



Periodic Review Report

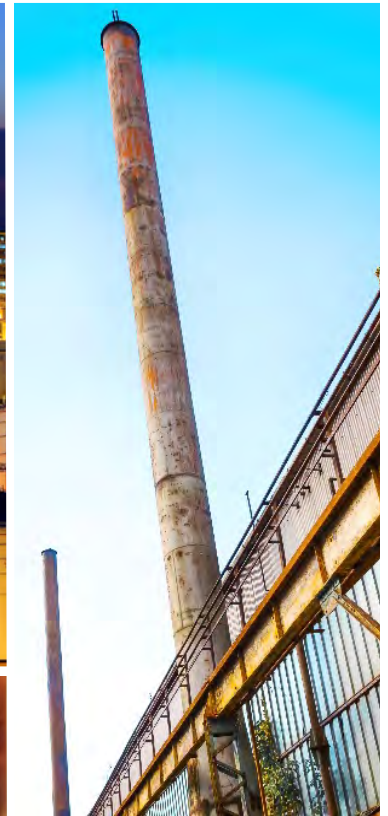
202 – 218 Morgan Avenue BCP Site

BCP Site #C224133

November 22, 2018 to November 22, 2019

Reporting Period

Rolling Frito-Lay Sales, LP





Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 Site Management Periodic Review Report Notice
 Institutional and Engineering Controls Certification Form



	Site Details	Box 1	
Site No. C224133			
Site Name Frito Lay			
Site Address: 202-218 Morgan Avenue	Zip Code: 11237		
City/Town: Brooklyn			
County: Kings			
Site Acreage: 2.8			
Reporting Period: November 22, 2018 to November 22, 2019			
		YES	NO
1. Is the information above correct?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
If NO, include handwritten above or on a separate sheet.			
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5. Is the site currently undergoing development?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Box 2	
		YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	

Box 2A

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid?
(The Qualitative Exposure Assessment must be certified every five years)

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C224133

Box 3

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
3-02942-0105	Rolling Frito Lay Sales, LP	Soil Management Plan Ground Water Use Restriction Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan
<p>A series of ICs is required by the NYSDEC Decision Document dated July 2011 to: (1) implement, maintain and monitor engineering control (EC) systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Frito-Lay site to industrial uses only. Adherence to these institutional controls (ICs) on the Frito-Lay site is required by the Environmental Easement and will be implemented under the Site Management Plan (SMP).</p>		
<p>The ICs are:</p>		
<p>Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns;</p>		
<p>All ECs must be operated and maintained as specified in the SMP;</p>		
<p>All ECs must be inspected at a frequency and in a manner defined in the SMP.</p>		
<p>Groundwater monitored natural attenuation sampling and analysis, soil vapor intrusion study, and other environmental or public health monitoring must be performed as defined in the SMP;</p>		
<p>Data and information pertinent to Site Management of the site must be reported at the frequency and in a manner defined in the SMP;</p>		
<p>All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;</p>		
<p>Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP; and</p>		
<p>Operation, monitoring, maintenance, inspection and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.</p>		
<p>ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.</p>		
<p>The site has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:</p>		
<p>The property may only be used for industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.</p>		
<p>The property may not be used for a higher level of use, such as, unrestricted, residential, restricted residential, and commercial use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;</p>		
<p>All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;</p>		
<p>The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;</p>		
<p>The potential for vapor intrusion must be evaluated for any buildings developed on the area noted on Figure 2-3 of the SMP and any potential impacts that are identified must be monitored or mitigated;</p>		

Vegetable gardens and farming on the property are prohibited; and,

The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such property any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

3-02942-0111

Rolling Frito Lay Sales, LP

Soil Management Plan
Ground Water Use Restriction
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan

A series of ICs is required by the NYSDEC Decision Document dated July 2011 to: (1) implement, maintain and monitor engineering control (EC) systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Frito-Lay site to industrial uses only. Adherence to these institutional controls (ICs) on the Frito-Lay site is required by the Environmental Easement and will be implemented under the Site Management Plan (SMP).

The ICs are:

Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns;

All ECs must be operated and maintained as specified in the SMP;

All ECs must be inspected at a frequency and in a manner defined in the SMP.

Groundwater monitored natural attenuation sampling and analysis, soil vapor intrusion study, and other environmental or public health monitoring must be performed as defined in the SMP;

Data and information pertinent to Site Management of the site must be reported at the frequency and in a manner defined in the SMP;

All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP; and

Operation, monitoring, maintenance, inspection and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP.

ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The site has a series of ICs in the form of site restrictions. Adherence to these ICs is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

The property may only be used for industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.

The property may not be used for a higher level of use, such as, unrestricted, residential, restricted residential, and commercial use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;

All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;

The potential for vapor intrusion must be evaluated for any buildings developed on the area noted on Figure 2-3 of the SMP and any potential impacts that are identified must be monitored or mitigated;

Vegetable gardens and farming on the property are prohibited; and,

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3-02942-0112

Rolling Frito Lay Sales, LP

Ground Water Use Restriction
Landuse Restriction
Monitoring Plan
Site Management Plan
O&M Plan
IC/EC Plan
Soil Management Plan

A series of ICs is required by the NYSDEC Decision Document dated July 2011 to: (1) implement, maintain and monitor engineering control (EC) systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the Frito-Lay site to industrial uses only. Adherence to these institutional controls (ICs) on the Frito-Lay site is required by the Environmental Easement and will be implemented under the Site Management Plan (SMP).

The ICs are:

Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns;

All ECs must be operated and maintained as specified in the SMP;

All ECs must be inspected at a frequency and in a manner defined in the SMP.

Groundwater monitored natural attenuation sampling and analysis, soil vapor intrusion study, and other environmental or public health monitoring must be performed as defined in the SMP;

Data and information pertinent to Site Management of the site must be reported at the frequency and in a manner defined in the SMP;

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The property may only be used for industrial use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.

The property may not be used for a higher level of use, such as, unrestricted, residential, restricted residential, and commercial use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;

All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;

The potential for vapor intrusion must be evaluated for any buildings developed on the area noted on Figure 2-3 of the SMP and any potential impacts that are identified must be monitored or mitigated;

Vegetable gardens and farming on the property are prohibited; and,

The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such property any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

Box 4

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
3-02942-0105	Vapor Mitigation Cover System Subsurface Barriers Fencing/Access Control

Asphalt (Engineered) and Soil Cover Systems:

Exposure to remaining contamination in soil at the Frito-Lay site is prevented by an asphalt and soil cover system placed over the site. This cover system is comprised of a minimum of 6 inches of asphalt pavement, with the exception along the bulkhead area where a soil cover system consists of a minimum of 1-foot of clean soil/fill able to support a vegetative cover.

Chain Linked Fence:

The site is enclosed by a "newly" constructed 10-foot high chain linked fence installed on the eastern, western, and southern sides which prevents unauthorized access. Access to the northern section of the site is available through the Frito-Lay facility.

Composite Cover System:

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

Sub-Slab Depressurization System (SSDS):

The active SSD system, when it is constructed and operational, will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SSD system is no longer required, a proposal to discontinue the SSD system will be submitted by the property owner to the NYSDEC and NYSDOH.

Monitored Natural Attenuation:

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to

Parcel

Engineering Control

discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

3-02942-0111

Vapor Mitigation
Cover System
Subsurface Barriers
Fencing/Access Control

Asphalt (Engineered) and Soil Cover Systems:

Exposure to remaining contamination in soil at the Frito-Lay site is prevented by an asphalt and soil cover system placed over the site. This cover system is comprised of a minimum of 6 inches of asphalt pavement, with the exception along the bulkhead area where a soil cover system consists of a minimum of 1-foot of clean soil/fill able to support a vegetative cover.

Chain Linked Fence:

The site is enclosed by a "newly" constructed 10-foot high chain linked fence installed on the eastern, western, and southern sides which prevents unauthorized access. Access to the northern section of the site is available through the Frito-Lay facility.

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Monitored Natural Attenuation:

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

3-02942-0112

Vapor Mitigation
Cover System
Subsurface Barriers
Fencing/Access Control

Asphalt (Engineered) and Soil Cover Systems:

Exposure to remaining contamination in soil at the Frito-Lay site is prevented by an asphalt and soil cover system placed over the site. This cover system is comprised of a minimum of 6 inches of asphalt pavement, with the exception along the bulkhead area where a soil cover system consists of a minimum of 1-foot of clean soil/fill able to support a vegetative cover.

Chain Linked Fence:

The site is enclosed by a "newly" constructed 10-foot high chain linked fence installed on the eastern, western, and southern sides which prevents unauthorized access. Access to the northern section of the site is available through the Frito-Lay facility.

Composite Cover System:

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

Sub-Slab Depressurization System (SSDS):

The active SSD system, when it is constructed and operational, will not be discontinued unless prior written approval is granted by the NYSDEC. In the event that monitoring data indicates that the SSD system is no longer required, a proposal to discontinue the SSD system will be submitted by the property owner to the NYSDEC and NYSDOH.

Monitored Natural Attenuation:

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC, until residual groundwater concentrations are found to be consistently below NYSDEC standards

Parcel

Engineering Control

or have become asymptotic at an acceptable level over an extended period. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C224133

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Cedric Robinson at 7701 Legacy Drive, Plano, TX 75025
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Cedric Robinson
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

7/14/2020
Date

IC/EC CERTIFICATIONS

Box 7

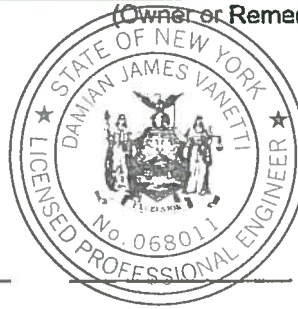
Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Damian J. Vanetti at GHD Consulting Services Inc.
One Remington Park Drive, Cazenovia, NY 13035
print name print business address

I am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)





2-12-20

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

Date



Executive Summary

The 202-218 Morgan Avenue Brownfield Cleanup Program (BCP) Site (BCP Site #224133) consists of approximately 2.85-acres of land located at 202-218 Morgan Avenue, Borough of Brooklyn, Kings County, New York. The Site owner is Rolling Frito-Lay Sales, LP (Frito-Lay). The Site soil and groundwater was historically found to be contaminated with metals, polychlorinated biphenyls (PCBs), semi-volatile organic compounds (SVOCs), and volatile organic compounds (VOCs), and Site soil vapor was found to be contaminated with volatile organic compounds (VOCs). The Site was remediated to industrial use cleanup standards and received a Certificate of Completion (COC) from the New York State Department of Environmental Conservation (NYSDEC) on November 6, 2013.

The Site is currently in the monitoring stage, including annual inspections and annual groundwater monitoring, with groundwater samples being collected from on-Site and off-Site monitoring wells. In general, increasing and decreasing concentrations are observed for the various parameters across the Site, with no distinct discernable trends recognizable at this time. However, off-Site groundwater monitoring well MW-7 appears to have a generally increasing trend in concentrations of chlorinated VOCs, with concentrations of trichloroethene, cis-1,2-dichloroethene, and vinyl chloride have historically been detected at concentrations above groundwater standards in samples taken from MW-7 and appear to further indicate a generally increasing trend in chlorinated VOC concentrations off-site. The concentrations of detected compounds in Site groundwater samples do not indicate the need for further assessment or further action at this time. It is noted that the Site groundwater quality could be influenced by the adjacent English Kills and/or upgradient groundwater for certain compounds.

The institutional controls and engineering controls for the Site remain in place and effective for protecting human health and the environment. The soil cover engineering controls remain in place and functioning as intended. At the time of the annual Site inspection (November 14, 2019), it was noted that minor vegetation growth should be removed from the area around monitoring well MW-2R and woody vegetation should be removed from the stone rip-rap portion of the Site during regular maintenance. Woody growth should be monitored periodically as part of routine maintenance to determine if removal is required. In addition, the shifted concrete barricades in a portion of the bulkhead should be evaluated to determine if structural instability could be occurring. Annual groundwater monitoring has been completed in accordance with the Site Management Plan (SMP). There are no new buildings constructed on-Site and the existing warehouse on the adjacent property to the north has not been expanded. As a result, there is no need for a sub-slab depressurization system (SSDS) engineering control. The institutional and engineering controls certification form, as issued by the Department, has been completed and included Attachment 1 at the beginning of this report.

There is no need to revise the SMP or propose a change to the frequency of PRR submittals at this time. Groundwater will continue to be monitored on an annual basis and Site inspections will continue to be performed on an annual basis, in accordance with the SMP. If buildings are constructed in the future they will be evaluated to determine if mitigation of soil vapor intrusion is necessary. The requirements necessary to discontinue Site monitoring and Site Engineering and Institutional Controls have not been met at this time.



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Figure 2 – Site Layout

Figure 3 – Engineering Controls

Figure 4 – Exceedances of Groundwater Standards – Total Metals

Figure 5 – Exceedances of Groundwater Standards – Dissolved Metals

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Figure 7 – Groundwater Elevation and Flow Direction

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Table 1 – Groundwater Elevation Data

Table 2 – Groundwater Field Parameter Data

Table 3 – Summary of Groundwater Sample Laboratory Analytical Results



Attachment and Appendix Index

- Attachment 1 Institutional and Engineering Controls Certification Form (prior to Executive Summary)
- Appendix A Annual Inspection Form
- Appendix B Approval Notifications for EQUIS Database Submittals



1. Introduction

1.1 Purpose

This Periodic Review Report (PRR) is being submitted on behalf of Rolling Frito-Lay Sales, LP (Frito-Lay) for the 202-218 Morgan Avenue Brownfield Cleanup Program (BCP) Site (BCP Site No. C224133) located at 202-218 Morgan Avenue, Borough of Brooklyn, Kings County, New York (Figure 1). The purpose of this PRR, and attached documents, is to document that institutional and engineering controls, as described in the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP) and Environmental Easement (EE), are in place in accordance with 6NYCRR Part 375-3. The following elements are included in this report:

- A complete description of all institutional and/or engineering controls employed at the Site
- An evaluation of the plans developed for implementation of the engineering and institutional controls, regarding the continued effectiveness of any institutional and/or engineering controls required by the decision document for the Site
- A certification prepared by a professional engineer or qualified environmental professional that the institutional controls and/or engineering controls employed at the Site during the period are:
 - Unchanged from the previous certification, unless approved by the Department, consistent with the SMP
 - In place and effective
 - Performing as designed, and that nothing has occurred that would (1) impair the ability of the controls to protect public health and the environment, or (2) constitute a violation or failure to comply with any operation and maintenance plan for such controls
- The institutional and engineering controls certification form as issued by the Department has been completed and included at the beginning of this report.
- Data tables and figures depicting results of annual groundwater monitoring activities conducted on- and off-Site.

1.2 Certification Period

NYSDEC requested that this PRR cover the period between November 22, 2018 and November 22, 2019. During this period, Frito-Lay performed regular inspections of the soil cover engineering control on-Site. GHD Consulting Services Inc. (GHD), on behalf of Frito-Lay, performed annual groundwater monitoring, conducted an annual visual inspection of engineering controls on-Site, and prepared this PRR.



1.3 Scope and Limitations

This report has been prepared by GHD for Rolling Frito-Lay Sales, LP and may only be used and relied on by Rolling Frito-Lay Sales, LP for the purpose agreed between GHD and Rolling Frito-Lay Sales, LP as set out in Section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Rolling Frito-Lay Sales, LP arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report based in part on information provided by Rolling Frito-Lay Sales, LP and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

The opinions, conclusions and any recommendations in this report are based on information obtained from, and testing undertaken at or in connection with, specific sample points. Site conditions at other parts of the Site may be different from the Site conditions found at the specific sample points.

Investigations undertaken in respect of this report are constrained by the particular Site conditions, such as the location of buildings, services and vegetation. As a result, not all relevant Site features and conditions may have been identified in this report.

Site conditions (including the presence of hazardous substances and/or Site contamination) may change after the date of this report. GHD does not accept responsibility arising from, or in connection with, any change to the Site conditions. GHD is also not responsible for updating this report if the Site conditions change without further authorization to do so by Rolling Frito-Lay Sales, LP.



2. Site Overview

The Site is located in the Borough of Brooklyn, Kings County, New York and is identified as Block 2942 and Lots 105, 111, and 112 on the NYSDEC Institutional and Engineering Controls Certification Form. Information obtained from the New York City Finance Department online Tax Maps identifies the Site as Block 2942 and Lot 105, with no matching records for Lots 111 and 112. The Site is approximately 3.23-acres of land, of which approximately 2.85-acres were entered into the BCP. The Site is bound by an adjacent parcel to the north owned by Rolling Frito-Lay Sales, LP and used for distribution activities; English Kills to the east; the English Kills basin and an adjacent industrial parcel to the south; and Morgan Avenue to the west with commercial and industrial properties further west (see Figure 2).

The Site is currently developed with an asphalt pavement parking area used for parking Frito-Lay delivery vehicles and employee vehicles. The portion of the Site not occupied by asphalt pavement consists of minor grass covered landscaping areas and rip-rap adjacent to English Kills and the English Kills basin.

The Remedial Investigation (RI), which was conducted under Brownfield Cleanup Agreement (BCA Index #A2-0622-0709) during 2009 and 2010, characterized the nature and extent of contamination at the Site. The results of the RI, as reported in the *Revised Remedial Investigation Report* (Gannett Fleming, P.C., July 2010) and the *Supplemental Remedial Investigation and Second Supplemental Remedial Investigation Report* (Gannett Fleming, P.C., April 2011) determined that contaminants of concern (COCs) were present in Site soil, groundwater, and soil vapor. It was determined that Site surface and subsurface soils contained arsenic, lead, mercury, polychlorinated biphenyls (PCBs), and semi-volatile organic compounds (SVOCs) at concentrations that exceeded the Unrestricted Use Soil Cleanup Objectives (SCOs). Analytical results of Site groundwater samples identified arsenic, lead, and volatile organic compounds (VOCs) at concentrations that exceeded the Technical and Operational Guidance Series (TOGS) Class GA groundwater standards or guidance values. VOCs were also detected in Site soil vapor samples.

A Remedial Work Plan (RWP) was prepared by Gannett Fleming, P.C. (August 2011). The remedial goals for the Site included:

- removing or eliminating significant threats to human health and the environment
- protecting human health and the environment during the contemplated future use of the Site, which was identified as industrial, heavy manufacturing, in accordance with the BCA and DER-10.

The proposed remedial approach was to remediate the Site to a Track 4 Restricted Use by meeting the Industrial Use SCOs. This remediation approach included excavation of soil/fill exceeding Site-specific remedial action objectives (RAOs), excavation of soil/fill exceeding the Industrial Use SCOs, and implementation of engineering/institutional controls. Remedial activities were completed at the Site in February 2013. Soil/fill excavation included:

- the removal of approximately 16,513 tons of hazardous PCB soil (PCB concentrations in excess of 50 mg/kg)



- the removal of approximately 4,096 tons of non-hazardous PCB soil (PCB concentrations in excess of 10 mg/kg or 25 mg/kg, depending on the excavation area)
- the removal of approximately 619 tons of arsenic, lead, and mercury contaminated soil with concentrations exceeding the Protection of Groundwater and/or Industrial Use SCOs
- the placement of imported clean fill material back into the excavation areas.

Excavated soil/fill was transported for off-Site disposal. The PCB excavated soils that were identified as hazardous were reportedly managed in accordance with TSCA regulations.

The selected remedy for groundwater remediation was natural attenuation, based on the fact that VOC daughter products were present in several on-Site groundwater monitoring wells, which suggests that degradation is occurring and can be expected to continue over time. Also, sensitive receptors were not identified downgradient of the Site and the Site and surrounding area is serviced by a municipal water supply system.

