	Horiba U-	52					
	Seria	No. Unit:				Serial No. I	Handheld:		
Ca	libration D	ate/Time:						······	

Are low-flow parameters subject to field lab certification?
Yes X No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell Upper Saddie River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW-125R Sample I.D.: MW-(25R-24)(18)(1)2
Project: Fulton (N. Ontario St.) Former MGP Personnel: TB/ICW	Date: 11/12/18 Time: 152 Weather: Claudy Air Temp.: 45
WELL DATA: Casing Diameter: Istainless Steel Intake Diameter: Istainless Steel Intake Diameter: Istainless Steel DEPTH TO: Static Water Level: Stainless Steel Galv. Steel DEPTH TO: Static Water Level: Stainless Steel Galv. Steel DEPTH TO: Static Water Level: Stainless Steel Galv. Steel DEPTH TO: Static Water Level: Stainless Steel Galv. Steel DEPTH TO: Static Water Level: Stainless Steel Galv. Steel DEPTH TO: Static Water Level: Stainless Steel Galv. Steel DEPTH TO: Is Well clearly labeled? Is Prot. Casing/Surface Mount in Good Cond.? Is Concrete Pad Intact? (not cracked or frost head is Padlock Functional? Is Inner Casing Properly Capped and Vented? Is Inner Casing Properly Capped and Vented? VOLUME OF WATER: Standing in well:	I ZPVC Teflon® Open rock ell:ft Other: ell clean to bottom? Pres No not bent or corroded) Pres No Yes No aved) Pres No aved) Pres No is Inner Casing Intact? Pres No
PURGE DATA: METHOD: Image: Construction of the second sec	□ 2" Submersible Pump □ 4" Submersible Pump np □ Inertial Lift Pump □ Other:
MATERIALS: Ump/Bailer: Pumping Rate: Pumping Rate: Pumpi	Volume Pumped: Site Line Field Cleaned
SAMPLING DATA: METHOD:	Submersible Pump ם 4" Submersible Pump rtial Lift Pump ם Other:
MATERIALS: Ump/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes No Metho APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field parameters	d: Contains Immiscible Liquid
DUP: D No Pres Name: Dyp-2018/1. MS/MSD: D No D Yes Name:	12
I certify that this sample was collected and handled in accordance with applicable r Signature:	Date: 11 12 15
	a in an and animality-mark at 12 (and 100) at an 12 (an 12)
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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	ulton (N. Ontario St.) Former MGP	Project Number: 152206	Č.
Client:	National Grid	Date: /1//2/18	
Personnel:	TB KW	Well ID: 125R	
Purge/Sample Depth:	~Yo'	Sample ID: 12-12-52-20	180

35		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	S.,
Time	рН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
						, í			
11.52	8.23	11.99	8.28	3.69	253	-241	5.08	200	
1155	Fris	12.06	6.04	212	148	-159	5.09	1	
158	1.10	12.06	4168	1.46	140	-144	50g 511		
1201	6.72	12.11	4.01	1.49	133	-1410	5.12		······
1204	669	2.07	3.91	1.47	124	-146	5.14	200	
207	1171	12:08	3.80	1.38	117	- 40	5.14	1	······
1210	6.70	12.06	3,75	13	90.5	-148	5.13		
1213	6.71	12.06	3.73	1,27	77.7	-148	5,12		
1216	6.75	12.08	3.71	1.23	43.5	-151	て、にて	200	
1219	6,73	12.03	371	1.2	58.0	- 148	5.12	1	
12.22	6.74	1.99	3.71	1.18	53.	- 149	5.12		
1225	Samp	mw-	125R-	2018/11	$Z \neq D$	NP-201	81112		
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Certified S	ample Inf	ormation;	$\Delta \Delta$	<i>~</i>				\sim . ($\gamma \sim 7$
Time of	f Sample:	1	しょう	5		Analyst S	Signature	nun	
Instrument	t Data: 🕺							115 12	$\gamma \rightarrow$
N	lanufactur	er/Model:	Horiba U-	52				/) C	
		No. Unit:				Serial No. H	landheid:	\mathcal{O}	
Ca	libration D	ate/Time:			1.1		-		

Are low-flow parameters subject to field lab certification?
Yes 🛛 No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: MW - 124R
Upper Saddle Riv	
Project: Fulton (N. Ontario St.) Former MGP Personnel: TB J4W	Date: 11/12/18 Time: 1253 Weather: Cloudy Air Temp.: 45°
Intake Diameter: 2 DEPTH TO: Static Water Level: 5.75 ft DATUM: Top of Protective Casing Top CONDITION: Is Well clearly labeled? Yes Is Prot. Casing/Surface Mount in Does Weep Hole adequately dra Is Concrete Pad Intact? (not crace	p of Well Casing Other: es
	Bladder Pump
Centrifugal Pump	Peristaltic Pump Inertial Lift Pump Other:
Was well Evacuated? Q Yes A No	Steel
SAMPLING DATA: METHOD:	er Pump 2 "Submersible Pump 4"Submersible Pump Itic Pump Other:
MATERIALS: Pump/Bailer: D Teflon®	Tubing/Rope: Teflon®
SAMPLING EQUIPMENT: Dedicated Metals samples field filtered? Dedicated Yes	Prepared Off-Site A Field Cleaned
APPEARANCE: In Clear I Turbid FIELD DETERMINATIONS: See attached for	Cotor: Contains Immiscible Liquid
DUP: INO IYes Name: MS/MSD: No IYes Name:	
certify that this sample was collected and handled in accordance	ance with applicable regulatory and project protocols.
V	COMMENSARY

Accusive Weather

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Date:

Well ID: <u>MW-124R</u> Sample ID: <u>MW-124R - 201 87(12)</u>

11/2/18

545

Client: National Grid Personnel: <u>MMZ</u> [LW] Purge/Sample Depth: ~ Y U '	Project Name:	Fulton (N. On	tario St.) Forme	r MGP
Purge/Sample Depth: ~ Y U '	Personnel:	mis	KW	
	Purge/Sample Depth:		240'	

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Astron			ified Para		Trank Satur	000	DTH	Duration	4.
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Timé	ρН	°≊ (°C)	(mS/cm)	(mg/L)	(NTU)	(mV) ≠	(ft)	(mL/min)	Comments
10/11	10 21	12.32	· · · · · ·	2.11	500		2 70	700	·
1253	10.27	12.07	5.99 8.55	3.14	50-2. 343	-127	5.78	rae	*
1250	7.01	13.21	8.93	1.24	160	-128	5.84		
1302	6.97	13:18	8.84	1.30	119	-126	5.85		· · · ·
1305	6.94	13.17	8.74	1,25 -	84.4	-125	5.80	201)	······································
1308	10.92	12,18	8.43	1.17	59.5	-125	5 810	20	
1311	6.92	13/18	8.33	1.09	50.9	-126	5.86	3.5	
1314	6.93	13.15	8,29	1.06	47.0		6,80	- W	<u> </u>
1217	6.93	13112	8,25	1.12	449	-120	5.80	200	4
320	10.94	13.12	8.72	1.02	40.4	- 127	5.55		
1323	6.94	13.10	8.14	p.98	36.1	-128	5,85		
1320	Sample	MW-1	24R-9	1118104	2				
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	f Sample:		BU	,		Analyst	Signature:	non	$10 \sim 1$
Instrument Data:									
	Manufacturer/Model: Horiba U-52								
	Seria	I No. Unit:				Serial No.	Handheld:	\bigvee	
Ca	libration D)ate/Time:				2			

Are low-flow parameters subject to field lab certification?
Yes Ø No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

		(*instance)	
BrownAND		LOW-FLOW GROU SAMPLING FIEL	the second se
Caldwell	Upper Saddle River, NJ Office	Well Number: MW-121R-20 Sample I.D.: MW-121R-20	(if different from well no)
Project: Fulton (N. Ontario St.)			1,42
Personnel: TR ILW		Weather: (Lougu	Air Temp.: <u>45</u> °
WELL DATA: Casing Diameter: Intake Diameter: DEPTH TO: Static Water Lev DATUM: Top of Protective CONDITION: Is Well clearly Is Prot. Casing Does Weep He Is Concrete Pa Is Padlock Fur Is Inner Casing VOLUME OF WATER: S PURGE DATA: METHOD: Baile	□ Stainless Steel □ Steel □ F □ Stainless Steel □ Galv. Steel el:ft Bottom of W ○ Casing □ Top of Well Casing labeled? □ Yes □ No □ Is we /Surface Mount in Good Cond.? (ble adequately drain well head?- id Intact? (not cracked or frost head inctional? □ Yes □ No □ NA © Properly Capped and Vented? If tanding in well: , Size: Bladder Pump entrifugal Pump □ Peristaltic Pur □ Tefton® ↓ Stainless Steel □ PVC □ Other: Elapsed Time:	PVC Teflon® Other: I PVC Teflon® Open rock ell:ft Other: ell clean to bottom? Pres No not bent or corroded) Yes No Pres No aved) Pres No Is Inner Casing Intact? Pre Pres No To be purged:/A O 2" Submersible Pump Other: Tubing/Rope: Pre Pres Pumped:	lo s 🗆 No mersible Pump eflon® olyethylene olypropylene other:
	res 1 No	umber of Well Volumes Removed:	<u>ANC</u>
SAMPLING DATA: METHOD: G Bailer, Size	N	Submersible Pump	eflon®
SAMPLING EQUIPMENT: Metals samples field filtered?		Off-Site Field Cleaned	отуещуюте
APPEARANCE: CIE	ear Turbid Color: See attached form for field parar		
DUP : DNo DYes MS/MSD : No DYes	Name:	file a	14
I certify that this sample was collected an	d handled in accordance with applicable r	egulatory and project protocols.	
Signature: Hally	<u>La</u>	Date: 11/12/18	
~		Marriel I Marriel Marriel	17 - 17 20 20 20 20 20 20 20 20 20 20 20 20 20

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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 11 (2/18
Personnel: TMA KW	Well ID: MW-121R
Purge/Sample Depth: ~ 40	Sample ID: MW-(21R-2018)112

