NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report

DATE: 12/21/2015

Site Code: 932054 **Site Name:** Niagara Sanitation Company
City: Wheatfield **Town:** Wheatfield
Region: 9 **County:** Niagara
Current Classification: 03 **Proposed Classification:** 02
Estimated Size (acres): 18.70 **Disposal Area:** Landfill
Significant Threat: - **Site Type:**
Priority ranking Score: **Project Manager:** Glenn May

Summary of Approvals

Originator/Supervisor: Greg Sutton	**10/30/2015**
RHWRE: Gregory Sutton / Martin Doster:	**10/30/2015**
BEEI of NYSDOH:	**11/19/2015**
CO Bureau Director: Michael Cruden, Director, Region 9:	**11/19/2015**
Assistant Division Director: Michael J. Ryan, P.E.:	**11/20/2015**

Basis for Classification Change

Some fill material at the site is hazardous for lead (D008) and PCBs (concentrations above 50 ppm). Based upon the size of the site, it is likely that a consequential amount of hazardous waste is present. Fill material also contains PAHs, pesticides (dieldrin) and metals (arsenic, barium, cadmium, chromium, lead, silver and mercury) at concentrations that exceeded the NYSDEC Part 375 residential use soil cleanup objectives.

PAHs and metals (cadmium, chromium and mercury) were detected in surface soil at concentrations that exceeded the NYSDEC Part 375 residential use soil cleanup objectives. Contaminated surface soil and fill may present an exposure potential for those using the site for recreational activities through direct contact and/or by inhalation of contaminated dust (i.e., dirt bike trails were observed throughout the site so contaminated surface soil is exposed). Access to the site is not restricted.

Groundwater at the site is contaminated with VOCs (chlorobenzenes and petroleum compounds), SVOCs (phenolic compounds), pesticides (aldrin, BHC, chlordane, dieldrin, endrin and lindane) and metals (barium and lead) at concentrations that exceed NYSDEC groundwater standards.

Sediment is moderately contaminated (Class B) with metals (cadmium, lead and mercury), while surface water is contaminated with SVOCs (phenolic compounds) and pesticides (BHC, dieldrin and chlordane) at concentrations that exceed NYSDEC surface water standards.

DATE: 12/21/2015

Site Code: 932054 **Site Name:** Niagara Sanitation Company

Site Description - Last Review: 10/16/2015

Location:

The Niagara Sanitation Company Site, also known as the Nash Road Landfill, is an inactive landfill located in the Town of Wheatfield, Niagara County. The site is bordered to the north by a church and vacant land; to the east by commercial property, vacant land and Niagara Falls Boulevard; to the south by a Niagara Mohawk right-of-way and a residential neighborhood; and to the west by vacant land, residential properties and Nash Road. The southern border of the site follows the City of North Tonawanda corporate boundary.

Site Features:

The site consists of approximately 18.7 acres of a single 20.8 acre parcel on Nash Road. The property is vacant, and is overgrown with mature trees and brush. Portions of the property are covered with surface water at certain times of the year, particularly in the spring. Historic landfilling activities have resulted in irregular ground surface topography, with relief generally less than 10 feet. Access to the site is not restricted, and the property is used as a jogging area, dirt bike track, and general play area.

Current Zoning and Land Use:

The New York State property class code for this site is 852 - Landfills and Dumps. Surrounding land use includes residential properties to the south and west, and commercial properties to the north and east.

Past Use:

The site was operated as a landfill by the Niagara Sanitation Company between 1964 and 1968. The landfill accepted both municipal and industrial solid wastes, including caustic materials, plating tank sludge and municipal wastes. The site received wastes from the Niagara Falls Air Force Base, Bell Aerospace, Carborundum, Frontier Chemical, Graphite Specialties, Continental Can, and Grief Brothers.

Records also indicate that approximately 1600 cubic yards of Love Canal waste was dumped in a trench at this site between June 6 and July 15, 1968. This waste was generated during construction of the LaSalle Expressway in Niagara Falls. The disposal trench reportedly measured 100 feet by 30 feet, and was 27 feet in depth. The debris was placed in the bottom 15 feet of the trench and covered with 12 feet of clean fill. This waste was excavated from the site during the Fall/Winter of 2014, and the Winter/Spring of 2015 by Glenn Springs Holdings, an affiliate of the Occidental Chemical Corporation.

Remedial History:

The NYSDEC complated a Phase I Investigation of the site in 1983, a Phase II Investigation in 1985, and an expanded Phase II Investigation in 1989. These investigation confirmed the location of the Love Canal wastes, but also determined that the site did not pose a significant threat to public health or the environment. As a result, the site remained as a Class 3 designation in the Registry of Inactive Hazardous Waste Disposal Sites in New York State (Registry).

In 2013, the NYSDEC conducted a follow-up Site Characterization Study to re-evaluate the Class 3

designation for the site, to confirm the location of the Love Canal wastes, and to delineate the extent of those wastes. This investigation confirmed the findings of the previous studies, and refined the location of the Love Canal waste disposal area. The investigation also determined that further investigation was warranted at other areas of the Landfill.

In 2014, the NYSDEC conducted a follow-up investigation to characterize the municipal and industrial fill in the remainder of the landfill. While the majority of the site contained contaminant concentrations typical of urban wastes, three areas were identified with hazardous concentrations of lead and PCBs. No off-site contamination was documented in either study.

Site Geology and Hydrogeology:

The native soils underling the site consist of an upper gray sand lens that ranges in thickness from 0 to 8 feet. This deposit is thickest in the southwest portion of the site and is absent to the northeast.

Underlying the upper sand deposit is a thin, gray-brown silty clay that ranges in thickness from 3 to 7 feet. This unit overlies a thick (17 to 32 feet), red-gray layered clay that contains thin sand seams.

Underlying the thick clay deposit is a lower sand lens that ranges in thickness from 3 to 6 feet. This unit is thickest in the northern portion of the site, and thins to the south, east and west.

A pink, very dense till unit directly overlies dolostone bedrock, and ranges in thickness from 22 to 42 feet. Depth to bedrock ranges from 65 feet to 71 feet below ground surface.

Monitoring wells installed at the site screen six different overburden zones including the fill. Groundwater elevations in the fill range from 3.20 to 8.70 feet below the well casings, while groundwater elevations in the upper sand lens range from 2.80 to 6.03 feet. Groundwater elevations in the gray-brown silty clay are also shallow, ranging from 2.05 to 5.30 feet. Wells that screen the thick layered clay deposit have groundwater elevations ranging from 3.49 to 11.80 feet.

Deeper groundwater elevations were observed for the lower sand lens and till deposit, with elevations ranging from 11.30 to 16.90 feet for the lower sand lens, and 14.10 to 17.70 feet for the till deposit.

Groundwater flow in the fill and upper sand lens is to the north, while groundwater flow in the lower sand lens is to the northeast. The water table of the till deposit is essentially flat.

Groundwater flow directions have not been determined for the other overburden deposits.

Contaminants of Concern (Including Materials Disposed)	**Quantity Disposed**
OU 01	
CAUSTICS	0.00
PLATING TANK SLUDGE	0.00
MUNICIPAL WASTE	0.00
polycyclic aromatic hydrocarbons (PAHS), total	
cadmium	
chromium	
mercury	
arsenic	

DATE: 12/21/2015

Site Code: 932054 **Site Name:** Niagara Sanitation Company

barium
lead
silver
dieldrin
aldrin
hexachlorocyclohexane (all isomers)
endrin
lindane
chlordane
phenol
chlorobenzene
petroleum products

Analytical Data Available for : Groundwater, Surface Water, Soil, Sediment

Applicable Standards Exceeded for: Groundwater, Surface Water, Soil, Sediment

Site Environmental Assessment- Last Review: 10/16/2015

Nature and Extent of Contamination:

Fill Material: Some fill material at the site is hazardous for lead (D008) and PCBs (concentrations above 50 ppm). Fill material also contains PAHs, pesticides (dieldrin) and metals (arsenic, barium, cadmium, chromium, lead, silver and mercury) at concentrations that exceeded the NYSDEC Part 375 residential use soil cleanup objectives.

Surface Soil: PAHs and metals (cadmium, chromium and mercury) were detected in surface soil at concentrations that exceeded the NYSDEC Part 375 residential use soil cleanup objectives.

Groundwater: 21 groundwater monitoring wells (9 deep zone wells and 12 shallow zone wells) have been installed across the site. The deep zone wells were not sampled during the 2013 and 2014 NYSDEC investigations, so current groundwater conditions in that zone are unknown.

Shallow zone groundwater is contaminated with volatile organic compounds (chlorobenzenes and petroleum compounds), semivolatile organic compounds (phenolic compounds), pesticides (aldrin, BHC, chlordane, dieldrin, endrin and lindane) and metals (barium and lead) at concentrations that exceeded NYSDEC groundwater standards.

Sediment: Only 1 sediment sample was collected during the 2013 and 2014 NYSDEC investigations. This sample was located in the northeast portion of the site, and is moderately contaminated with metals (cadmium, lead and mercury).

Surface Water: Seven surface water samples were collected from on-site ponds during the 2013 NYSDEC investigation. These samples were contaminated with semivolatile organic compounds (phenolic compounds) and pesticides (BHC, dieldrin and chlordane) at concentrations that exceeded NYSDEC surface water standards. The sample collected from an off-site ditch showed no compounds present above surface water standards.

Summary:

DATE: 12/21/2015

Site Code: 932054 **Site Name:** Niagara Sanitation Company

The 2013 and 2014 NYSDEC investigations of the site have documented soil and groundwater contamination by various contaminants typical of municipal and industrial wastes. Additional investigation is required to determine if contaminated groundwater is migrating off-site.

Site Health Assessment - Last Update: 10/07/2015

The site is not fenced and persons who enter the site could contact contaminants in the soil by walking on the soil, digging or otherwise disturbing the soil. People could contact landfill contents by digging into the landfill. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. People may come in contact with contaminants present in wetland sediments.

	Start		End	
OU 01				
OGC Docket - SSF Order or Referral	3/31/15	ACT	1/31/16	PLN
Reclass Pkg.	10/6/15	ACT	12/31/15	PLN
Site Characterization	3/1/87	ACT	10/1/89	ACT
Site Characterization	3/26/13	ACT	11/12/13	ACT
Site Characterization	3/19/14	ACT	7/7/14	ACT
OU 01A				
OGC Docket - SSF Order or Referral	5/1/14	ACT	11/3/14	ACT
Remedial Action	10/22/14	ACT	1/31/16	PLN
Remedial Design	8/5/14	ACT	8/11/14	ACT

Remedy Description and Cost

Remedy Description for Operable Unit 01

The landfill ceased operation in 1968; however, final closure was never properly achieved.

Total Cost

DATE: 12/21/2015

Site Code: 932054 **Site Name:** Niagara Sanitation Company

Remedy Description for Operable Unit 01A

An Interim Remedial Measure (IRM) was completed during the Fall/Winter of 2014 and the Winter/Spring of 2015 by Glenn Springs Holdings, an affiliate of the Occidental Chemical Corporation. This IRM was focused in the area where the Love Canal wastes were disposed. Elements of the IRM included the following:

1. Clearing and Grubbing: Limited clearing and grubbing of vegetation was completed in the area of the access road and is the area where excavation was completed.
2. Fencing: An 8-foot high temporary chain link fence was installed along the perimeter of the work area to provide public safety by discouraging trespassing.
3. Monitoring Well Decommissioning: Groundwater monitoring wells located within the operations and excavation areas were either decommissioned in accordance with NYSDEC CP-43: Groundwater Monitoring Well Decommissioning Policy (November 2009) or removed during excavation.
4. Access Road Construction: An access road was constructed from Nash Road into the site to provide vehicle access to the excavation area.
5. Sheet Pile Cutoff Wall Installation: Prior to the start of excavation activities, a sheet pile cutoff wall was installed around the excavation area to facilitate dewatering of the excavation and to prevent further infiltration of groundwater into the excavation. The excavation area was approximately 120 feet by 90 feet. The sheet pile cutoff wall was removed at the end of the project
6. Temporary Building Construction: A temporary metal building was constructed over the excavation area to control odors generated during excavation activities. This building was removed at the end of the project.
7. Dewatering of the Excavation: The area within the sheet pile cutoff wall was dewatered by pumping groundwater directly to on-site fractionation tanks for temporary storage prior to off-site treatment and disposal.
8. Excavation of Wastes: Contaminated soil and fill was excavated from within the sheet pile cutoff wall to a depth of 27 feet, and either loaded directly into transport containers, or managed within the site until transport containers were available. Containers were lined and covered before leaving the site.
9. Waste Disposal: All excavated materials were transported off-site for disposal.
10. Confirmatory Sampling: Once visually contaminated soil and fill were removed from the excavation area, confirmatory samples were collected to verify that the clean-up goals had been achieved.
11. Backfilling of the Excavated Area: The excavation was backfilled to grade with NYSDEC approved clean fill.

Total Cost

OU	Site Management Plan Approval:	Status:

DATE: 12/21/2015

Site Code: 932054 **Site Name:** Niagara Sanitation Company

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Form
12/21/2015

SITE DESCRIPTION

SITE NO. 932054

SITE NAME Niagara Sanitation Company

SITE ADDRESS: Nash Road ZIP CODE: 14120

CITY/TOWN: Wheatfield

COUNTY: Niagara

ALLOWABLE USE:

SITE MANAGEMENT DESCRIPTION

SITE MANAGEMENT PLAN INCLUDES:

IC/EC Certification Plan	NO
Monitoring Plan Operation and Maintenance (O&M) Plan	NO
Periodic Review Frequency:	NO

Periodic Review Report Submittal Date:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Site Classification Report

DATE: 12/21/2015

Site Code: 932054 **Site Name:** Niagara Sanitation Company

Description of Institutional Control

0

Not Applicable/No IC's

Description of Engineering Control

Not Applicable/No EC's

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

PUBLIC NOTICE | State Superfund Program

Receive Site Information by Email. See next page to Learn How.

Site Name: Niagara Sanitation Company **December 21, 2015**
Site No.: 932054 **Tax Map No.:** 163.00-3-19
Site Location: Nash Road, Town of Wheatfield, 14120

Inactive Hazardous Waste Disposal Site Classification Notice

The Inactive Hazardous Waste Disposal Site Program (the State Superfund Program) is the State's program for identifying, investigating, and cleaning up sites where the disposal of hazardous waste may present a threat to public health and/or the environment. The New York State Department of Environmental Conservation (DEC) maintains a list of these sites in the Registry of Inactive Hazardous Waste Disposal Sites (Registry). As of the date of this notice, the site identified above, and located on a map on the reverse side of this page, was reclassified on the Registry as a Class 2 site that presents a significant threat to public health and/or the environment for the following reason(s):

The site is a former municipal and industrial landfill that accepted waste from multiple sites, including Niagara Falls Air Force Base, Bell Aerospace, Carborundum, Frontier Chemical, Graphite Specialties, Continental Can, and Grief Brothers. Site contaminants include metals, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, pesticides, caustics, and plating tank sludge. The landfill does not have a Part 360 cap or access restrictions. Both conditions indicate a concern for potential exposures to people who enter the site. This exposure concern has been documented as people are using the landfill as a jogging and play area. Dirt bike trails are evident throughout the site and use of such has resulted in landfill materials to become exposed at the surface. Therefore, the site represents a significant threat to the environment and public health.