The engineering controls for the Site consist of maintaining the soil cover system and requiring the installation of a sub-slab depressurization system (SSDS) in any new buildings constructed on-Site, or in future expansions added to the Frito-Lay warehouse located on the adjoining property to the north. The institutional controls include a Site groundwater use restriction, a Site use restriction restricting the use to industrial uses, and the requirement that a SSDS will be installed in any future buildings constructed on-Site.

An Environmental Easement (EE) for the Site was filed with the Kings County Clerk's Office on September 20, 2013. A Site Management Plan, which outlines Site restrictions and requirements of future maintenance and monitoring, was completed in September 2013. A Certificate of Completion allowing for industrial uses of the Site was received from the NYSDEC on November 6, 2013.

The reader of this PRR may refer to previous reports for more detail, as needed. These reports include:

- *Subsurface Investigation*, Gannett Fleming, P.C., 2003.
- *Phase I Environmental Site Assessment*, Gannett Fleming, P.C., 2006.
- *Surface Pile Characterization Work Plan*, Gannett Fleming, P.C., 2007.
- *Phase II Environmental Site Assessment*, Gannett Fleming, P.C., 2007.
- *Remedial Investigation*, Gannett Fleming, P.C., 2009.
- *Supplemental Remedial Investigation*, Gannett Fleming, P.C., 2010.
- *Second Supplemental Remedial Investigation*, Gannett Fleming, P.C., 2011.
- *Remedial Work Plan*, Gannett Fleming, P.C., 2011.
- *Site Management Plan*, Frito-Lay, Brooklyn, New York, NYSDEC Site Number: C224133, Gannett Fleming Engineers, P.C., September 2013.
- *Final Engineering Report*, Frito-Lay, Brooklyn, Kings County, New York, NYSDEC Site Number: C224133, Gannett Fleming Engineers, P.C., October 2013.
- *202-218 Morgan Avenue BCP Site (BCP Site #C224133) – Periodic Review Report, November 22, 2017 – November 22, 2018*, GHD Consulting Services Inc., January 7, 2019.



- *202-218 Morgan Avenue BCP Site (BCP Site #C224133) – Post-Remediation Groundwater Monitoring – 2018 PCB Re-Sample, GHD Consulting Services Inc., March 7, 2019.*
- *202-218 Morgan Avenue BCP Site (BCP Site #C224133) – Annual Post-Remediation Groundwater Monitoring – 2019, GHD Consulting Services Inc., October 4, 2019.*



3. Institutional and Engineering Controls

Based on identified soil, groundwater, and soil vapor contamination, and the Site's past and present use, institutional and engineering controls are utilized at the Site to limit exposure risks. These institutional and engineering controls are described below.

3.1 Institutional Controls

The institutional controls (ICs) for this Site are outlined in the NYSDEC-approved SMP (Gannett Fleming Engineers, P.C., September 2013) and adherence to these ICs is required by the Environmental Easement. The ICs for the Site include the following:

- the property may only be used for industrial uses provided that the long-term engineering and institutional controls included in the NYSDEC-approved SMP are employed
- the property may not be used for a higher level of use, such as, unrestricted, residential, restricted residential, and/or commercial use without additional remediation and amendment of the EE, as approved by the NYSDEC
- all future activities on the property that will disturb remaining contamination must be conducted in accordance with the NYSDEC-approved SMP
- the use of groundwater underlying the property is prohibited without treatment rendering it safe for intended use and prior approval by NYSDEC
- the potential for soil vapor intrusion must be evaluated for any buildings developed on Site, or expansions added to the existing warehouse to the north, and any potential impacts that are identified must be monitored and/or mitigated
- vegetable gardens and farming on the property are prohibited
- the Site owner or remedial party will submit to the NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and (2) nothing has occurred that impairs the ability of the controls to protect public health and the environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such property any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow, and will be made by an expert that the NYSDEC finds acceptable.

3.1.1 Site Use

The Site use has not changed since the NYSDEC issued the Certificate of Completion and is currently used for industrial uses and parking of Frito-Lay company/delivery and employee vehicles.

3.1.2 Groundwater

Groundwater is not being used at the Site.



Following the May 2018 groundwater monitoring event, the NYSDEC requested that a separate round of groundwater sampling be performed to confirm PCB concentrations identified in samples taken from Site monitoring wells. The additional sampling was completed in December 2018 by GHD personnel and concluded that discernible trends in concentrations and relationships to groundwater sample turbidity were not evident at the time.

Monitored natural attenuation groundwater monitoring was conducted as outlined in the NYSDEC-approved SMP during this PRR reporting period (May 2019). Laboratory analytical results were tabulated and submitted to the NYSDEC (GHD, October 4, 2019) and to the NYSDEC's EQUIS Database. Results of groundwater monitoring did not warrant revision of the monitoring schedule or analytical list.

3.1.3 Excavations

No excavations occurred on-Site during this PRR's certification period.

3.2 Engineering Controls

The engineering controls (ECs) for this Site are outlined in the NYSDEC-approved SMP (Gannett Fleming Engineers, P.C., September 2013), and include the following:

3.2.1 Asphalt and Soil (Engineered) Cover Systems

Direct contact with soil/fill at the Site is mitigated by a soil cover system in place over the entirety of the Site. This soil cover system is comprised of a minimum of 6 inches of asphalt pavement or a minimum of 1-foot of clean soil/fill, consisting of maintained landscape areas or rip rap. The location of the soil cover system is depicted in Figure 3.

The soil cover system was in place for the duration of the certification period and no maintenance was required to amend the soil cover system. At the time of the annual Site inspection (November 14, 2019), it was noted that surface cracks were present in the asphalt pavement and it was recommended that an evaluation of the asphalt pavement be completed to determine if repairs and/or maintenance were required. The remainder of the soil cover system was in good repair; however, woody vegetation was observed along the bulkhead and several of the concrete barricades in the bulkhead were shifted. It was recommended to remove the woody vegetation and assess the concrete barriers to ascertain if there were any structural concerns that require action. Both conditions should be monitored to determine if further action is needed.

Additional information can be found in the Institutional and Engineering Controls Certification Form (beginning of this report) and the Annual Inspection Form (Appendix A).

3.2.2 Chain Linked Fence

To prevent unauthorized access to the Site, a 10-foot high chain linked fence was installed along the eastern, western, and southern boundaries. Access to the Site from the northern boundary is controlled by the adjacent property, which is also owned by Frito-Lay.

The chain linked fence was in good condition at the time of the annual Site inspection (November 14, 2019) and appeared to be effective in limiting unauthorized access to the Site.



3.2.3 Sub-Slab Depressurization System

A sub-slab depressurization system (SSDS) will be required to be installed in any new buildings constructed on-Site or if the warehouse on the adjacent property to the north, which is also owned by Frito-Lay, is expanded or renovated.

At the time of the annual Site inspection (November 14, 2019) no new buildings had been constructed on-Site and the adjacent warehouse to the north had not been expanded. Therefore, no SSDS is required at this time.



4. Operations and Monitoring

The NYSDEC-approved SMP (Gannett Fleming Engineers, P.C., September 2013) requires annual groundwater monitoring and reporting. The annual monitoring is intended to assess the performance of the remedy and overall reduction in contamination on-Site. The annual groundwater monitoring was completed in accordance with the SMP (Figures 4, 5, 6, and 7 and Tables 1, 2, and 3). The laboratory sample results were transmitted to the NYSDEC in the Annual Post-Remediation Groundwater Monitoring letter report (GHD, October 4, 2019) and were also successfully uploaded into the NYSDEC's EQulS Database on September 18, 2019 (Appendix B). Table 3 summarizes laboratory analytical results of groundwater samples taken since remediation was completed at the Site. The groundwater results are compared to Class GA groundwater quality standards or guidance values from the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1, June 1998 and subsequent addenda).

In general, since post-remediation baseline samples were taken, concentrations of analytes detected in groundwater samples have both increased and decreased, with no consistent Site-wide trends recognizable at this time. Overall the number of contaminants detected above groundwater standards are limited as noted in the tables and figures. However, off-Site groundwater monitoring well MW-7 appears to have a generally increasing trend in concentrations of chlorinated VOCs, with concentrations of trichloroethene, cis-1,2-dichloroethene, and vinyl chloride having historically been detected at concentrations above groundwater standards in samples taken from MW-7 and appear to further indicate a generally increasing trend in chlorinated VOC concentrations off-site. In addition, the concentrations of barium in off-site groundwater monitoring well MW-8 appears to have a slightly increasing trend. The detected contaminants in MW-7 and MW-8 are likely related to an off-site source as these monitoring wells are upgradient of the Site and the contaminants detected are at higher concentrations than detected in samples taken from on-Site monitoring wells. The concentrations of detected PCBs in Site groundwater samples obtained in May 2018 indicated the need for further assessment to confirm if the concentrations were accurate and if turbidity of the sample water contributed to the results. As a result, groundwater monitoring wells were resampled in December 2018 and analyzed for PCBs only. Based on available information to date, there are no clearly discernable trends in PCB concentrations in samples taken from on-Site groundwater monitoring wells. Trends will continue to be evaluated as more data becomes available.

It is noted that the Site groundwater quality could be influenced by the tidal water dynamics of the adjacent English Kills and/or upgradient groundwater for certain compounds.

Based on the groundwater data received to date, the qualitative exposure assessment assumptions regarding on-Site and off-site contamination have not changed and are still valid. As future groundwater monitoring events occur, the data will be reviewed to determine if any compound-specific or Site-wide trends (decreasing or increasing) can be identified.



5. Recommendations

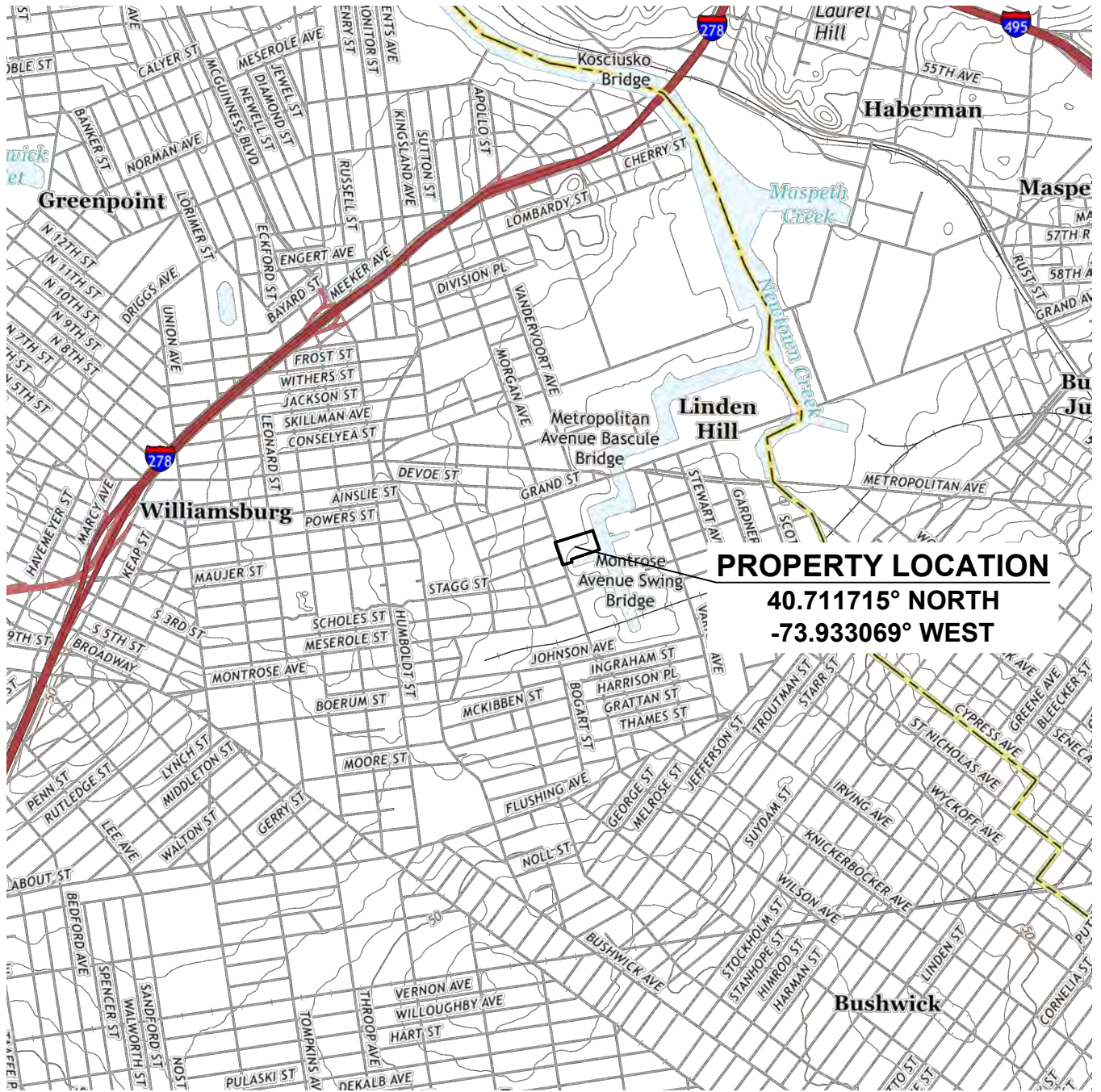
Based on a review of the annual groundwater data, it is recommended that the ICs and ECs currently in place for the Site remain in place in order to ensure the continued effectiveness and protectiveness of the remedy. The trends in groundwater quality associated with the off-site monitoring wells MW-7 and MW-8 should continue to be assessed for potential impacts to Site groundwater quality. Groundwater monitoring should continue to be conducted on an annual basis, as identified in the SMP, until the May 2020 monitoring event, after which the monitoring results should be reviewed and modifications to future monitoring requirements, if any, should be recommended to the NYSDEC. The effectiveness of the remedy should continue to be evaluated through analytical results from the groundwater monitoring events.

Based on the annual inspection observations, the following items were noted:

1. The surface cracks in the asphalt pavement should be assessed to determine if they are progressing to the point that influences the amount of stormwater infiltration into the subsurface or could compromise the engineering control. In general, the asphalt pavement should be maintained and cracks sealed as part of the Site maintenance program.
2. Vegetation growth around monitoring well MW-2R should be removed to allow for clear access to the well.
3. The woody growth along the perimeter rip-rap should be periodically removed to control potential impacts to the cover system.
4. The concrete barricades comprising a portion of the bulkhead should be evaluated to determine if their observed shifting could lead to structural instability.

The annual Site inspections should be continued to ensure that the Site use has not changed and the engineering controls are in place and functioning as intended.

Figures

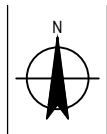
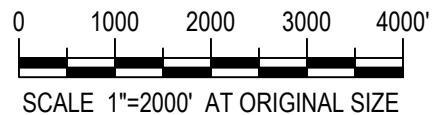


PROPERTY LOCATION

**40.711715° NORTH
-73.933069° WEST**



CONTOUR INTERVAL: 10 FEET
 MAP TAKEN FROM: USGS 7.5 MINUTE SERIES
 TOPOGRAPHIC QUADRANGLES:
 BROOKLYN, NY (2016)
 (U.S. GEOLOGICAL SURVEY WEBSITE)

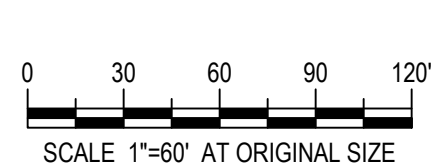
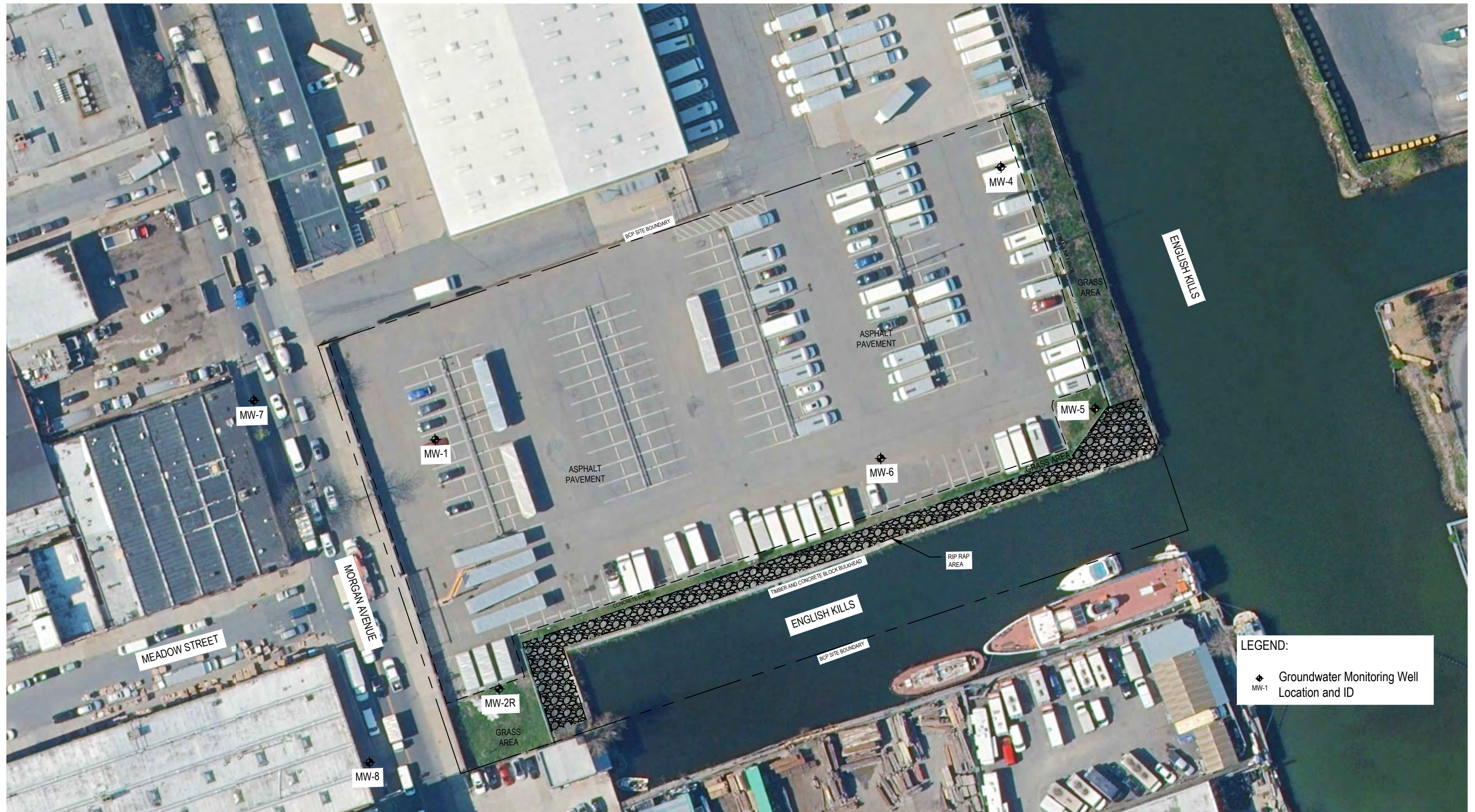


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Site Location Map

Figure 1



NOTES:
 1. Aerial photograph is a 2018, 6-inch resolution, true color image taken from the NYSGIS Clearinghouse website
 2. Site features taken from an as-built field survey completed by PS&S on August 21, 2013.