		Cert	ified Para	meters					
Actual	- 20	Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	4
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
	·								
1942	9,61	12.43	3.52	3.23	254	-290	7.12	200	
1445	7.73	12.57	3.43	2.31	306	-227	7.19		
1449	6.69	17.45	3.94	1.40	251	-1.1	7.27	N.	
1451	6.57	17.38	4.04	1.29	183	-1360 -136	7.27	2023	
1454	6,56	12.36	4,05	122	159	-136	7.28		4
1457	6.50	12.36	4.06	1.22	155	-136	7.29		
1500		12.34	4.06	1.18	121	-136	7.32		
1503	6.50	12.29	4.09	1.15	114	-136		200	
150%	6.57	12.29	4,10	1.10	80.6	-125	7.23		
1509 -	16.58	1220	4.14	1.109	57.8	-125 -135			
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Certified S	ample Inf	ormation		-					
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		er/Model:	Horiba U-	52					
		No. Unit:				Serial No. I	-landheld		
Ca		ate/Time:							
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Are low-flow parameters subject to field lab certification? 🗆 Yes 🛛 No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell	Upper Saddle River, NJ	SAMPI Well Number: Mu Office Sample I.D.: Mu -	1130-2018 1112
Project: Fulton (N. Ontario S Personnel: TR	KW	Date: 11/2/18 Weather: Claud	Time: <u>1539</u> <u>y</u> Air Temp.:45 ²
WELL DATA: Casing Diameter: Intake Diameter: DEPTH TO : Static Water DATUM: International Top of Protect CONDITION: Is Well clear Is Prot. Case Does Weep Is Concreter Is Padlock	□ Stainless Steel □ St □ Stainless Steel □ Ga Level: <u>(0-30)</u> ft Botto stive Casing • Top of Well Infly labeled? □ Yes • No sing/Surface Mount in Good (0 b Hole adequately drain well 1	Casing Cother: o Is well clean to bottom? Cond.? (not bent or corroded) head? Yes No frost heaved) Yes No NA Is Inner Casing Inta ented? Yes No	er: I Open rock Yes I No
PURGE DATA:	aller Maria		
метнор 🛛 Ва		Pump . 2 2" Submersible Pump altic Pump D Inertial Lift Pump	
MATERIALS: Pump Bailer: Pumping Rate: <u>250 ml/a</u> Was well Evacuated? D PURGING EQUIPMENT: C	PVC Other:	Volume Pumped: 2 Number of Well Volumes ared Off-Site Field Clea	Polypropylene Other: Sgal Removed: MA
		□ 2" Submersible Pump □ 4" □ Inertial Lift Pump □ Other: _	Submersible Pump
MATERIALS: (Burge/Bailer: SAMPLING EQUIPMENT: Metals samples field filtered?	Stainless Steel	epared Off-Site Field C	Polyethylene
		lor: Contains Imm	iscible Liquid
			21
	~ .		12 N S
Signature:	d and handled in accordance with ap	Date:	18
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	20	100 E	

P \^Office \^Field Lab \Field Data_Sheets \Excel_Files \Low_Flow_We Info_Sheet_Revision_2.1_102014 xts



2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Date:

12

11

Sample ID: MW-1130-2018112

Well ID: 113D

Project Name:	Fulton (N. On	tario St.) For	mer MGP
Client:	National Grid		
Personnel:	CAMP	KW	
Purge/Sample Depth:	~	17	=

		_		_	_				
-			ified Parar						
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	(mg/L)	(NTU)	. (mV) -	(ft)	(mL/min)	Comments
	1 1 1 0	10 013			100				
1539 1542	10:49	13.00	2319-10	4.03	190	-51	4.31	250	
1542	6.53	13.35	2.35	2.23	207	-67	6.31		
1548	6.54	13.54	2.50	1 24	78.6	-75	6.32	×	· · · · · · · · · · · · · · · · · · ·
1551	6.57	13.58	2.49	112	97.8	-79	6.32	250	· · · · · · · · · · · · · · · · · · ·
1554	6.40	13.41	2.47	1.10	49.5	- 82	6.32	19-	
1557	10.60	13,00		1.00	42.0	- 85	6.32		
1600	6.42	13.62	2.46	1.04	38.4	-810	4.32	250	
1003	6.64	13.41	2.45	1,00	29.0	- 88	6.32		
1004	intel.	13,42	2.44	0.98	23.7	-90	6.32	/	
1009	6.69	13.45	2.44	0.94	20.8	-93	6.32	V	
1012	Sam	ble M	W-113	8-201	511/2				
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Certified S	ample in	formation						Δ	
	f Sample:		111	12-		Analyst	Signature:	4 m	100
Instrumen							- <u>-</u>	-17-	#~
 N 			Horiba U-	52				[]	v
		I No. Unit:				Serial No.	Handheld:	\cup	
Ca	libration E)ate/Time:							

Are low-flow parameters subject to field lab certification?
Yes Ø No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

TRATICAL 1 Sci		LOW-FLOW GROUNDWATER	
Brown AND		SAMPLING FIELD DATA	-
Caldwell		Well Number: MW-(14)	
	Upper Saddle River, NJ Office	Sample I.D.: MW - 114D - 25181113)
Project: Fulton (N. Ontar Personnel: 73 K	io St.) Former MGP	Date: 11 13 18 Time: 0757 Weather: Snowlaw Air Temp.:	
DATUM: Dop of Pro CONDITION: Is Well of Is Prot. Does W Is Conce Is Padlo Is Inner	ter Level: 6.63 ft Bottom of W otective Casing Top of Well Casing clearly labeled? 9 Yes No Is w Casing/Surface Mount in Good Cond.? Yeep Hole adequately drain well head? rete Pad Intact? (not cracked or frost he ock Functional? 9 Yes No NA Casing Properly Capped and Vented?	PVC Teflon® Other: el PVC Teflon® Open rock /ell:ft Other: ell clean to bottom? Yes No (not bent or corroded) Yes No Yes No aved) Yes No Is Inner Casing Intact? Yes No Yes No	
VOLUME OF WATER:	Standing in well:	To be purged:	1 Mar
MATERIALS PumpBail	Centrifugal Pump Peristaltic Pu Teflon® Stainless Steel PVC Other: Her: Elapsed Time: 30 mi	Volume Pumped: 2 5 2 4	
		Site Field Cleaned	
PURGING EQUIPMENT:	Dedicated Prepared Off		21
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Daile	Dedicated Prepared Off	Submersible Pump	21
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Purp/Bail	Dedicated Prepared Offer, Size: Peristaltic Pump 2" Size: Peristaltic Pump Ine Ier: Teflon® Stainless Steel	Submersible Pump	41
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring	Dedicated Prepared Offer Prepared Offer	Submersible Pump	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Pupe/Bail SAMPLING EQUIPMENT Metals samples field filter APPEARANCE:	Dedicated Prepared Offer, Size: Bladder Pump 2" Second for the second secon	Submersible Pump	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Pupp/Bail SAMPLING EQUIPMENT Metals samples field filter	Dedicated Prepared Offer Size: Bladder Pump 2" S Se Sampler Peristaltic Pump Ine Stainless Steel Dedicated Prepared ed? Clear Turbid Color: Color	Submersible Pump	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Purpleail SAMPLING EQUIPMENT Metals samples field filter APPEARANCE: FIELD DETERMINATION DUP : No	Dedicated Prepared Offer, Size: Bladder Pump 2" Second for the second secon	Submersible Pump	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: PupeBail SAMPLING EQUIPMENT Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No C MS/MSD : No C	Dedicated Prepared Offer Size: Peristaltic Pump Peristaltic Pump Ine Stainless Steel Dedicated Prepared ed? Dedicated Prepared ed? Clear Turbid Color: S: See attached form for field para Yes Name: Yes Name:	Submersible Pump	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Public Bail SAMPLING EQUIPMENT: Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No CI MS/MSD : No CI I certify that this sample was coll	Dedicated Prepared Offer Size: Bladder Pump 2" Second former: Teflon® Stainless Steel Dedicated Prepared ed? Dedicated Prepared ed? Clear Turbid Color: S: See attached form for field para Yes Name:	Submersible Pump □ 4" Submersible Pump rtial Lift Pump □ Other: Ubing Rope: □ Teflon® Polyethylene Off-Site • • Field Cleaned d: Contains Immiscible Liquid meter data.	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: PupeBail SAMPLING EQUIPMENT Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No C MS/MSD : No C	Dedicated Prepared Offer Size: Peristaltic Pump Peristaltic Pump Ine Stainless Steel Dedicated Prepared ed? Dedicated Prepared ed? Clear Turbid Color: S: See attached form for field para Yes Name: Yes Name:	Submersible Pump	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Public Bail SAMPLING EQUIPMENT: Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No CI MS/MSD : No CI I certify that this sample was coll	Dedicated Prepared Offer Size: Peristaltic Pump Peristaltic Pump Ine Stainless Steel Dedicated Prepared ed? Dedicated Prepared ed? Clear Turbid Color: S: See attached form for field para Yes Name: Yes Name:	Submersible Pump □ 4" Submersible Pump rtial Lift Pump □ Other: Ubing Rope: □ Teflon® Polyethylene Off-Site • • Field Cleaned d: Contains Immiscible Liquid meter data.	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Public Bail SAMPLING EQUIPMENT: Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No CI MS/MSD : No CI I certify that this sample was coll	Dedicated Prepared Offer Size: Peristaltic Pump Peristaltic Pump Ine Stainless Steel Dedicated Prepared ed? Dedicated Prepared ed? Clear Turbid Color: S: See attached form for field para Yes Name: Yes Name:	Submersible Pump □ 4" Submersible Pump rtial Lift Pump □ Other: Ubing Rope: □ Teflon® Polyethylene Off-Site • • Field Cleaned d: Contains Immiscible Liquid meter data.	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Public Bail SAMPLING EQUIPMENT: Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No CI MS/MSD : No CI I certify that this sample was coll	Dedicated Prepared Offer Size: Peristaltic Pump Peristaltic Pump Ine Stainless Steel Dedicated Prepared ed? Dedicated Prepared ed? Clear Turbid Color: S: See attached form for field para Yes Name: Yes Name:	Submersible Pump □ 4" Submersible Pump rtial Lift Pump □ Other: Ubing Rope: □ Teflon® Polyethylene Off-Site • • Field Cleaned d: Contains Immiscible Liquid meter data.	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Public Bail SAMPLING EQUIPMENT: Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No CI MS/MSD : No CI I certify that this sample was coll	Dedicated Prepared Offer, Size:	Submersible Pump 04" Submersible Pump rtial Lift Pump 00ther:	
PURGING EQUIPMENT: SAMPLING DATA: METHOD: Baile Syring MATERIALS: Public Bail SAMPLING EQUIPMENT: Metals samples field filter APPEARANCE: FIELD DETERMINATION: DUP : No CI MS/MSD : No CI I certify that this sample was coll	Dedicated Prepared Offer Size: Peristaltic Pump Peristaltic Pump Ine Stainless Steel Dedicated Prepared ed? Dedicated Prepared ed? Clear Turbid Color: S: See attached form for field para Yes Name: Yes Name:	Submersible Pump 04" Submersible Pump rtial Lift Pump 00ther:	

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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: 1) (/3(18
Personnel: TB KW	Well ID: NW - UYD
Purge/Sample Depth: / 8	Sample ID: Mw - 1140- 20181113