If you own property adjacent to this site and are renting or leasing your property to someone else, please share this information with them. If you no longer wish to be on the contact list for this site or otherwise need to correct our records, please contact DEC's Project Manager listed below.

FOR MORE SITE INFORMATION

Additional information about this site can be found using DEC's "Environmental Site Remediation Database Search" engine which is located on the internet at:
www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=3

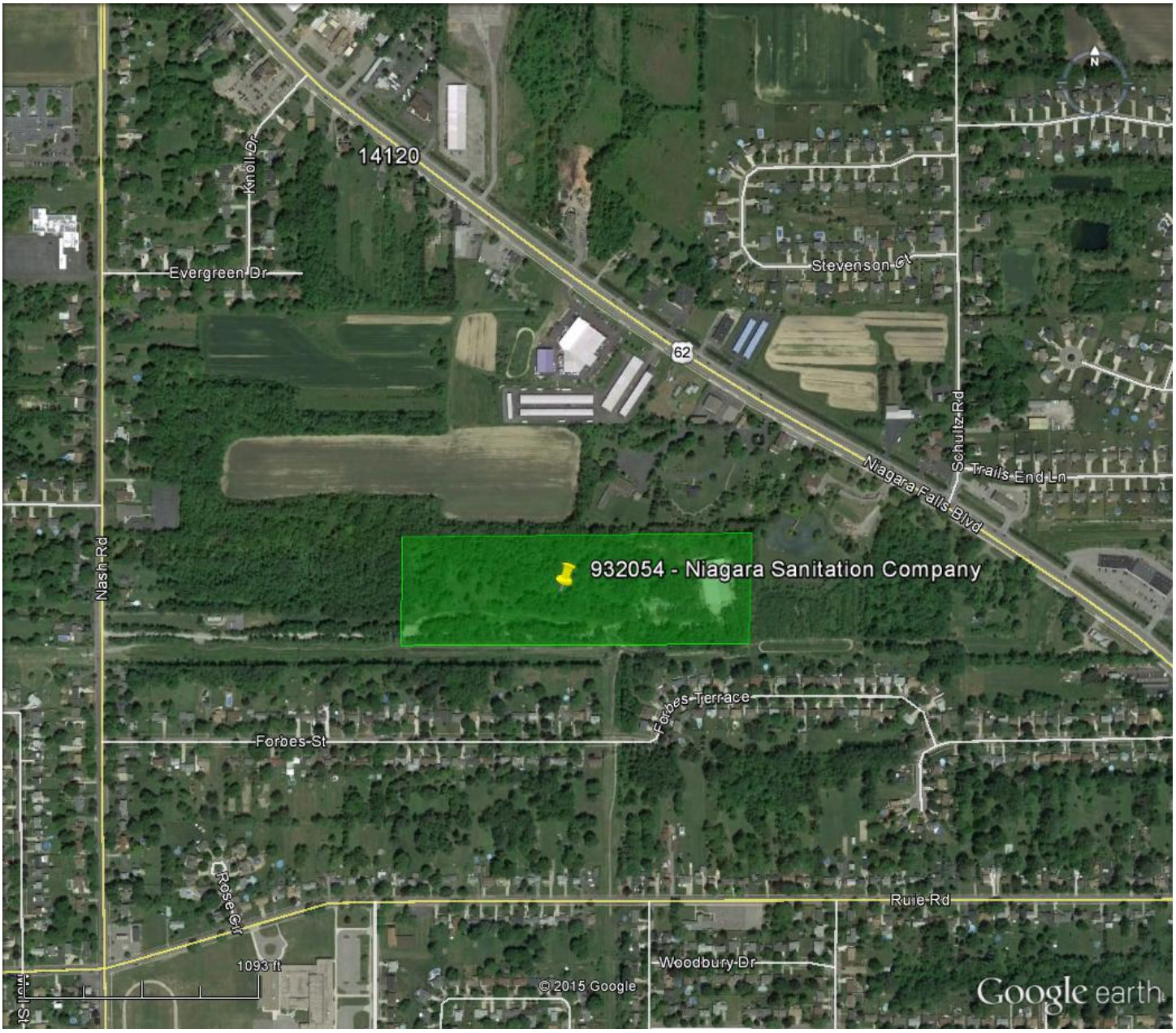
Comments and questions are always welcome and should be directed as follows:

Project Related Questions
Glenn May, Project Manager
NYS Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Ave.
Buffalo, NY 14203
Phone: 716-851-7220
Email: glenn.may@dec.ny.gov

Site Related Health Questions
Matthew Forcucci, DOH Project Manager
NYS Department of Health
584 Delaware Ave.
Buffalo, NY 14202
Phone: 716-847-4501
Email: beei@health.ny.gov

DEC is sending you this notice in accordance with Environmental Conservation Law Article 27, Title 13 and its companion regulation (6 NYCRR 375-2.7(b)(6)(ii)) which requires DEC to notify all parties on the contact list for this site of this recent action.

Approximate Site Location
Niagara Sanitation Company
Site ID: 932054
Nash Road, Town of Wheatfield
Niagara County, 14120



Receive Site Updates by Email

Have site information such as this public notice sent right to your email inbox. DEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: www.dec.ny.gov/chemical/61092.html . It's *quick*, it's *free*, and it will help keep you *better informed*.

As a listserv member, you will periodically receive site-related information/announcements for all contaminated sites in the county(ies) you select.

You may continue also to receive paper copies of site information for a time after you sign up with a county listserv, until the transition to electronic distribution is complete.

Note: Please disregard if you received this notice by way of a county email listserv.

Electronic copies:

R. Schick, Director, Division of Environmental Remediation
A. English, Director, Bureau of Technical Support
K. Lewandowski, Chief, Site Control Section
M. Cruden, Director, Remedial Bureau E
G. Sutton, RHWRE, Region 9
D. Denk, Regional Permit Administrator, Region 9
M. Gollwitzer, Regional CPS, Region 9
K. Davidson, Regional CPS, Region 9
K. Anders, NYSDOH
C. Bethoney, NYSDOH Regional Chief
M. Forcucci, NYSDOH Project Manager
L. Ennist, DER, Bureau of Program Management
G. May, Project Manager
B. Anderson, Site Control Section

Robert B. Cliffe, Supervisor
Town of Wheatfield
2800 Church Rd., Upper Level
Wheatfield, NY 14120

Kathleen Harrington-McDonell
Wheatfield Town Clerk
2800 Church Rd., Upper Level
Wheatfield, NY 14120

Richard Donner, Superintendent
Water & Sewer Department
Town of Wheatfield
3113 Niagara Falls Blvd.
Wheatfield, NY 14120

Honarable Arthur G. Pappas, Mayor
City of North Tonawanda
216 Payne Ave.
North Tonawanda, NY 14120

Daniel R. Quinn
North Tonawanda Clerk
216 Payne Ave.
North Tonawanda, NY 14120

Jeffrey M. Glatz, Manager
Niagara County
Philo J. Brooks Co. Office Bldg., 2nd Fl.
59 Park Avenue
Lockport, NY 14094

Wayne F. Jagow
Niagara County Clerk
Niagara County Courthouse, 1st Fl.
P.O. Box 461
175 Hawley Street
Lockport, NY 14095

Donald Smith, Chair
Planning Board
Niagara County
Vantage Center, Ste. One
6311 Inducon Corporate Dr.
Sanborn, NY 14132

Walt Garrow, Chair
Planning Board
Town of Wheatfield
Town Hall
2800 Church Road
Wheatfield, NY 14120

Robert Welch
216 Payne Ave.
North Tonawanda, NY 14120

National Grid
300 Erie Blvd. W.
Syracuse, NY 13202

James Loveland
7385 Nash Rd.
North Tonawanda, NY 14120

Robert J. and Elaine McCall
7397 Nash Road
North Tonawanda, NY 14120

Jonathan M. Peterson
7403 Nash Road
North Tonawanda, NY 14120

National Fuel Gas Supply Corp.
6363 Main Street
Williamsville, NY 14221

Society of the Catholic Apostolate
3452 Niagara Falls Blvd.
North Tonawanda, NY 14120

Carole Guido
3466 Niagara Falls Blvd.
North Tonawanda, NY 14120

Niagara Mohawk Power Corp.
C/O Real Estate Tax Dept A-3
300 Erie Blvd. W.
Syracuse, NY 13202

Lena Sattelberg
6 Forbes Terrace
North Tonawanda, NY 14120

David E. Berent
10 Forbes Terrace
North Tonawanda, NY 14120

James Stonebraker
16 Forbes Terrace
North Tonawanda, NY 14120

Dennis J. Stickney
18 Forbes Terrace
North Tonawanda, NY 14120

Johnathan J. Bencic
22 Forbes Terrace
North Tonawanda, NY 14120

William J. Maines
26 Forbes Terrace
North Tonawanda, NY 14120

Carole J. Keefe
32 Forbes Terrace
North Tonawanda, NY 14120

Jeremie R. Joaquin
38 Forbes Terrace
North Tonawanda, NY 14120

John Kocsis
44 Forbes Terrace
North Tonawanda, NY 14120

Glen Gebhardt
50 Forbes Terrace
North Tonawanda, NY 14120

Michael J. Sexstone
56 Forbes Terrace
North Tonawanda, NY 14120

Andrew C. Heim
62 Forbes Terrace
North Tonawanda, NY 14120

Michelle Conte
68 Forbes Terrace
North Tonawanda, NY 14120

Larry E. Giles
74 Forbes Terrace
North Tonawanda, NY 14120

Jennie L. Ganas
80 Forbes Terrace
North Tonawanda, NY 14120

Richard Orlowski
86 Forbes Terrace
North Tonawanda, NY 14120

Lee D. Woodward
92 Forbes Terrace
North Tonawanda, NY 14120

Ronald J.Biggie
98 Forbes Terrace
North Tonawanda, NY 14120

Frank Gwiazdowski
104 Forbes Terrace
North Tonawanda, NY 14120

Daniel F. Lofft
110 Forbes Terrace
North Tonawanda, NY 14120

Gordon R. Walck
116 Forbes Terrace
North Tonawanda, NY 14120

Brian Pawelczak
120 Forbes Terrace
North Tonawanda, NY 14120

Mallory M. Luksch
128 Forbes Terrace
North Tonawanda, NY 14120

Sharon L. Chrzanowski
130 Forbes Terrace
North Tonawanda, NY 14120

Donald L. Zatkos
134 Forbes Terrace
North Tonawanda, NY 14120

Gerald V. Truszkowski
136 Forbes Terrace
North Tonawanda, NY 14120

Joan Wiedemer
1282 Forbes Street
North Tonawanda, NY 14120

Robert McCall
1296 Forbes Street
North Tonawanda, NY 14120

Bluepoint Properties Nevada, LLC
7510 Porter Rd.
Niagara Falls, NY 14304

Mark J. Ricchiazzi
1310 Forbes Street
North Tonawanda, NY 14120

Craig D. Mellenthine
1318 Forbes Street
North Tonawanda, NY 14120

Esther Loucks
1330 Forbes Street
North Tonawanda, NY 14120

Douglas Faling
1338 Forbes Street
North Tonawanda, NY 14120

James F. Labushesky
1346 Forbes Street
North Tonawanda, NY 14120

Joshua M. Doroshenko
1352 Forbes Street
North Tonawanda, NY 14120

Larry C. Krueger
1360 Forbes Street
North Tonawanda, NY 14120

Scott Schultz
1366 Forbes Street
North Tonawanda, NY 14120

Jane M. Neumann
1374 Forbes Street
North Tonawanda, NY 14120

Philip J. Welty
1380 Forbes Street
North Tonawanda, NY 14120

Timothy R. Follendorf
1388 Forbes Street
North Tonawanda, NY 14120

Donna Johnson
1394 Forbes Street
North Tonawanda, NY 14120

Dawn M. D'Agostino
1400 Forbes Street
North Tonawanda, NY 14120

B. Dianne Janus
1408 Forbes Street
North Tonawanda, NY 14120

Earline James
1422 Forbes Street
North Tonawanda, NY 14120

Joanne L. Papp
1416 Forbes Street
North Tonawanda, NY 14120

Michael Dipota
1430 Forbes Street
North Tonawanda, NY 14120

Murray A. MacDonald
1436 Forbes Street
North Tonawanda, NY 14120

Ronald McNamee
1444 Forbes Street
North Tonawanda, NY 14120

James Koepsell
1450 Forbes Street
North Tonawanda, NY 14120

Marion Brodfuehrer
1458 Forbes Street
North Tonawanda, NY 14120

Brett A. Grawe
1464 Forbes Street
North Tonawanda, NY 14120

Nicole L. Mason
1472 Forbes Street
North Tonawanda, NY 14120

Gary P. Forth
1478 Forbes Street
North Tonawanda, NY 14120

John Roeser
319 Enez Drive
Depew, NY 14043

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Bureau of Technical Support
625 Broadway, 11th Floor, Albany, NY 12233-7020
P: (518) 402-9543 I F: (518) 402-9547
www.dec.ny.gov

December 1, 2015

Mr. Robert B. Cliffe, Supervisor
Town of Wheatfield
2800 Church Road
Wheatfield, NY 14120

Dear Supervisor Cliffe:

As mandated by Section 27-1305 of the Environmental Conservation Law (ECL), the New York State Department of Environmental Conservation (DEC) must maintain a Registry of all inactive disposal sites suspected or known to contain hazardous waste. The ECL also mandates that DEC notify the owner of all or any part of each site or area included in the Registry of Inactive Hazardous Waste Disposal Sites as to changes in site classification.

Our records indicate that you are the owner or part owner of the site listed below. Therefore, this letter constitutes notification of change in the classification of such site in the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The effective date of the classification change shall be 20 days from the date of this letter.

DEC Site No.: 932054
Site Name: Niagara Sanitation Company
Site Address: Nash Road, Town of Wheatfield, Niagara County
Classification change: Class 3 to Class 2

The reason for the change is as follows:

The landfill is a former municipal and industrial landfill that accepted waste from multiple sites, including Niagara Falls Air Force Base, Bell Aerospace, Carborundum, Frontier Chemical, Graphite Specialties, Continental Can, and Grief Brothers. Site contaminants include metals, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, pesticides, caustics, and plating tank sludge. The Niagara Sanitation Landfill does not have a Part 360 cap or access restrictions. Both conditions indicate a concern for potential exposures to people who enter the site. This exposure concern has been documented as people are using the landfill as a jogging and play area. Dirt bike trails are evident throughout the site and use of such has resulted in landfill materials to become exposed at the surface. Therefore, this site represents a significant threat to public health and the environment.