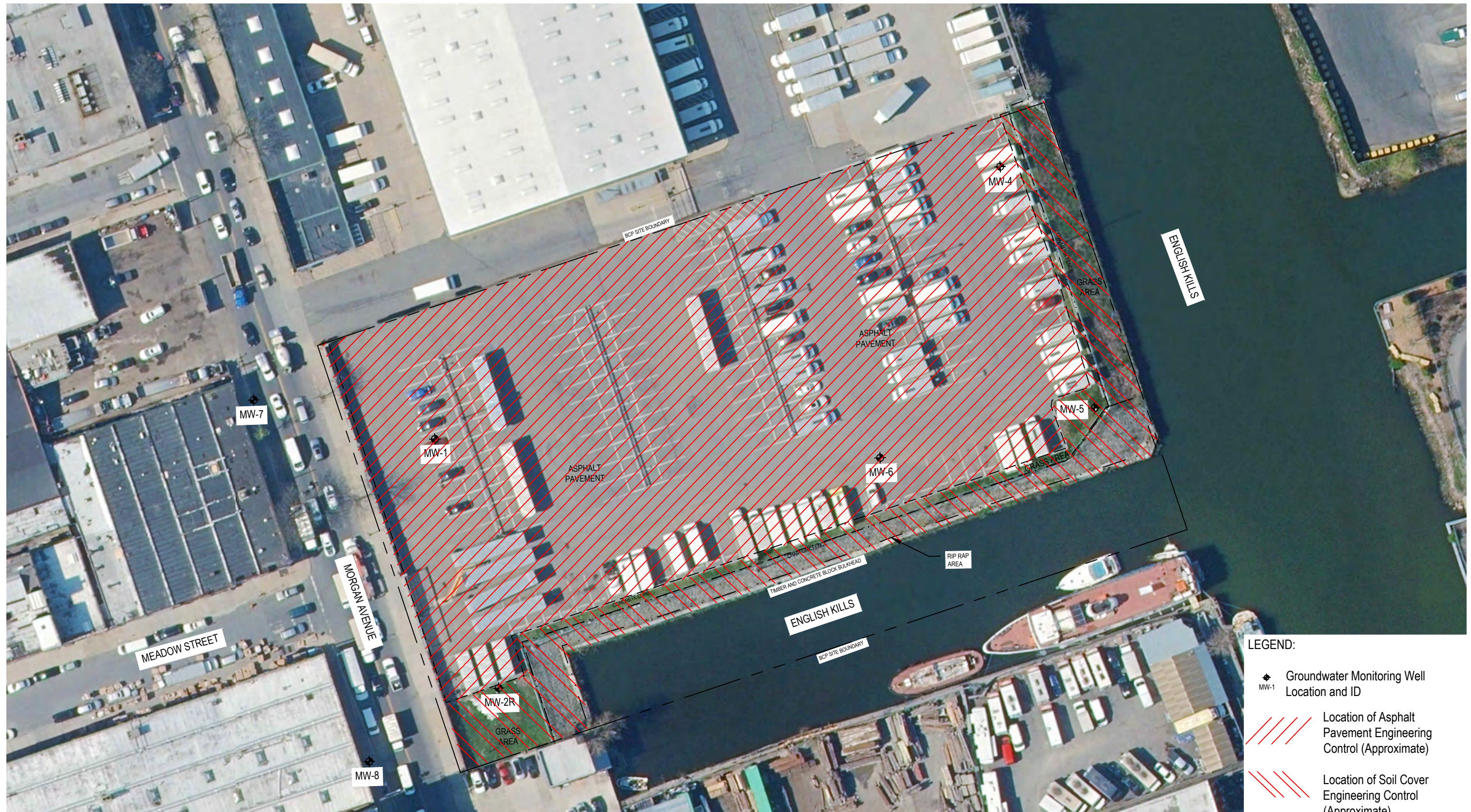


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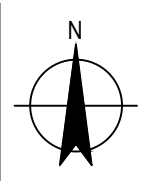
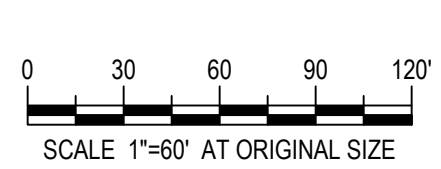
Site Layout

Figure 2



LEGEND:

-  Groundwater Monitoring Well Location and ID
-  Location of Asphalt Pavement Engineering Control (Approximate)
-  Location of Soil Cover Engineering Control (Approximate)



NOTES:
 1. Aerial photograph is a 2018, 6-inch resolution, true color image taken from the NYSGIS Clearinghouse website
 2. Site features taken from an as-built field survey completed by PS&S on August 21, 2013.



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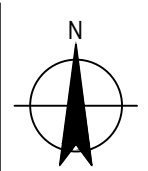
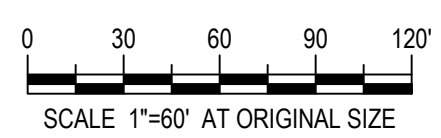
Engineering Controls

Figure 3



LEGEND:

- Groundwater Monitoring Well Location and ID
- Conc. ug/L Detected Concentration in ug/L (5-30-2019 Sampling Event)
ug/L - micrograms per liter, parts per billion



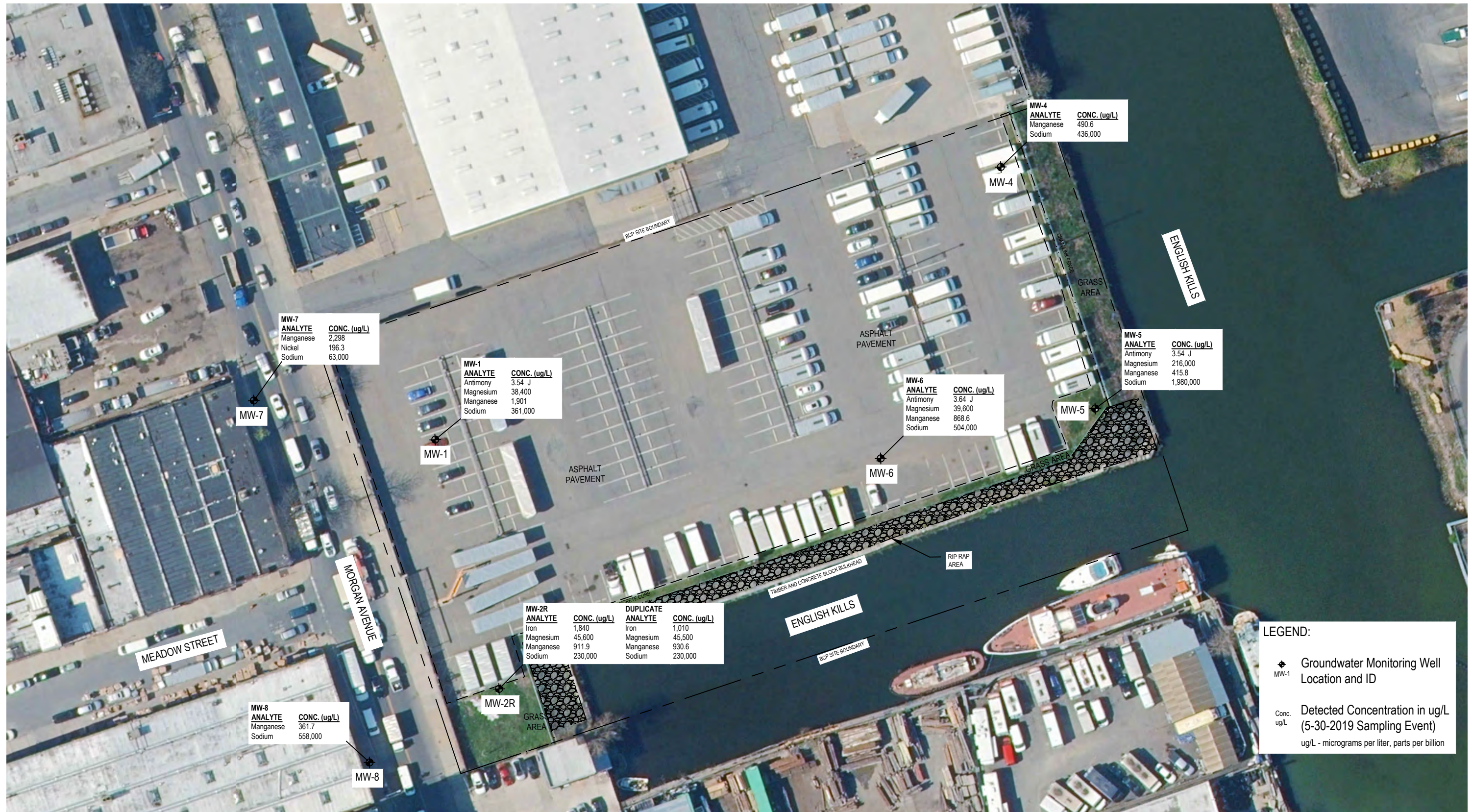
NOTES:

- Only analytes that exceed groundwater standards are shown here. For complete results, see tables in report.
- Aerial photograph is a 2018, 6-inch resolution, true color image taken from the NYSGIS Clearinghouse website.
- Site features taken from an as-built field survey completed by PS&S on August 21, 2013.



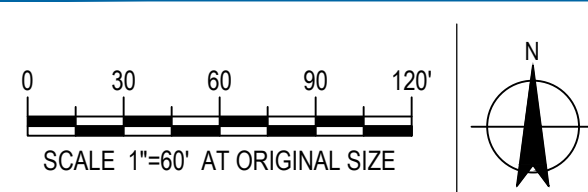
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Exceedances of Groundwater Standards - Total Metals

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Figure 4



LEGEND:

- Groundwater Monitoring Well Location and ID
- Conc. Detected Concentration in ug/L (5-30-2019 Sampling Event)
ug/L - micrograms per liter, parts per billion



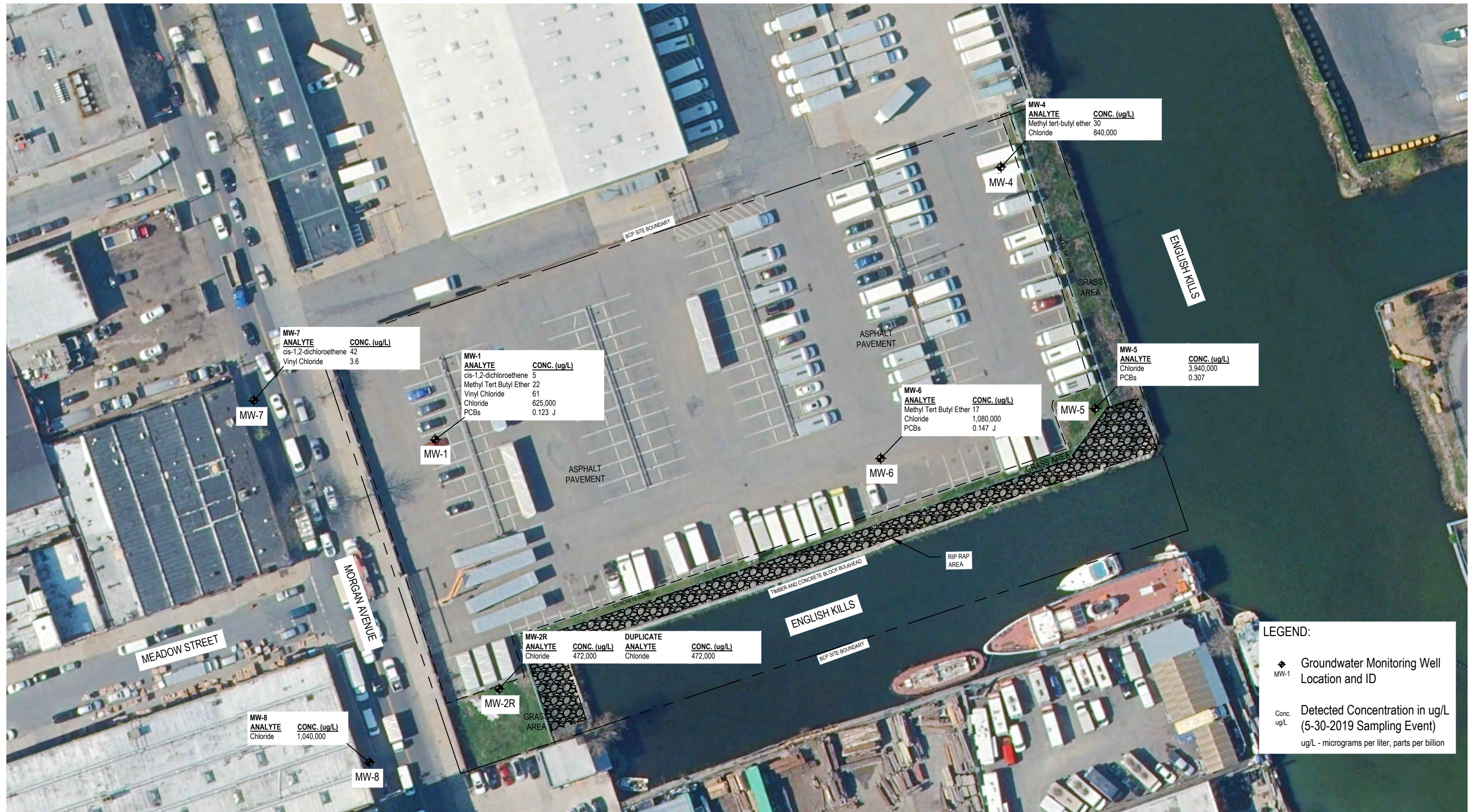
NOTES:

1. Only analytes that exceed groundwater standards are shown here. For complete results, see tables in report.
2. Aerial photograph is a 2018, 6-inch resolution, true color image taken from the NYSGIS Clearinghouse website.
3. Site features taken from an as-built field survey completed by PS&S on August 21, 2013.



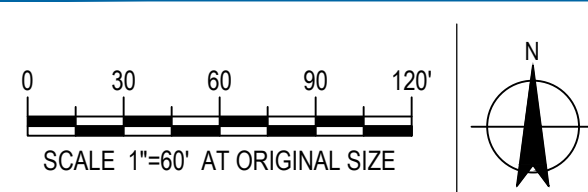
Rolling Frito-Lay Sales, LP
 Periodic Review Report - Nov. 22, 2018 to Nov. 22, 2019 - 202-218 Morgan Avenue BCP Site (#C224133)
Exceedances of Groundwater Standards - Dissolved Metals

Job Number 86-16480
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Figure 5



LEGEND:

- Groundwater Monitoring Well Location and ID
- Conc. Detected Concentration in ug/L (5-30-2019 Sampling Event)
ug/L - micrograms per liter, parts per billion



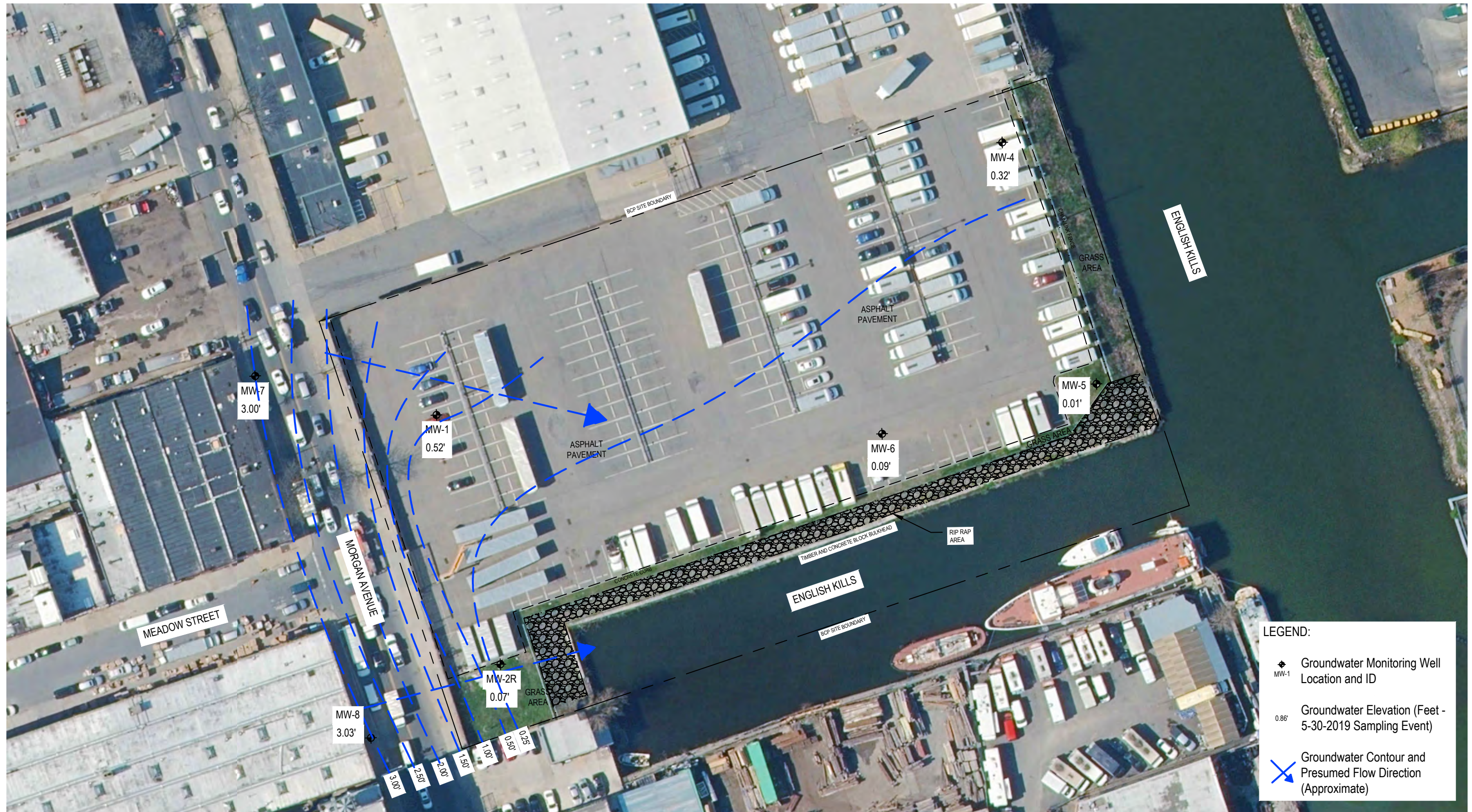
NOTES:

1. Only analytes that exceed groundwater standards are shown here. For complete results, see tables in report.
2. Aerial photograph is a 2018, 6-inch resolution, true color image taken from the NYSGIS Clearinghouse website.
3. Site features taken from an as-built field survey completed by PS&S on August 21, 2013.






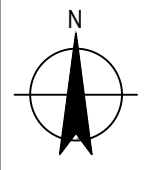
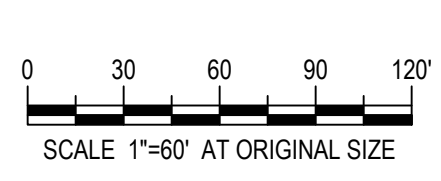
Rolling Frito-Lay Sales, LP
 Periodic Review Report - Nov. 22, 2018 to Nov. 22, 2019 - 202-218 Morgan Avenue BCP Site (#C224133)
Exceedances of Groundwater Standards - Other Analytes

Job Number 86-16480
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Figure 6



LEGEND:

-  Groundwater Monitoring Well Location and ID
-  Groundwater Elevation (Feet - 5-30-2019 Sampling Event)
-  Groundwater Contour and Presumed Flow Direction (Approximate)



NOTES:
 1. Aerial photograph is a 2018, 6-inch resolution, true color image taken from the NYSGIS Clearinghouse website.
 2. Site features taken from an as-built field survey completed by PS&S on August 21, 2013.



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Groundwater Elevation and Flow Direction

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Figure 7

Tables



Table 1: (Page 1 of 1) Groundwater Elevation Data. 202-218 Morgan Avenue BCP Site, Brooklyn, NY, BCP Site #C224133.