	Certified Parameters								
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	ρН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
			ļ., .		·			1000 No. 1	
0757	7.21	13.19	1.90	4:31	77.4	112	6.13	250	4
0800	7.14	13,34	2.15	2.20	44.8	-118	6.22		
0803	7.12	13.41	2.29	1.71	18.0	-126	6.35		
0800	7.15	13.29	2.32	1.52	13.0	-128	0.32		
0809	710	13.30	2,34	1.34	12.2	- 33	6.32	¥	
0812	7.09	3.29	2.37	1.24	147	-139	6.32	250	
0815	710	3.32	7.37	1.(3	1.7	-137	6.22		·
0818	7.07	13,21	2.38	1.04	1.8	- (3)	6.52		
0521	7.08		4.38	1.03	<u>\$</u> ,\	- 141	6.32	250	· · ·
0824	7.08	13.2	7.38	0.00	7.1	- 143	6.32		
	7.09		1145-	20151	10.9	- 1960	6.32	<u> </u>	
0830	Sample	<i>M</i> (1) -	10-10-	40151	11.2				
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Y						\mathcal{N}	· · · · ·		44
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					218				
				11	<u> </u>				
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		10-10-10-10-10-10-10-10-10-10-10-10-10-1						· · · · · · · · · · · · · · · · · · ·	
Certified S	ample Inf	ormation	: R.	830				~ 1.h	10
	Sample:		0	070		Analyst S	Signature:	mana	ser
Instrument				,			1000	1/1	
N		-	Horiba U-	52				U	
		No. Unit:				Serial No. I	landheid:		
Ca	libration D	ate/Time:							

Are low-flow parameters subject to field lab certification? \Box Yes \boxtimes No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell	oper Saddle River, NJ Office			
Project: Fulton (N. Ontario St.) For Personnel: TR KW	ormer MGP	Date: 11/13/17 T	me: 0743 clouds Air Temp.:	350
Intake Diameter: DEPTH TO : Static Water Level: DATUM: CONDITION: Is Well clearly labor Is Prot. Casing/Su Does Weep Hole Is Concrete Pad In Is Padlock Function Is Inner Casing Part	Stainless Steel Steel P Stainless Steel Galv. Steel Af Bottom of Well asing Top of Well Casing eled? Yes No Is we urface Mount in Good Cond? (n adequately drain well head? Intact? (not cracked or frost heat onal? Yes No A NA roperly Capped and Vented? A ding in well:	□ 27PVC □ Teflon® □ (ell:ft □ Other: Il clean to bottom? □ Yo to bent or corroded) - Hes □ No ved) □ Yes □ No Is Inner Casing Intact	Dpen rock es D No Yes D No ? DYes D No	
	ize: Bladder Pump C ifugal Pump Q Peristaltic Pum Teflon®	2" Submersible Pump	Other:	p
	Stainless Steel PVC Other: Elansed Time: 20	mber of Well Volumes Re	Teflon® Polyethylene Polypropylene Other: NA	
	Bladder Pump 🗅 2" So r 🖸 Peristaltic Pump 🗅 Iner		ubmersible Pump	
Metals samples field filtered? APPEARANCE: Clear	Teflon® Stainless Steel Dedicated Yes No Method Turbid Color: ee attached form for field paran	I: Contains Immise		ii Ni II
DUP: No Yes Na MS/MSD: No Yes N	ame:			
Certify that this sample was collected and ha	and accordance with applicable re	gulatory and project protocols	2ª	

 $\label{eq:product} P:\Office\Field_Lab\Field_Data_Sheets\Excel_Files\Low_Flow_Well_Info_Sheet_Revision_2.1_102014\xls$

Revision 2.1: 10/20/14

Brown AND Caldwell

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NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Number: 152206

Well ID:

Date: 1//3//8

MW-1095 Sample ID: 109 - 20181(3

4. 11

		ario St.) Former	MGP
Client: Na	tional Grid		
Personnel:	TB	KW	
Purge/Sample Depth:	~18'		

2

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
· · · · · ·	· · · ·	(-)		(3 . –)		(,		(mening	Commente
0845	7.84	9.00	0,320	13.61	309	-35	7.01	200	· · · · · · · · · · · · · · · · · · ·
0848	7.50	9112	0.459	1.01	241	-81	696		
0851	7.24	9.49	0.930	7.87	135	- 55	10:90	· · · · ·	
0854	7.12	9,78	0.18	5.43	89.4	- 87	696	V	
0857	9.05		1.5	3.84	62.2	-80	6.96	300	
0900	7.04	10.25	1.100	2.93	54,0	- 87	6.94		
0903	6.99	10.43	1.83	2.22	41.5	-88	6.20	¥	
0906	6.98	10.57	1,98	1.62	40.7	-87	6.96	100	
0909	6.98	10.69	2.43	1,83	39.3	- 89	6.90		-
0912	6.99	0.83	2.28	1.72	25.6	-91	690		
6915	10.98	10.90	238	1.74	23.6	~ 71	10 nu		
6918	Sandle	MW	1093-	201811	15		* .		
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Certified S Time o	ample Ini	formation	agi	1		Analyst	Signature.	Hen	RA
Instrumen	t Data:		-	0		Analyst	oignature,	170	HV
		rer/Model:	Horiba U-	52				()	\cup
h		No. Unit:				Serial No.	Handheld	U	
Ca						Sonar No. 1	nanonoid.		
00	Calibration Date/Time:								

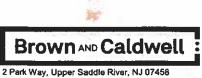
Are low-flow parameters subject to field lab certification? 🗆 Yes 🖾 No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

	Alter 2 Alter A. Corport M. Antonio and Alter A.
Brown AND Caldwell Upper Saddle River, NJ Office	
Project: Fulton (N. Ontario St.) Former MGP Personnel:	Date: MISH Time: 0736 Weather: snow man Air Temp.: 35°
WELL DATA: Casing Diameter:	teel 2 PVC Teflon® Open rock Well:ft ng Other: well clean to bottom? 2 Yes No ? (not bent or corroded) Yes No ? 2 Yes No heaved) Yes No A Is Inner Casing Intact? Yes No ? Yes No
PURGE DATA:	
METHOD: D Bailer, Size: J Bladder Pump	p
	Volume Pumped: Teflon® Polyethylene Other: Number of Well Volumes Removed: Field Cleaned
SAMPLING DATA:	
METHOD: Bailer, Size: A Bladder Pump 2' Syringe Sampler Peristaltic Pump Ir	"Submersible Pump
MATERIALS: PumpBailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepare Metals samples field filtered? Q Yes No Met	
•	Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field particular	rameter data.
DUP : 🖾 No 🖸 Yes Name: MS/MSD : 🖉 No 📮 Yes Name:	
I certify that this sample was collected and handled in accordance with applicabl	le regulatory and project protocols.
Signature:	Date: ((/3(()
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Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206 /
Client: National Grid	Date: L1 (/3 (8
Personnel: TS KW	Well ID: MW - LUD
Purge/Sample Depth:	Sample ID: MW-111D-20181112

	Certified Parameters								
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
		,							
0936	7.11	11.35	1.85	2.94	115	-103	7.23	200	-
0939	FIVE	12.32	1.93	1.34	(99	-121	7.50		
0942	7.11	12.57	1.97	1.14	207	-124	7.51		
0145	7.09	12.57	2.03	1.0(1010	-126	8.04	*	
0948	7.07	12.63	2.06	0.95	121	-125	8,19	200	<i>ь</i>
0951	7.05	12.62	2.11	0.91	80.0	-125	8.30		
0954	7.03	12.69	2.18	0.94	47.4	-12le	8.51		
0157	7.03	12.74	2.20	0.90	4 8.8	- 127	8.71 8.81	∇	
1000	1.02	2.80	2.24	0.90	46.0	-126	8.84	200	
1.003	7.02	12.77	2.28	0.85	39.5	-127	8197		
1001e	7,01	12.79	2.31	0.84	36.2	-127	9.03	\checkmark	4
1009	Sample	MW	-1113	-2018	112				
\frown									
						-			
		-					·		
				3					
									4
			0						
			~						1. A
Certified Sample Information: Time of Sample: 1000 Analyst Signature: 440 Instrument Data: Manufacturer/Model: Horiba U-52					qu	Bl			
Serial No. Unit: Calibration Date/Time:				Serial No. I	Handheld:	····			

Are low-flow parameters subject to field lab certification?
Yes IN No (not required for CERCLA sites or sites outside of NJ)
If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND Caldwell Upper Saddle River, NJ Office	LOW-FLOW GROUNDWATER SAMPLING FIELD DATA Well Number: $\mathcal{M} - \mathcal{M} - \mathcal{M} - \mathcal{M} = \mathcal{M} - \mathcal{M} = \mathcal{M} - \mathcal{M} = $
Project: Fulton (N. Ontario St.) Former MGP Personnel: 13 WW	Date: (((3)(8 Time: (030) Weather:
DEPTH TO: Static Water Level: ft Bottom of W DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes No Is we Is Prot. Casing/Surface Mount in Good Cond.? Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost head Is Padlock Functional? Yes No NA Is Inner Casing Properly Capped and Vented?	el DPVC Teflon® Dopen rock ell:ft Other: ell clean to bottom? Tyes No (not bent or corroded) Yes No Tyes No aved) Tyes No Is Inner Casing Intact? Tyes No Yes No
VOLUME OF WATER: Standing in well:	To be purged:
MATERIALS Pump/Bailer: Centrifugal Pump Deristaltic Pur MATERIALS Pump/Bailer: Teflon® MATERIALS Pump/Bailer: Stainless Steel PVC Other: Pumping Rate: 700 m/mm Elapsed Time: 45 mm Was well Evacuated? Yes No No	Typing/Rope: Teflon® Polyethylene Polypropylene Other:
SAMPLING DATA: METHOD:	Submersible Pump 🔄 4" Submersible Pump rtial Lift Pump 🗅 Other:
MATERIALS: Univ/Bailer: Teflon® SAMPLING EQUIPMENT: Dedicated Prepared (Metals samples field filtered? Yes No Metho APPEARANCE: Clear Turbid Color:	d: Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for field parar	



2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Fulton (N. Ontario St.) Former MGP	Project Number: 152206
Client: National Grid	Date: ((3))
Personnel: This Kw	Well ID: MW - ILIR
Purge/Sample Depth: ~ 31'	Sample ID: MW -111R - 20181113