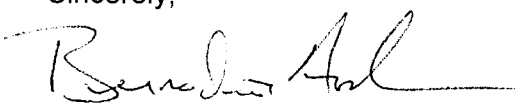
Enclosed is a copy of DEC's Inactive Hazardous Waste Disposal Site Report form as it will appear in the Registry. An explanation of the site classifications is available at http://www.dec.ny.gov/chemical/8663.html. The Law allows the owner and/or operator of a site listed in the Registry to petition the Commissioner of DEC for deletion of such site, modification of site classification, or modification of any information regarding such site, by submitting a written statement setting forth the grounds of the petition.

Such petition may be addressed to:

Honorable Basil Seggos
Acting Commissioner
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233-1010

For additional information, please contact Glenn May, the project manager at 716-851-7220.

Sincerely,



for Kelly A. Lewandowski, P.E.
Chief, Site Control Section

KAL/BA/ss
Enclosure

ec w/Enc:
R. Schick
L. Zeppetelli
A. English
K. Lewandowski
G. May, Project Manager

bec w/Enc:

K. Anders, NYSDOH
C. Bethoney, NYSDOH Regional Chief
M. Cruden, Director, Remedial Bureau E
M. Brady, Regional Attorney, Region 9
D. Denk, Regional Permit Administrator, Region 9
G. Sutton, RHWRE, Region 9
B. Anderson, Site Control Section

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF ENVIRONMENTAL REMEDIATION
Inactive Hazardous Waste Disposal Report

Site Code	932054				
Site Name	Niagara Sanitation Company	**Address**	Nash Road		
Classification	02	**City**	Wheatfield	**Zip**	14240
Region	9	**County**	Niagara	**Town**	Wheatfield
Latitude	43 degrees, 4 minutes, 10.05 seconds			**Estimated Size**	18.7000
Longitude	-78 degrees, 51 minutes, 32.95 seconds				
Site Type	Landfill				

Site Description

Location:

The Niagara Sanitation Company Site, also known as the Nash Road Landfill, is an inactive landfill located in the Town of Wheatfield, Niagara County. The site is bordered to the north by a church and vacant land; to the east by commercial property, vacant land and Niagara Falls Boulevard; to the south by a Niagara Mohawk right-of-way and a residential neighborhood; and to the west by vacant land, residential properties and Nash Road. The southern border of the site follows the City of North Tonawanda corporate boundary.

Site Features:

The site consists of approximately 18.7 acres of a single 20.8 acre parcel on Nash Road. The property is vacant, and is overgrown with mature trees and brush. Portions of the property are covered with surface water at certain times of the year, particularly in the spring. Historic landfilling activities have resulted in irregular ground surface topography, with relief generally less than 10 feet. Access to the site is not restricted, and the property is used as a jogging area, dirt bike track, and general play area.

Current Zoning and Land Use:

The New York State property class code for this site is 852 - Landfills and Dumps. Surrounding land use includes residential properties to the south and west, and commercial properties to the north and east.

Past Use:

The site was operated as a landfill by the Niagara Sanitation Company between 1964 and 1968. The landfill accepted both municipal and industrial solid wastes, including caustic materials, plating tank sludge and municipal wastes. The site received wastes from the Niagara Falls Air Force Base, Bell Aerospace, Carborundum, Frontier Chemical, Graphite Specialties, Continental Can, and Grief Brothers.

Records also indicate that approximately 1600 cubic yards of Love Canal waste was dumped in a trench at this site between June 6 and July 15, 1968. This waste was generated during construction of the LaSalle Expressway in Niagara Falls. The disposal trench reportedly measured 100 feet by 30 feet, and was 27 feet in depth. The debris was placed in the bottom 15 feet of the trench and covered with 12 feet of clean fill. This waste was excavated from the site during the Fall/Winter of 2014, and the Winter/Spring of 2015 by Glenn Springs Holdings, an affiliate of the Occidental Chemical Corporation.

Remedial History:

The NYSDEC complated a Phase I Investigation of the site in 1983, a Phase II Investigation in 1985, and an expanded Phase II Investigation in 1989. These investigation confirmed the location of the Love Canal wastes, but also determined that the site did not pose a significant threat to public health or the environment. As a result, the site remained as a Class 3 designation in the Registry of Inactive Hazardous Waste Disposal Sites in New York State (Registry).

In 2013, the NYSDEC conducted a follow-up Site Characterization Study to re-evaluate the Class 3 designation for the site, to confirm the location of the Love Canal wastes, and to delineate the extent of those wastes. This investigation confirmed the findings of the previous studies, and refined the location of the Love Canal waste disposal area. The investigation also determined that further investigation was warranted at other areas of the Landfill.

In 2014, the NYSDEC conducted a follow-up investigation to characterize the municipal and industrial fill in the remainder of the landfill. While the majority of the site contained contaminant concentrations typical of urban wastes, three areas were identified with hazardous concentrations of lead and PCBs. No off-site contamination was documented in either study.

Site Geology and Hydrogeology:

The native soils underling the site consist of an upper gray sand lens that ranges in thickness from 0 to 8 feet. This deposit is thickest in the southwest portion of the site and is absent to the northeast.

Underlying the upper sand deposit is a thin, gray-brown silty clay that ranges in thickness from 3 to 7 feet. This unit overlies a thick (17 to 32 feet), red-gray layered clay that contains thin sand seams.

Underlying the thick clay deposit is a lower sand lens that ranges in thickness from 3 to 6 feet. This unit is thickest in the northern portion of the site, and thins to the south, east and west.

A pink, very dense till unit directly overlies dolostone bedrock, and ranges in thickness from 22 to 42 feet. Depth to bedrock ranges from 65 feet to 71 feet below ground surface.

Monitoring wells installed at the site screen six different overburden zones including the fill. Groundwater elevations in the fill range from 3.20 to 8.70 feet below the well casings, while groundwater elevations in the upper sand lens range from 2.80 to 6.03 feet. Groundwater elevations in the gray-brown silty clay are also shallow, ranging from 2.05 to 5.30 feet. Wells that screen the thick layered clay deposit have groundwater elevations ranging from 3.49 to 11.80 feet.

Deeper groundwater elevations were observed for the lower sand lens and till deposit, with elevations ranging from 11.30 to 16.90 feet for the lower sand lens, and 14.10 to 17.70 feet for the till deposit.

Groundwater flow in the fill and upper sand lens is to the north, while groundwater flow in the lower sand lens is to the northeast. The water table of the till deposit is essentially flat.

Groundwater flow directions have not been determined for the other overburden deposits.

Materials Disposed at Site

OU 01

CAUSTICS	UNKNOWN
PLATING TANK SLUDGE	"
MUNICIPAL WASTE	"
polycyclic aromatic hydrocarbons (PAHS), total	UNKNOWN
cadmium	UNKNOWN
chromium	UNKNOWN
mercury	UNKNOWN
arsenic	UNKNOWN
barium	UNKNOWN
lead	UNKNOWN
silver	UNKNOWN
dieldrin	UNKNOWN
aldrin	UNKNOWN
hexachlorocyclohexane (all isomers)	UNKNOWN
endrin	UNKNOWN
lindane	UNKNOWN
chlordane	UNKNOWN
phenol	UNKNOWN
chlorobenzene	UNKNOWN
petroleum products	UNKNOWN

Analytical Data Available for : Groundwater, Surface Water, Soil, Sediment

Applicable Standards Exceeded for: Groundwater, Surface Water

Assessment of Environmental Problems

Nature and Extent of Contamination:

Fill Material: Some fill material at the site is hazardous for lead (D008) and PCBs (concentrations above 50 ppm). Fill material also contains PAHs, pesticides (dieldrin) and metals (arsenic, barium, cadmium, chromium, lead, silver and mercury) at concentrations that exceeded the NYSDEC Part 375 residential use soil cleanup objectives.

Surface Soil: PAHs and metals (cadmium, chromium and mercury) were detected in surface soil at concentrations that exceeded the NYSDEC Part 375 residential use soil cleanup objectives.

Groundwater: 21 groundwater monitoring wells (9 deep zone wells and 12 shallow zone wells) have been installed across the site. The deep zone wells were not sampled during the 2013 and 2014 NYSDEC investigations, so current groundwater conditions in that zone are unknown.

Shallow zone groundwater is contaminated with volatile organic compounds (chlorobenzenes and petroleum compounds), semivolatile organic compounds (phenolic compounds), pesticides (aldrin, BHC, chlordane, dieldrin, endrin and lindane) and metals (barium and lead) at concentrations that exceeded NYSDEC groundwater standards.

Sediment: Only 1 sediment sample was collected during the 2013 and 2014 NYSDEC investigations. This sample was located in the northeast portion of the site, and is moderately contaminated with metals (cadmium, lead and mercury).

Surface Water: Seven surface water samples were collected from on-site ponds during the 2013 NYSDEC investigation. These samples were contaminated with semivolatile organic compounds (phenolic compounds) and pesticides (BHC, dieldrin and chlordane) at concentrations that exceeded NYSDEC surface water standards. The sample collected from an off-site ditch showed no compounds present above surface water standards.

Summary:

The 2013 and 2014 NYSDEC investigations of the site have documented soil and groundwater contamination by various contaminants typical of municipal and industrial wastes. Additional investigation is required to determine if contaminated groundwater is migrating off-site.

Assessment of Health Problems

The site is not fenced and persons who enter the site could contact contaminants in the soil by walking on the soil, digging or otherwise disturbing the soil. People could contact landfill contents by digging into the landfill. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. People may come in contact with contaminants present in wetland sediments.

Owners

Current Owner(s)

Robert B. Cliffe

Town of Wheatfield

2800 Church Road

Wheatfield NY 14120-1099

Disposal Owner(s)

Town of Wheatfield

2800 Church Road

Wheatfield NY 14120-1099

Operators

Current Operator(s)

Niagara Sanitation Company

BFI Waste Systems

2321 Kenmore Avenue / PO Box 571

Kenmore NY 14217

NEW YORK STATE OF OPPORTUNITY. Department of Health

ANDREW M. CUOMO
Governor

HOWARD A. ZUCKER, M.D., J.D.
Commissioner

SALLY DRESLIN, M.S., R.N.
Executive Deputy Commissioner

November 19, 2015

Michael Cruden, Director
Remedial Bureau E
Division of Environmental Remediation
NYS Dept. of Environmental Conservation
625 Broadway
Albany, New York 12233

Re: Site Reclassification – Class 3 to 2
Niagara Sanitation
Site #932054
Wheatfield, Niagara County

Dear Mr. Cruden:

Per your request, we have reviewed the New York State Department of Environmental Conservation's (NYSDEC's) proposal to reclassify the referenced site from a Class 3 to a Class 2 on NYSDEC's Registry of Inactive Hazardous Waste Disposal Sites. The landfill is a former municipal and industrial landfill that accepted waste from multiple sites, including Niagara Falls Air Force Base, Bell Aerospace, Carborundum, Frontier Chemical, Graphite Specialties, Continental Can, and Grief Brothers. Site contaminants include metals, polycyclic aromatic hydrocarbons, polychlorinated biphenyls, pesticides, caustics, and plating tank sludge. I understand that the Niagara Sanitation Landfill does not have a Part 360 cap or access restrictions. Both conditions indicate a concern for potential exposures to people who enter the site. This exposure concern has been documented as people are using the landfill as a jogging and play area. Dirt bike trails are evident throughout the site and use of such has resulted in landfill materials to become exposed at the surface.

Based on this information, I believe this site represents a significant threat to public health and concur with your Department's reclassification proposal. If you have any questions, please contact Ms. Charlotte Bethoney or me at (518) 402-7860.

Sincerely,

Krista M. Anders

Krista M. Anders, Director
Bureau of Environmental Exposure Investigation

ec: C. Bethoney / e-File
R. Van Houten / M. Forcucci – NYSDOH WRO
P. Dickey – NCDOH
M. Ryan / K. Lewandowski – NYSDEC Central Office
G. Sutton / G. May – NYSDEC Region 9

P:\Bureau\Sites\Region_9\NIAGARA\932054\Class 2 reclass pkg\Reclass_DOHConcur_111915_932054.pdf

SSF CLASSIFICATION WORKSHEET

SSF CLASSIFICATION WORKSHEET

Site Name: Niagara Sanitation Company Site ID No. 932054

City/Town: Wheatfield County: Niagara

1. Has remediation been completed in accordance with a ROD including properly addressing institutional controls (ICs)?	□ Yes (go to 7)	■ No (go to 2)	
2. Has hazardous waste as defined in ECL §27-1301.1 been disposed at the Site?	■ Yes (go to 3)	□ No (stop)	□ Unsure (go to 11)
3. Does the Site present a current or reasonably foreseeable significant threat to public health or the environment (complete Significant Threat Determination Worksheet)?	■ Yes (go to 4)	□ No (go to 6)	□ Unsure (go to 11)
4. Is the significant threat causing or presenting an imminent danger of causing irreversible or irreparable damage to public health or the environment?	□ Yes (Class 1)	■ No (go to 5)	□ Unsure (stop)
5. Is the Site presenting a significant but not imminent threat to public health or the environment?	■ Yes (Class 2)	□ No (reevaluate)	
6. Has hazardous waste been disposed but it does not present a significant threat to public health or the environment and the site is suitable for placement on the Registry?	□ Yes (Class 3)	□ No (go to 10)	
7. Is the site properly remediated but still requires continued active site management to maintain/achieve protectiveness?	□ Yes (Class 4)	□ No (go to 8)	□ Unsure (stop)
8. Is the site properly remediated, does not require continued active site management, but is not suitable for delisting or a required IC is not yet in place?	□ Yes (Class 5)	□ No (go to 9)	□ Unsure (stop)
9. Is the site properly remediated, required ICs are in place, the site does not require continued active site management, and is suitable for delisting?	□ Yes (Class: C)	□ No (go to 10)	□ Unsure (stop)
10. Based upon investigation, is the degree of contamination such that the Site does not qualify to be placed on the Registry and that additional remedial work is not anticipated at this time?	□ Yes (Class: N)	□ No (reevaluate)	□ Unsure (stop)
11. Does insufficient information exist to properly classify the site?	□ Yes (Class P)	□ No (reevaluate)	□ Unsure (stop)