Monitoring Well I.D.	Date	Reference Point	Reference Elevation (feet)	DTW (feet)	DOW (feet)	Water Elevation (feet)	Well Volume (gal)
MW-1	2009	Top of PVC	9.93	-	-	1.74	-
	2011			-	-	1.54	-
	5/14/2014			9.07	16.33	0.86	1.16
	6/4/2015			9.74	16.38	0.19	1.06
	5/26/2016			9.55	16.24	0.38	1.07
	5/22/2017			9.24	16.93	0.69	1.23
	5/30/2018			9.06	16.93	0.87	1.26
	12/19/2018			5.11	16.93	4.82	1.89
5/30/2019	9.41	16.93	0.52	1.20			
MW-2R	2009	Top of PVC	10.26	-	-	2.71	-
	2011			-	-	0.40	-
	7/4/2015			9.75	17.92	0.51	1.31
	6/4/2015			9.69	17.92	0.57	1.32
	5/26/2016			10.22	17.61	0.04	1.18
	5/22/2017			9.53	17.95	0.73	1.35
	5/30/2018			10.42	17.95	-0.16	1.20
	12/19/2018			4.9	17.95	5.36	2.09
5/30/2019	10.19	17.95	0.07	1.24			
MW-4	2009	Top of PVC	10.22	-	-	2.04	-
	2011			-	-	0.54	-
	5/14/2014			9.91	16.48	0.31	1.05
	6/4/2015			10.50	16.45	-0.28	0.95
	5/26/2016			10.76	16.28	-0.54	0.88
	5/22/2017			10.15	16.60	0.07	1.03
	5/30/2018			9.83	16.60	0.39	1.08
	12/19/2018			2.72	16.60	7.50	2.22
5/30/2019	9.90	16.60	0.32	1.07			
MW-5	2009	Top of PVC	10.77	-	-	1.76	-
	2011			-	-	-0.80	-
	5/14/2014			11.01	18.69	-0.24	1.23
	6/4/2015			9.91	18.60	0.86	1.39
	5/26/2016			12.65	18.58	-1.88	0.95
	5/22/2017			11.25	18.70	-0.48	1.19
	5/30/2018			10.46	18.70	0.31	1.32
	12/19/2018			1.96	18.70	8.81	2.68
5/30/2019	10.76	18.70	0.01	1.27			
MW-6	2009	Top of PVC	10.22	-	-	1.11	-
	2011			-	-	0.80	-
	5/14/2014			10.36	17.05	-0.14	1.07
	6/4/2015			10.81	17.08	-0.59	1.00
	5/26/2016			10.97	16.88	-0.75	0.95
	5/22/2017			10.55	17.10	-0.33	1.05
	5/30/2018			10.49	17.10	-0.27	1.06
	12/19/2018			2.4	17.10	7.82	2.35
5/30/2019	10.13	17.10	0.09	1.12			
MW-7	2009	Top of PVC	11.11	-	-	2.92	-
	2011			-	-	1.48	-
	5/14/2014			8.17	15.42	2.94	1.16
	6/4/2015			8.33	16.42	2.78	1.29
	5/26/2016			8.32	15.22	2.79	1.10
	5/22/2017			8.15	15.45	2.96	1.17
	5/30/2018			7.88	15.45	3.23	1.21
	12/19/2018			NM	NM	-	-
5/30/2019	8.11	15.45	3.00	1.17			
MW-8	2009	Top of PVC	11.43	-	-	2.50	-
	2011			-	-	2.32	-
	5/14/2014			8.85	14.45	2.58	0.90
	6/4/2015			8.92	14.45	2.51	0.88
	5/26/2016			8.70	14.20	2.73	0.88
	5/22/2017			8.88	14.60	2.55	0.92
	5/30/2018			8.61	14.60	2.82	0.96
	12/19/2018			NM	NM	-	-
5/30/2019	8.40	14.60	3.03	0.99			

DTW - depth to water

DOW - depth of well

DTW and DOW measurements taken prior to purging using an electronic water level meter

2009 and 2011 groundwater elevation information taken from the Site Management Plan prepared by Gannett Fleming (September 2013)

Reference elevations taken from as-built plan prepared by PS&S (August 21, 2013)



Table 2: (Page 1 of 1) Groundwater Field Parameter Data. 202-218 Morgan Avenue BCP Site, Brooklyn, NY, BCP Site #C224133.

Well I.D.	Date	Time	Temp (°C)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (units)	ORP (mV)	Turbidity (NTU)	Amount Purged (gal)	Comments
MW-1	5/30/2019	11:00	10.6	2.010	0.09	6.44	-150	200	1.65	Water was cloudy brown with odor during purging, clear with no odor during sampling.
		11:05	10.7	1.990	0.11	6.46	-151	190		
		11:10	10.8	1.980	0.10	6.48	-152	171		
		11:15	11.0	1.960	0.05	6.49	-153	56		
		11:20	11.0	1.940	0.06	6.49	-152	21		
		11:25	11.0	1.900	0.04	6.50	-151	19		
MW-2R	5/30/2019	8:30	11.3	1.900	0.29	6.77	-141	190	1.65	Water slightly cloudy, light brown during purging, clear with no odor during sampling.
		9:05	11.4	1.890	0.21	6.70	-140	70		
		9:10	11.6	1.940	0.24	6.71	-140	40		
		9:15	11.7	1.960	0.20	6.70	-140	10		
		9:20	11.8	1.990	0.23	6.71	-143	7		
		9:25	11.8	1.970	0.19	6.72	-144	7		
MW-4	5/30/2019	12:30	16.1	3.600	8.08	7.20	20	129	1.65	Water slightly cloudy, light brown during purging, clear with no odor during sampling.
		12:35	16.4	3.480	8.25	7.34	-45	52		
		12:40	17.1	3.560	7.15	7.29	-115	41		
		12:45	18.1	3.610	7.29	7.29	-132	29		
		12:50	18.1	3.630	7.19	7.19	-133	22		
		12:55	18.2	3.630	7.44	7.18	-135	21		
MW-5	5/30/2019	6:30	10.2	4.320	0.19	6.92	-170	57	1.65	Water slightly cloudy, light brown, slight odor during purging, clear with very slight odor during sampling.
		6:35	10.9	4.300	0.11	6.90	-166	47		
		6:40	10.9	4.310	0.03	6.89	-163	28		
		6:45	10.9	4.300	0.04	6.89	-160	28		
		6:50	10.9	4.310	0.03	6.90	-157	20		
		6:55	11.0	4.320	0.06	6.88	-155	21		
MW-6	5/30/2019	7:20	11.0	3.810	0.60	6.82	-70	196	1.65	Water slightly cloudy, light brown, strong odor during purging, clear with strong odor during sampling.
		7:25	11.2	3.840	0.63	6.88	-71	100		
		7:30	11.3	3.860	0.62	6.89	-72	32		
		7:35	11.4	3.890	0.55	6.91	-74	17		
		7:40	11.5	3.880	0.54	6.88	-75	14		
		7:45	11.6	3.860	0.54	6.88	-77	14		
MW-7	5/30/2019	14:40	14.4	0.976	1.12	6.66	-19	505	1.65	Water slightly cloudy, light brown, slight odor during purging and sampling.
		14:45	14.8	0.922	1.00	6.64	-34	333		
		14:50	14.8	0.900	0.44	6.69	-140	234		
		14:55	15.0	0.899	0.43	6.40	-141	311		
		15:00	14.9	0.896	0.32	6.40	-150	200		
		15:05	14.8	0.900	0.34	6.38	-156	198		
MW-8	5/30/2019	13:15	12.5	3.311	1.99	6.54	77	657	1.65	Water slightly cloudy, light brown, slight odor during purging and sampling.
		13:20	12.7	3.140	1.09	6.67	20	700		
		13:25	12.8	3.450	0.66	6.79	-1	432		
		13:30	12.9	3.560	0.00	6.79	-88	119		
		13:35	13.0	3.570	0.00	6.80	-99	88		
		13:40	13.1	3.540	0.00	6.81	-101	92		

Field parameters collected during purging using a multi-parameter water quality meter with flow thru cell and peristaltic pump



Table 3
Summary of Groundwater Sample Laboratory Analytical Results

202-218 Morgan Avenue BCP Site
Site #C224133

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
Total Metals	Aluminum, Total	µg/L			220	2,710	5,230	1,000	19.8	700	75.8
	Antimony, Total	µg/L	3	<12U	6.53	2.1	0.7J	<0.42U	0.69J	10.14	
	Arsenic, Total	µg/L	25	<8U	4.26	12.1	2.5	1.54	3.01	3.87	
	Barium, Total	µg/L	1000	180	218.7	333.3	235.6	284.9	224.9	171.4	
	Beryllium, Total	µg/L	3	<4U	0.17J	0.4J	<0.2U	<0.1U	<0.5U	<0.1U	
	Cadmium, Total	µg/L	5	<4U	0.83	2.1	0.5	0.06J	0.36	0.13J	
	Calcium, Total	µg/L		210,000	166,000	211,000	189,000	276,000	182,000	152,000	
	Chromium, Total	µg/L	50	<50U	35.47	91.6	18.2	2.89	11.93	2.54	
	Cobalt, Total	µg/L		<20U	3.58	7.9	2	1.16	2.12	0.97	
	Copper, Total	µg/L	200	<50U	66.06	180	17.7	0.17J	21.1	1.88	
	Iron, Total	µg/L	300	4,100	21,500	24,000	7,160	3,710	6,260	3,920	
	Lead, Total	µg/L	25	6	147.4	360.1	85.7	0.84J	45.6	4.04	
	Magnesium, Total	µg/L	35000	36,000	29,100	36,200	31,100	39,200	32,600	32,100	
	Manganese, Total	µg/L	300	3,000	2,458	3,322	2,939	2,792	2,093	1,856	
	Mercury, Total	µg/L	0.7	<1U	3.27	0.81	0.14J	<0.06U	<0.2U	<0.09U	
	Nickel, Total	µg/L	100	<50U	30.45	69.1	18.4	9.44	13.13	6.89	
	Potassium, Total	µg/L		18,000	13,900	17,500	16,300	20,700	16,100	14,500	
	Selenium, Total	µg/L	10	<40U	1.03J	2J	<1U	<1.73U	<5U	<1.73U	
	Silver, Total	µg/L	50	<20U	0.66	1.6	0.1J	<0.16U	0.17J	<0.16U	
	Sodium, Total	µg/L	20000	220,000J	290,000	315,000	342,000	477,000	369,000	338,000	
	Thallium, Total	µg/L	0.5	<10U	0.04J	0.1J	<0.1U	<0.14U	<0.5U	0.19J	
	Vanadium, Total	µg/L		<50U	9.55	34.1	4.3J	<1.57U	3.55J	2.07J	
	Zinc, Total	µg/L	2000	<50U	298.2	952.9	104.2	4.44J	82.02	9.31J	
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L		<180U	9.6J	10.6	8J	-	6.76J	4.73J	
	Antimony, Dissolved (Filtered)	µg/L	3	<12U	0.17J	0.1J	1.2J	-	0.69J	3.54J	
	Arsenic, Dissolved (Filtered)	µg/L	25	8.3	1.68	0.8	2.2	-	1.14	2.76	
	Barium, Dissolved (Filtered)	µg/L	1000	140	175.8	195.9	200.1	-	182.2	151	
	Beryllium, Dissolved (Filtered)	µg/L	3	<4U	<0.5U	<0.5U	<0.2U	-	<0.5U	<0.1U	
	Cadmium, Dissolved (Filtered)	µg/L	5	<4U	<0.2U	<0.5U	<0.1U	-	<0.2U	<0.05U	
	Calcium, Dissolved (Filtered)	µg/L		180,000	193,000	159,000	198,000	-	183,000	160,000	
	Chromium, Dissolved (Filtered)	µg/L	50	<50U	3.34	3.04	2.9	-	0.96J	0.81J	
	Cobalt, Dissolved (Filtered)	µg/L		<20U	0.82	1.3	1.3	-	1.56	1.34	
	Copper, Dissolved (Filtered)	µg/L	200	<50U	0.64J	0.3J	<0.3U	-	1.48	<0.38U	
	Iron, Dissolved (Filtered)	µg/L	300	760	7,470	5,360	1,920	-	25.6J	97.7	
	Lead, Dissolved (Filtered)	µg/L	25	<4U	<1U	<1U	0.2J	-	<1U	<0.34U	
	Magnesium, Dissolved (Filtered)	µg/L	35000	30,000	27,300	30,800	30,300	-	26,400	38,400	
	Manganese, Dissolved (Filtered)	µg/L	300	2,500	2,728	2,886	3,222	-	1,771	1,901	
	Mercury, Dissolved (Filtered)	µg/L	0.7	<1U	<0.2U	<0.2U	<0.06U	-	<0.2U	<0.09U	
	Nickel, Dissolved (Filtered)	µg/L	100	<50U	7.43	10.17	14.1	-	8.2	6.87	
	Potassium, Dissolved (Filtered)	µg/L		15,000	14,200	15,800	16,400	-	15,900	15,200	
	Selenium, Dissolved (Filtered)	µg/L	10	<40U	1.29J	<100U	<1U	-	<5U	<1.73U	
	Silver, Dissolved (Filtered)	µg/L	50	<20U	<0.4U	<5U	<0.1U	-	<0.4U	<0.16U	
	Sodium, Dissolved (Filtered)	µg/L	20000	190,000J	356,000	298,000	382,000	-	430,000	361,000	
	Thallium, Dissolved (Filtered)	µg/L	0.5	<10U	<0.5U	<0.5U	<0.1U	-	<0.5U	0.19J	
	Vanadium, Dissolved (Filtered)	µg/L		<50U	0.35J	<5U	<0.6U	-	<5U	<1.57U	
	Zinc, Dissolved (Filtered)	µg/L	2000	<50U	2.48J	4.87J	<2.6U	-	7.39J	<3.41U	

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U - Analyzed for but Not Detected above the identified laboratory reporting limit

J - Indicates an estimated value

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Bold and highlighted results indicate an exceedance of standards



Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
VOCs	1,1,1-trichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2,2-tetrachloroethane	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L		-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1,2-trichloroethane	µg/L	1	<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U	<0.5U
	1,1-dichloroethane	µg/L	5	<1U	<2.5U	0.81J	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1-dichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,2,3-trichlorobenzene	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2,4-trichlorobenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromo-3-chloropropane	µg/L	0.04	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromoethane	µg/L	5	<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	1,2-dichlorobenzene	µg/L		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dichloroethane	µg/L	0.6	<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	0.14J	0.14J
	1,2-dichloropropane	µg/L	1	<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U	<0.14U
	1,3-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dichlorobenzene	µg/L		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dioxane	µg/L		-	<250U	<250U	<41U	<61U	<250U	<61U	<61U
	2-butanone	µg/L	50	<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U	<1.9U
	2-hexanone	µg/L	50	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	4-methyl-2-pentanone	µg/L		<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Acetone	µg/L	50	<10U	2.7J	<5U	<1.5U	4.8J	<5U	2.1J	2.1J
	Benzene	µg/L	1	<0.5U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Bromochloromethane	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Bromodichloromethane	µg/L	5	<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U	<0.19U
	Bromoform	µg/L	50	<1UJ	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	Bromomethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Carbon disulfide	µg/L	60	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Carbon tetrachloride	µg/L	5	<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	Chlorobenzene	µg/L	5	1	0.72J	0.81J	0.77J	0.71J	<2.5U	<0.7U	<0.7U
	Chloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroform	µg/L	7	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloromethane	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,2-dichloroethene	µg/L	5	<1U	2.1J	2.7	1.5J	80	17	5	5
	cis-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U	<0.14U
	Cyclohexane	µg/L		<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U	<0.27U
	Dibromochloromethane	µg/L	50	<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U	<0.15U
	Dichlorodifluoromethane	µg/L	5	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Ethylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Isopropylbenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Methyl acetate	µg/L		-	<2U	-	<0.23U	<0.23U	<2U	<0.23U	<0.23U
	Methyl cyclohexane	µg/L		<1U	<10U	-	<0.4U	<0.4U	<10U	<0.4U	<0.4U
	Methyl tert butyl ether	µg/L	10	1.5	4.6	21	5	7	66	22	22
	Methylene chloride	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	o-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	p/m-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Styrene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Tetrachloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U
	Toluene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Trichloroethene	µg/L	5	<1UJ	0.17J	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U
	Trichlorofluoromethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Vinyl chloride	µg/L	2	0.4	5.8	24	9.9	92	53	61	61

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Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	12/19/2018	5/30/2019
				Well ID	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1
General Chemistry	Alkalinity, Total	µg/L		347,000	400,000	766,000	437,000	398,000	364,000	-	352,000	
	Biological Oxygen Demand, Five day	µg/L		10,600	<50,000U	<40,000U	<10,000U	5,400	2,800	-	2,300	
	Chemical Oxygen Demand	µg/L		690,000	1,300,000	2,800,000	46,000	20,000	47,000	-	33,000	
	Chloride	µg/L	250,000	-	600,000	540,000	560,000	840,000	727,000	-	625,000	
	Total Organic Carbon	µg/L		5,400	10,600	7,500	3,500	1,700	4,330	-	3,060	
	Total Organic Halogen	ug/l		-	<20U	<20U	27.7	54	44.1	-	28	
PCBs	Aroclor 1016	µg/L		<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.013U	<0.013U	
	Aroclor 1221	µg/L		<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.018U	<0.018U	
	Aroclor 1232	µg/L		<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.038U	<0.038U	
	Aroclor 1242	µg/L		<0.05U	<0.083U	<0.083U	<0.014U	0.043J	<0.0833U	<0.03U	<0.03U	
	Aroclor 1248	µg/L		<0.05U	0.768	1.46	0.286	<0.014U	0.262	<0.038U	0.085	
	Aroclor 1254	µg/L		<0.05U	0.416	0.746	0.137	<0.022U	0.142	<0.014U	0.038J	
	Aroclor 1260	µg/L		<0.05U	<0.083U	0.119	<0.023U	<0.023U	0.035J	<0.029U	<0.029U	
	Aroclor 1262	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	Aroclor 1268	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	PCBs, Total	µg/L	0.09	<0.05U	1.18	2.33	0.423	0.043	0.439	<0.038U	0.123J	