	Certified Parameters								
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	(mg/L)	(NTU)	(mV)	(ft)	(mL/min)	Comments
	F			((()	Commenta
1030	6.99	10.83	1.37	3.72	430	-115	5.17	200	
1033	6.95	11.09	1.29	3.51	521	-12-5	5.21	- NO -	
1034	6.91	1,32	1.41	3,28	640	-135	5.28		
1039	6.91	11.22	2.41	2.44	640 983	-140	530		and the be
1042	6.92	11.33	3.41	1.76	960	-125	5.30	200	upplied Handas
1045	6.92	11.31	3.40	1.01	595	-131	5.30	- 200	
1048	691	11 40	3.50	0.94	393	135	5.30		
1051	4.91	11:42	3,35	0.89	225	- 37	5.28		
1054	6.91	11.44	3.55	0.87	178	- 138	5.26	200	
1057	6.90	11.55	3.56	0.88	124	- 140	5.2	1	
1100	6.90	11.63	3.51	0.92	86.2	- 41	5.22		
1103	10.90	11.65	3.58	0.82	47.0	-142	5.22	200	
1106	6.00	11.67	3.58	6.93	10.3	-142	3.22		
1109	Saint	Mu	-111R-	201811	3				
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	f Sample:		1109			Analyst S	Signature:	(nu	1510
Instrumen			1141					17	
Ν	/lanufactur	er/Model:	Horiba U-	52					
Serial No. Unit: Serial No. Handheld:									
Ca	libration D	ate/Time:							·····
					· · · · · · · · · · · · · · · · · · ·				

Are low-flow parameters subject to field lab certification?
Yes
No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Brown AND .		LOW-FLOW GRO	
Caldwell	Upper Saddle River, NJ Office	Well Number: BRB - 1 Sample I.D.: BRB - 1 - 20	2181113
Project: Filton Personnel: JMB KW		Date: 1113 18 Time: Weather:Ray	143 Air Temp : 350
DATUM: Top of Protective CONDITION: Is Well clearly Is Prot Casing Does Weep H Is Concrete Pa Is Padlock Fue Is Inner Casin	☐ Stainless Steel Steel ☐ P ☐ Stainless Steel ☐ Galv. Steel vel: ft Bottom of Well a Casing ☐ Top of Well Casing Iabeled? ☐ Yes ☐ No Is we g/Surface Mount in Good Cond? (r ole adequately drain well head? ad Intact? (not cracked or frost hea nctional? ☐ Yes ☐ No ☐ NA g Properly Capped and Vented? Standing in well:	Other: O	ro I No ∕es □ No
PURGE DATA: METHOD:	r, Size Diadder Pump I entrifugal Pump D Peristaltic Pum	□ 2' Submersible Pump □ 4' So □ □ Inertial Lift Pump □ Other:	ubmersible Pump
MATERIALS: Pump/Bailer. Pumping Rate: 200 ml/m Was well Evacuated?	Teflon® Stainless Steel PVC Other. Elapsed Time: 30mm	Volume Pumped 2	Teflon® Polyethylene Polypropylene Other.
SAMPLING DATA: METHOD:	e Bladder Pump 2'S npler 2 Peristaltic Pump 2 Iner	ubmersible Pump □ 4" Submersi tial Lift Pump □ Other:	ble Pump
Metals samples field filtered?	Teflon® Stainless Steel Dedicated Yes No Method lear Turbid Color: See attached form for field parar	d.	Teflon® Polyethylene uid
DUP : I No I Yes MS/MSD : No I Yes	Name	10	
I certify that this sample was collected a Signature.	and hand ed in accordance with applicable n	egulatory and project protocols Date: 1111315	
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Revision 2.1: 10/20/14

Brown AND Caldwell

2 Park Way, Upper Saddle River, NJ 07456 Frome (201) 574-4700 Fax, (201) 235-1507

NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	oject Name Client Personnel mple Depth:	N	Iton Itanil TB ~41	gen		Pro	oject Number Date We'l ID Sample ID	ntisle	
12218	6.64 6.64 5.69	Temp (°C) 10.42 MO.39 10.34 10.34 10.34 10.34 10.34 10.34 10.35 9.55 9.55 9.55 9.55 9.55 9.55 9.55 9	Ified Para Cond (*5/w) 4.40 8.18 9.28 8.10 3.48 3.43 3.34 3.24 3.24 3.24 3.24 3.24 3.24	Imeters DO (mg/L) 2.60 (81 1.50 1.24 3.51 2.17 1.24 1.24 1.13 1.35 1.37 1.13 1.13 1.13 1.13 1.13 1.13 1.13	"1000" 687 "1000" "1000" "1000" 245 251 177 177 177 177 177 177 177 177 177 1	(mV) -83 -103 -116 -107 -107 -107 -107 -107 -107 -107 -107	DTW (ft) (4.87 14.87 14.87 14.87 14.87 14.87 14.87 14.87 14.87 14.88 14.	Pumping Rate (mL/min)	Comments emptical Harthan ited dury
	Sample:	/Model {	127 toriba	Q U-5		Analyst Si Serial No Hi		March	2

Are low-flow parameters subject to field lab certification? TYES VIC (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

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Appendix F: Laboratory Data Packages (CD-ROM)



Appendix G: Data Usability Summary Report





USEPA Data Validation Organic & Inorganic Data Validation Report

Fulton, NY

Lab SDG's No. FUL21, FUL22, FUL23, FUL24, FUL25, FUL26, FUL27, FUL28 & FUL29 MCGI Project No. BC061901-FUL21

Prepared for: Brown & Caldwell

2 Park Way, Suite 2A Upper Saddle River, NJ 07458

Prepared by: "MCGI" Meridian Consultant Group, Inc. Environmental Services & Data Validation

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March 2019

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- GLOSSARY OF ACRONYMS & TERMS
- COMMUNICATION RECORDS
- GLOSSARY OF DATA VALIDATION QUALIFIERS
- REASON CODES
- DATA VALIDATION REPORT NARRATIVE
- ELECTRONIC DATA DELIVERABLE (EDD) with applicable qualifiers, Refer to the EDD Excel file.
- SUPPORT DOCUMENTATION, Refer to the electronic Data Package PDF file.

GLOSSARY OF ACRONYMS & TERMS

GLOSSARY OF ACRONYMS & TERMS

One or more of the following acronyms and terms may have been used in the descriptive process of the **Organic** Data Validation.

Acronyms:	
BFB	Bromofluorobenzene (volatile instrument performance check)
BNA	Base/Neutral/Acid
CCCs	Calibration Check Compounds
CF	Calibration Factor
CLP	Contract Laboratory Program
COC	Chain of Custody
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
%D	Percent Difference
DCB	Decachlorobiphenyl (Pesticide/PCB/ surrogate compound)
DFTPP	Decafluorotriphenylphosphine (semivolatile instrument performance check)
DSF	Data Summary Form
ECD	Electron-Capture Detector
EICP	Extended Ion Current Profile
EPA	United States Environmental Protection Agency
GC	Gas Chromatography
GC/EC	Gas Chromatography/Electron Capture
GC/MS	Gas Chromatography/Mass Spectra
GPC	Gel Permeation Chromatography (Clean Up)
ICAL	Initial Calibration
IS	Internal Standard
LCS	Laboratory Control Sample
LCL	Lower Control Limit
MCL	Maximum Contamination Level
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
m/z,	The ratio of mass (m) to charge (z) of ions measured by GC/MS
OADS	Organic Analysis Data Sheet (Form 1)
ORDA	Organic Regional Data Assessment
РСВ	Poly Chlorinated Biphenyl
PEM	Performance Evaluation Mixture

QA/QC	Quality Assurance/Quality Control
<i>QAPjP</i>	Quality Assurance Project Plan
QC	Quality Control
% R	Percent Recovery of spiked amount
RF	Response Factor
RIC	Reconstructed Ion Chromatogram
RPD	Relative Percent Difference
RRF	Relative Response Factor
RSD	Relative Standard Deviation
RT	Retention Time
RTW	Retention Time Window
SDG	Sample Delivery Group
SMC	System Monitoring Compound
SOP	Standard Operation Procedures
SOW	Statement of Work
SPCCs	System Performance Check Compounds
SSL	Samples Shipping Log
<i>SVOA</i>	Semivolatile Organic Analyte
TCL	Target Compound List
TCX	Tetrachloro-m-Xylene (Pesticide/PCB surrogate compound)
TIC	Tentatively Identified Compound
TPH	Total Petroleum Hydrocarbons
UCL	Upper Control Limit
VOA	Volatile Organic Analyte
VTSR	Validated Time of Sample Receipt

Terms:

Associated Samples

Any sample related to a particular QC analysis.

Case A finite, usually predetermined number of samples collected over a given time period for a particular site. A Case consists of one or more Sample Delivery Group(s).

Contractual Holding Time

The time from VTSR (validated time of sample receipt) to laboratory extraction and /or analysis.

Data Validation Qualifier (DVQ)

This refers to the column on the data summary form in which EPA Region III and other qualifiers have been placed by the data validator.

Data Validation Result (DVR)

This refers to the column on the data summary form used to report results that have been modified by the data validator. A result in the DVR column that is qualified "U" indicates a modification of the reporting limit.

Field Blank Field blanks are intended to identify contaminants that may have been introduced in the field. Examples are rinsate blank (RB), field blanks (FB) and trip blank (TB).

Field Duplicate

A duplicate sample generated in the field; not in the laboratory.

Initial Calibration (ICAL)

The establishment of a calibration curve with the appropriate number of standards and concentration ranges. The calibration curve plots absorbances and/or emissions versus concentration of the standards.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Introduction of a known concentration of a compound into a sample to provide information about the effect of sample matrix on the extraction and/or measurement methodology.

Performance Evaluation Mixture

A standard used to verify that the ICAL sequence is stable throughout the GC or GC/MS analyses.

Sample Delivery Group (SDG)

Defined by one of the following, whichever occurs first:

- case of sample
- each twenty field samples in a case or

- each 14-day calendar period during which field samples in a case are received, beginning with the receipt of the first sample in the SDG.

Technical Holding Time

The time from sample collection to laboratory extraction and /or analysis

GLOSSARY OF ACRONYMS & TERMS

One or more of the following acronyms and terms may have been used in the descriptive process of the **Inorganic** Data Validation.

Acronyms:	
AA	Atomic Absorption
ССВ	Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Calibration Factor
CLP	Contract Laboratory Program
COC	Chain of Custody
CRDL	Contract Required Detection Limit
CSF	Complete SDG File
CV	Cold Vapor
% D	Percent Difference
EPA	United States Environmental Protection Agency
ICAL	Initial Calibration
ICB	Initial Calibration Blank
ІСР	Inductively Coupled Plasma
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
LCS	Laboratory Control Sample
LCL	Lower Control Limit
MCL	Maximum Contamination Level
MDC	Minimum Detectable Concentration
MDL	Method Detection Limit
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MSA	Method of Standard Addition
PB	Preparation Blank
РСВ	Poly Chlorinated Biphenyl
QA/QC	Quality Assurance/Quality Control
QAPjP	Quality Assurance Project Plan
QC	Quality Control

%R	Percent Recovery of spiked amount
RPD	Relative Percent Difference
RRF	Relative Response Factor
RSD	Relative Standard Deviation
SDG	Sample Delivery Group
SOP	Standard Operation Procedures
SOW	Statement of Work
SSL	Samples Shipping Log
TAL	Target Analyte List
UCL	Upper Control Limit
VTSR	Validated Time of Sample Receipt

Terms:

Associated Samples

Any sample related to a particular QC analysis. For Example:

- For ICV, all samples run under the same calibration curve.
- For duplicate RPD, all SDG samples digested/distilled of the same matrix.
- *Case* A finite, usually predetermined number of samples collected over a given time period for a particular site. A Case consists of one or more Sample Delivery Group(s).