Current Classification: 3 Proposed Classification: 2

Glenn M. May, EG2
Project Manager Name/Title - Print

Glenn M. May
Digitally signed by Glenn M. May
DN: cn=Glenn M. May, o=New York State Department of Environmental Conservation, ou=Division of Environmental Remediation, R9, email=glenn.may@dec.ny.gov, c=US
Date: 2015.10.06 08:54:03 -04'00'
Project Manager Name - Signature

10/06/2015
Date

Gregory P. Sutton , RHWRE R9
Bureau Director/RHWRE Name/Title - Print

Digitally signed by Gregory P. Sutton, P.E.
DN: cn=Gregory P. Sutton, P.E., o=NYSDEC - Region 9, ou=Division of Environmental Remediation, email=gregory.sutton@dec.ny.gov, c=US
Date: 2015.10.06 09:03:16 -04'00'
Bureau Director/RHWRE Name - Signature

10/06/2015
Date

07/29/10

SIGNIFICANT THREAT DETERMINATION WORKSHEET

SIGNIFICANT THREAT DETERMINATION WORKSHEET

■ State Superfund Program
6 NYCRR 375-2.7

□ Brownfield Cleanup Program
ECL 27-1411.1(c)

Site Name: Niagara Sanitation Company

Site ID No.: 932054

City/Town: Wheatfield

County: Niagara

1. Has all available and relevant evidence regarding the Site been reviewed and the factors in 375-2.7(a)(3) considered?	■ Yes (go to 2)	□ No (stop)	□ Unsure (stop)
2. Does Site contamination result in significant adverse impacts (375-2.7(a)(1)) to:			
a. species that are endangered, threatened, or of concern?	□ Yes (go to b)	□ No (go to b)	■ Unsure (go to b)
b. protected streams, tidal/freshwater wetlands, or significant fish and wildlife habitat?	□ Yes (go to c)	■ No (go to c)	□ Unsure (go to c)
c. flora or fauna from bioaccumulation or leads to a recommendation to limit consumption?	□ Yes (go to d)	■ No (go to d)	□ Unsure (go to d)
d. fish, shellfish, crustacea, or wildlife from concentrations that cause adverse/chronic effects?	■ Yes (go to e)	□ No (go to e)	□ Unsure (go to e)
e. the environment due to a fire, spill, explosion, or reaction that generates toxic gases, vapors, fumes, mists or dusts?	□ Yes (go to f)	□ No (go to f)	■ Unsure (go to f)
f. areas where individuals or water supplies may be present and NYSDOH has determined there to be a significantly increased risk to public health (including from soil vapor)?	■ Yes (go to 3)	□ No (go to 3)	□ Unsure (go to 3)
3. Does Site contamination result in significant environmental damage (375-2.7(a)(2))?	■ Yes (go to 4)	□ No (go to 4)	□ Unsure (stop)
4. If any box in items 2 or 3 have been checked "Yes," the site presents a significant threat to public health or the environment; check here.	Significant threat to: ■ Public Health ■ Environment		
5. If no boxes in items 2 or 3 have been checked "Yes," the site does not present a significant threat to public health or the environment; check here.	□ Not a Significant Threat		

Glenn M. May, EG2
Project Manager Name/Title - Print

Glenn M. May
Digitally signed by Glenn M. May
DN: cn=Glenn M. May, o=New York State Department of Environmental Conservation, ou=Division of Environmental Remediation, R9, email=glenn.may@dec.ny.gov, c=US
Date: 2015.10.06 08:54:35 -04'00'
Project Manager Name - Signature

10/06/2015
Date

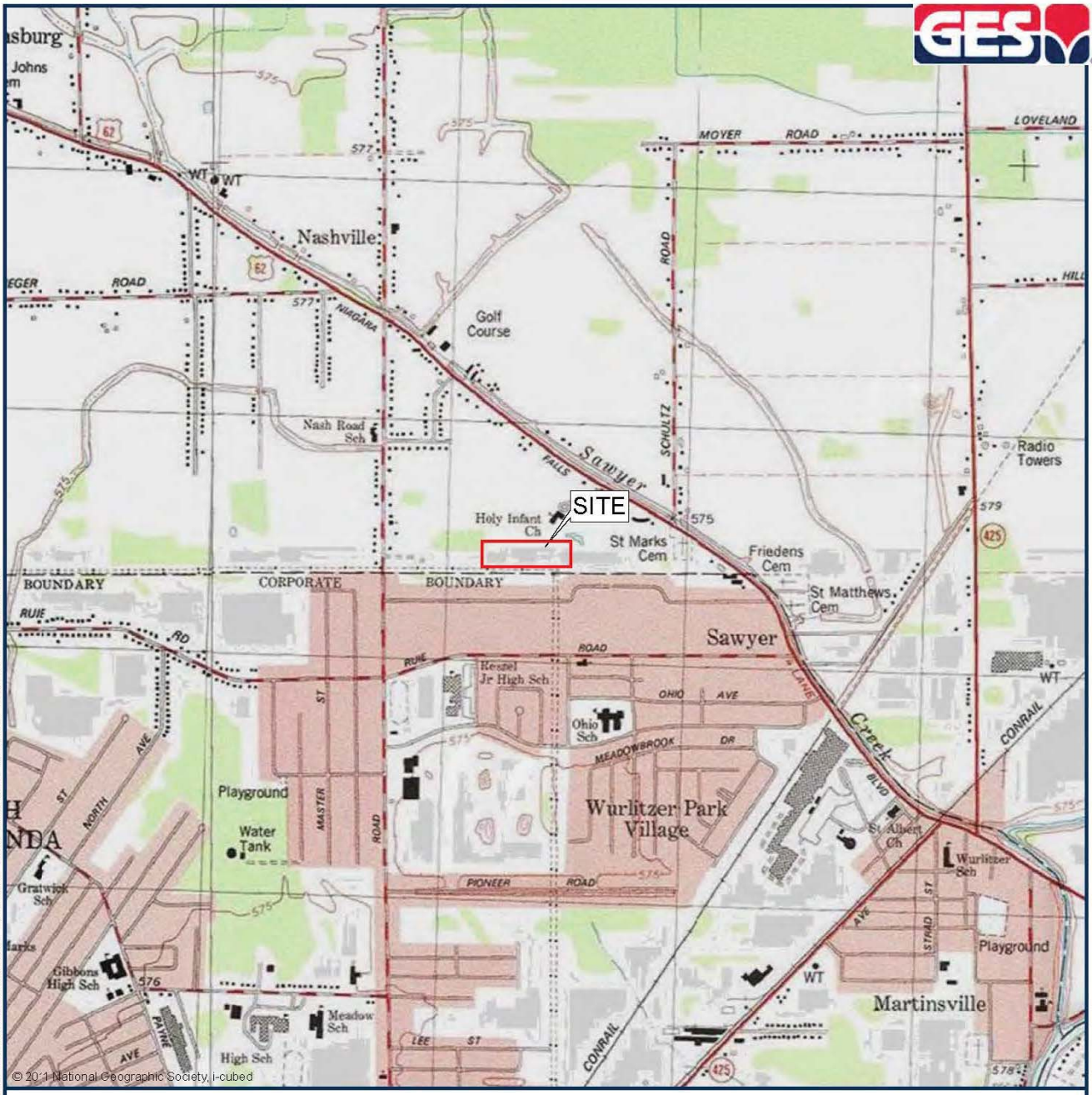
Gregory P. Sutton , RHWRE R9
Bureau Director/RHWRE Name/Title - Print

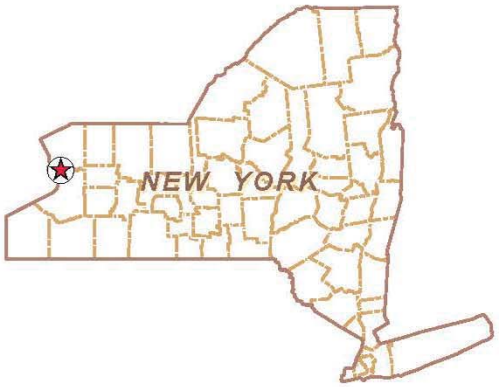
Digitally signed by Gregory P. Sutton, P.E.
DN: cn=Gregory P. Sutton, P.E., o=NYSDEC - Region 9, ou=Division of Environmental Remediation, email=gregory.sutton@dec.ny.gov, c=US
Date: 2015.10.06 09:03:38 -04'00'
Bureau Director/RHWRE Name - Signature

10/06/2015
Date

07/29/10

SITE LOCATION MAP





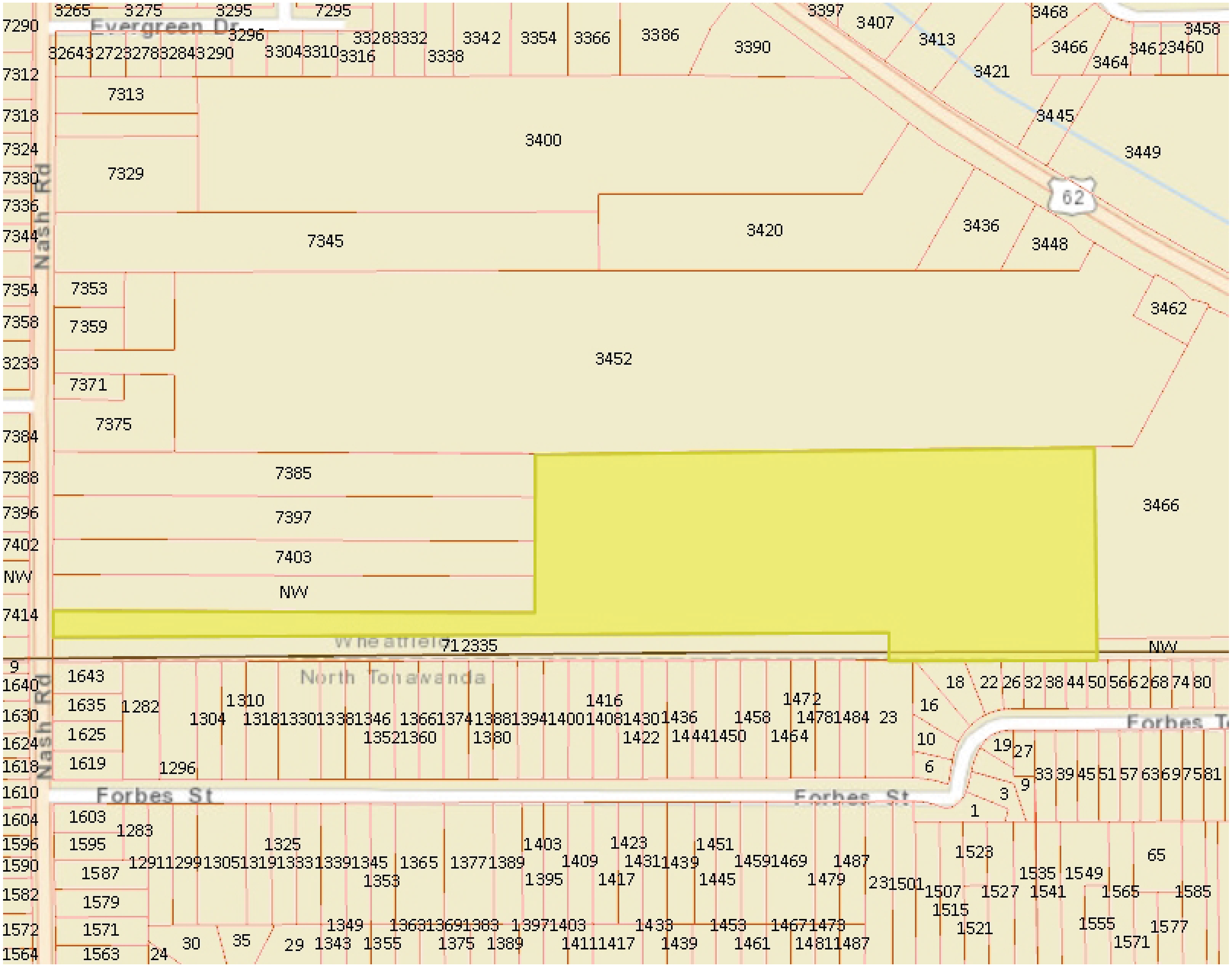
Sources:
USGS 7.5 Minute Series Topographic Quadrangles
Tonawanda East and Tonawanda West

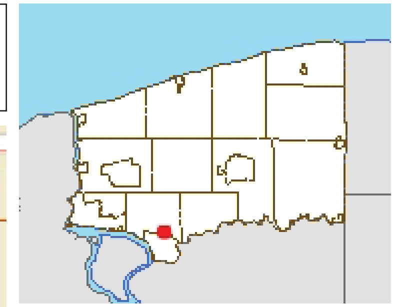
DRAFTED BY: RAB	SITE LOCATION MAP
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 — 2,000 / DATE: 11-13-13 / FIGURE: 1

P:\NY\SDEC\Wheatfield\GIS\NY\SDEC_Wheatfield_SLM.mxd - Scale 1:24,000 - 11/13/2013 10:48:06 AM - rbannister - NAD 1983 StatePlane New York West FIPS 3103 Feet

PROPERTY OWNER INFORMATION

Niagara County On-Line Mapping Application - Niagara Sanitation Company Site, Site No. 932054