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R
Total Metals	Aluminum, Total	µg/L		4,200J	404	1,690	33	193	35.5	375	
	Antimony, Total	µg/L	3	<12U	3.12	2.1	0.3J	<0.42U	0.8J	0.51J	
	Arsenic, Total	µg/L	25	<8U	36.36	7.8	6.8	6.51	6.25	4.43	
	Barium, Total	µg/L	1000	200	192.8	227.1	227.7	298	308.7	371.6	
	Beryllium, Total	µg/L	3	<4U	0.1J	0.2J	<0.2U	<0.1U	<0.5U	<0.1U	
	Cadmium, Total	µg/L	5	<4U	0.19J	0.1J	<0.1U	0.2	<0.2U	<0.05U	
	Calcium, Total	µg/L		320,000	88,100	93,300	73,700	73,300	82,200	96,800	
	Chromium, Total	µg/L	50	<50U	10.5	10.4	0.5J	1.01	0.4J	2.05	
	Cobalt, Total	µg/L		<20U	1.18	2.6	0.2	0.23J	<0.5U	0.55	
	Copper, Total	µg/L	200	<50U	20.21	30.9	<0.3U	2.47	0.6J	4.92	
	Iron, Total	µg/L	300	13,000J	58,600	24,100	14,000	14,100	17,300	19,000	
	Lead, Total	µg/L	25	120J	73.18	178	1.9	13.48	2.01	22.43	
	Magnesium, Total	µg/L	35000	140,000	33,900	35,700	33,800	34,400	41,500	44,300	
	Manganese, Total	µg/L	300	900	374.7	699.3	804.9	708.6	901.2	1,009	
	Mercury, Total	µg/L	0.7	<1U	0.38	0.46	0.09J	0.06J	<0.2U	<0.09U	
	Nickel, Total	µg/L	100	<50U	3.41	5.5	1.3J	1.75J	<2U	0.69J	
	Potassium, Total	µg/L		55,000	14,400	16,000	14,300	16,500	16,800	19,600	
	Selenium, Total	µg/L	10	<40U	0.53J	<5U	<1U	<1.73U	<5U	<1.73U	
	Silver, Total	µg/L	50	<20U	<0.4U	0.1J	<0.1U	<0.16U	<0.4U	<0.16U	
	Sodium, Total	µg/L	20000	770,000J	142,000	221,000	200,000	273,000	178,000	253,000	
	Thallium, Total	µg/L	0.5	<10U	<0.5U	<0.5U	<0.1U	<0.14U	<0.5U	<0.14U	
Vanadium, Total	µg/L		<50U	6.59	8.1	<0.6U	<1.57U	<5U	1.94J		
Zinc, Total	µg/L	2000	120	68.19	80.8	<2.6U	5.88J	<10U	7.43J		
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L		<180U	-	-	-	-	4.54J	<3.27U	
	Antimony, Dissolved (Filtered)	µg/L	3	<12U	-	-	-	-	<4U	1.13J	
	Arsenic, Dissolved (Filtered)	µg/L	25	<8U	-	-	-	-	0.83	0.68	
	Barium, Dissolved (Filtered)	µg/L	1000	160	-	-	-	-	231.6	275.2	
	Beryllium, Dissolved (Filtered)	µg/L	3	<4U	-	-	-	-	<0.5U	<0.1U	
	Cadmium, Dissolved (Filtered)	µg/L	5	<4U	-	-	-	-	<0.2U	<0.05U	
	Calcium, Dissolved (Filtered)	µg/L		320,000	-	-	-	-	88,800	89,600	
	Chromium, Dissolved (Filtered)	µg/L	50	<50U	-	-	-	-	0.18J	<0.17U	
	Cobalt, Dissolved (Filtered)	µg/L		<20U	-	-	-	-	0.18J	0.17J	
	Copper, Dissolved (Filtered)	µg/L	200	<50U	-	-	-	-	0.82J	<0.38U	
	Iron, Dissolved (Filtered)	µg/L	300	870	-	-	-	-	35.1J	1,840	
	Lead, Dissolved (Filtered)	µg/L	25	<4U	-	-	-	-	<1U	<0.34U	
	Magnesium, Dissolved (Filtered)	µg/L	35000	140,000	-	-	-	-	34,400	45,600	
	Manganese, Dissolved (Filtered)	µg/L	300	830	-	-	-	-	915.9	911.9	
	Mercury, Dissolved (Filtered)	µg/L	0.7	<1U	-	-	-	-	<0.2U	<0.09U	
	Nickel, Dissolved (Filtered)	µg/L	100	<50U	-	-	-	-	0.87J	0.75J	
	Potassium, Dissolved (Filtered)	µg/L		55,000	-	-	-	-	17,400	18,000	
	Selenium, Dissolved (Filtered)	µg/L	10	<40U	-	-	-	-	<5U	<1.73U	
	Silver, Dissolved (Filtered)	µg/L	50	<20U	-	-	-	-	<0.4U	<0.16U	
	Sodium, Dissolved (Filtered)	µg/L	20000	760,000J	-	-	-	-	213,000	230,000	
	Thallium, Dissolved (Filtered)	µg/L	0.5	<10U	-	-	-	-	<0.5U	<0.14U	
Vanadium, Dissolved (Filtered)	µg/L		<50U	-	-	-	-	<5U	<1.57U		
Zinc, Dissolved (Filtered)	µg/L	2000	<50U	-	-	-	-	<10U	<3.41U		

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R
VOCs	1,1,1-trichloroethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2,2-tetrachloroethane	µg/L	5		<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L			-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2-trichloroethane	µg/L	1		<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U
	1,1-dichloroethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1-dichloroethene	µg/L	5		<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U
	1,2,3-trichlorobenzene	µg/L			-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2,4-trichlorobenzene	µg/L	5		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2-dibromo-3-chloropropane	µg/L	0.04		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2-dibromoethane	µg/L	5		<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U
	1,2-dichlorobenzene	µg/L			<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2-dichloroethane	µg/L	0.6		<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U
	1,2-dichloropropane	µg/L	1		<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U
	1,3-dichlorobenzene	µg/L			<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,4-dichlorobenzene	µg/L			<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,4-dioxane	µg/L			-	<250U	<250U	<41U	<61U	<250U	<61U
	2-butanone	µg/L	50		<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U
	2-hexanone	µg/L	50		<1U	<5U	<5U	<1U	<1U	<5U	<1U
	4-methyl-2-pentanone	µg/L			<1U	<5U	<5U	<1U	<1U	<5U	<1U
	Acetone	µg/L	50		<10U	2.3J	<5U	<1.5U	<1.5U	<5U	4.4J
	Benzene	µg/L	1		<0.5U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U
	Bromochloromethane	µg/L			-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Bromodichloromethane	µg/L	5		<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U
	Bromoform	µg/L	50		<1UJ	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U
	Bromomethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Carbon disulfide	µg/L	60		<1U	<5U	2.2J	<1U	<1U	<5U	<1U
	Carbon tetrachloride	µg/L	5		<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U
	Chlorobenzene	µg/L	5		1	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Chloroethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Chloroform	µg/L	7		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Chloromethane	µg/L			<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	cis-1,2-dichloroethene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	cis-1,3-dichloropropene	µg/L	0.4		<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U
	Cyclohexane	µg/L			<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U
	Dibromochloromethane	µg/L	50		<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U
	Dichlorodifluoromethane	µg/L	5		<1U	<5U	<5U	<1U	<1U	<5U	<1U
	Ethylbenzene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Isopropylbenzene	µg/L	5		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Methyl acetate	µg/L			-	<2U	-	<0.23U	<0.23U	<2U	<0.23U
	Methyl cyclohexane	µg/L			<1U	<10U	-	<0.4U	<0.4U	<10U	<0.4U
Methyl tert butyl ether	µg/L	10		1.6	1.6J	1.1J	<0.7U	0.77J	<2.5U	7	
Methylene chloride	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
o-xylene	µg/L	5		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
p/m-xylene	µg/L	5		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
Styrene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
Tetrachloroethene	µg/L	5		<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	
Toluene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
trans-1,2-dichloroethene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
trans-1,3-dichloropropene	µg/L	0.4		<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	
Trichloroethene	µg/L	5		<1UJ	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	
Trichlorofluoromethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
Vinyl chloride	µg/L	2		4.7	<1U	3.4	2.5	0.98J	0.87J	<0.07U	

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Summary of Groundwater Sample Laboratory Analytical Results**

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	12/19/2018	5/30/2019
				Well ID	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R	MW-2R
General Chemistry	Alkalinity, Total	µg/L			308,000	312,000	317,000	271,000	281,000	298,000	-	295,000
	Biological Oxygen Demand, Five day	µg/L			<6,000U	<10,000U	<5,000U	<2,000U	<2,000U	<2,000U	-	<2,000U
	Chemical Oxygen Demand	µg/L			32,900	74,000	55,000	22,000	18,000	6,000J	-	21,000
	Chloride	µg/L	250,000		-	270,000	340,000	340,000	430,000	376,000	-	472,000
	Total Organic Carbon	µg/L			2,800	11,200	3,200	2,600	2,300	3,120	-	11,600
	Total Organic Halogen	ug/l			-	26.9	20.9	14.1J	41.1	19.9J	-	30
PCBs	Aroclor 1016	µg/L			<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.013U	<0.013U
	Aroclor 1221	µg/L			<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.018U	<0.018U
	Aroclor 1232	µg/L			<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.038U	<0.038U
	Aroclor 1242	µg/L			<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	<0.0833U	<0.03U	<0.03U
	Aroclor 1248	µg/L			<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	<0.0833U	<0.038U	<0.038U
	Aroclor 1254	µg/L			<0.05U	<0.083U	<0.083U	0.034J	<0.022U	<0.0833U	<0.014U	<0.014U
	Aroclor 1260	µg/L			<0.05U	<0.083U	<0.083U	<0.023U	<0.023U	<0.0833U	<0.029U	<0.029U
	Aroclor 1262	µg/L			-	<0.083U	<0.083U	-	-	-	-	-
	Aroclor 1268	µg/L			-	<0.083U	<0.083U	-	-	-	-	-
	PCBs, Total	µg/L	0.09		<0.05U	<0.083U	<0.083U	0.034J	<0.014	<0.0833U	<0.038U	<0.083U

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Total Metals	Aluminum, Total	µg/L			250	103	87	616	148	5,000	44.9
	Antimony, Total	µg/L	3	<12U	2.91	1.2J	1J	1.2J	3.39J	<0.42U	
	Arsenic, Total	µg/L	25	<8U	9.74	5.9	7.8	3.56	55.78	7.12	
	Barium, Total	µg/L	1000	660	92.03	80.4	80.8	112.5	290.4	163.5	
	Beryllium, Total	µg/L	3	<4U	<0.5U	<0.5U	<0.2U	<0.1U	0.43J	<0.1U	
	Cadmium, Total	µg/L	5	<4U	0.05J	0.1J	0.3	0.5	2.74	0.44	
	Calcium, Total	µg/L		520,000J	272,000	294,000	207,000	220,000	291,000	229,000	
	Chromium, Total	µg/L	50	<50U	0.77J	2.8	2.2	0.81J	16.9	0.87J	
	Cobalt, Total	µg/L		<20U	0.36	0.49J	1.6	0.69	13.26	0.6	
	Copper, Total	µg/L	200	<50U	1.12J	2.2	9.9	2.13	111.6	0.67J	
	Iron, Total	µg/L	300	650	186	219	1,290	336	16,400	541	
	Lead, Total	µg/L	25	9	3.12	3.5	25	5.51	288.8	2.24	
	Magnesium, Total	µg/L	35000	8,400J	6,600	12,300	16,200	30,700	36,900	30,800	
	Manganese, Total	µg/L	300	100	5.31	13	35.3	302.2	752.8	546.9	
	Mercury, Total	µg/L	0.7	<1U	<0.2U	<0.2U	<0.06U	<0.06U	0.4	<0.09U	
	Nickel, Total	µg/L	100	<50U	3.56	5.5	7.6	5.08	35.7	5.44	
	Potassium, Total	µg/L		64,000	70,700	77,800	74,200	53,200	52,000	52,400	
	Selenium, Total	µg/L	10	<40U	0.55J	<5U	<1U	<1.73U	1.97J	<1.73U	
	Silver, Total	µg/L	50	<20U	<0.4U	<0.4U	<0.1U	<0.16U	0.25J	<0.16U	
	Sodium, Total	µg/L	20000	250,000J	303,000	339,000	387,000	331,000	382,000	486,000	
	Thallium, Total	µg/L	0.5	<10U	<0.5U	<0.5U	<0.1U	<0.14U	0.16J	<0.14U	
	Vanadium, Total	µg/L		<50U	0.92J	1.3J	3.3J	1.69J	21.8	1.67J	
	Zinc, Total	µg/L	2000	<50U	13.78	31.8	60.7	30.16	760.7	9.33J	
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L		<180U	-	-	-	-	9.43J	<3.27U	
	Antimony, Dissolved (Filtered)	µg/L	3	<12U	-	-	-	-	1.23J	0.72J	
	Arsenic, Dissolved (Filtered)	µg/L	25	<8U	-	-	-	-	23.96	9.13	
	Barium, Dissolved (Filtered)	µg/L	1000	620	-	-	-	-	171.1	150	
	Beryllium, Dissolved (Filtered)	µg/L	3	<4U	-	-	-	-	<0.5U	<0.1U	
	Cadmium, Dissolved (Filtered)	µg/L	5	<4U	-	-	-	-	<0.2U	<0.05U	
	Calcium, Dissolved (Filtered)	µg/L		440,000J	-	-	-	-	243,000	204,000	
	Chromium, Dissolved (Filtered)	µg/L	50	<50U	-	-	-	-	0.35J	0.29J	
	Cobalt, Dissolved (Filtered)	µg/L		<20U	-	-	-	-	0.61	0.6	
	Copper, Dissolved (Filtered)	µg/L	200	<50U	-	-	-	-	<1U	<0.38U	
	Iron, Dissolved (Filtered)	µg/L	300	<280U	-	-	-	-	49.1J	89.4	
	Lead, Dissolved (Filtered)	µg/L	25	<4U	-	-	-	-	0.91J	<0.34U	
	Magnesium, Dissolved (Filtered)	µg/L	35000	<2,000UJ	-	-	-	-	27,200	31,200	
	Manganese, Dissolved (Filtered)	µg/L	300	<40U	-	-	-	-	433.7	490.6	
	Mercury, Dissolved (Filtered)	µg/L	0.7	<1U	-	-	-	-	<0.2U	<0.09U	
	Nickel, Dissolved (Filtered)	µg/L	100	<50U	-	-	-	-	3.39	4.29	
	Potassium, Dissolved (Filtered)	µg/L		65,000	-	-	-	-	40,300	46,900	
	Selenium, Dissolved (Filtered)	µg/L	10	<40U	-	-	-	-	<5U	<1.73U	
	Silver, Dissolved (Filtered)	µg/L	50	<20U	-	-	-	-	<0.4U	<0.16U	
	Sodium, Dissolved (Filtered)	µg/L	20000	250,000J	-	-	-	-	457,000	436,000	
	Thallium, Dissolved (Filtered)	µg/L	0.5	<10U	-	-	-	-	<0.5U	<0.14U	
	Vanadium, Dissolved (Filtered)	µg/L		<50U	-	-	-	-	<5U	<1.57U	
	Zinc, Dissolved (Filtered)	µg/L	2000	<50U	-	-	-	-	3.52J	<3.41U	

TOGS 1.1.1 - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).

*1 - Guidance value

Baseline samples were taken by others on 11-20-2009 (pre-remediation for PCBs), 7-11-2011 (pre-remediation for alkalinity, COD, BOD, TOC, and TOX), and 6-11-2013 and 6-12-2013 (post-remediation for TCL VOCs, TAL metals - total, and TAL metals - dissolved)

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Bold and highlighted results indicate an exceedance of standards



Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
VOCs	1,1,1-trichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2,2-tetrachloroethane	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L		-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1,2-trichloroethane	µg/L	1	<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U	<0.5U
	1,1-dichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1-dichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,2,3-trichlorobenzene	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2,4-trichlorobenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromo-3-chloropropane	µg/L	0.04	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromoethane	µg/L	5	<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	1,2-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dichloroethane	µg/L	0.6	<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	1,2-dichloropropane	µg/L	1	<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U	<0.14U
	1,3-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dioxane	µg/L		-	<250U	<250U	<41U	<61U	<250U	<61U	<61U
	2-butanone	µg/L	50	<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U	<1.9U
	2-hexanone	µg/L	50	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	4-methyl-2-pentanone	µg/L		<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Acetone	µg/L	50	4	5	<5U	2.3J	5.9	<5U	1.7J	
	Benzene	µg/L	1	<0.5U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Bromochloromethane	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Bromodichloromethane	µg/L	5	<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U	<0.19U
	Bromoform	µg/L	50	<1UJ	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	Bromomethane	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Carbon disulfide	µg/L	60	<1U	<5U	<5U	<1U	<1U	<5U	4J	
	Carbon tetrachloride	µg/L	5	<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	Chlorobenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroform	µg/L	7	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloromethane	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U	<0.14U
	Cyclohexane	µg/L		<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U	<0.27U
	Dibromochloromethane	µg/L	50	<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U	<0.15U
	Dichlorodifluoromethane	µg/L	5	<1UJ	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Ethylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Isopropylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Methyl acetate	µg/L		-	<2U	-	<0.23U	<0.23U	<2U	<0.23U	<0.23U
	Methyl cyclohexane	µg/L		<1U	<10U	-	<0.4U	<0.4U	<10U	<0.4U	<0.4U
Methyl tert butyl ether	µg/L	10	4	13	11	32	37	39	30		
Methylene chloride	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U	
o-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U	
p/m-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U	
Styrene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U	
Tetrachloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U	
Toluene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U	
trans-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U	
trans-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U	
Trichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U	
Trichlorofluoromethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U	
Vinyl chloride	µg/L	2	<1U	<1U	<1U	<0.07U	<0.07U	<1U	<0.07U	<0.07U	

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**Table 3
Summary of Groundwater Sample Laboratory Analytical Results**

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	12/19/2018	5/30/2019
				Well ID	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
General Chemistry	Alkalinity, Total	µg/L		446,000	186,000	83,400	96,800	484,000	586,000	-	625,000	
	Biological Oxygen Demand, Five day	µg/L		11,700	<5,000U	<5,000U	4,300	<5,000U	<5,000U	-	9,200	
	Chemical Oxygen Demand	µg/L		1,170,000	150,000	110,000	99,000	82,000	100,000	-	73,000	
	Chloride	µg/L	250,000	-	460,000	560,000	620,000	640,000	879,000	-	840,000	
	Total Organic Carbon	µg/L		26,900	52,100	25,000	25,000	17,000	17,000	-	15,100	
	Total Organic Halogen	ug/l		-	47.4	50.5	36.9	42	19.6J	-	27	
PCBs	Aroclor 1016	µg/L		<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.013U	<0.013U	
	Aroclor 1221	µg/L		<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.018U	<0.018U	
	Aroclor 1232	µg/L		<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.038U	<0.038U	
	Aroclor 1242	µg/L		<0.05U	<0.083U	<0.083U	<0.014U	0.045J	<0.0833U	0.084	<0.03U	
	Aroclor 1248	µg/L		<0.05U	0.11	<0.083U	<0.014U	<0.014U	0.158	<0.038U	<0.038U	
	Aroclor 1254	µg/L		<0.05U	<0.083U	<0.083U	<0.022U	<0.022U	0.114	0.064J	<0.014U	
	Aroclor 1260	µg/L		<0.05U	<0.083U	<0.083U	<0.023U	<0.023U	0.044J	<0.029U	<0.029U	
	Aroclor 1262	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	Aroclor 1268	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	PCBs, Total	µg/L	0.09	<0.05U	0.11	<0.083U	<0.012U	0.045	0.316	0.148J	<0.083U	