Continuing Calibration Blank (CCB)

A deionized water sample run every ten (10) samples designed to detect any carryover contamination.

Continuing Calibration Verification (CCV)

A deionized water sample run every ten (10) samples designed to detect any carryover contamination.

Contract Compliance Screening (CCS)

A process in which the SMO inspects the data for contractual compliance and provides EMSL-LV laboratories and the Regions with their findings.

Contractual Holding Time

The time from VTSR (validated time of sample receipt) to laboratory extraction and /or analysis.

Data Validation Qualifier (DVQ)

This refers to the column on the data summary form in which EPA Region III and other qualifiers have been placed by the data validator.

Data Validation Result (DVR)

This refers to the column on the data summary form used to report results that have been modified by the data validator. A result in the DVR column that is qualified "U" indicates a modification of the reporting limit.

Field Blank Field blanks are intended to identify contaminants that may have been introduced in the field. Examples are rinsate blank (RB), field blanks (FB) and trip blank (TB).

Field Duplicate

A duplicate sample generated in the field; not in the laboratory.

Initial Calibration (ICAL)

The establishment of a calibration curve with the appropriate number of standards and concentration ranges. The calibration curve plots absorbancies and/or emissions versus concentration of the standards.

Initial Calibration Blank (ICB)

First blank run after the calibration curve

Initial Calibration Verification (ICV)

First standard run after the calibration curve

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Introduction of a known concentration of a compound into a sample to provide information about the effect of sample matrix on the extraction and/or measurement methodology.

Post Digestion Spike

The addition of known amount of standard after digestion. (Also identified as analytical spike, or spike, for furnace analyses.)

Preparation Blank (PB)

Blank taken through the digestion process to detect internal laboratory contamination.

Sample Delivery Group (SDG)

Defined by one of the following, whichever occurs first:

- case of sample
- each twenty field samples in a case or
- each 14-day calendar period during which field samples in a case are received, beginning with the receipt of the first sample in the SDG.

Serial Dilution

A sample run at a specific dilution to determine whether any significant chemical or physical interferences exist due to sample matrix effect, for ICP only.

Technical Holding Time

The time from sample collection to laboratory extraction and /or analysis.

COMMUNICATION RECORDS

N/A

GLOSSARY OF DATA VALIDATION QUALIFIERS

GLOSSARY OF DATA QUALIFIER CODES

CODES RELATED TO IDENTIFICATION:

(Confidence concerning presence or absence of compounds)

U	=	Not detected above the level of the associated value. The associated value is either the approximate sample quantitation or detection limit.
NO CODE	=	Confirmed identification
U1	=	Not detected substantially above the level reported in laboratory or field blanks.
R	=	Unusable results. Analyte may or may not be present in the sample.
Ν	=	Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION:

(Can be used for both positive results and sample quantitation limits)

	J	=	Analyte present. Reported value may not be accurate or precise (estimated value).
	J+	=	Analyte present. Reported value may be biased high. Result is estimated high.
	J-	=	Analyte present. Reported value may be biased low. Result is estimated low.
	UJ	=	Not detected. Quantitation limit may be inaccurate or imprecise (Estimated).
	UJ-	=	Not detected. Quantitation limit is probably higher.
OTHER COL	DES:		
	NTT		

- NJ = Qualitative identification questionable. Presumptively present at approximate quantity.
- Q = No analytical result.
- X = Data not Validated.

DATA VALIDATION REPORT NARRATIVE



Meridian Consultant Group, Inc.

Environmental Services & Data Validation 1997 Annapolis Exchange Pkwy., Suite 300 Annapolis, MD 21401 (301)803-9207 Phone (410)972-4701 Fax www.meridiancgi.com

DATE: March 7, 2019

- SUBJECT: USEPA Organic & Inorganic Data Validation Report BTEX, PAH & CN Lab SDG's No. FUL21, FUL22, FUL23, FUL24, FUL25, FUL26, FUL27, FUL28 & FUL29 Site: Fulton, NY MCGI Project No. BC0061901-FUL21
 - **FROM:** Sherif N. Mina Meridian Consultant Group, Inc.
 - TO: Mr. James L. Marolda Brown and Caldwell

OVERVIEW

This report consists of nine (9) Sample Delivery Groups (SDGs) for a total of ninety-six (96) samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, Poly Aromatic Hydrocarbons (PAH) & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. Details about each SDG are listed in separate sections below. The samples were analyzed in accordance with the Chain-of-Custody (COC).

The analytical results were validated according to the pertinent parts of U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review & USEPA National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses.

Deviation from USEPA NFG: The "U" qualifier recommended by USEPA NFG for blank contamination was replaced by the "U1" qualifier to clearly indicate blank contamination on the EDDs.

GENERAL NOTES

- *Electronic Data Deliverable (EDD):* Several rows in the electronic data deliverable (EDD) are marked with an "X" and hidden from the EDDs by the validator. These rows may include quality control samples such as Method Blanks, Laboratory Control Samples, Matrix Spikes, or Matrix Spike Duplicates which are not validated. Additionally, some field sample results may not be used since only one (1) result for each compound is reported after validation. The following list indicates some instances in which an "X" may be placed in the DVQ column:
 - 1. The compounds in an analysis that have exceeded the instrument calibration range.
 - 2. All compounds in a diluted analysis that were within the calibration range in the initial analysis.
 - 3. All compounds in either the initial analysis or re-analysis of a sample, depending on which analysis is not reported on the EDD.

Although QC samples and some field samples results may not be used, all data were reviewed and considered in the overall assessment.

- **Data Validation Qualifier (DVQ):** This refers to the column on the data summary form in which EPA and other qualifiers have been placed by the data validator.
- **Data Validation Result (DVR):** This refers to the column on the data summary form used to report results that have been modified by the data validator. A result in the DVR column that is qualified "U" indicates a modification of the reporting limit. Results in the DVR column supersede those reported by the laboratory.
- *Tentatively Identified Compounds (TICs):* The TICs, if applicable, were reviewed during data validation.
- *Compound Quantitation:* Positive results for compounds which are below the CRQL were qualified as estimated "J" on the EDD.

1-SDG: FUL21

This SDG consisted of eight (8) soil & two (2) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip & one (1) field blanks; and one (1) soil field duplicate were identified in this SDG. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

LE INFORM	ATION		Analysis		
Lab ID	SDG	Matrix	В	Р	С
9699419	FUL21	Soil	х	х	Х
9699420		Soil	х	х	х
9699421		Soil	х	х	Х
9699422		Soil	х	х	х
9699426		Soil	х	х	Х
9699427		Soil	х	х	х
9699428		Soil	х	х	х
9699429		Soil	х	х	Х
9699430		Aqueous	х	х	х
9699431		Aqueous	х		
	Lab ID 9699419 9699420 9699421 9699422 9699426 9699427 9699428 9699429 9699430	9699419 FUL21 9699420	Lab IDSDGMatrix9699419FUL21Soil9699420SoilSoil9699421SoilSoil9699422SoilSoil9699426SoilSoil9699427SoilSoil9699428Soil9699429Soil9699430Aqueous	Lab ID SDG Matrix B 9699419 FUL21 Soil x 9699420 Soil x 9699420 Soil x 9699420 Soil x 9699421 Soil x 9699422 Soil x 9699426 Soil x 9699426 Soil x 9699427 Soil x 9699428 Soil x 9699429 Soil x 9699429 Soil x	Lab ID SDG Matrix B P 9699419 FUL21 Soil x x 9699420 Soil x x 9699420 Soil x x 9699420 Soil x x 9699420 Soil x x 9699421 Soil x x 9699422 Soil x x 9699426 Soil x x 9699427 Soil x x 9699428 Soil x x 9699429 Soil x x 9699429 Soil x x

Sample Identification Summary

B=BTEX, P=PAH, C=CN

Duplicates: DUP/B-135-19-21

Field Duplicates: For the associated soil samples, an RPD of 30% was used as the QC limit for results >5x the CRQL; and for results <5x the CRQL, the difference between the two values must be less than the CRQL. Results < the CRQL have "NA", not applicable, placed in the RPD field.

Compound	DUP	B-135-19-21	RPD	Qualifier
BTEX/MTBE				
Benzene	11	19	53	J
Toluene	1 J	2 J	NA	
РАН				
Acenaphthene	17 J	15 J	NA	
Acenaphthylene	19	19 J	0	
Anthracene	43	56	26	
Benzo(a)anthracene	18 J	22	20	
Benzo(a)pyrene	7 J	10 J	NA	
Benzo(b)fluoranthene	8 J	9 J	NA	
Benzo(k)fluoranthene	5 J	6 J	NA	
Chrysene	14 J	23	49	J
Fluoranthene	73	62	16	
Fluorene	36	44	20	

61	120	65	J
79	110	33	J
76	74	3	
ND	ND		
	76	79 110 76 74 ND ND	79 110 33 76 74 3 ND ND

ND=None Detected NA=Not Applicable

ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

			B			Р	
	Parameters	q	t	a	q	t	a
*	Data Completeness		10	0		9	0
*	Holding Time		10	0		9	0
*	Instrument Performance (BFB/DFTPP)		10	0		9	0
*	Calibrations		10	0		9	0
*	Laboratory and Field Blanks analyses		10	0		9	0
	Surrogate Recoveries	X	10	1		9	0
	Matrix Spike/Matrix Spike Duplicate	x	10	1		9	0
*	Laboratory Control Sample(LCS)		10	0		9	0
	Laboratory and/or Field Duplicates	x	10	2	х	9	2
	Internal Standards	x	10	1		9	0
*	Compound Identification		10	0		9	0
	Compound Quantitation	X	10	1		9	0
*	Sample Preservation		10	0		9	0
* A1	l Criteria were met for that Parameter, B=BTEX, P=	PAH					

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

- **Compound Quantitation:** The BTEX initial analysis of sample B-135-5-7 (9699421) displayed high concentration for benzene above the linear calibration range. The sample was reanalyzed without dilution with similar result. Positive result for benzene in this sample was reported from the initial analysis was qualified "J".
- *Surrogate Recovery:* The BTEX analysis of sample B-135-5-7 (9699421) displayed high recovery for surrogate Toluene-d8. The sample was reanalyzed with similar results, results were reported from the initial analysis. Positive results for compounds (Ethylbenzene, Toluene & Xylenes) associated with this surrogate were qualified "J+", unless superseded by the "J" qualifier.