Legend

Parcels

0 567.79 1,135.6 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere

THIS MAP IS NOT TO BE USED FOR NAVIGATION

NIAGARA COUNTY
DEPARTMENT OF REAL PROPERTY SERVICES

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

1: 6,814

Niagara County On-Line Mapping System
Parcel Detail Report

Report generated: 9/28/2015 3:01:37 PM

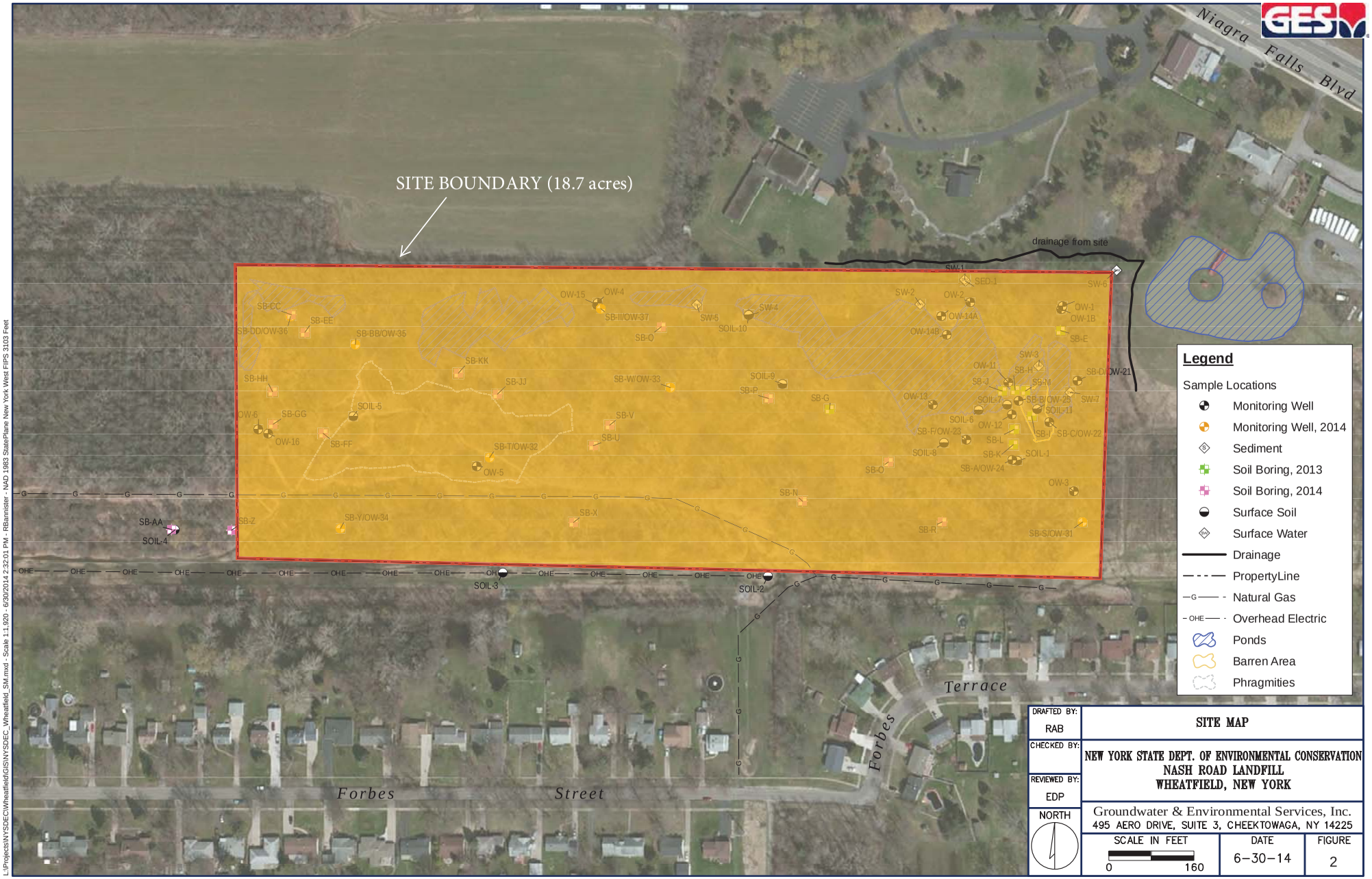
Parcel Overview Map

Parcel Detail Map

PIN: 163.00-3-19
Address: Nash Rd E - Refuse Site
Municipality: 294000 - Wheatfield
Owner: Town Of Wheatfield
Frontage: 23
Depth: 0
Acreage: 20.8
Property Class: 852
Property Type: C
Total Assessment: $32,800
Land Assessment: $32,800
School District Code: 293001
Deed Book:
Deed Page:
Sale Date:
Sale Price: 0
Sqft Living Area: 0

Grade:
Condition:
Year Built: 0
Building Style:
Neighborhood Code: 45
Prior Total Assessment: $32,800
Prior Land Assessment: $32,800
XY-Coordinates: 1075038 , 1118317
Districts:

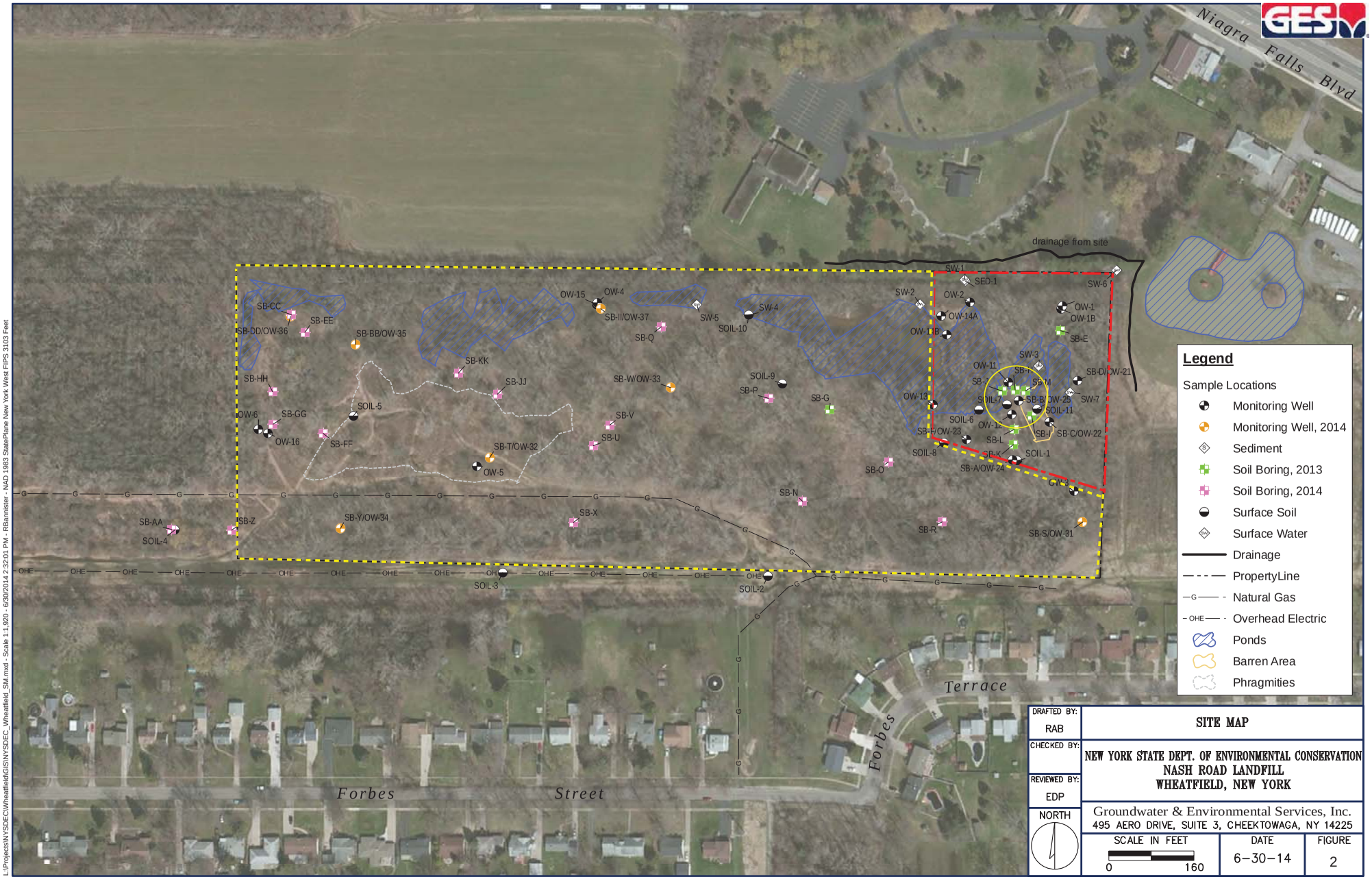
SITE BOUNDARY MAP



DRAFTED BY: RAB	SITE MAP
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 160 / DATE: 6–30–14 / FIGURE: 2

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SM.mxd - Scale 1:1,920 - 6/30/2014 2:32:01 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet

SAMPLE LOCATION MAP



DRAFTED BY: RAB	SITE MAP
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 160 / DATE: 6–30–14 / FIGURE: 2

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SM.mxd - Scale 1:1,920 - 6/30/2014 2:32:01 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet

HAZARDOUS WASTE DOCUMENTATION

Table 1
Summary of TCLP Metals Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point	Hazardous	SB-N	SB-R	SB-T	SB-T	SB-U	SB-V	SB-X	SB-X	SB-Z
Sample Type	Waste	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	Criteria	0-2'	4-5'	0-3'	4-8'	0-4'	0-4'	0-4'	4-8'	0-4'
Sample Date		04/14/14	04/15/14	04/15/14	04/15/14	04/16/14	04/16/14	04/16/14	04/16/14	04/18/14
TCLP Metals (mg/L)										
ARSENIC	5.0	1.7	NA	NA	NA	1.8			NA	NA
BARIUM	100	1.7	NA	NA	NA	1.8	1.4	NA	NA	NA
CADMIUM	1.0	0.57	NA	0.36	NA	0.72	0.34	NA	NA	0.055
CHROMIUM, TOTAL	5.0	0.036	NA	0.014	NA	0.019	0.0081	0.013	0.0017	NA
LEAD	5.0	NA	**8.9**	NA	NA	**37.6**	2.7	0.12	NA	NA
SILVER	5.0	NA	NA	NA	NA			NA	NA	NA
MERCURY	0.2		NA	0.00026	0.0080	0.00035		NA	NA	NA

Notes:

NA = Not Analyzed.

mg/L = milligrams per liter or parts per million.

Blanks = concentration below laboratory detection limits.

Yellow shaded values exceed the Hazardous Waste Criteria.

Table 2
Summary of PCB Hazardous Waste Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

Sample Point Sample Type Depth (ft) Sample Date	Hazardous Waste Criteria	SB-N SOIL 0-2' 04/14/14
Polychlorinated Biphenyls (mg/kg)		
PCB-1016 (AROCLOR 1016)		U
PCB-1221(AROCLOR1221)		U
PCB-1232 (AROCLOR 1232)		U
PCB-1242 (AROCLOR 1242)		U
PCB-1248 (AROCLOR 1248)		U
PCB-1254 (AROCLOR 1254)		U
PCB-1260 (AROCLOR 1260)		68.0
TOTAL PCBs	50.0	**68.0**

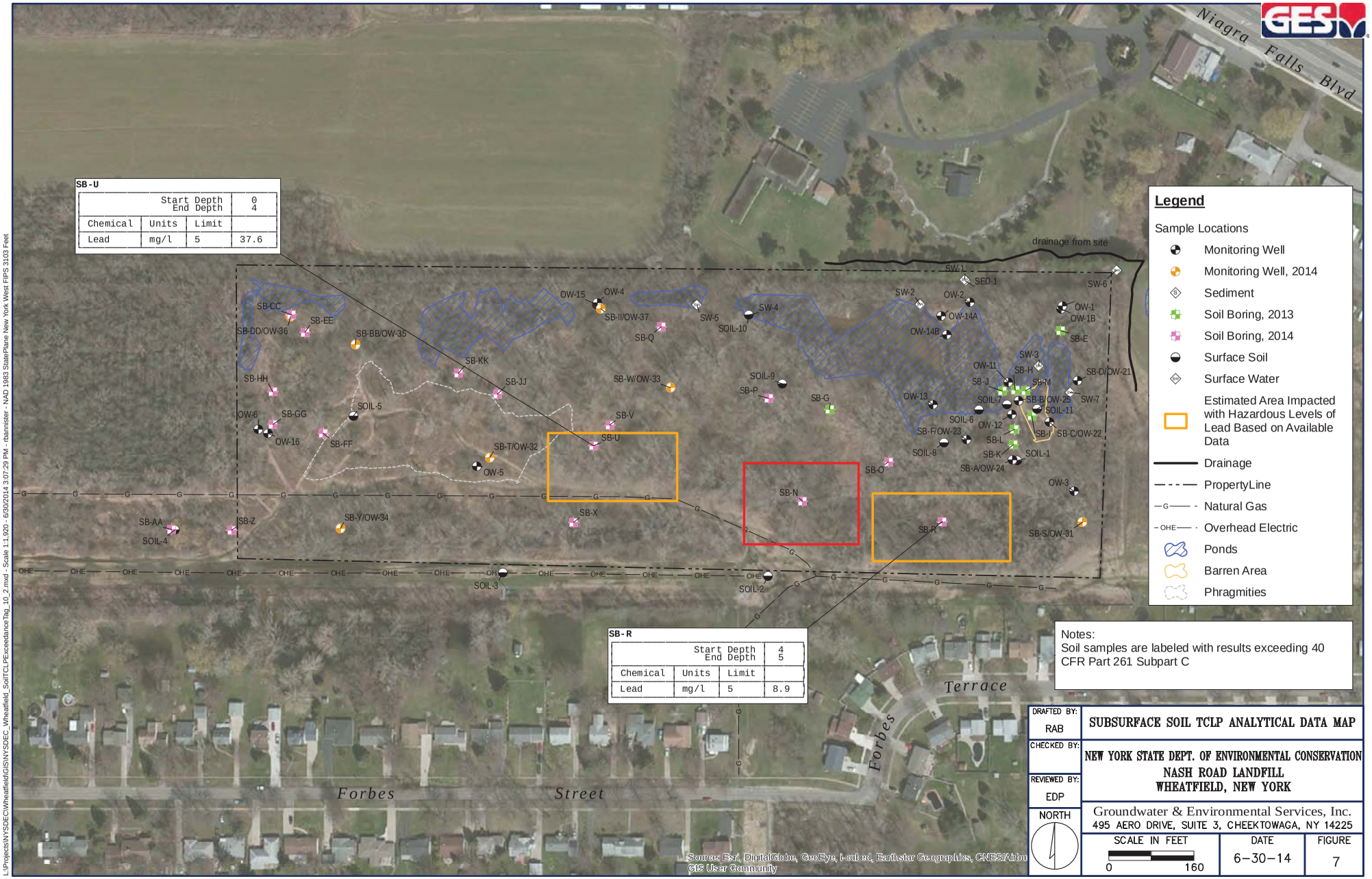
Notes:

NA = Not Analyzed.

mg/kg = milligrams per kilogram or parts per million.

U = concentration below laboratory detection limits.

Yellow shaded values exceed the Hazardous Waste Criteria.