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Total Metals	Aluminum, Total	µg/L		<180U	2,380	589	242	8.24J	95.5	1,960	
	Antimony, Total	µg/L	3	<12U	3.01	0.9J	1.5J	3.31J	3.89J	3.97J	
	Arsenic, Total	µg/L	25	25	11.91	3	3.7	7.57	4.06	21.22	
	Barium, Total	µg/L	1000	56	126.4	125.7	129.2	68.44	80.6	183.8	
	Beryllium, Total	µg/L	3	<4U	0.12J	<0.5U	<0.2U	<0.1U	<0.5U	<0.1U	
	Cadmium, Total	µg/L	5	<4U	1.56	0.5	0.2J	<0.05U	0.16J	3.94	
	Calcium, Total	µg/L		210,000J	243,000	228,000	224,000	197,000	259,000	268,000	
	Chromium, Total	µg/L	50	<50U	8.36	3.6	1.7J	4.89	0.79J	9.91	
	Cobalt, Total	µg/L		<20U	3.84	2.4	1	1.08	0.96	7.43	
	Copper, Total	µg/L	200	<50U	49.9	13.2	<0.3U	0.51J	3.69	78.3	
	Iron, Total	µg/L	300	4,000	16,400	4,070	5,740	3,010	3,300	6,570	
	Lead, Total	µg/L	25	6	244.8	90.4	46	<1.71U	15.02	409.6	
	Magnesium, Total	µg/L	35000	120,000J	147,000	156,000	306,000	174,000	170,000	214,000	
	Manganese, Total	µg/L	300	950	1,020	1,060	768.1	449.9	531	508.6	
	Mercury, Total	µg/L	0.7	<1U	6.02	0.93	0.29	<0.06U	<0.2U	3.18	
	Nickel, Total	µg/L	100	<50U	26.93	14	6.8	11.62	8.52	46.22	
	Potassium, Total	µg/L		73,000	75,300	72,500	115,000	84,000	91,400	106,000	
	Selenium, Total	µg/L	10	<40U	0.77J	<5U	<1U	<1.73U	<5U	<1.73U	
	Silver, Total	µg/L	50	<20U	0.17J	<0.4U	<0.1U	<0.16U	<0.4U	0.3J	
	Sodium, Total	µg/L	20000	740,000J	1,140,000	1,030,000	3,020,000	1,800,000	1,470,000	2,210,000	
	Thallium, Total	µg/L	0.5	<10U	0.06J	<0.5U	0.1J	<0.71U	<0.5U	0.16J	
Vanadium, Total	µg/L		<50U	12.03	4.2J	2J	<1.57U	<5U	15.84		
Zinc, Total	µg/L	2000	<50U	736.6	223.7	29.6	15.6	36.68	543.9		
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L		<180U	-	-	-	-	3.75J	3.29J	
	Antimony, Dissolved (Filtered)	µg/L	3	<12U	-	-	-	-	1.75J	3.54J	
	Arsenic, Dissolved (Filtered)	µg/L	25	10	-	-	-	-	0.98	1.58	
	Barium, Dissolved (Filtered)	µg/L	1000	54	-	-	-	-	82.71	97.95	
	Beryllium, Dissolved (Filtered)	µg/L	3	<4U	-	-	-	-	<0.5U	<0.1U	
	Cadmium, Dissolved (Filtered)	µg/L	5	<4U	-	-	-	-	<0.2U	0.08J	
	Calcium, Dissolved (Filtered)	µg/L		220,000J	-	-	-	-	249,000	194,000	
	Chromium, Dissolved (Filtered)	µg/L	50	<50U	-	-	-	-	<1U	<0.17U	
	Cobalt, Dissolved (Filtered)	µg/L		<20U	-	-	-	-	0.73	1.55	
	Copper, Dissolved (Filtered)	µg/L	200	<50U	-	-	-	-	0.9J	0.71J	
	Iron, Dissolved (Filtered)	µg/L	300	370	-	-	-	-	35J	168	
	Lead, Dissolved (Filtered)	µg/L	25	4	-	-	-	-	<1U	2.71	
	Magnesium, Dissolved (Filtered)	µg/L	35000	120,000J	-	-	-	-	160,000	216,000	
	Manganese, Dissolved (Filtered)	µg/L	300	970	-	-	-	-	511.1	415.8	
	Mercury, Dissolved (Filtered)	µg/L	0.7	<1U	-	-	-	-	<0.2U	<0.09U	
	Nickel, Dissolved (Filtered)	µg/L	100	<50U	-	-	-	-	5.02	10.96	
	Potassium, Dissolved (Filtered)	µg/L		77,000	-	-	-	-	89,000	79,800	
	Selenium, Dissolved (Filtered)	µg/L	10	<40U	-	-	-	-	<5U	<1.73U	
	Silver, Dissolved (Filtered)	µg/L	50	<20U	-	-	-	-	<0.4U	<0.16U	
	Sodium, Dissolved (Filtered)	µg/L	20000	760,000J	-	-	-	-	1,540,000	1,980,000	
	Thallium, Dissolved (Filtered)	µg/L	0.5	<10U	-	-	-	-	<0.5U	0.18J	
Vanadium, Dissolved (Filtered)	µg/L		<50U	-	-	-	-	<5U	<1.57U		
Zinc, Dissolved (Filtered)	µg/L	2000	<50U	-	-	-	-	7.43J	54.04		

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Table 3
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Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
VOCs	1,1,1-trichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2,2-tetrachloroethane	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L		-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1,2-trichloroethane	µg/L	1	<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U	<0.5U
	1,1-dichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1-dichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,2,3-trichlorobenzene	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2,4-trichlorobenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromo-3-chloropropane	µg/L	0.04	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromoethane	µg/L	5	<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	1,2-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dichloroethane	µg/L	0.6	<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	1,2-dichloropropane	µg/L	1	<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U	<0.14U
	1,3-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dioxane	µg/L		-	<250U	<250U	<41U	<61U	<250U	<61U	<61U
	2-butanone	µg/L	50	<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U	<1.9U
	2-hexanone	µg/L	50	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	4-methyl-2-pentanone	µg/L		<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Acetone	µg/L	50	<10U	2.2J	<5U	<1.5U	<1.5U	2.2J	<1.5U	<1.5U
	Benzene	µg/L	1	<0.5U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Bromochloromethane	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Bromodichloromethane	µg/L	5	<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U	<0.19U
	Bromoform	µg/L	50	<1UJ	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	Bromomethane	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Carbon disulfide	µg/L	60	<1U	<5U	3.5J	<1U	<1U	<5U	<1U	<1U
	Carbon tetrachloride	µg/L	5	<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	Chlorobenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroform	µg/L	7	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloromethane	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U	<0.14U
	Cyclohexane	µg/L		<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U	<0.27U
	Dibromochloromethane	µg/L	50	<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U	<0.15U
	Dichlorodifluoromethane	µg/L	5	<1UJ	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Ethylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Isopropylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Methyl acetate	µg/L		-	<2U	-	<0.23U	<0.23U	<2U	<0.23U	<0.23U
	Methyl cyclohexane	µg/L		<1U	<20U	-	<0.4U	<0.4U	<10U	<0.4U	<0.4U
	Methyl tert butyl ether	µg/L	10	16	9.3	10	5.8	7.9	12	<0.7U	<0.7U
	Methylene chloride	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	o-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	p/m-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Styrene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Tetrachloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U
	Toluene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Trichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U
	Trichlorofluoromethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Vinyl chloride	µg/L	2	<1U	<1U	<1U	<0.07U	<0.07U	<1U	<0.07U	0.63J

TOGS 1.1.1 - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).

*1 - Guidance value

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**Table 3
Summary of Groundwater Sample Laboratory Analytical Results**

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	12/19/2018	5/30/2019
				Well ID	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
General Chemistry	Alkalinity, Total	µg/L		637,000	387,000	455,000	370,000	377,000	421,000	-	376,000	
	Biological Oxygen Demand, Five day	µg/L		21,000	13,000	7,400	<40,000U	<2,000U	<5,000U	-	11,000	
	Chemical Oxygen Demand	µg/L		324,000	220,000	260,000	150,000	73,000	51,000	-	280,000	
	Chloride	µg/L	250,000	-	1,400,000	1,900,000	4,600,000	3,100,000	3,400,000	-	3,940,000	
	Total Organic Carbon	µg/L		18,800	23,200	13,000	6,200	9,000	13,900	-	2,060	
	Total Organic Halogen	ug/l		-	66.5	41.4	72.2	81.1	80.3	-	52.4	
PCBs	Aroclor 1016	µg/L		<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.013U	<0.013U	
	Aroclor 1221	µg/L		<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.018U	<0.018U	
	Aroclor 1232	µg/L		<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.038U	<0.038U	
	Aroclor 1242	µg/L		<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	<0.0833U	<0.03U	0.12	
	Aroclor 1248	µg/L		<0.05U	0.195	0.216	<0.014U	<0.014U	<0.0833U	<0.038U	<0.038U	
	Aroclor 1254	µg/L		<0.05U	0.17	0.153	<0.022U	<0.022U	<0.0833U	<0.014U	0.091	
	Aroclor 1260	µg/L		<0.05U	0.084	0.103	<0.023U	<0.023U	<0.0833U	<0.029U	0.096	
	Aroclor 1262	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	Aroclor 1268	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	PCBs, Total	µg/L	0.09	<0.05U	0.449	0.472	<0.012U	<0.014	<0.0833U	<0.038U	0.307	

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
Total Metals	Aluminum, Total	µg/L	<180U		137	330	191	449	1,230	488	
	Antimony, Total	µg/L	<12U	3	3.09	1.4J	1.1J	1.95J	4.92	1.89J	
	Arsenic, Total	µg/L	14	25	7.55	3.2	4.5	14.06	10.44	4.96	
	Barium, Total	µg/L	1000	140	104.8	156	166.5	145.5	217.1	174	
	Beryllium, Total	µg/L	3	<4U	<0.5U	<0.5U	<0.2U	<0.1U	<0.5U	<0.1U	
	Cadmium, Total	µg/L	5	<4U	0.93	0.2	0.8	1.45	0.59	0.21	
	Calcium, Total	µg/L	360,000J	360,000J	292,000	285,000	280,000	286,000	340,000	287,000	
	Chromium, Total	µg/L	50	<50U	3.97	2.1	1.2J	3.44	3.75	2.38	
	Cobalt, Total	µg/L	<20U	<20U	4.53	1.3	1.4	2.15	2.92	1.27	
	Copper, Total	µg/L	200	<50U	3.64	4.9	7.1	11.45	28.28	8.84	
	Iron, Total	µg/L	300	650	5,820	1,270	1,870	5,550	6,000	2,260	
	Lead, Total	µg/L	25	10	9.28	17.4	15.1	25.67	92.14	38.15	
	Magnesium, Total	µg/L	35000	47,000J	46,300	52,500	57,400	40,000	49,000	40,200	
	Manganese, Total	µg/L	300	640	1,526	757.3	952.6	1,118	1,165	729.6	
	Mercury, Total	µg/L	0.7	<1U	<0.2U	<0.2U	<0.06U	<0.06U	<0.2U	<0.09U	
	Nickel, Total	µg/L	100	<50U	22.81	8	9.4	11.82	11.23	5.71	
	Potassium, Total	µg/L	66,000	66,000	61,100	54,200	60,800	49,900	61,000	63,300	
	Selenium, Total	µg/L	10	<40U	0.51J	<5U	<1U	<1.73U	<5U	<1.73U	
	Silver, Total	µg/L	50	<20U	<0.4U	<0.4U	<0.1U	<0.16U	<0.4U	<0.16U	
	Sodium, Total	µg/L	20000	410,000J	385,000	393,000	470,000	408,000	490,000	593,000	
	Thallium, Total	µg/L	0.5	<10U	<0.5U	<0.5U	<0.1U	<0.14U	<0.5U	<0.14U	
	Vanadium, Total	µg/L	<50U	<50U	2.66J	3.1J	2J	4.95J	6.45	3.53J	
	Zinc, Total	µg/L	2000	<50U	819.6	121.7	98.3	177	157.5	40.84	
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L	<180U		-	-	-	-	9.72J	<6.54U	
	Antimony, Dissolved (Filtered)	µg/L	<12U	3					3.82J	3.64J	
	Arsenic, Dissolved (Filtered)	µg/L	10	25	10	-	-	-	5.05	5.97	
	Barium, Dissolved (Filtered)	µg/L	1000	130	-	-	-	-	159.1	114.8	
	Beryllium, Dissolved (Filtered)	µg/L	3	<4U	-	-	-	-	<0.5U	<0.21U	
	Cadmium, Dissolved (Filtered)	µg/L	5	<4U	-	-	-	-	<0.2U	<0.11U	
	Calcium, Dissolved (Filtered)	µg/L	340,000J	340,000J	-	-	-	-	363,000	262,000	
	Chromium, Dissolved (Filtered)	µg/L	50	<50U	-	-	-	-	0.43J	<0.35U	
	Cobalt, Dissolved (Filtered)	µg/L	<20U	<20U	-	-	-	-	1.25	1.22	
	Copper, Dissolved (Filtered)	µg/L	200	<50U	-	-	-	-	1.98	<0.76U	
	Iron, Dissolved (Filtered)	µg/L	300	370	-	-	-	-	79.9	138	
	Lead, Dissolved (Filtered)	µg/L	25	5	-	-	-	-	0.76J	<0.68U	
	Magnesium, Dissolved (Filtered)	µg/L	35000	46,000J	-	-	-	-	43,000	39,600	
	Manganese, Dissolved (Filtered)	µg/L	300	630	-	-	-	-	1,155	868.6	
	Mercury, Dissolved (Filtered)	µg/L	0.7	<1U	-	-	-	-	<0.2U	<0.09U	
	Nickel, Dissolved (Filtered)	µg/L	100	<50U	-	-	-	-	6.44	6.6	
	Potassium, Dissolved (Filtered)	µg/L	65,000	65,000	-	-	-	-	49,400	53,800	
	Selenium, Dissolved (Filtered)	µg/L	10	<40U	-	-	-	-	<5U	<3.46U	
	Silver, Dissolved (Filtered)	µg/L	50	<20U	-	-	-	-	<0.4U	<0.32U	
	Sodium, Dissolved (Filtered)	µg/L	20000	400,000J	-	-	-	-	617,000	504,000	
	Thallium, Dissolved (Filtered)	µg/L	0.5	<10U	-	-	-	-	0.23J	<0.28U	
	Vanadium, Dissolved (Filtered)	µg/L	<50U	<50U	-	-	-	-	<5U	<3.14U	
	Zinc, Dissolved (Filtered)	µg/L	2000	<50U	-	-	-	-	13.14	15.95J	

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
VOCs	1,1,1-trichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2,2-tetrachloroethane	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L		-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1,2-trichloroethane	µg/L	1	<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U	<0.5U
	1,1-dichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1-dichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,2,3-trichlorobenzene	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2,4-trichlorobenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromo-3-chloropropane	µg/L	0.04	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromoethane	µg/L	5	<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	1,2-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dichloroethane	µg/L	0.6	<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	1,2-dichloropropane	µg/L	1	<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U	<0.14U
	1,3-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dioxane	µg/L		-	<250U	<250U	<41U	<61U	<250U	<61U	<61U
	2-butanone	µg/L	50	<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U	<1.9U
	2-hexanone	µg/L	50	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	4-methyl-2-pentanone	µg/L		<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Acetone	µg/L	50	12	3.7J	<5U	2J	9.8	4.5J	3.5J	3.5J
	Benzene	µg/L	1	1.1	<0.5U	0.34J	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Bromochloromethane	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Bromodichloromethane	µg/L	5	<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U	<0.19U
	Bromoform	µg/L	50	<1UJ	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	Bromomethane	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Carbon disulfide	µg/L	60	<1U	<5U	<5U	<1U	<1U	<5U	6.7	6.7
	Carbon tetrachloride	µg/L	5	<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	Chlorobenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroform	µg/L	7	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloromethane	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U	<0.14U
	Cyclohexane	µg/L		<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U	<0.27U
	Dibromochloromethane	µg/L	50	<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U	<0.15U
	Dichlorodifluoromethane	µg/L	5	<1UJ	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Ethylbenzene	µg/L	5	1	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Isopropylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Methyl acetate	µg/L		-	<2U	-	<0.23U	<0.23U	<2U	<0.23U	<0.23U
	Methyl cyclohexane	µg/L		<1U	<10U	-	<0.4U	<0.4U	<10U	<0.4U	<0.4U
	Methyl tert butyl ether	µg/L	10	16	14	17	14	5	22	17	17
	Methylene chloride	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	o-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	p/m-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Styrene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Tetrachloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U
	Toluene	µg/L	5	4.4	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Trichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U	<0.18U
	Trichlorofluoromethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Vinyl chloride	µg/L	2	<1U	<1U	<1U	<0.07U	<0.07U	<1U	<0.07U	<0.07U

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**Table 3
Summary of Groundwater Sample Laboratory Analytical Results**

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	12/19/2018	5/30/2019
				Well ID	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
General Chemistry	Alkalinity, Total	µg/L			530,000	560,000	807,000	718,000	492,000	569,000	-	534,000
	Biological Oxygen Demand, Five day	µg/L			12,300	26,000	48,000	29,000	15,000	<10,000U	-	11,000
	Chemical Oxygen Demand	µg/L			994,000	320,000	180,000	580,000	71,000	95,000	-	73,000
	Chloride	µg/L	250,000		-	620,000	660,000	780,000	980,000	1,170,000	-	1,080,000
	Total Organic Carbon	µg/L			24,000	35,100	21,000	22,000	16,000	15,800	-	15,600
	Total Organic Halogen	ug/l			-	47.4	35.7	30.5	50.8	50.7	-	32.6
PCBs	Aroclor 1016	µg/L			<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.013U	<0.013U
	Aroclor 1221	µg/L			<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.018U	<0.018U
	Aroclor 1232	µg/L			<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.038U	<0.038U
	Aroclor 1242	µg/L			<0.05U	0.279	<0.083U	<0.014U	0.026J	<0.0833U	<0.03U	0.103
	Aroclor 1248	µg/L			<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	0.075J	<0.038U	<0.038U
	Aroclor 1254	µg/L			<0.05U	0.187	<0.083U	0.022J	<0.022U	0.058J	<0.014U	0.044J
	Aroclor 1260	µg/L			<0.05U	<0.083U	<0.083U	<0.023U	<0.023U	0.036J	<0.029U	<0.029U
	Aroclor 1262	µg/L			-	<0.083U	<0.083U	-	-	-	-	-
	Aroclor 1268	µg/L			-	<0.083U	<0.083U	-	-	-	-	-
	PCBs, Total	µg/L	0.09		<0.05U	0.466	<0.083U	0.022J	0.026	0.169J	<0.038U	0.147J