- *Internal Standards (IS):* The BTEX analysis of sample B-135-5-7 (9699421) displayed low area counts for IS3 (CBZ) & IS4 (DCB) below the lower limit. The sample was reanalyzed with similar results, results were reported from the initial analysis. Positive results for compounds (Ethylbenzene, Toluene & Xylenes) associated with these IS's were qualified "J+", unless superseded by the "J" qualifier.
- *Matrix Spike/Matrix Spike Duplicate (MS/MSD):* The BTEX MS/MSD of sample B-135-9-11 (9699422) displayed high recoveries outside the QC limits for all compounds. Positive results in the parent sample were qualified "J+".

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction	Compound	Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DILA					
PAH	None				
ΓΑΠ					

*Common lab contaminant

- **Quantitation:** For the BTEX analysis, the laboratory stated that the weight of some soil samples were above the recommended range. However, the weight of these samples were taken into account during the calculation of the results. No action was taken.
- *Matrix Spike/Matrix Spike Duplicate (MS/MSD):* The PAH MSD of sample B-135-9-11 (9699422) displayed slightly low recovery @77% below the QC limit of 78% for Chrysene. However, the MS of the same sample, and the LCS displayed recoveries for this compound within the QC limits. It is the validator's professional judgement not to qualify the quantitation limit for this compound due to this minor difference in the recovery of the MSD,

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		С	
	rarameters	q	t	a
*	Data Completeness		9	0
*	Holding Time		9	0
*	Calibration Verification		9	0
*	Laboratory and Field Blanks analyses		9	0
*	Matrix Spike recoveries (MS)		9	0
*	Laboratory and Field Duplicates		9	0
*	Laboratory Control Sample(LCS)		9	0
*	Analyte Identification		9	0
*	Analyte Quantitation		9	0
*	Sample Preservation		9	0

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type
None	
	CB = Container Blank
	PB = Preparation Blank
	ICB = Initial Calibration Blank
	CCB = Continuing Calibration Blan
	FB = Field Blank

EB = Equipment Blank

<u>NOTES</u>

• None Noted.

<u>2-SDG: BFUL22</u>

This SDG consisted of three (3) soil & two (2) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip & one (1) field blanks were identified in this SDG. No field duplicate pairs were identified in this sample set. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SAMPLE INFORMATION					naly	sis
Field ID	Lab ID	SDG	Matrix	В	Р	С
MW-124R-5-7	9720841	FUL22	Soil	х	х	Х
MW-124R-7-9	9720842		Soil	х	х	Х
MW-124R-19-20	9720843		Soil	х	х	Х
FB	9720844		Aqueous	х	х	Х
TRIP BLANK	9720845		Aqueous	х		

Sample Identification Summary

B=BTEX, P=PAH, C=CN

Duplicates: N/A

ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

			B			Р	
	Parameters	q	t	a	q	t	a
*	Data Completeness		5	0		4	0
*	Holding Time		5	0		4	0
*	Instrument Performance (BFB/DFTPP)		5	0		4	0
*	Calibrations		5	0		4	0
*	Laboratory and Field Blanks analyses		5	0		4	0
*	Surrogate Recoveries		5	0		4	0
*	Matrix Spike/Matrix Spike Duplicate		5	0		4	0
*	Laboratory Control Sample(LCS)		5	0		4	0
*	Laboratory and/or Field Duplicates		5	0		4	0
*	Internal Standards		5	0		4	0
*	Compound Identification		5	0		4	0
*	Compound Quantitation		5	0		4	0
*	Sample Preservation		5	0		4	0
* A	l Criteria were met for that Parameter, B=BTEX, P=	PAH					

Data Validation Summary

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

• None noted.

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction		Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DIEA					
PAH	None				
FAII					

*Common lab contaminant

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Quantitation: For the BTEX analysis, the laboratory stated that the weight of some soil samples were above the recommended range. However, the weight of these samples were taken into account during the calculation of the results. No action was taken.

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		С		
	r ar ameter s	q	t	a	
*	Data Completeness		4	0	
*	Holding Time		4	0	
*	Calibration Verification		4	0	
*	Laboratory and Field Blanks analyses		4	0	
*	Matrix Spike recoveries (MS)		4	0	
*	Laboratory and Field Duplicates		4	0	
*	Laboratory Control Sample(LCS)		4	0	
*	Analyte Identification		4	0	
*	Analyte Quantitation		4	0	
*	Sample Preservation		4	0	

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type				
None					
CB = Container Blank					
PB = Preparation Blank					
	ICB = Initial Calibration Blank				

CCB = Continuing Calibration Blank FB = Field Blank EB = Equipment Blank

NOTES

• *Matrix Spike/Matrix Spike Duplicate (MS/MSD):* The CN displayed MS recovery @ 85%, within the QC limits. However, The post digestion spike displayed low recovery @ 3%. No action was taken based on the post digestion spike since both MS & LCS were within the QC limits.

3-SDG: FUL23

This SDG consisted of twelve (12)) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1)trip & one (1) field blanks were identified in this SDG. No field duplicate pairs were identified in this sample set. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SA	MPLE INFORM	IATION		Analysis		
Field ID	Lab ID	SDG	Matrix	В	Р	С
MW-122RD	9812240	FUL23	Aqueous	х	х	x
MW-123R	9812241		Aqueous	х	х	х
MW-120R	9812242		Aqueous	х	х	х
MW-120D	9812243		Aqueous	х	х	х
MW-115D	9812244		Aqueous	х	х	х
MW-116D	9812245		Aqueous	х	х	х
MW-108	9812246		Aqueous	х	х	х
MW-119	9812247		Aqueous	х	х	х
FB	9812248		Aqueous	х	х	х
MW-112D	9812249		Aqueous	х	х	х
MW-112S	9812250		Aqueous	х	х	х
TRIP BLANK	9812254		Aqueous	х	х	Х

Sample Identification Summary

B=BTEX, P=PAH, C=CN

Duplicates: N

N/A

ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

			B			Р	
	Parameters	q	t	a	q	t	a
*	Data Completeness		12	0		11	0
*	Holding Time		12	0		11	0
*	Instrument Performance (BFB/DFTPP)		12	0		11	0
*	Calibrations		12	0		11	0
*	Laboratory and Field Blanks analyses		12	0		11	0
	Surrogate Recoveries		12	0	x	11	1
*	Matrix Spike/Matrix Spike Duplicate		12	0		11	0
*	Laboratory Control Sample(LCS)		12	0		11	0
*	Laboratory and/or Field Duplicates		12	0		11	0
	Internal Standards		12	0	x	11	1
*	Compound Identification		12	0		11	0
*	Compound Quantitation		12	0		11	0
*	Sample Preservation		12	0		11	0
* A]	Il Criteria were met for that Parameter, B=BTEX, P=	PAH					

Data	Validation	Summary
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q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

- *Holding Time:* The PAH extraction of sample MW-115D (9812244) were performed one (1) day outside the technical holding time of seven (7) days. No positive results were detected in this sample. Quantitation limits were qualified "UJ".
- **Surrogate Recovery:** The PAH analysis of sample MW-122RD (9812240) displayed low recovery for surrogate Terphenyl-d14. The sample was reanalyzed with similar results, results were reported from the initial analysis. No positive results were detected in this samples. Quantitation limits for compound associated with this surrogate (Pyrene, Benzo(a)anthracene & Chrysene) were qualified "UJ".

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction	Compound	Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DILA					
PAH	None				
ГАП					

*Common lab contaminant

• *Internal Standards (IS):* The BTEX analysis of sample MW-122RD (9812240) displayed low area count for IS1 (TBA) below the lower limit. No compounds of interest were associated with this IS. No data were qualified.

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		С		
	r ar ameter s	q	t	a	
*	Data Completeness		11	0	
*	Holding Time		11	0	
*	Calibration Verification		11	0	
*	Laboratory and Field Blanks analyses		11	0	
*	Matrix Spike recoveries (MS)		11	0	
*	Laboratory and Field Duplicates		11	0	
*	Laboratory Control Sample(LCS)		11	0	
*	Analyte Identification		11	0	
*	Analyte Quantitation		11	0	
*	Sample Preservation		11	0	

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type			
None				
	CB = Container Blank			
PB = Preparation Blank				
	ICB = Initial Calibration Blank			

CCB = Continuing Calibration Blank FB = Field Blank EB = Equipment Blank

NOTES

• None noted.

4-SDG: FUL24

This SDG consisted of nine (9) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip blank and one (1) aqueous field duplicate were identified in this SDG. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SAM	IPLE INFORM	IATION		Analysis		
Field ID	Lab ID	SDG	Matrix	В	Р	С
MW-121D	9816517	FUL24	Aqueous	х	х	х
MW-121S	9816518		Aqueous	х	х	х
MW-110S	9816519		Aqueous	х	х	х
MW-101	9816520		Aqueous	х	х	х
MW-102	9816521		Aqueous	х	х	х
MW-102D	9816522		Aqueous	х	х	х
DUP	9816523		Aqueous	х	х	х
MW-103	9816524		Aqueous	х	х	х
TRIP BLANK	9816525		Aqueous	х		

Sample Identification Summary

B=BTEX, P=PAH, C=CN

Duplicates:

DUP/MW-102D

Field Duplicates: For the associated aqueous samples, an RPD of 20% was used as the QC limit for results >5x the CRQL; and for results <5x the CRQL, the difference between the two values must be less than the CRQL. Results <5x the CRQL have "NA", not applicable, placed in the RPD field.

Compound	DUP	MW-102D	RPD	Qualifier
BTEX				
	ND	ND		
РАН				
Acenaphthene	6	5	18	
Acenaphthylene	1	1	0	
Anthracene	0.9	0.8	12	
Fluoranthene	0.4 J	0.3 J	NA	
Fluorene	3	3	0	
Naphthalene	1	1	0	
Phenanthrene	6	5	18	
Pyrene	0.6	0.5 J	18	
Cyanide, total	ND	ND		

ND=None Detected NA=Not Applicable

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ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

	_		B			Р	
	Parameters	q	t	a	q	t	a
*	Data Completeness		9	0		8	0
*	Holding Time		9	0		8	0
*	Instrument Performance (BFB/DFTPP)		9	0		8	0
*	Calibrations		9	0		8	0
*	Laboratory and Field Blanks analyses		9	0		8	0
*	Surrogate Recoveries		9	0		8	0
*	Matrix Spike/Matrix Spike Duplicate		9	0		8	0
*	Laboratory Control Sample(LCS)		9	0		8	0
*	Laboratory and/or Field Duplicates		9	0		8	0
*	Internal Standards		9	0		8	0
*	Compound Identification		9	0		8	0
*	Compound Quantitation		9	0		8	0
*	Sample Preservation		9	0		8	0
* A1	ll Criteria were met for that Parameter, B=BTEX, P=	PAH					

Data	Validation	Summary	v

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

• None noted.