L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilTCLPExceedanceTag_10_2.mxd - Scale 1:1,920 - 6/30/2014 3:07:29 PM - rbannister - NAD 1983 StatePlane New York West FIPS 3103 Feet

DRAFTED BY: RAB
CHECKED BY:
REVIEWED BY: EDP
NORTH

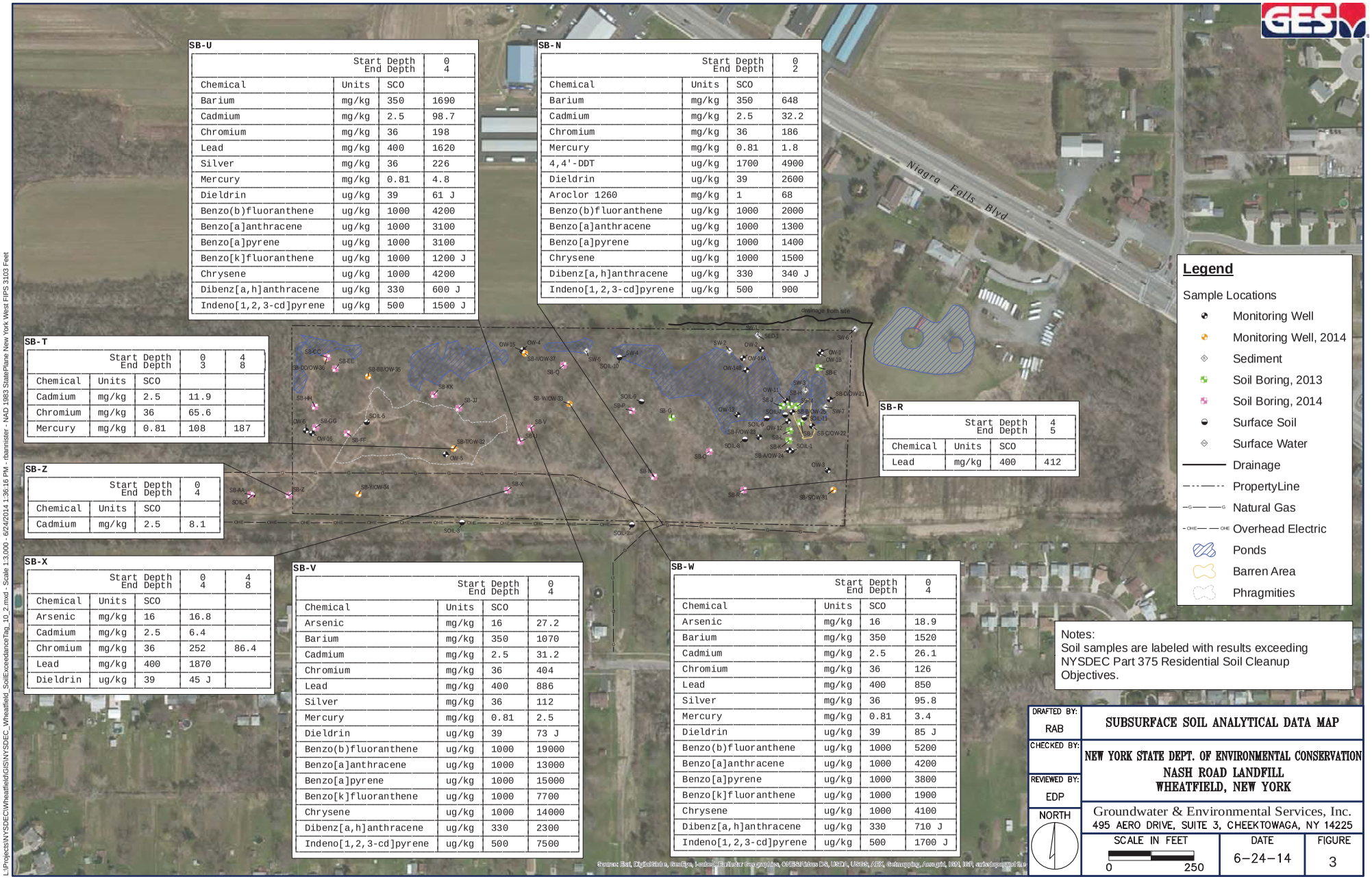
SUBSURFACE SOIL TCLP ANALYTICAL DATA MAP

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
NASH ROAD LANDFILL
WHEATFIELD, NEW YORK

Groundwater & Environmental Services, Inc.
495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225

SCALE IN FEET: 0 160
DATE: 6-30-14
FIGURE: 7

SCG EXCEEDANCE MAPS



SB-U

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Barium	mg/kg	350	1690
Cadmium	mg/kg	2.5	98.7
Chromium	mg/kg	36	198
Lead	mg/kg	400	1620
Silver	mg/kg	36	226
Mercury	mg/kg	0.81	4.8
Dieldrin	ug/kg	39	61 J
Benzo(b)fluoranthene	ug/kg	1000	4200
Benzo[a]anthracene	ug/kg	1000	3100
Benzo[a]pyrene	ug/kg	1000	3100
Benzo[k]fluoranthene	ug/kg	1000	1200 J
Chrysene	ug/kg	1000	4200
Dibenz[a,h]anthracene	ug/kg	330	600 J
Indeno[1,2,3-cd]pyrene	ug/kg	500	1500 J

SB-N

		Start Depth End Depth	0 2
Chemical	Units	SCO	
Barium	mg/kg	350	648
Cadmium	mg/kg	2.5	32.2
Chromium	mg/kg	36	186
Mercury	mg/kg	0.81	1.8
4,4'-DDT	ug/kg	1700	4900
Dieldrin	ug/kg	39	2600
Aroclor 1260	mg/kg	1	68
Benzo(b)fluoranthene	ug/kg	1000	2000
Benzo[a]anthracene	ug/kg	1000	1300
Benzo[a]pyrene	ug/kg	1000	1400
Chrysene	ug/kg	1000	1500
Dibenz[a,h]anthracene	ug/kg	330	340 J
Indeno[1,2,3-cd]pyrene	ug/kg	500	900

SB-T

		Start Depth End Depth	0 3	4 8
Chemical	Units	SCO		
Cadmium	mg/kg	2.5	11.9	
Chromium	mg/kg	36	65.6	
Mercury	mg/kg	0.81	108	187

SB-R

		Start Depth End Depth	4 5
Chemical	Units	SCO	
Lead	mg/kg	400	412

SB-Z

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Cadmium	mg/kg	2.5	8.1

SB-X

		Start Depth End Depth	0 4	4 8
Chemical	Units	SCO		
Arsenic	mg/kg	16	16.8	
Cadmium	mg/kg	2.5	6.4	
Chromium	mg/kg	36	252	86.4
Lead	mg/kg	400	1870	
Dieldrin	ug/kg	39	45 J	

SB-V

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Arsenic	mg/kg	16	27.2
Barium	mg/kg	350	1070
Cadmium	mg/kg	2.5	31.2
Chromium	mg/kg	36	404
Lead	mg/kg	400	886
Silver	mg/kg	36	112
Mercury	mg/kg	0.81	2.5
Dieldrin	ug/kg	39	73 J
Benzo(b)fluoranthene	ug/kg	1000	19000
Benzo[a]anthracene	ug/kg	1000	13000
Benzo[a]pyrene	ug/kg	1000	15000
Benzo[k]fluoranthene	ug/kg	1000	7700
Chrysene	ug/kg	1000	14000
Dibenz[a,h]anthracene	ug/kg	330	2300
Indeno[1,2,3-cd]pyrene	ug/kg	500	7500

SB-W

		Start Depth End Depth	0 4
Chemical	Units	SCO	
Arsenic	mg/kg	16	18.9
Barium	mg/kg	350	1520
Cadmium	mg/kg	2.5	26.1
Chromium	mg/kg	36	126
Lead	mg/kg	400	850
Silver	mg/kg	36	95.8
Mercury	mg/kg	0.81	3.4
Dieldrin	ug/kg	39	85 J
Benzo(b)fluoranthene	ug/kg	1000	5200
Benzo[a]anthracene	ug/kg	1000	4200
Benzo[a]pyrene	ug/kg	1000	3800
Benzo[k]fluoranthene	ug/kg	1000	1900
Chrysene	ug/kg	1000	4100
Dibenz[a,h]anthracene	ug/kg	330	710 J
Indeno[1,2,3-cd]pyrene	ug/kg	500	1700 J

Legend

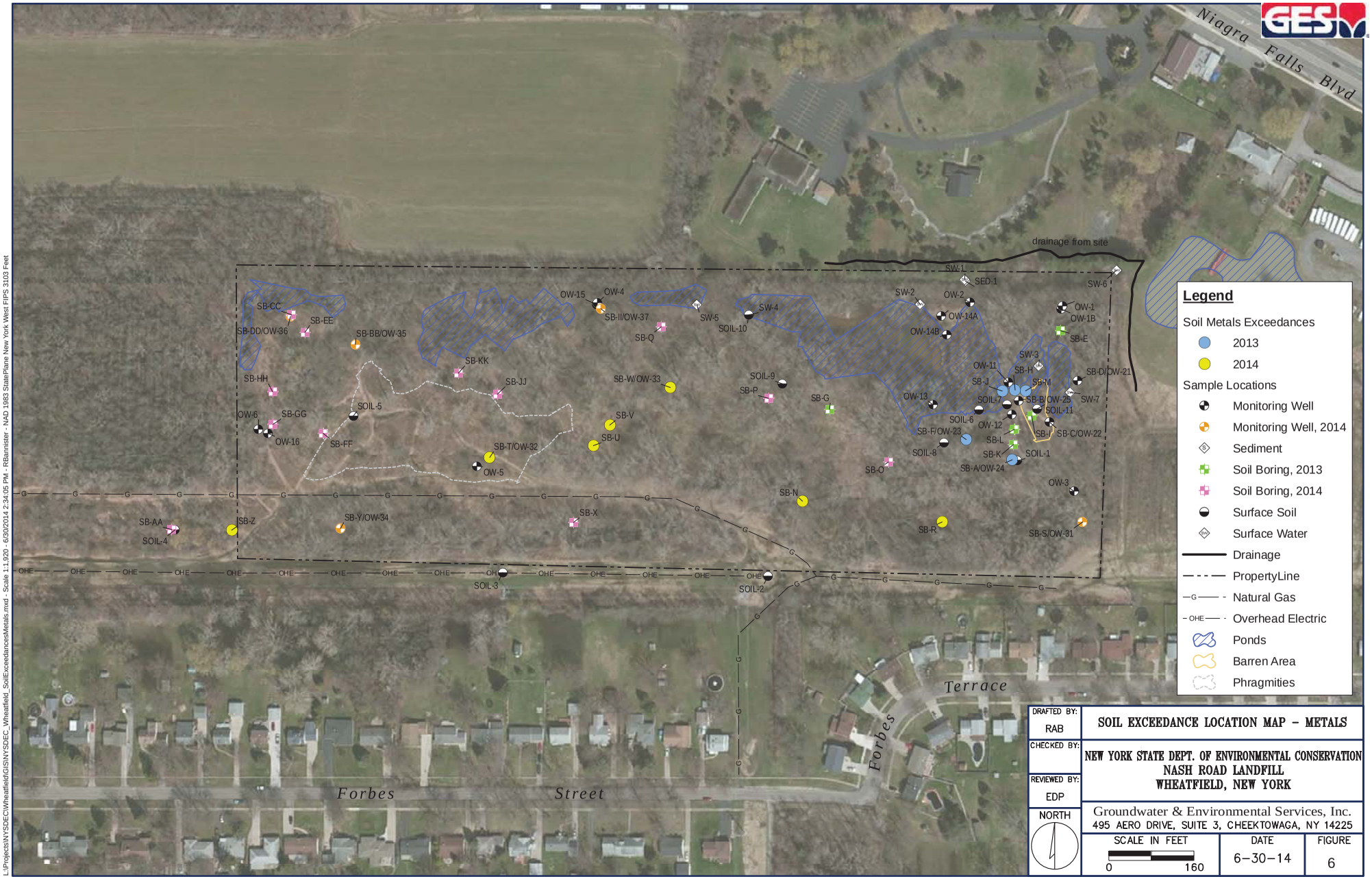
Sample Locations

- Monitoring Well
- Monitoring Well, 2014
- Sediment
- Soil Boring, 2013
- Soil Boring, 2014
- Surface Soil
- Surface Water
- Drainage
- PropertyLine
- Natural Gas
- Overhead Electric
- Ponds
- Barren Area
- Phragmities

Notes:
Soil samples are labeled with results exceeding NYSDEC Part 375 Residential Soil Cleanup Objectives.

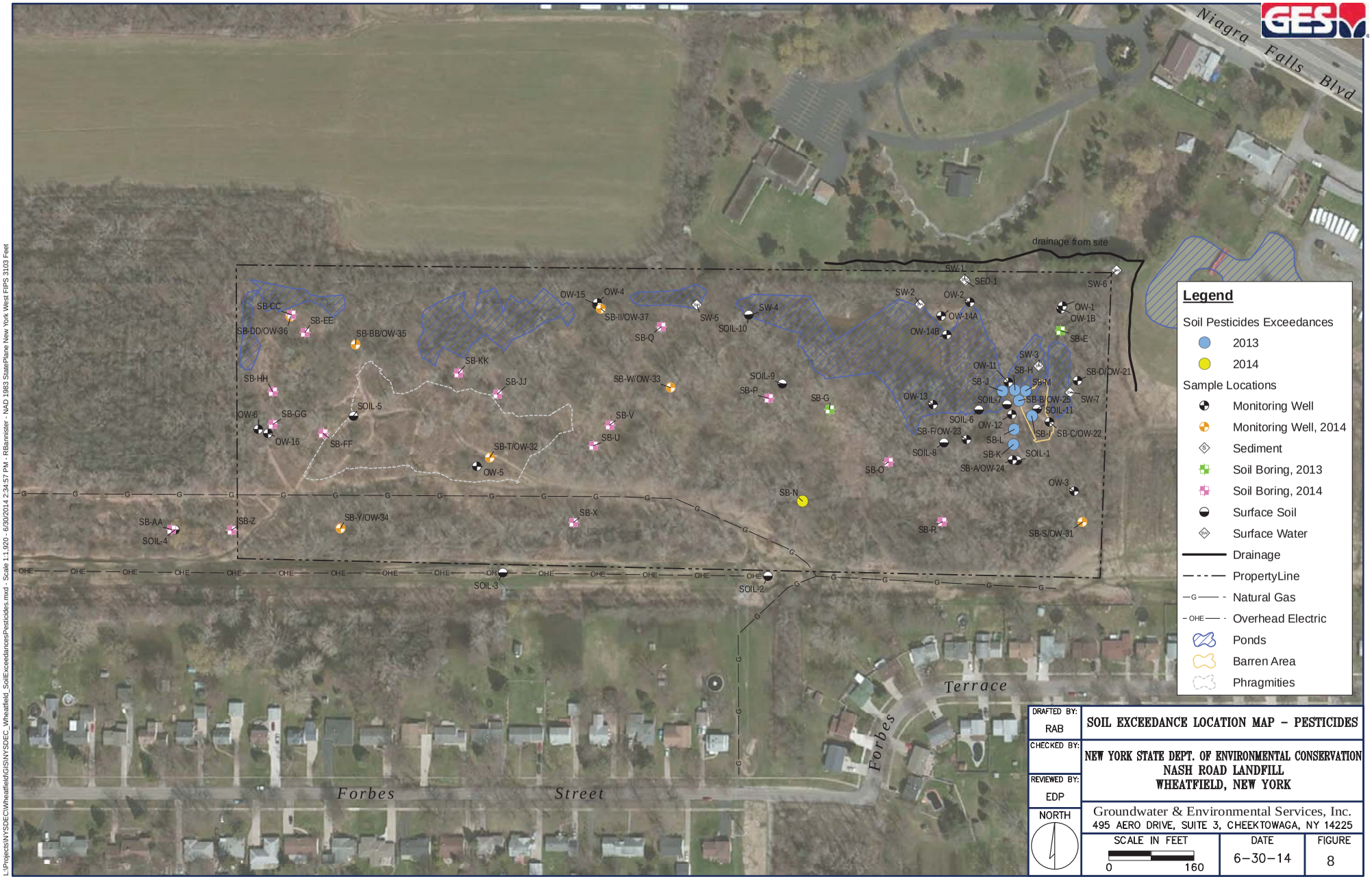
DRAFTED BY: RAB	SUBSURFACE SOIL ANALYTICAL DATA MAP
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 250 / DATE: 6–24–14 / FIGURE: 3