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
Total Metals	Aluminum, Total	µg/L	<180U		2.89J	40	50	15.5	56.2	14,400	
	Antimony, Total	µg/L	3	<12U	0.52J	0.2J	0.3J	<0.42U	<4U	0.88J	
	Arsenic, Total	µg/L	25	<8U	1.4	2.8	2.3	1.47	1.78	71.3	
	Barium, Total	µg/L	1000	150	85.68	120.7	97.9	67.41	83.01	906.4	
	Beryllium, Total	µg/L	3	<4U	<0.5U	<0.5U	<0.2U	<0.1U	<0.5U	2.04	
	Cadmium, Total	µg/L	5	<4U	<0.2U	<0.2U	<0.1U	<0.05U	<0.2U	4.01	
	Calcium, Total	µg/L		110,000	109,000	122,000	91,600	85,000	94,400	123,000	
	Chromium, Total	µg/L	50	<50U	0.99J	7.7	7.3	4.01	12.18	4,741	
	Cobalt, Total	µg/L		<20U	1.15	1.5	1.3	1.82	2.65	47.81	
	Copper, Total	µg/L	200	<50U	1.13J	1.9J	<0.3U	<0.38U	0.42J	193.4	
	Iron, Total	µg/L	300	6,400	3,170	5,040	4,630	3,750	5,330	384,000	
	Lead, Total	µg/L	25	<4U	<1U	1.1	0.7J	0.39J	0.71J	620	
	Magnesium, Total	µg/L	35000	7,300	7,040	10,300	8,580	9,690	15,700	22,500	
	Manganese, Total	µg/L	300	830	823.6	913.5	801.4	1,074	1,957	5,535	
	Mercury, Total	µg/L	0.7	<1U	<0.2U	<0.2U	0.11J	<0.06U	<0.2U	1.33	
	Nickel, Total	µg/L	100	100	121.9	160	173.4	143.7	187.2	4,745	
	Potassium, Total	µg/L		13,000	9,020	12,200	11,400	8,360	8,530	11,900	
	Selenium, Total	µg/L	10	<40U	<5U	<5U	<1U	<1.73U	<5U	13.2	
	Silver, Total	µg/L	50	<20U	<0.4U	<0.4U	<0.1U	<0.16U	<0.4U	0.52	
	Sodium, Total	µg/L	20000	330,000J	153,000	186,000	138,000	81,800	58,200	74,400	
	Thallium, Total	µg/L	0.5	<10U	<0.5U	<0.5U	<0.1U	<0.14U	<0.5U	0.42J	
	Vanadium, Total	µg/L		<50U	<5U	<5U	<0.6U	<1.57U	<5U	63.64	
	Zinc, Total	µg/L	2000	<50U	9.03J	42.6	<2.6U	<3.41U	3.89J	507.5	
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L		<180U	68.3	-	4J	<3.27U	4.06J	4.34J	
	Antimony, Dissolved (Filtered)	µg/L	3	<12U	0.75J	-	0.4J	<0.42U	<4U	0.87J	
	Arsenic, Dissolved (Filtered)	µg/L	25	<8U	5.08	-	1.2	0.69	0.6	0.53	
	Barium, Dissolved (Filtered)	µg/L	1000	150	119.3	-	80.8	64.71	76.08	86.61	
	Beryllium, Dissolved (Filtered)	µg/L	3	<4U	<0.5U	-	<0.2U	<0.1U	<0.5U	<0.1U	
	Cadmium, Dissolved (Filtered)	µg/L	5	<4U	0.05J	-	<0.1U	<0.05U	<0.2U	<0.05U	
	Calcium, Dissolved (Filtered)	µg/L		130,000	118,000	-	126,000	87,900	97,300	92,400	
	Chromium, Dissolved (Filtered)	µg/L	50	<50U	23.34	-	3	0.69J	0.69J	1.12	
	Cobalt, Dissolved (Filtered)	µg/L		<20U	1.28	-	1.6	1.85	2.6	2.45	
	Copper, Dissolved (Filtered)	µg/L	200	<50U	1.31	-	<0.3U	<0.38U	0.77J	<0.38U	
	Iron, Dissolved (Filtered)	µg/L	300	980	13,400	-	652	172	22.8J	81.4	
	Lead, Dissolved (Filtered)	µg/L	25	<4U	2.24	-	<0.1U	<0.34U	<1U	<0.34U	
	Magnesium, Dissolved (Filtered)	µg/L	35000	8,500	8,240	-	7,540	9,920	15,900	16,800	
	Manganese, Dissolved (Filtered)	µg/L	300	950	853.8	-	1,038	1,130	1,688	2,298	
	Mercury, Dissolved (Filtered)	µg/L	0.7	<1U	<0.2U	-	<0.06U	<0.06U	<0.2U	<0.09U	
	Nickel, Dissolved (Filtered)	µg/L	100	110	135.9	-	158	142.7	169.5	196.3	
	Potassium, Dissolved (Filtered)	µg/L		15,000	10,400	-	10,200	9,080	8,570	8,650	
	Selenium, Dissolved (Filtered)	µg/L	10	<40U	0.59J	-	<1U	<1.73U	<5U	<1.73U	
	Silver, Dissolved (Filtered)	µg/L	50	<20U	0.13J	-	<0.1U	<0.16U	<0.4U	<0.16U	
	Sodium, Dissolved (Filtered)	µg/L	20000	380,000J	175,000	-	185,000	84,800	63,400	63,000	
	Thallium, Dissolved (Filtered)	µg/L	0.5	<10U	<0.5U	-	<0.1U	<0.14U	<0.5U	<0.14U	
	Vanadium, Dissolved (Filtered)	µg/L		<50U	0.54J	-	<0.6U	<1.57U	<5U	<1.57U	
	Zinc, Dissolved (Filtered)	µg/L	2000	<50U	6.31J	-	<2.6U	<3.41U	<10U	<3.41U	

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Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
VOCs	1,1,1-trichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2,2-tetrachloroethane	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	<0.17U
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L		-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1,2-trichloroethane	µg/L	1	<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U	<0.5U
	1,1-dichloroethane	µg/L	5	<1U	0.75J	1.1J	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,1-dichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	0.22J	0.24J	<0.17U	<0.17U
	1,2,3-trichlorobenzene	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2,4-trichlorobenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromo-3-chloropropane	µg/L	0.04	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dibromoethane	µg/L	5	<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	1,2-dichlorobenzene	µg/L		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,2-dichloroethane	µg/L	0.6	<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	1,2-dichloropropane	µg/L	1	<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U	<0.14U
	1,3-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dichlorobenzene	µg/L		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	1,4-dioxane	µg/L		-	<250U	<250U	<41U	<61U	<250U	<61U	<61U
	2-butanone	µg/L	50	<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U	<1.9U
	2-hexanone	µg/L	50	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	4-methyl-2-pentanone	µg/L		<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Acetone	µg/L	50	<10U	1.6J	<5U	<1.5U	<1.5U	<5U	2.3J	<5U
	Benzene	µg/L	1	0.2	2.3	4	0.66	0.54	0.36J	<0.16U	<0.16U
	Bromochloromethane	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Bromodichloromethane	µg/L	5	<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U	<0.19U
	Bromoform	µg/L	50	<1UJ	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	<0.65U
	Bromomethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Carbon disulfide	µg/L	60	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Carbon tetrachloride	µg/L	5	<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	<0.13U
	Chlorobenzene	µg/L	5	1	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloroform	µg/L	7	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Chloromethane	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	cis-1,2-dichloroethene	µg/L	5	1.2	16	6.1	17	52	76	42	<0.7U
	cis-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U	<0.14U
	Cyclohexane	µg/L		<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U	<0.27U
	Dibromochloromethane	µg/L	50	<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U	<0.15U
	Dichlorodifluoromethane	µg/L	5	<1U	<5U	<5U	<1U	<1U	<5U	<1U	<1U
	Ethylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Isopropylbenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Methyl acetate	µg/L		-	<2U	-	<0.23U	<0.23U	<2U	<0.23U	<0.23U
	Methyl cyclohexane	µg/L		<1U	<10U	-	<0.4U	<0.4U	<10U	<0.4U	<0.4U
	Methyl tert butyl ether	µg/L	10	<0.5U	<2.5U	<2.5U	<0.7U	<0.7U	24	3.4	<0.7U
	Methylene chloride	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	o-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	p/m-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Styrene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Tetrachloroethene	µg/L	5	<1U	2.2	0.52	1.8	11	5.2	0.86	<0.7U
	Toluene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,2-dichloroethene	µg/L	5	<1U	<2.5U	0.78J	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	trans-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	<0.16U
	Trichloroethene	µg/L	5	1.4J	9.1	2.2	4.8	20	14	3.2	<0.7U
	Trichlorofluoromethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	<0.7U
	Vinyl chloride	µg/L	2	2.7	5.5	5.6	12	8	5.6	3.6	<0.7U

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**Table 3
Summary of Groundwater Sample Laboratory Analytical Results**

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7
General Chemistry	Alkalinity, Total	µg/L			291,000	330,000	323,000	319,000	265,000	238,000	259,000
	Biological Oxygen Demand, Five day	µg/L			10,300	14,000	3,300	<2,000U	<2,000U	<2,000U	13,000
	Chemical Oxygen Demand	µg/L			199,000	35,000	19,000J	37,000	4,100J	<10,000U	280,000
	Chloride	µg/L	250,000		-	250,000	240,000	170,000	91,000	108,000	120,000
	Total Organic Carbon	µg/L			5,200	6,440	3,900	4,000	2,700	3,940	2,770
	Total Organic Halogen	ug/l			-	50.4	27.9	26.3	63.6	74.8	61.9
PCBs	Aroclor 1016	µg/L			<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.013U
	Aroclor 1221	µg/L			<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.018U
	Aroclor 1232	µg/L			<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.038U
	Aroclor 1242	µg/L			<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	<0.0833U	<0.03U
	Aroclor 1248	µg/L			<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	<0.0833U	<0.038U
	Aroclor 1254	µg/L			<0.05U	<0.083U	<0.083U	<0.022U	<0.022U	<0.0833U	<0.014U
	Aroclor 1260	µg/L			<0.05U	<0.083U	<0.083U	<0.023U	<0.023U	<0.0833U	<0.029U
	Aroclor 1262	µg/L			-	<0.083U	<0.083U	-	-	-	-
	Aroclor 1268	µg/L			-	<0.083U	<0.083U	-	-	-	-
	PCBs, Total	µg/L	0.09		<0.05U	<0.083U	<0.083U	<0.012U	<0.014	<0.0833U	<0.083U

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
Total Metals	Aluminum, Total	µg/L			220	230	39	2,310	9.3J	15.1	1,090
	Antimony, Total	µg/L	3		<12U	0.5J	0.7J	0.4J	<0.42U	<4U	<0.42U
	Arsenic, Total	µg/L	25		<8U	0.39J	0.7	0.8	0.33J	<0.5U	3.26
	Barium, Total	µg/L	1000		270	376.1	464.6	707.2	1,023	803.5	815.1
	Beryllium, Total	µg/L	3		<4U	<0.5U	<0.5U	<0.2U	<0.1U	<0.5U	<0.1U
	Cadmium, Total	µg/L	5		<4U	0.65	<0.2U	1.1	0.27	0.28	4.72
	Calcium, Total	µg/L			150,000	221,000	280,000	302,000	466,000	445,000	280,000
	Chromium, Total	µg/L	50		<50U	1.29	2.4	7	1.26	<1U	5.17
	Cobalt, Total	µg/L			<20U	0.21	0.2J	1.5	0.17J	<0.5U	1.21
	Copper, Total	µg/L	200		<50U	1.36J	1.9J	<0.3U	0.5J	<1U	10.64
	Iron, Total	µg/L	300		13,000	25,800	29,700	54,300	36,600	17,500	117,000
	Lead, Total	µg/L	25		7.8	2.72	0.9J	11.7	<1.71U	<1U	15.6
	Magnesium, Total	µg/L	35000		7,700	10,000	17,400	17,300	23,300	27,700	19,100
	Manganese, Total	µg/L	300		780	1,180	1,368	1,654	1,559	901.3	577.7
	Mercury, Total	µg/L	0.7		<1U	<0.2U	<0.2U	<0.06U	<0.06U	<0.2U	<0.09U
	Nickel, Total	µg/L	100		<50U	0.93	1.9	5.1	1.98J	<2U	3.13
	Potassium, Total	µg/L			18,000	15,900	22,600	26,100	32,700	31,600	24,400
	Selenium, Total	µg/L	10		<40U	<5U	<5U	<1U	<1.73U	<5U	<1.73U
	Silver, Total	µg/L	50		<20U	<0.4U	<0.4U	<0.1U	<0.16U	<0.4U	<0.16U
	Sodium, Total	µg/L	20000		420,000J	504,000	519,000	731,000	1,350,000	1,020,000	568,000
	Thallium, Total	µg/L	0.5		<10U	<0.5U	<0.5U	<0.1U	<0.71U	<0.5U	<0.14U
	Vanadium, Total	µg/L			<50U	2.15J	<5U	8.3	<1.57U	<5U	7.25
	Zinc, Total	µg/L	2000		<50U	6.77J	30	8.2J	<3.41U	<10U	60.33
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L			<180U	3.95J	-	3J	<16.4U	4.28J	<3.27U
	Antimony, Dissolved (Filtered)	µg/L	3		<12U	0.19J	-	0.6J	<2.14U	<4U	0.79J
	Arsenic, Dissolved (Filtered)	µg/L	25		<8U	0.89	-	<0.1U	<0.82U	<0.5U	<0.16U
	Barium, Dissolved (Filtered)	µg/L	1000		200	366.9	-	658.2	910.4	694.3	359
	Beryllium, Dissolved (Filtered)	µg/L	3		<4U	<0.5U	-	<0.2U	<0.53U	<0.5U	<0.1U
	Cadmium, Dissolved (Filtered)	µg/L	5		<4U	<0.2U	-	<0.1U	<0.29U	0.09J	0.97
	Calcium, Dissolved (Filtered)	µg/L			160,000	217,000	-	358,000	455,000	419,000	243,000
	Chromium, Dissolved (Filtered)	µg/L	50		<50U	1.56	-	1.6J	<0.89U	<1U	<0.17U
	Cobalt, Dissolved (Filtered)	µg/L			<20U	0.33J	-	<0.1U	<0.81U	<0.5U	0.29J
	Copper, Dissolved (Filtered)	µg/L	200		<50U	0.68J	-	<0.3U	<1.92U	1.1	0.4J
	Iron, Dissolved (Filtered)	µg/L	300		1,200	19,400	-	26,500	19,200	43J	101
	Lead, Dissolved (Filtered)	µg/L	25		<4U	<1U	-	<0.1U	<1.71U	<1U	<0.34U
	Magnesium, Dissolved (Filtered)	µg/L	35000		8,200	11,600	-	17,900	24,300	24,900	18,000
	Manganese, Dissolved (Filtered)	µg/L	300		810	971.8	-	1,939	1,551	744.6	361.7
	Mercury, Dissolved (Filtered)	µg/L	0.7		<1U	<0.2U	-	<0.06U	<0.06U	<0.2U	<0.09U
	Nickel, Dissolved (Filtered)	µg/L	100		<50U	3.29	-	5	<2.78U	1.44J	1J
	Potassium, Dissolved (Filtered)	µg/L			19,000	17,800	-	25,500	33,600	29,500	21,200
	Selenium, Dissolved (Filtered)	µg/L	10		<40U	1.08J	-	<1U	<8.65U	<5U	<1.73U
	Silver, Dissolved (Filtered)	µg/L	50		<20U	<0.4U	-	<0.1U	<0.81U	<0.4U	<0.16U
	Sodium, Dissolved (Filtered)	µg/L	20000		450,000J	500,000	-	866,000	1,320,000	1,060,000	558,000
	Thallium, Dissolved (Filtered)	µg/L	0.5		<10U	<0.5U	-	<0.1U	<0.71U	<0.5U	<0.14U
	Vanadium, Dissolved (Filtered)	µg/L			<50U	0.48J	-	<0.6U	<7.85U	<5U	<1.57U
	Zinc, Dissolved (Filtered)	µg/L	2000		<50U	3.82J	-	<2.6U	<17.05U	3.79J	15.21

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Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
VOCs	1,1,1-trichloroethane	µg/L	5		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2,2-tetrachloroethane	µg/L	5		<1UJ	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L			-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U
	1,1,2-trichloroethane	µg/L	1		<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U
	1,1-dichloroethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,1-dichloroethene	µg/L	5		<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U
	1,2,3-trichlorobenzene	µg/L			-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2,4-trichlorobenzene	µg/L	5		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2-dibromo-3-chloropropane	µg/L	0.04		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2-dibromoethane	µg/L	5		<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U
	1,2-dichlorobenzene	µg/L			<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,2-dichloroethane	µg/L	0.6		<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U
	1,2-dichloropropane	µg/L	1		<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U
	1,3-dichlorobenzene	µg/L			<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,4-dichlorobenzene	µg/L			<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	1,4-dioxane	µg/L			-	<250U	<250U	<41U	<61U	<250U	<61U
	2-butanone	µg/L	50		<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U
	2-hexanone	µg/L	50		<1U	<5U	<5U	<1U	<1U	<5U	<1U
	4-methyl-2-pentanone	µg/L			<1U	<5U	<5U	<1U	<1U	<5U	<1U
	Acetone	µg/L	50		<10U	1.4J	<5U	<1.5U	<1.5U	<5U	<1.5U
	Benzene	µg/L	1		<0.5U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U
	Bromochloromethane	µg/L			-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Bromodichloromethane	µg/L	5		<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U
	Bromoform	µg/L	50		<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U
	Bromomethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Carbon disulfide	µg/L	60		<1U	<5U	<5U	<1U	<1U	<5U	<1U
	Carbon tetrachloride	µg/L	5		<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U
	Chlorobenzene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Chloroethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Chloroform	µg/L	7		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Chloromethane	µg/L			<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	cis-1,2-dichloroethene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	cis-1,3-dichloropropene	µg/L	0.4		<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U
	Cyclohexane	µg/L			<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U
	Dibromochloromethane	µg/L	50		<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U
	Dichlorodifluoromethane	µg/L	5		<1U	<5U	<5U	<1U	<1U	<5U	<1U
	Ethylbenzene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Isopropylbenzene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Methyl acetate	µg/L			-	<2U	-	<0.23U	<0.23U	<2U	<0.23U
	Methyl cyclohexane	µg/L			<1U	<10U	-	<0.4U	<0.4U	<10U	<0.4U
	Methyl tert butyl ether	µg/L	10		<0.5U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Methylene chloride	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	o-xylene	µg/L	5		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	p/m-xylene	µg/L	5		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Styrene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Tetrachloroethene	µg/L	5		<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U
	Toluene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	trans-1,2-dichloroethene	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	trans-1,3-dichloropropene	µg/L	0.4		<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U
	Trichloroethene	µg/L	5		<1UJ	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U
	Trichlorofluoromethane	µg/L	5		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U
	Vinyl chloride	µg/L	2		<1U	<1U	<1U	<0.07U	<0.07U	<1U	<0.07U

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				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8	MW-8
General Chemistry	Alkalinity, Total	µg/L		613,000	575,000	564,000	521,000	505,000	453,000	429,000	
	Biological Oxygen Demand, Five day	µg/L		<6,000U	3,400	<2,000U	<2,000U	2,800	<2,000U	<2,000U	
	Chemical Oxygen Demand	µg/L		359,000	49,000	42,000	56,000	55,000	29,000	35,000	
	Chloride	µg/L	250,000	-	740,000	940,000	1,400,000	2,300,000	2,240,000	1,040,000	
	Total Organic Carbon	µg/L		5,500	7,620	2,200	1,600	1,000	3,690J	1,550	
	Total Organic Halogen	ug/l		-	40.5	62.1	11.9J	40.8	46.2	111	
PCBs	Aroclor 1016	µg/L		<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.02U	
	Aroclor 1221	µg/L		<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.028U	
	Aroclor 1232	µg/L		<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.058U	
	Aroclor 1242	µg/L		<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	<0.0833U	<0.045U	
	Aroclor 1248	µg/L		<0.05U	<0.083U	<0.083U	<0.014U	<0.014U	<0.0833U	<0.057U	
	Aroclor 1254	µg/L		<0.05U	<0.083U	<0.083U	<0.022U	<0.022U	<0.0833U	<0.021U	
	Aroclor 1260	µg/L		<0.05U	<0.083U	<0.083U	<0.023U	<0.023U	<0.0833U	<0.043U	
	Aroclor 1262	µg/L		-	<0.083U	<0.083U	-	-	-	-	
	Aroclor 1268	µg/L		-	<0.083U	<0.083U	-	-	-	-	
	PCBs, Total	µg/L	0.09	<0.05U	<0.083U	<0.083U	<0.012U	<0.014	<0.0833U	<0.083U	

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#1 - Guidance value

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U - Analyzed for but Not Detected above the identified laboratory reporting limit

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Bold and highlighted results indicate an exceedance of standards



Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-2R	MW-5	MW-2R	MW-1	MW-1	MW-1	MW-2R
Total Metals	Aluminum, Total	µg/L		1,700J	4,070	1,660	1,110	16.9	272	358	
	Antimony, Total	µg/L	3	<12U	4.21	2.4	0.8J	<0.42U	<4U	0.47J	
	Arsenic, Total	µg/L	25	<8U	19.91	8.5	2.7	1.4	1.77	4.43	
	Barium, Total	µg/L	1000	160	167.5	224.5	225.3	277.4	192.2	366.9	
	Beryllium, Total	µg/L	3	<4U	0.21J	<0.5U	<0.2U	<0.1U	<0.5U	<0.1U	
	Cadmium, Total	µg/L	5	<4U	2.45	0.1J	0.4	0.08J	0.22	<0.05U	
	Calcium, Total	µg/L		280,000	240,000	84,900	181,000	256,000	160,000	95,400	
	Chromium, Total	µg/L	50	<50U	14.57	10.1	18.8	2.73	5.81	1.94	
	Cobalt, Total	µg/L		<20U	6.66	2.3	2	1.36	1.51	0.38J	
	Copper, Total	µg/L	200	<50U	88.29	26.2	18.3	<0.38U	7.73	4.86	
	Iron, Total	µg/L	300	9,000J	30,600	24,000	7,430	3,690	4,730	18,900	
	Lead, Total	µg/L	25	49J	375.6	165.3	76.1	0.83J	17.16	22.73	
	Magnesium, Total	µg/L	35000	120,000	137,000	33,800	31,500	39,900	28,500	44,300	
	Manganese, Total	µg/L	300	790	1,016	624.2	2,788	2,707	1,841	984.3	
	Mercury, Total	µg/L	0.7	<1U	12.5	0.36	0.1J	<0.06U	<0.2U	<0.09U	
	Nickel, Total	µg/L	100	<50U	45.52	6.1	20.4	7.27	9.07	0.65J	
	Potassium, Total	µg/L		48,000	70,000	15,300	16,500	19,200	14,200	19,300	
	Selenium, Total	µg/L	10	<40U	1.18J	<5U	<1U	<1.73U	<5U	<1.73U	
	Silver, Total	µg/L	50	<20U	0.33J	<0.4U	0.1J	<0.16U	<0.4U	<0.16U	
	Sodium, Total	µg/L	20000	660,000J	1,130,000	215,000	333,000	478,000	325,000	250,000	
	Thallium, Total	µg/L	0.5	<10U	0.11J	<0.5U	<0.1U	<0.14U	<0.5U	<0.14U	
Vanadium, Total	µg/L		<50U	22.13	7.6	4.1J	<1.57U	1.61J	1.68J		
Zinc, Total	µg/L	2000	76	1,320	69.9	114.1	3.89J	31.44	6.78J		
Dissolved Metals	Aluminum, Dissolved (Filtered)	µg/L		<180U	-	-	4J	-	6.66J	<3.27U	
	Antimony, Dissolved (Filtered)	µg/L	3	<12U	-	-	0.7J	-	0.55J	0.93J	
	Arsenic, Dissolved (Filtered)	µg/L	25	<8U	-	-	1	-	1.01	0.61	
	Barium, Dissolved (Filtered)	µg/L	1000	160	-	-	213.5	-	180.8	272.9	
	Beryllium, Dissolved (Filtered)	µg/L	3	<4U	-	-	<0.2U	-	<0.5U	<0.1U	
	Cadmium, Dissolved (Filtered)	µg/L	5	<4U	-	-	<0.1U	-	<0.2U	<0.05U	
	Calcium, Dissolved (Filtered)	µg/L		310,000	-	-	247,000	-	183,000	89,800	
	Chromium, Dissolved (Filtered)	µg/L	50	<50U	-	-	3.3	-	0.97J	<0.17U	
	Cobalt, Dissolved (Filtered)	µg/L		<20U	-	-	1.7	-	1.59	<0.16U	
	Copper, Dissolved (Filtered)	µg/L	200	<50U	-	-	<0.3U	-	0.4J	<0.38U	
	Iron, Dissolved (Filtered)	µg/L	300	750	-	-	2,090	-	24.4J	1,010	
	Lead, Dissolved (Filtered)	µg/L	25	<4U	-	-	0.1J	-	<1U	<0.34U	
	Magnesium, Dissolved (Filtered)	µg/L	35000	140,000	-	-	32,800	-	26,600	45,500	
	Manganese, Dissolved (Filtered)	µg/L	300	860	-	-	3,892	-	1,726	930.6	
	Mercury, Dissolved (Filtered)	µg/L	0.7	<1U	-	-	<0.06U	-	<0.2U	<0.09U	
	Nickel, Dissolved (Filtered)	µg/L	100	<50U	-	-	14.6	-	8.42	0.73J	
	Potassium, Dissolved (Filtered)	µg/L		54,000	-	-	16,800	-	15,800	18,200	
	Selenium, Dissolved (Filtered)	µg/L	10	<40U	-	-	<1U	-	<5U	<1.73U	
	Silver, Dissolved (Filtered)	µg/L	50	<20U	-	-	<0.1U	-	<0.4U	<0.16U	
	Sodium, Dissolved (Filtered)	µg/L	20000	750,000J	-	-	470,000	-	425,000	230,000	
	Thallium, Dissolved (Filtered)	µg/L	0.5	<10U	-	-	<0.1U	-	<0.5U	<0.14U	
Vanadium, Dissolved (Filtered)	µg/L		<50U	-	-	<0.6U	-	<5U	<1.57U		
Zinc, Dissolved (Filtered)	µg/L	2000	<50U	-	-	<2.6U	-	4.89J	<3.41U		

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Table 3
Summary of Groundwater Sample Laboratory Analytical Results

Method Name	Analyte	Units	Sample ID	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	5/30/2019
				Well ID	MW-2R	MW-5	MW-2R	MW-1	MW-1	MW-1	MW-2R
			TOGS 1.1.1								
VOCs	1,1,1-trichloroethane	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	1,1,2,2-tetrachloroethane	µg/L	5	<1UJ	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	
	1,1,2-trichloro-1,2,2-trifluoroethane	µg/L		-	<2.5U	-	<0.7U	<0.7U	<2.5U	<0.7U	
	1,1,2-trichloroethane	µg/L	1	<1U	<1.5U	<1.5U	<0.5U	<0.5U	<1.5U	<0.5U	
	1,1-dichloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	0.7J	<2.5U	<0.7U	
	1,1-dichloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.14U	<0.17U	<0.5U	<0.17U	
	1,2,3-trichlorobenzene	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	1,2,4-trichlorobenzene	µg/L	5	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	1,2-dibromo-3-chloropropane	µg/L	0.04	<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	1,2-dibromoethane	µg/L	5	<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	
	1,2-dichlorobenzene	µg/L		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	1,2-dichloroethane	µg/L	0.6	<0.5U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	
	1,2-dichloropropane	µg/L	1	<1U	<1U	<1U	<0.13U	<0.14U	<1U	<0.14U	
	1,3-dichlorobenzene	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	1,4-dichlorobenzene	µg/L		<1UJ	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	1,4-dioxane	µg/L		-	<250U	<250U	<41U	<61U	<250U	<61U	
	2-butanone	µg/L	50	<1U	<5U	<5U	<1.9U	<1.9U	<5U	<1.9U	
	2-hexanone	µg/L	50	<1U	<5U	<5U	<1U	<1U	<5U	<1U	
	4-methyl-2-pentanone	µg/L		<1U	<5U	<5U	<1U	<1U	<5U	<1U	
	Acetone	µg/L	50	<10U	2.7J	<5U	<1.5U	<1.5U	<5U	<1.5U	
	Benzene	µg/L	1	<0.5U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U	
	Bromochloromethane	µg/L		-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	Bromodichloromethane	µg/L	5	<1U	<0.5U	<0.5U	<0.19U	<0.19U	<0.5U	<0.19U	
	Bromoform	µg/L	50	<1U	<2U	<2U	<0.65U	<0.65U	<2U	<0.65U	
	Bromomethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	Carbon disulfide	µg/L	60	<1U	<5U	<5U	<1U	<1U	<5U	<1U	
	Carbon tetrachloride	µg/L	5	<1U	<0.5U	<0.5U	<0.13U	<0.13U	<0.5U	<0.13U	
	Chlorobenzene	µg/L	5	<1U	<2.5U	<2.5U	0.86J	<0.7U	<2.5U	<0.7U	
	Chloroethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	Chloroform	µg/L	7	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	Chloromethane	µg/L		<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.27U	
	cis-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	1.7J	66	23	<0.7U	
	cis-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.14U	<0.14U	<0.5U	<0.14U	
	Cyclohexane	µg/L		<1U	<10U	-	<0.27U	<0.27U	<10U	<0.27U	
	Dibromochloromethane	µg/L	50	<1U	<0.5U	<0.5U	<0.15U	<0.15U	<0.5U	<0.15U	
	Dichlorodifluoromethane	µg/L	5	<1U	<5U	<5U	<1U	<1U	<5U	<1U	
	Ethylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	Isopropylbenzene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U	
	Methyl acetate	µg/L		-	<2U	-	<0.23U	<0.23U	<2U	<0.23U	
	Methyl cyclohexane	µg/L		<1U	<10U	-	<0.4U	<0.4U	<10U	<0.4U	
Methyl tert butyl ether	µg/L	10	<0.5U	10	0.99J	5.5	4.8	83	<0.7U		
Methylene chloride	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U		
o-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U		
p/m-xylene	µg/L	5	-	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U		
Styrene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U		
Tetrachloroethene	µg/L	5	<1U	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U		
Toluene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U		
trans-1,2-dichloroethene	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U		
trans-1,3-dichloropropene	µg/L	0.4	<1U	<0.5U	<0.5U	<0.16U	<0.16U	<0.5U	<0.16U		
Trichloroethene	µg/L	5	<1UJ	<0.5U	<0.5U	<0.18U	<0.18U	<0.5U	<0.18U		
Trichlorofluoromethane	µg/L	5	<1U	<2.5U	<2.5U	<0.7U	<0.7U	<2.5U	<0.7U		
Vinyl chloride	µg/L	2	6.2	<1U	3.5	6.8	100	37	0.55J		

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Method Name	Analyte	Units	TOGS 1.1.1	Sample ID	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate	Duplicate
				Date Sampled	Baseline	5/14/2014	6/4/2015	5/26/2016	5/22/2017	5/30/2018	12/19/2018	5/30/2019
				Well ID	MW-2R	MW-5	MW-2R	MW-1	MW-1	MW-1	MW-1	MW-2R
General Chemistry	Alkalinity, Total	µg/L		-	391,000	315,000	436,000	403,000	363,000	-	300,000	
	Biological Oxygen Demand, Five day	µg/L		-	23,000	<5,000U	<10,000U	<2,000U	3,300	-	3,100	
	Chemical Oxygen Demand	µg/L		-	230,000	80,000	44,000	27,000	24,000	-	44,000	
	Chloride	µg/L	250,000	-	1,300,000	350,000	560,000	840,000	737,000	-	472,000	
	Total Organic Carbon	µg/L		-	22,700	3,400	3,400	1,800	4,250	-	1,790	
	Total Organic Halogen	ug/l		-	46.1	22	24.7	61.1	56.7	-	29.1	
PCBs	Aroclor 1016	µg/L		<0.05U	<0.083U	<0.083U	<0.021U	<0.021U	<0.0833U	<0.013U	<0.013U	
	Aroclor 1221	µg/L		<0.05U	<0.083U	<0.083U	<0.028U	<0.028U	<0.0833U	<0.018U	<0.018U	
	Aroclor 1232	µg/L		<0.05U	<0.083U	<0.083U	<0.012U	<0.012U	<0.0833U	<0.038U	<0.038U	
	Aroclor 1242	µg/L		<0.05U	<0.083U	<0.083U	<0.014U	0.061	<0.0833U	<0.03U	<0.03U	
	Aroclor 1248	µg/L		<0.05U	<0.083U	<0.083U	0.41	<0.014U	0.218	<0.038U	<0.038U	
	Aroclor 1254	µg/L		<0.05U	<0.083U	<0.083U	0.238	<0.022U	0.124	<0.014U	<0.014U	
	Aroclor 1260	µg/L		<0.05U	<0.083U	<0.083U	<0.023U	<0.023U	0.031J	<0.029U	<0.029U	
	Aroclor 1262	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	Aroclor 1268	µg/L		-	<0.083U	<0.083U	-	-	-	-	-	
	PCBs, Total	µg/L	0.09	<0.05U	<0.083U	<0.083U	0.648	0.061	0.373	<0.038U	<0.083U	

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Appendices

Appendix A Annual Inspection Form

SITE-WIDE INSPECTION FORM

FRITO-LAY 202-218 MORGAN AVENUE
KINGS COUNTY
BROOKLYN, NEW YORK
NYSDEC SITE NUMBER C224133

NAME OF INSPECTOR: Damian Vanetti

COMPANY OF INSPECTOR: GHD Consulting Services, Inc

DATE OF INSPECTION: 11-14-19

CURRENT USE OF THE SITE: Industrial Commercial Distribution/ Parking

HAS A CHANGE OF LAND-USE OCCURRED SINCE THE LAST INSPECTION?

YES NO

IF YES, EXPLAIN HOW THE SITE HAS CHANGED: _____

IS THERE EVIDENCE OF LAND-USE OTHER THAN FOR INDUSTRIAL SINCE THE LAST INSPECTION?

YES NO

IF YES, EXPLAIN THE NON-INDUSTRIAL LAND USE: _____

HAVE ANY STRUCTURES BEEN CONSTRUCTED ON THE SITE SINCE THE LAST INSPECTION? YES NO

IF YES, EXPLAIN HOW THE SITE HAS CHANGED: _____

GENERAL DESCRIPTION OF THE COVER: Asphalt paving with
grassed island around perimeter. Bulk head
around 2 sides of rip rap stone at vegetated
soil surfaces on slope. fencing around
3 sides of site.

HAS THE COVER BEEN COMPROMISED? YES NO

IF YES, EXPLAIN HOW THE COVER HAS CHANGED: _____

SITE-WIDE INSPECTION FORM

FRITO-LAY 202-218 MORGAN AVENUE
KINGS COUNTY
BROOKLYN, NEW YORK
NYSDEC SITE NUMBER C224133

HAVE COVER CONDITIONS CHANGED SINCE THE LAST INSPECTION?
 YES NO

IF YES, EXPLAIN HOW THE SITE COVER CONDITIONS CHANGED: _____

IS ANY MAINTENANCE OF THE COVER REQUIRED?
 YES NO

IF YES, EXPLAIN WHAT MAINTAINENCE IS REQUIRED: Surface
cracks in asphalt pavement should be
repaired.

ARE SIGNIFICANT EROSION RILLS OR CRACKING PRESENT?
 YES NO

IF YES, EXPLAIN WHERE EROSION RILLS OR CRACKING ARE PRESENT: _____
Surface cracking in asphalt pavement

IS PONDING PRESENT?
 YES NO

IF YES, EXPLAIN WHERE PONDING IS PRESENT AND THE ASSOCIATED DEPTH:

IS ANY SOIL WASTE MATERIAL EXPOSED?
 YES NO

IF YES, EXPLAIN WHERE SOIL WASTE MATERIAL ARE EXPOSED:

SITE-WIDE INSPECTION FORM

FRITO-LAY 202-218 MORGAN AVENUE
KINGS COUNTY
BROOKLYN, NEW YORK
NYSDEC SITE NUMBER C224133

IS THERE A VISABLE CHANGE IN THE DESIGNATED DRAINAGE PATTERN?

YES NO

IF YES, EXPLAIN WHERE THE VISABLE CHANGE IN THE DESIGNATED DRAINAGE PATTERN ARE LOCATED: _____

IS SETTLEMENT OR SUBSIDNCE VISIBLE?

YES NO

IF YES, EXPLAIN WHERE SETTLEMENT OR SUBSIDNCE VISIBLE IS LOCATED:

_____ concrete barrier blocks on south east
corner of walkway have shifted and should
be monitored for structural stability. No fill
exposed

ARE SIGNIFICANT EROSION RILLS OR CRACKING PRESENT?

YES NO

IF YES, EXPLAIN WHERE EROSION RILLS OR CRACKING ARE PRESENT: _____

ARE ALL GROUNDWATER MONITORING WELLS MAINTAINED PROPERLY
AND IN GOOD PHYSICAL CONDITION?

YES NO

IF NO, EXPLAIN HOW THE GROUNDWATER MONITORING WELLS HAVE BEEN
COMPROMISED:

_____ Painted Post should be placed at MW 2R and
MW-5 for visibility in vegetation growth

SITE-WIDE INSPECTION FORM

FRITO-LAY 202-218 MORGAN AVENUE
KINGS COUNTY
BROOKLYN, NEW YORK
NYSDEC SITE NUMBER C224133

IS THERE ANY EVIDENCE THAT GROUNDWATER IS BEING USED FOR ANY PURPOSE?

 YES X NO

IF YES, EXPLAIN HOW GROUNDWATER IS BEING USED:

ADDITIONAL OBSERVATIONS, CONCLUSIONS, OR RECOMMENDATIONS:

Groundwater IDW down should have cones
placed around fence
woody growth in perimeter areas outside fence
should be removed.
Periodically clean up wind blown debris along perimeter fence

ANY CHANGES TO THE SITE OR REQUIRED MAINTENANCE SHOULD BE MARKED IN THE CORRESPONDING LOCATIONS ON AN ATTACHED MAP



LEGEND:
 ◆ MW-1
 Groundwater Monitoring Well
 Location and ID

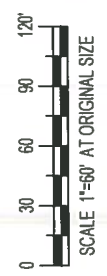
Rolling Frilo-Lay Sales, LP
 Job Number 86-16480
 Periodic Review Report - Nov. 22, 2017 to Nov. 22, 2018, Revision A
 2018 - 202-218 Morgan Avenue BCP Site (#C224133)
 Date 12.6.2018
Figure 2



Site Layout

One Remington Park Drive, Cazenovia NY 13035 USA T 1 315 679 5800 F 1 315 679 5801 E caz@mail@ghd.com W www.ghd.com

NOTES:
 1. Aerial photograph is a 2014, 6-inch resolution, true color image taken from the U.S. Geological Survey website <http://earthexplorer.usgs.gov/>
 2. Site features taken from an as-built field survey completed by FSL&S on August 21, 2013.



Appendix B

Approval Notification for EQUIS Database Submittal

Ian McNamara

From: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Sent: Wednesday, September 18, 2019 4:03 PM
To: Ian McNamara
Cc: Post, Charles H (DEC)
Subject: RE: 202-218 Morgan Avenue BCP Site (Site #C224133) - Annual 2019 Groundwater Monitoring EQUIS Submittal

OperatingCentre: 86
JobNo: 16480
CompleteRepository: 8616480
RepoEmail: 8616480@ghd.com
Description: Frito-Lay Brooklyn BCP
RepoType: Job

Ian,

Thank you for your EDD submission. NYSDEC has successfully uploaded the data from the EDDs "20190813 1239.C224133.NYSDEC_MERGE" and "20190813 1243.C224133.NYSDEC_MERGE" to Frito Lay in the NYSDEC database and the data is available for use within the system.

Aaron
NYSDEC EIMS Team



From: Ian McNamara <Ian.McNamara@ghd.com>
Sent: Tuesday, August 13, 2019 12:46 PM
To: dec.sm.NYENVDATA <NYENVDATA@dec.ny.gov>
Cc: Post, Charles H (DEC) <charles.post@dec.ny.gov>
Subject: 202-218 Morgan Avenue BCP Site (Site #C224133) - Annual 2019 Groundwater Monitoring EQUIS Submittal

ATTENTION: This email came from an external source. Do not open attachments or click on links from unknown senders or unexpected emails.

Hello,

Attached are 2 EDDs for the 2019 Annual sampling event at the above referenced site. One contains field parameters and water levels and one contains analytical results.
Please let me know if edits are needed for a successful upload.

Thank you,
Ian

Ian McNamara
Scientist
Environment

GHD

Proudly employee owned

T: +315 679 5732 | M: +315 368 8432 | E: ian.mcnamara@ghd.com
One Remington Park Drive Cazenovia NY 13035 USA | www.ghd.com

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GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

Damian Vanetti, P.E.
damian.vanetti@ghd.com
315.679.5838

Ian McNamara
ian.mcnamara@ghd.com
315.679.5732

www.ghd.com