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction	Compound	Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DILA					
PAH	None				
FAII					

*Common lab contaminant

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		С		C	
	rarameters	q	t	a		
*	Data Completeness		8	0		
*	Holding Time		8	0		
*	Calibration Verification		8	0		
*	Laboratory and Field Blanks analyses		8	0		
*	Matrix Spike recoveries (MS)		8	0		
*	Laboratory and Field Duplicates		8	0		
*	Laboratory Control Sample(LCS)		8	0		
*	Analyte Identification		8	0		
*	Analyte Quantitation		8	0		
*	Sample Preservation		8	0		

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type	
None		
(CB = Container Blank	
l	PB = Preparation Blank	
]	CB = Initial Calibration Blank	
(CCB = Continuing Calibration Bla	ınk
I	FB = Field Blank	

EB = Equipment Blank

<u>NOTES</u>

• None noted.

5-SDG: FUL25

This SDG consisted of twelve (12) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip & one (1) field blanks were identified in this SDG. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SAMPLE INFORMATION					Analysis		
Field ID	Lab ID	SDG	Matrix	В	Р	С	
MW-103D	9821991	FUL25	Aqueous	х	Х	Х	
MW-109S	9821992		Aqueous	х	х	х	
MW-110D	9821993		Aqueous	х	х	Х	
MW-111S	9821994		Aqueous	х	х	х	
MW-122R	9821995		Aqueous	х	Х	Х	
MW-122D	9821996		Aqueous	х	х	х	
MW-124R	9822000		Aqueous	х	Х	х	
MW-122S	9822001		Aqueous	х	х	х	
MW-125R	9822002		Aqueous	х	х	х	
MW-121R	9822003		Aqueous	х	х	Х	
TRIP BLANK	9822004		Aqueous	х	х	Х	
FB	9822005		Aqueous	х			

Sample Identification Summary

B=BTEX, P=PAH, C=CN

Duplicates: N

N/A

ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

			B			Р	
	Parameters	q	t	a	q	t	a
*	Data Completeness		12	0		11	0
*	Holding Time		12	0		11	0
*	Instrument Performance (BFB/DFTPP)		12	0		11	0
*	Calibrations		12	0		11	0
*	Laboratory and Field Blanks analyses		12	0		11	0
*	Surrogate Recoveries		12	0		11	0
*	Matrix Spike/Matrix Spike Duplicate		12	0		11	0
*	Laboratory Control Sample(LCS)		12	0		11	0
*	Laboratory and/or Field Duplicates		12	0		11	0
*	Internal Standards		12	0		11	0
*	Compound Identification		12	0		11	0
*	Compound Quantitation		12	0		11	0
*	Sample Preservation		12	0		11	0
* A	* All Criteria were met for that Parameter, B=BTEX, P=PAH						

Data Validation Summary

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

• None noted.

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction		Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DILA					
PAH	None				
ГАП					

*Common lab contaminant

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		С		
	rarameters	q	t	a	
*	Data Completeness		11	0	
*	Holding Time		11	0	
*	Calibration Verification		11	0	
*	Laboratory and Field Blanks analyses		11	0	
*	Matrix Spike recoveries (MS)		11	0	
*	Laboratory and Field Duplicates		11	0	
*	Laboratory Control Sample(LCS)		11	0	
*	Analyte Identification		11	0	
*	Analyte Quantitation		11	0	
*	Sample Preservation		11	0	

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type
None	
	CB = Container Blank
	PB = Preparation Blank
	ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank FB = Field Blank EB = Equipment Blank

NOTES

• None noted.

6-SDG: FUL26

This SDG consisted of eight (8) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip blank and one (1) aqueous field duplicate were identified in this SDG. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SAMPLE INFORMATION						sis			
Field ID	Lab ID	SDG	Matrix	В	Р	С			
MW-114D	9827103	FUL26	Aqueous	х	х	х			
MW-113D	9827104		Aqueous	х	х	х			
MW-111D	9827105		Aqueous	х	х	х			
MW-111R	9827106		Aqueous	х	х	х			
BRB-1	9827107		Aqueous	х	х	х			
MW-109D	9827108		Aqueous	х	х	х			
DUP	9827109		Aqueous	х	х	х			
TRIP BLANK	9827110		Aqueous	х					
B=	B=BTEX, P=PAH, C=CN								

Sample Identification Summary

Duplicates: DUP/MW-109D

Field Duplicates: For the associated aqueous samples, an RPD of 20% was used as the QC limit for results >5x the CRQL; and for results <5x the CRQL, the difference between the two values must be less than the CRQL. Results <5x the CRQL have "NA", not applicable, placed in the RPD field.

Compound	DUP	MW-109D	RPD	Qualifier
BTEX				
Benzene	1	1	0	
Ethylbenzene	7	7	0	
Toluene	0.5 J	0.5 J	NA	
Xylenes, total	7	7	0	
РАН				
Acenaphthene	22	24	9	
Acenaphthylene	6	6	0	
Anthracene	0.4 J	0.5	NA	
Fluoranthene	0.8	0.8	0	
Fluorene	4	4	0	
Naphthalene	18	20	11	
Phenanthrene	1	1	0	
Pyrene	0.5 J	0.5 J	NA	
Cyanide, total	ND	0.0079 J	NA	

ND=None Detected NA=Not Applicable

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ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

			B			Р	
	Parameters		t	a	q	t	a
*	Data Completeness		8	0		7	0
*	Holding Time		8	0		7	0
*	Instrument Performance (BFB/DFTPP)		8	0		7	0
*	Calibrations		8	0		7	0
*	Laboratory and Field Blanks analyses		8	0		7	0
*	Surrogate Recoveries		8	0		7	0
*	Matrix Spike/Matrix Spike Duplicate		8	0		7	0
*	Laboratory Control Sample(LCS)		8	0		7	0
*	Laboratory and/or Field Duplicates		8	0		7	0
*	Internal Standards		8	0		7	0
*	Compound Identification		8	0		7	0
*	Compound Quantitation		8	0		7	0
*	Sample Preservation		8	0		7	0
* All Criteria were met for that Parameter, B=BTEX, P=PAH							

Data Validation Summary

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

• None noted.

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction	Compound	Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
PAH	None				

*Common lab contaminant

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

Parameters			С		
		q	t	a	
*	Data Completeness		7	0	
*	Holding Time		7	0	
*	Calibration Verification		7	0	
*	Laboratory and Field Blanks analyses		7	0	
*	Matrix Spike recoveries (MS)		7	0	
*	Laboratory and Field Duplicates		7	0	
*	Laboratory Control Sample(LCS)		7	0	
*	Analyte Identification		7	0	
*	Analyte Quantitation		7	0	
*	Sample Preservation		7	0	

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type
None	
	CB = Container Blank
	PB = Preparation Blank
	ICB = Initial Calibration Blank
	CCB = Continuing Calibration Blan
	FB = Field Blank

EB = Equipment Blank

<u>NOTES</u>

• None noted.

7-SDG: FUL27

This SDG consisted of fifteen (15) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip & one (1) field blanks were identified in this SDG. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SAMPLE INFORMATION				Analysis		
Field ID	Lab ID	SDG	Matrix	В	Р	С
MW-123R	9889854	FUL27	Aqueous	х	Х	Х
MW-120R	9889855		Aqueous	х	х	х
MW-120D	9889856		Aqueous	х	х	х
MW-115D	9889860		Aqueous	х	х	х
MW-116D	9889861		Aqueous	х	х	х
MW-108	9889862		Aqueous	х	х	х
FB	9889863		Aqueous	х	х	х
MW-119	9889864		Aqueous	х	х	х
MW-112D	9889865		Aqueous	х	х	х
MW-112S	9889866		Aqueous	х	х	х
MW-121D	9889867		Aqueous	х	х	х
MW-121S	9889868		Aqueous	х	х	х
MW-110S	9889869		Aqueous	х	х	х
MW-101	9889870		Aqueous	х	х	х
TRIP BLANK	9889871		Aqueous	х		

Sample Identification Summary

B=BTEX, P=PAH, C=CN

Duplicates: N/A

ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

	_		B			Р	
	Parameters	q	t	a	q	t	a
*	Data Completeness		15	0		14	0
*	Holding Time		15	0		14	0
*	Instrument Performance (BFB/DFTPP)		15	0		14	0
*	Calibrations		15	0		14	0
*	Laboratory and Field Blanks analyses		15	0		14	0
	Surrogate Recoveries		15	0	x	14	1
*	Matrix Spike/Matrix Spike Duplicate		15	0		14	0
	Laboratory Control Sample(LCS)		15	0	x	14	1
*	Laboratory and/or Field Duplicates		15	0		14	0
*	Internal Standards		15	0		14	0
*	Compound Identification		15	0		14	0
*	Compound Quantitation		15	0		14	0
*	Sample Preservation		15	0		14	0
* A1	ll Criteria were met for that Parameter, B=BTEX, P=	PAH					

Data	Validation	Summary
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q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

• *Laboratory Control Sample (LCS)/Surrogate Recoveries:* The PAHLCS/LCSD associated with the initial analysis of sample MW-121S (9889868) displayed low recoveries for most of the compounds. The samples were re-extracted and reanalyzed within holding time, resulting in low recoveries for all surrogates. No positive results were detected in both initial & reanalysis of the sample. Reported quantitation limits for all compounds were qualified "UJ".

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction	Compound	Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DILA					
PAH	None				
FAII					

*Common lab contaminant

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		С		
	rarameters	q	t	a	
*	Data Completeness		14	0	
*	Holding Time		14	0	
*	Calibration Verification		14	0	
*	Laboratory and Field Blanks analyses		14	0	
*	Matrix Spike recoveries (MS)		14	0	
*	Laboratory and Field Duplicates		14	0	
*	Laboratory Control Sample(LCS)		14	0	
*	Analyte Identification		14	0	
*	Analyte Quantitation		14	0	
*	Sample Preservation		14	0	

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type				
None					
	CB = Container Blank				
	PB = Preparation Blank				
	ICB = Initial Calibration Blank				

CCB = Continuing Calibration Blank FB = Field Blank EB = Equipment Blank

NOTES

• None noted.

8-SDG: FUL28

This SDG consisted of twelve (12) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip blank and one (1) aqueous field duplicate were identified in this SDG. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SAMI	PLE INFORM	ATION		Analysis		
Field ID	Lab ID	SDG	Matrix	В	Р	С
MW-102	9894103	FUL28	Aqueous	х	х	Х
MW-102D	9894104		Aqueous	х	х	х
MW-103	9894105		Aqueous	х	х	х
MW-103D	9894106		Aqueous	х	х	х
DUP	9894107		Aqueous	х	х	х
MW-109S	9894108		Aqueous	х	х	х
MW-110D	9894109		Aqueous	х	х	х
MW-111S	9894110		Aqueous	х	х	х
MW-122S	9894111		Aqueous	х	х	х
MW-122D	9894112		Aqueous	х	х	х
MW-122R	9894113		Aqueous	х	х	х
TRIP BLANK	9894117		Aqueous	х		

Sample Identification	Summary
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B=BTEX, P=PAH, C=CN

Duplicates: DUP/MW-103D

• *Field Duplicates:* For the associated aqueous samples, an RPD of 20% was used as the QC limit for results >5x the CRQL; and for results <5x the CRQL, the difference between the two values must be less than the CRQL. Results <5x the CRQL have "NA", not applicable, placed in the RPD field.