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedanceTab_10_2.mxd - Scale 1:3,000 - 6/24/2014 1:36:16 PM - rbannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



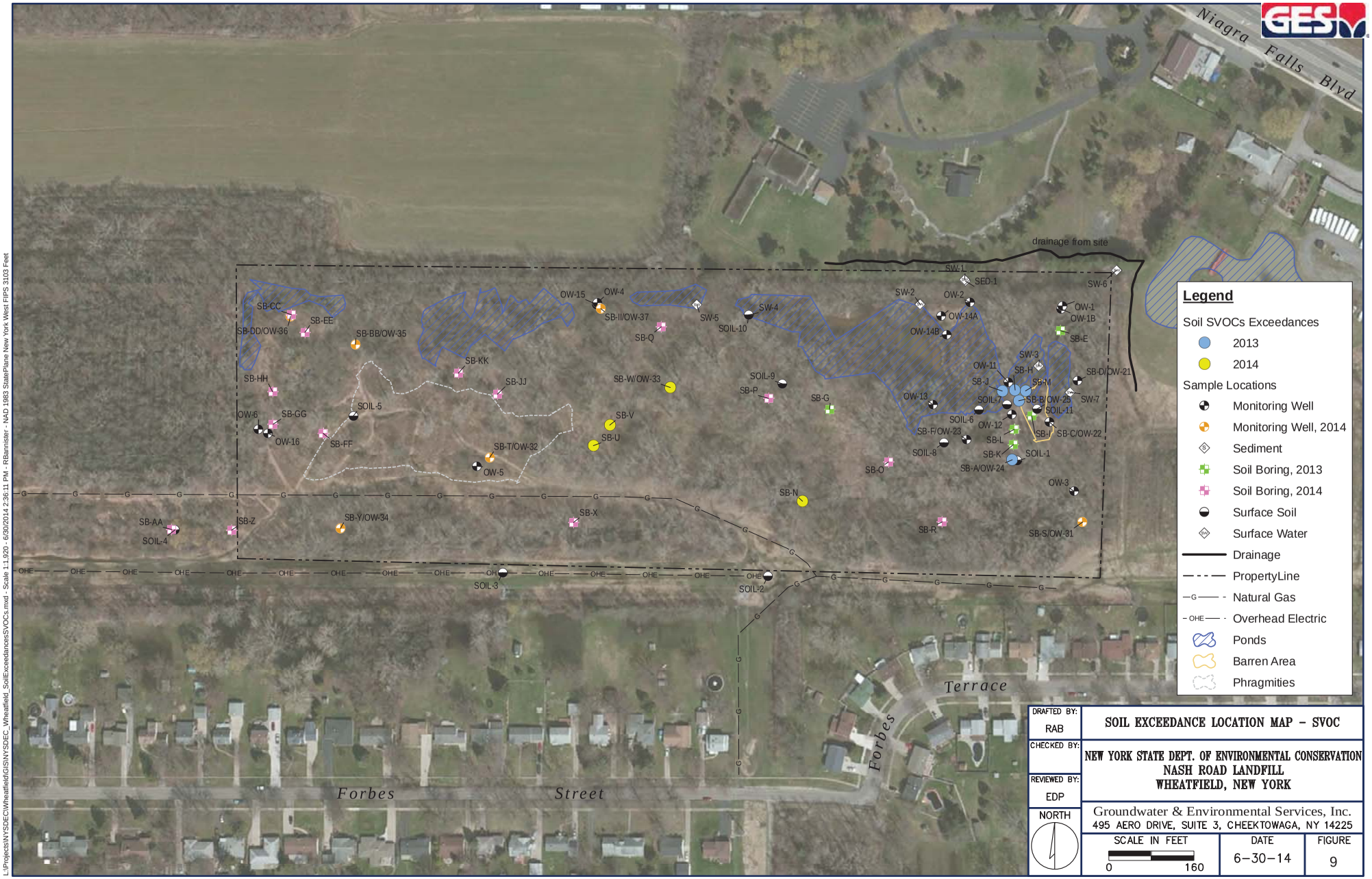
DRAFTED BY: RAB	SOIL EXCEEDANCE LOCATION MAP - METALS
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 160 / DATE: 6-30-14 / FIGURE: 6

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedancesMetals.mxd - Scale 1:1,920 - 6/30/2014 2:34:05 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



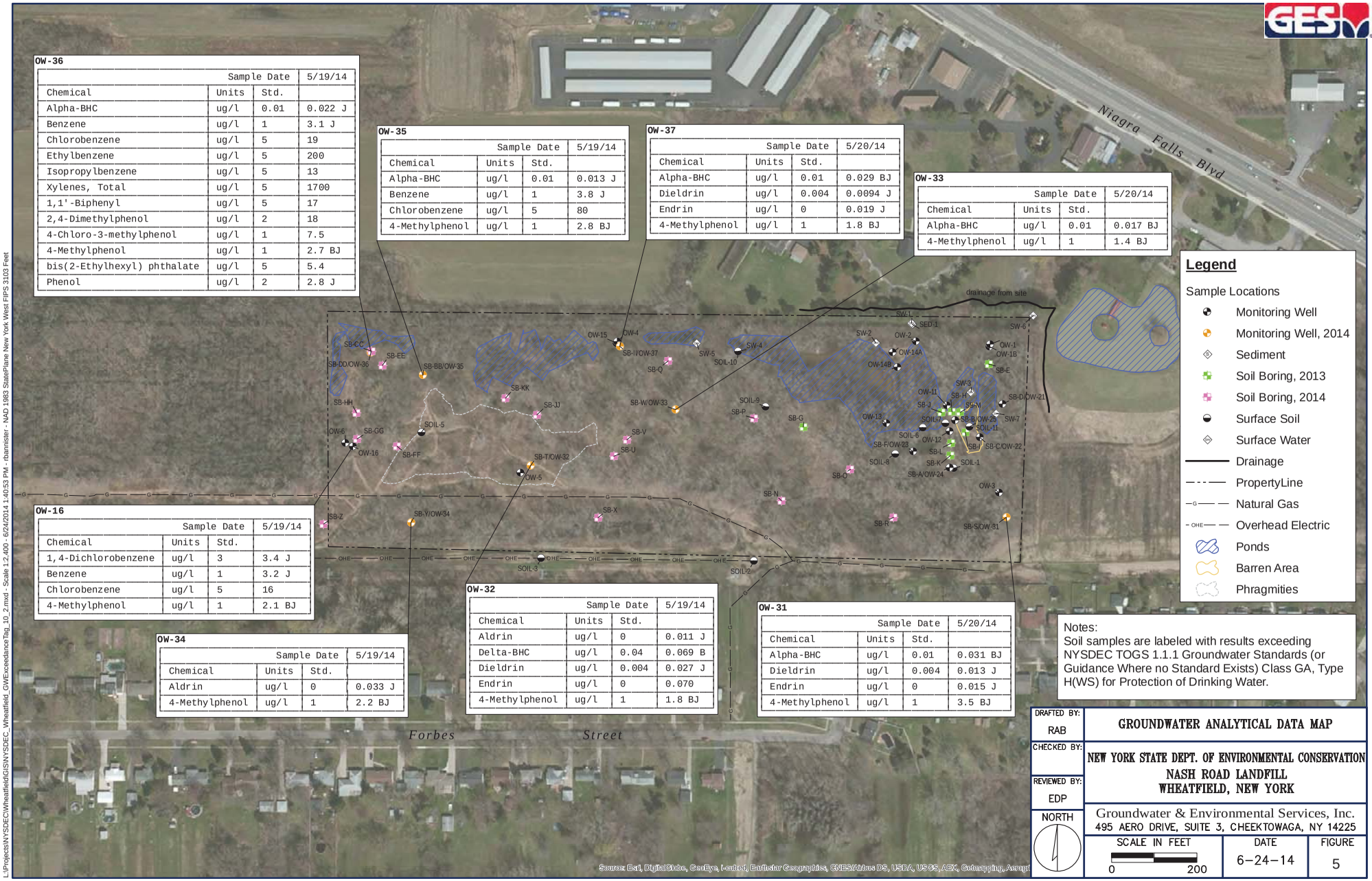
DRAFTED BY: RAB	SOIL EXCEEDANCE LOCATION MAP – PESTICIDES
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 160 / DATE: 6–30–14 / FIGURE: 8

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedancesPesticides.mxd - Scale 1:1,920 - 6/30/2014 2:34:57 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



DRAFTED BY: RAB	SOIL EXCEEDANCE LOCATION MAP – SVOC
CHECKED BY:	NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION NASH ROAD LANDFILL WHEATFIELD, NEW YORK
REVIEWED BY: EDP	Groundwater & Environmental Services, Inc. 495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225
NORTH	SCALE IN FEET: 0 – 160 / DATE: 6–30–14 / FIGURE: 9

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_SoilExceedancesSVOCs.mxd - Scale 1:1,920 - 6/30/2014 2:36:11 PM - RBannister - NAD 1983 StatePlane New York West FIPS 3103 Feet



OW-36

	Sample Date	5/19/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.022 J
Benzene	ug/l	1	3.1 J
Chlorobenzene	ug/l	5	19
Ethylbenzene	ug/l	5	200
Isopropylbenzene	ug/l	5	13
Xylenes, Total	ug/l	5	1700
1,1'-Biphenyl	ug/l	5	17
2,4-Dimethylphenol	ug/l	2	18
4-Chloro-3-methylphenol	ug/l	1	7.5
4-Methylphenol	ug/l	1	2.7 BJ
bis(2-Ethylhexyl) phthalate	ug/l	5	5.4
Phenol	ug/l	2	2.8 J

OW-35

	Sample Date	5/19/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.013 J
Benzene	ug/l	1	3.8 J
Chlorobenzene	ug/l	5	80
4-Methylphenol	ug/l	1	2.8 BJ

OW-37

	Sample Date	5/20/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.029 BJ
Dieldrin	ug/l	0.004	0.0094 J
Endrin	ug/l	0	0.019 J
4-Methylphenol	ug/l	1	1.8 BJ

OW-33

	Sample Date	5/20/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.017 BJ
4-Methylphenol	ug/l	1	1.4 BJ

OW-16

	Sample Date	5/19/14
Chemical	Units	Std.	
1,4-Dichlorobenzene	ug/l	3	3.4 J
Benzene	ug/l	1	3.2 J
Chlorobenzene	ug/l	5	16
4-Methylphenol	ug/l	1	2.1 BJ

OW-34

	Sample Date	5/19/14
Chemical	Units	Std.	
Aldrin	ug/l	0	0.033 J
4-Methylphenol	ug/l	1	2.2 BJ

OW-32

	Sample Date	5/19/14
Chemical	Units	Std.	
Aldrin	ug/l	0	0.011 J
Delta-BHC	ug/l	0.04	0.069 B
Dieldrin	ug/l	0.004	0.027 J
Endrin	ug/l	0	0.070
4-Methylphenol	ug/l	1	1.8 BJ

OW-31

	Sample Date	5/20/14
Chemical	Units	Std.	
Alpha-BHC	ug/l	0.01	0.031 BJ
Dieldrin	ug/l	0.004	0.013 J
Endrin	ug/l	0	0.015 J
4-Methylphenol	ug/l	1	3.5 BJ

Legend

Sample Locations

- Monitoring Well
- Monitoring Well, 2014
- Sediment
- Soil Boring, 2013
- Soil Boring, 2014
- Surface Soil
- Surface Water
- Drainage
- PropertyLine
- Natural Gas
- Overhead Electric
- Ponds
- Barren Area
- Phragmities

Notes:
Soil samples are labeled with results exceeding NYSDEC TOGS 1.1.1 Groundwater Standards (or Guidance Where no Standard Exists) Class GA, Type H(WS) for Protection of Drinking Water.

DRAFTED BY: RAB
CHECKED BY:
REVIEWED BY: EDP
NORTH

GROUNDWATER ANALYTICAL DATA MAP

NEW YORK STATE DEPT. OF ENVIRONMENTAL CONSERVATION
NASH ROAD LANDFILL
WHEATFIELD, NEW YORK

Groundwater & Environmental Services, Inc.
495 AERO DRIVE, SUITE 3, CHEEKTOWAGA, NY 14225

SCALE IN FEET: 0 200
DATE: 6-24-14
FIGURE: 5

L:\Projects\NYSDEC\Wheatfield\GIS\NYSDEC_Wheatfield_GWExceedanceTag_10_2.mxd - Scale 1:2,400 - 6/24/2014 1:40:53 PM - rbannister - NAD 1983 StatePlane New York West FIPS 3103 Feet

ANALYTICAL RESULTS
SUMMARY TABLES

Table 3
Summary of Surface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point	Part 375	SOIL-2	SOIL-3	SOIL-4	SOIL-5	SOIL-9	SOIL-10
Sample Type	Residential Use	Soil	Soil	Soil	Soil	Soil	Soil
Depth (ft)	Soil Cleanup	0.0-0.17'	0.0-0.17'	0.0-0.17'	0.0-0.17'	0.0-0.17'	0.0-0.17'
Sample Date	Objectives	05/29/13	05/29/13	05/29/13	05/29/13	05/29/13	05/29/13
Semi-Volatile Organic Compounds (ug/kg)							
2-METHYLNAPHTHALENE	410 *	6.8		4.1			
ACENAPHTHENE	100,000	30.0	27.0		2.8		
ANTHRACENE	100,000	51.0	150.0	8.3	5.5		48.0
BENZO(A)ANTHRACENE	1,000	270.0	**2,300**	67.0	41.0		330.0
BENZO(A)PYRENE	1,000	240.0	**1,300**	56.0	36.0		270.0
BENZO(B)FLUORANTHENE	1,000	350.0	**2,100**	81.0	61.0	**1,700**	510.0
BENZO(G,H,I)PERYLENE	100,000	110.0	380.0	20.0	18.0		130.0
BENZO(K)FLUORANTHENE	1,000	130.0	970.0	36.0	27.0		220.0
BUTYLBENZYLPHTHALATE	100,000 *						1,300
BIS(2-ETHYLHEXYL) PHTHALATE	50,000 *		990.0				
CARBAZOLE	NS	36.0	16.0		5.7		
CHRYSENE	1,000	280.0	**2,100**	66.0	50.0	**1,600**	390.0
DIBENZ(A,H)ANTHRACENE	330.0	150.0	230.0	110.0			**600.0**
DIBENZOFURAN	14,000	7.0					
DI-N-OCTYLPHTHALATE	100,000 *		1,200				
FLUORANTHENE	100,000	370.0	2,500	95.0	82.0	2,000	560.0
FLUORENE	100,000	13.0	14.0				
INDENO(1,2,3-CD)PYRENE	500.0	100.0	390.0	22.0	15.0	360.0	110.0
PHENANTHRENE	100,000	180.0	190.0	33.0	38.0	1,600	230.0
PYRENE	100,000	310.0	2,000	76.0	62.0	1,500	430.0
Metals (mg/kg)							
ARSENIC	16.0	4.2	3.2	3.9	3.0	14.2	8.8
BARIUM	350.0	56.1	42.3	53.7	39.2	143.0	149.0
CADMIUM	2.5	0.8	0.28	0.2	0.2	**4.9**	2.1
CHROMIUM, TOTAL	36.0	12.6	8.7	11.4	8.9	**43.0**	30.1
LEAD	400.0	28.0	53.9	12.0	10.5	273.0	170.0
SELENIUM	36.0	1.1		0.98	0.97	1.6	2.4
SILVER	36.0					1.4	0.76
MERCURY	0.81	0.160	0.039	0.037	0.040	**0.840**	0.420

Notes:

mg/kg = milligrams per kilogram or parts per million.

ug/kg = micrograms per kilogram or parts per billion.