Compound	DUP	MW-103D	RPD	Qualifier
BTEX				
Benzene	17	17	0	
Ethylbenzene	2	2	0	
Toluene	2	2	0	
Xylenes, total	4 J	4 J	NA	
PAH				
Acenaphthene	1	2	67	J
Acenaphthylene	0.5J	0.7	NA	
Anthracene	0.1J	0.3J	NA	
Benzo(a)anthracene	0.6	0.8	NA	
Benzo(a)pyrene	0.6	1	NA	
Benzo(b)fluoranthene	0.7	1	NA	
Benzo(g,h,i)perylene	0.2J	0.3J	NA	

Compound	DUP	MW-103D	RPD	Qualifier
Benzo(k)fluoranthene	0.3J	0.5J	NA	
Chrysene	0.4J	0.6	NA	
Dibenz(a,h)anthracene	ND	0.1J	NA	
Fluoranthene	0.7	1	NA	
Fluorene	0.4J	0.5	NA	
Indeno(1,2,3-c,d)pyrene	0.3J	0.4J	NA	
Naphthalene	2	3	40	J
Phenanthrene	0.2J	0.3J	NA	
Pyrene	0.9	1	11	
Cyanide, total	0.019	0.018	5	

ND=None Detected NA=Not Applicable

ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

			B			Р	
	Parameters	q	t	a	q	t	a
*	Data Completeness		12	0		11	0
*	Holding Time		12	0		11	0
*	Instrument Performance (BFB/DFTPP)		12	0		11	0
*	Calibrations		12	0		11	0
*	Laboratory and Field Blanks analyses		12	0		11	0
*	Surrogate Recoveries		12	0		11	0
	Matrix Spike/Matrix Spike Duplicate	x	12	1		11	0
*	Laboratory Control Sample(LCS)		12	0		11	0
	Laboratory and/or Field Duplicates		12	0	x	11	2
*	Internal Standards		12	0		11	0
*	Compound Identification		12	0		11	0
*	Compound Quantitation		12	0		11	0
*	Sample Preservation		12	0		11	0
* A	l Criteria were met for that Parameter, B=BTEX, P=	PAH					

Data Validation Summary

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

• *Matrix Spike/Matrix Spike Duplicate (MS/MSD):* The BTEX MS/MSD of sample MW-122R displayed high recoveries for Benzene, Toluene & Ethylbenzene. Positive results for these compounds were qualified "J+" in the parent sample.

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on

the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction	Compound	Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DILA					
PAH	None				
ГАП					

*Common lab contaminant

•

Matrix Spike/Matrix Spike Duplicate (MS/MSD): The BTEX MS/MSD of sample MW-122S displayed high recoveries for all compounds. No positive results were detected in the parent sample. No data were qualified.

The PAH MS/MSD of sample MW-122R displayed high recoveries for Naphthalene. However, the native sample concentration was >4x the spiked amount. No action was taken.

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		С		
	r ar ameter s	q	t	a	
*	Data Completeness		11	0	
*	Holding Time		11	0	
*	Calibration Verification		11	0	
*	Laboratory and Field Blanks analyses		11	0	
*	Matrix Spike recoveries (MS)		11	0	
*	Laboratory and Field Duplicates		11	0	
*	Laboratory Control Sample(LCS)		11	0	
*	Analyte Identification		11	0	
*	Analyte Quantitation		11	0	
*	Sample Preservation		11	0	

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type
None	
	CB = Container Blank
	PB = Preparation Blank
	ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank FB = Field Blank EB = Equipment Blank

NOTES

• None noted.

<u>9-SDG: FUL29</u>

This SDG consisted of thirteen (13) aqueous samples submitted to eurofins Laboratories, Lancaster, PA, for BTEX, PAH & Cyanide (CN) analyses according to SW-846 Methods 8260C, 8270D & 9012B, respectively. One (1) trip & one (1) field blanks; and one (1) aqueous field duplicate were identified in this SDG. The samples were analyzed in accordance with the Chain-of-Custody (COC), see Sample Identification Summary.

SAMPI	SAMPLE INFORMATION				nalys	sis
Field ID	Lab ID	SDG	Matrix	В	Р	С
MW-122RD	9899633	FUL29	Aqueous	х	Х	Х
MW-125R	9899634		Aqueous	х	х	х
DUP	9899635		Aqueous	х	х	Х
MW-124R	9899636		Aqueous	х	х	х
MW-121R	9899637		Aqueous	х	х	х
MW-113D	9899638		Aqueous	х	х	Х
MW-114D	9899639		Aqueous	х	х	х
MW-109D	9899640		Aqueous	х	х	Х
MW-111D	9899641		Aqueous	х	х	х
MW-111R	9899642		Aqueous	х	х	Х
FB	9899643		Aqueous	х	х	х
BRB-1	9899644		Aqueous	х	х	х
TRIP BLANK	9899645		Aqueous	х		
B=	=BTEX, P=PA	H, C=CN				

Sample Identification Summary

Duplicates: DUP/MW-125R

• *Field Duplicates:* For the associated aqueous samples, an RPD of 20% was used as the QC limit for results >5x the CRQL; and for results <5x the CRQL, the difference between the two values must be less than the CRQL. Results <5x the CRQL have "NA", not applicable, placed in the RPD field.

Compound	DUP	MW-125R	RPD	Qualifier
BTEX				
Benzene	5	5	0	
Ethylbenzene	62	63	2	
Toluene	37	38	3	
Xylenes, total	180	180	0	
PAH				
Acenaphthene	29	29	0	
Acenaphthylene	10	11	10	
Anthracene	3	3	0	
Benzo(a)anthracene	0.1 J	0.1 J	NA	
Fluoranthene	2	3	40	J

Compound	DUP	MW-125R	RPD	Qualifier
Fluorene	20	19	5	
Naphthalene	130	210	47	J
Phenanthrene	9	6	40	J
Pyrene	2	2	0	
Cyanide, total	ND	ND		

ND=None Detected NA=Not Applicable

ORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods, except as noted in the Major Problem section. Refer to Minor Problems for information regarding biases identified during data validation.

	Parameters		В			Р	
			t	a	q	t	a
*	Data Completeness		13	0		12	0
*	Holding Time		13	0		12	0
*	Instrument Performance (BFB/DFTPP)		13	0		12	0
*	Calibrations		13	0		12	0
*	Laboratory and Field Blanks analyses		13	0		12	0
	Surrogate Recoveries		13	0	x	12	1
	Matrix Spike/Matrix Spike Duplicate	x	13	2		12	0
	Laboratory Control Sample(LCS)		13	0	х	12	12
	Laboratory and/or Field Duplicates		13	0	x	12	2
*	Internal Standards		13	0		12	0
*	Compound Identification		13	0		12	0
*	Compound Quantitation		13	0		12	0
*	Sample Preservation		13	0		12	0
* A	Il Criteria were met for that Parameter, B=BTEX, P=	PAH					

Data vanuation Summai	Data	Validation	Summary
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q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR PROBLEMS

• None noted.

MINOR PROBLEMS

• *Matrix Spike/Matrix Spike Duplicate (MS/MSD):* The BTEX MSD of sample MW-125R displayed high recoveries for all compounds. Positive results for these compounds were qualified "J+" in the parent sample.

The BTEX MSD of sample BRB-1 displayed high recovery for Benzene. Positive result for this compound was qualified "J+" in the parent sample.

• **Surrogate Recovery:** The PAH analysis of sample MW-125R (9899633) displayed low recovery for surrogate Terphenyl-d14. The sample was reanalyzed with similar results, results were reported from the initial analysis. Quantitation limits for compounds associated

with this surrogate (Pyrene, Benzo(a)anthracene & Chrysene) were qualified "UJ".

• *Laboratory Control Sample (LCS):* The PAH LCS displayed low recovery for Fluorene. Positive results & quantitation limits for this compound in all samples were qualified "J-" & "UJ", respectively, unless the "J-" was superseded by the "J" qualifier.

NOTES

• **Blank Contaminants:** The maximum concentration of all compounds found in the analyses of the trip, field or laboratory method blanks are listed in the following table. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Organic Data Review, dated August 2014.

Analytical Fraction	Compound	Maximum Concentration	Units	Blank Type	Associated Samples
BTEX	None				
DIEA					
PAH	None				
ГАП					

*Common lab contaminant

INORGANIC VALIDATION

SUMMARY

All samples were successfully analyzed for all target compounds according to U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. Refer to Minor Problems for information regarding biases identified during data validation.

Parameters			С		
	rarameters	q	t	a	
*	Data Completeness		12	0	
*	Holding Time		12	0	
*	Calibration Verification		12	0	
*	Laboratory and Field Blanks analyses		12	0	
*	Matrix Spike recoveries (MS)		12	0	
*	Laboratory and Field Duplicates		12	0	
*	Laboratory Control Sample(LCS)		12	0	
*	Analyte Identification		12	0	
*	Analyte Quantitation		12	0	
*	Sample Preservation		12	0	

q=qualified; t=total number of samples analyzed; a=number of samples affected

MAJOR ISSUES

• None noted.

MINOR ISSUES

• *Laboratory and Field Blanks analyses:* Analytes detected in the laboratory and/or equipment blanks, that affect sample results, with concentration above the instrument detection limit (IDL) are listed below. Associated samples with positive results of these contaminants maybe qualified "U1" or "J+", based on the concentration level found in the samples, according to USEPA National Functional Guideline for Inorganic Data Review, dated August 2014.

Analyte	Blank Type
None	
	CB = Container Blank
	PB = Preparation Blank
	ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank FB = Field Blank EB = Equipment Blank

NOTES

• None noted.

REPORT CONTENT STATEMENT

All data for this project were reviewed in accordance with the pertinent parts of the U.S. Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review & USEPA National Functional Guidelines for Inorganic Data Review, dated August 2014; Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use, dated January 2009; along with the Quality Assurance/Quality Control (QA/QC) requirements for the analytical methods used for the analyses. The text of the report addresses only those problems affecting data usability.

ATTACHMENTS

2)

- 1) Glossary of Data Qualifiers
 - Electronic Data Deliverable (EDD). These include:
 - (a) All results for target compounds with qualifier codes where applicable.
 - (b) All unusable detection limits (qualified "R"), where applicable.
- 3) Electronic Data Package (.pdf file) as Support Documentation

DCN: BC021901-FUL21

Respectfully Submitted,

Sherif N. Mina Sherif N. Mina Date: March 7, 2019

QA/Review: SM

Appendix H: Electronic Data Deliverable (CD-ROM)