Table 3
Summary of Surface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

Notes (continued):

* = Residential use soil cleanup objective from Commissioner Policy CP-51, Soil Cleanup Guidance.
NS = No standard given in 6 NYCRR Part 375.
Blanks = concentration below laboratory detection limits.
Yellow shaded values exceed the 6 NYCRR Part 375 residential use soil cleanup objecives.

Table 4A
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-G Upper Sand Lens 4-8' 06/04/13	SB-N Reworked Soil 0-2' 04/14/14	SB-N Upper Sand Lens 2-4' 04/14/14	SB-O Upper Sand Lens 4-6' 04/14/14	SB-P Upper Sand Lens 4-6' 04/14/14	SB-Q Upper Sand Lens 4-8' 04/14/14	SB-R Upper Sand Lens 4-5' 04/15/14	SB-S Upper Sand Lens 1-4' 04/15/14	SB-T Fill Material 0-3' 04/15/14	SB-T Upper Sand Lens 4-8' 04/15/14
Volatile Organic Compounds (ug/kg)											
1,2-DICHLOROBENZENE	100,000										
1,2-DICHLOROETHANE	2,300										
1,4-DICHLOROBENZENE	9,800						2.6				
ACETONE	100,000	20.0					6.0				
BENZENE	2,900	3.2									
CHLOROBENZENE	100,000	5.0					2.0				
ETHYLBENZENE	30,000	1.2									
ISOPROPYLBENZENE (CUMENE)	100,000 *	2.6									
METHYL ETHYL KETONE	100,000										
TOLUENE	100,000	6.0	0.79	2.0	1.2	2.3	2.0		1.8	1.4	1.3
TRICHLOROETHYLENE (TCE)	10,000										
XYLENES, TOTAL	100,000	12.0		1.1							
Semi-Volatile Organic Compounds (ug/kg)											
2-METHYLNAPHTHALENE	410.0 *		80.0							80.0	
4-METHYLPHENOL (P-CRESOL)	100,000										18.0
ACENAPHTHENE	100,000	51.0	130.0							81.0	
ACENAPHTHYLENE	100,000						5.7			7.2	
ACETOPHENONE	NS										
ANTHRACENE	100,000	91.0	190.0							250.0	
BENZALDEHYDE	NS										
BENZO(A)ANTHRACENE	1,000	320.0	**1,300**							750.0	
BENZO(A)PYRENE	1,000	300.0	**1,400**			15.0	37.0	660.0		580.0	
BENZO(B)FLUORANTHENE	1,000	390.0	**2,000**			27.0	48.0	940.0		1,000	
BENZO(G,H,I)PERYLENE	100,000	130.0	1,000				14.0			140.0	
BENZO(K)FLUORANTHENE	1,000	170.0	620.0							300.0	
BIPHENYL (DIPHENYL)	NS									16.0	
BIS(2-ETHYLHEXYL) PHTHALATE	50,000 *	760.0				49,000					
CAPROLACTAM	NS										
CARBAZOLE	NS		160.0							160.0	
CHRYSENE	1,000	300.0	**1,500**				36.0	730.0		730.0	
DIBENZ(A,H)ANTHRACENE	330.0		**340.0**							48.0	

Table 4A
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-G Upper Sand Lens 4-8' 06/04/13	SB-N Reworked Soil 0-2' 04/14/14	SB-N Upper Sand Lens 2-4' 04/14/14	SB-O Upper Sand Lens 4-6' 04/14/14	SB-P Upper Sand Lens 4-6' 04/14/14	SB-Q Upper Sand Lens 4-8' 04/14/14	SB-R Upper Sand Lens 4-5' 04/15/14	SB-S Upper Sand Lens 1-4' 04/15/14	SB-T Fill Material 0-3' 04/15/14	SB-T Upper Sand Lens 4-8' 04/15/14
Semi-Volatile Organic Compounds (continued)											
DIBENZOFURAN	14,000		53.0							61.0	
DIETHYL PHTHALATE	100,000 *										
DIMETHYL PHTHALATE	100,000 *										
DI-N-BUTYL PHTHALATE	100,000 *					29.0					
FLUORANTHENE	100,000	530.0	1,800			18.0	50.0	1,000		1,600	
FLUORENE	100,000		83.0							86.0	
INDENO(1,2,3-C,D)PYRENE	500.0	120.0	**900.0**				12.0			150.0	
NAPHTHALENE	100,000	130.0	84.0							55.0	
N-NITROSODIPHENYLAMINE	NS										
PENTACHLOROPHENOL	2,400										
PHENANTHRENE	100,000	370.0	980.0			12.0	40.0	760.0		930.0	9.5
PYRENE	100,000	420.0	1,500			14.0	39.0	730.0		1,000	
Pesticides (ug/kg)											
4,4'-DDD	2,600					0.65	0.61	55.0		25.0	0.73
4,4'-DDE	1,800		650.0	0.51		0.92	0.98	48.0		11.0	0.67
4,4'-DDT	1,700		**4,900**	1.0		4.5	1.3	86.0		27.0	3.2
Aldrin	19.0										
alpha-BHC	97.0	63.0									0.48
beta-BHC	72.0						0.46		0.36		
delta-BHC	100,000			0.57		0.66	0.87	46.0			0.57
Dieldrin	39.0		**2,600**			1.1				9.9	0.75
Endosulfan I	4,800		120.0								
Endosulfan II	4,800		48.0								
Endosulfan Sulfate	4,800		100.0								
Endrin	2,200		670.0			0.94					0.71
Endrin Aldehyde	NS		550.0			2.0					1.5
Endrin Ketone	NS		1,100			0.51					0.55
gamma-BHC (Lindane)	280.0						0.56				0.5
gamma-Chlordane	540.0 *		250.0			1.2	0.65			18.0	0.71
Heptachlor epoxide	77.0 *		**290.0**								
Methoxychlor	100,000 *		840.0		0.69		1.3		0.68		0.75

Table 4A
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-G Upper Sand Lens 4-8' 06/04/13	SB-N Reworked Soil 0-2' 04/14/14	SB-N Upper Sand Lens 2-4' 04/14/14	SB-O Upper Sand Lens 4-6' 04/14/14	SB-P Upper Sand Lens 4-6' 04/14/14	SB-Q Upper Sand Lens 4-8' 04/14/14	SB-R Upper Sand Lens 4-5' 04/15/14	SB-S Upper Sand Lens 1-4' 04/15/14	SB-T Fill Material 0-3' 04/15/14	SB-T Upper Sand Lens 4-8' 04/15/14
Metals (mg/kg)											
ARSENIC	16.0	2.6	10.1	1.9	3.8	3.8	3.6	4.8	2.8	4.8	3.0
BARIUM	350.0	13.9	**648.0**	29.3	13.7	16.9	20.9	48.2	24.8	213.0	17.2
CADMIUM	2.5	0.30	**32.2**	0.079	0.15	0.22	0.20	0.70	0.17	**11.9**	0.25
CHROMIUM, TOTAL	36.0	5.2	**186.0**	7.6	4.8	4.0	5.1	15.6	6.6	**65.6**	17.9
LEAD	400.0	14.2	211.0	5.6	4.8	7.3	7.1	**412.0**	5.1	152.0	6.1
SELENIUM	36.0		1.4					0.5		0.60	0.47
SILVER	36.0		5.8			0.22		0.29		9.5	
MERCURY	0.81	0.012	**1.8**	0.011		0.049		0.25		**108.0**	**187.0**

Notes:

mg/kg = milligrams per kilogram or parts per million.

ug/kg = micrograms per kilogram or parts per billion.

*** = Residential use soil cleanup objective from Commissioner Policy CP-51, Soil Cleanup Guidance.**

NS = No standard given in 6 NYCRR Part 375.

Blanks = concentration below laboratory detection limits.

Yellow shaded values exceed the 6 NYCRR Part 375 residential use soil cleanup objecives.

Table 4B
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-U Fill Material 0-4' 04/16/14	SB-V Fill Material 0-4' 04/16/14	SB-W Fill Material 0-4' 04/16/14	SB-X Fill Material 0-4' 04/16/14	SB-X Upper Sand Lens 4-8' 04/16/14	SB-Y Upper Sand Lens 4-8' 04/17/14	SB-Z Fill Material 0-4' 04/18/14	SB-AA Silty Clay 4-8' 04/18/14	SB-BB Fill Material 0-4' 04/17/14	SB-BB Upper Sand Lens 4-8' 04/17/14
Volatile Organic Compounds (ug/kg)											
1,2-DICHLOROBENZENE	100,000										1.2
1,2-DICHLOROETHANE	2,300				1.7						
1,4-DICHLOROBENZENE	9,800										
ACETONE	100,000		6.3			5.2	7.6		6.9		9.4
BENZENE	2,900										
CHLOROBENZENE	100,000										36.0
ETHYLBENZENE	30,000								0.43		
ISOPROPYLBENZENE (CUMENE)	100,000 *										
METHYL ETHYL KETONE	100,000										
TOLUENE	100,000								2.5		
TRICHLOROETHYLENE (TCE)	10,000			1.7							
XYLENES, TOTAL	100,000								1.9		
Semi-Volatile Organic Compounds (ug/kg)											
2-METHYLNAPHTHALENE	410.0 *		400.0	160.0	70.0			11.0		18.0	
4-METHYLPHENOL (P-CRESOL)	100,000							72.0			
ACENAPHTHENE	100,000	330.0	3,100	520.0							
ACENAPHTHYLENE	100,000							5.7			
ACETOPHENONE	NS										
ANTHRACENE	100,000	610.0	3,400	850.0	56.0			13.0		11.0	
BENZALDEHYDE	NS							34.0			
BENZO(A)ANTHRACENE	1,000	**3,100**	**13,000**	**4,200**	460.0						
BENZO(A)PYRENE	1,000	**3,100**	**15,000**	**3,800**	540.0	23.0				49.0	
BENZO(B)FLUORANTHENE	1,000	**4,200**	**19,000**	**5,200**	780.0	37.0		59.0		70.0	
BENZO(G,H,I)PERYLENE	100,000	1,500	7,700	1,900	330.0	20.0				28.0	
BENZO(K)FLUORANTHENE	1,000	**1,200**	**7,700**	**1,900**	44.0						
BIPHENYL (DIPHENYL)	NS										
BIS(2-ETHYLHEXYL) PHTHALATE	50,000 *			3,400				77.0			
CAPROLACTAM	NS										
CARBAZOLE	NS	380.0	2,200	600.0	30.0			9.8		7.0	
CHRYSENE	1,000	**4,200**	**14,000**	**4,100**	570.0	31.0		58.0		55.0	
DIBENZ(A,H)ANTHRACENE	330.0	**600.0**	**2,300**	**710.0**	120.0					9.2	

Table 4B
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-U Fill Material 0-4' 04/16/14	SB-V Fill Material 0-4' 04/16/14	SB-W Fill Material 0-4' 04/16/14	SB-X Fill Material 0-4' 04/16/14	SB-X Upper Sand Lens 4-8' 04/16/14	SB-Y Upper Sand Lens 4-8' 04/17/14	SB-Z Fill Material 0-4' 04/18/14	SB-AA Silty Clay 4-8' 04/18/14	SB-BB Fill Material 0-4' 04/17/14	SB-BB Upper Sand Lens 4-8' 04/17/14
Semi-Volatile Organic Compounds (continued)											
DIBENZOFURAN	14,000		1,100	180.0				3.2		5.0	
DIETHYL PHTHALATE	100,000 *										
DIMETHYL PHTHALATE	100,000 *			900.0							
DI-N-BUTYL PHTHALATE	100,000 *										
FLUORANTHENE	100,000	3,600	23,000	6,400	560.0	36.0		61.0		83.0	
FLUORENE	100,000	190.0	1,900	300.0				9.5			
INDENO(1,2,3-C,D)PYRENE	500.0	**1,500**	**7,500**	**1,700**	310.0	14.0				25.0	
NAPHTHALENE	100,000		1,200	260.0				14.0			
N-NITROSODIPHENYLAMINE	NS										
PENTACHLOROPHENOL	2,400										
PHENANTHRENE	100,000	2,000	16,000	3,400	310.0	21.0		71.0		61.0	
PYRENE	100,000	3,000	17,000	4,700	470.0	26.0		88.0		67.0	
Pesticides (ug/kg)											
4,4'-DDD	2,600		130.0	65.0			0.87	10.0		29.0	
4,4'-DDE	1,800	66.0	63.0	100.0	35.0	0.59	0.83		0.72	40.0	
4,4'-DDT	1,700		84.0	240.0		1.0	1.1		1.3	100.0	
Aldrin	19.0						0.5				
alpha-BHC	97.0		23.0	22.0						20.0	
beta-BHC	72.0										
delta-BHC	100,000	20.0	32.0	30.0			0.86	13.0	0.66		
Dieldrin	39.0	**61.0**	**73.0**	**85.0**	**45.0**						
Endosulfan I	4,800										
Endosulfan II	4,800										
Endosulfan Sulfate	4,800										
Endrin	2,200										
Endrin Aldehyde	NS	43.0		41.0							
Endrin Ketone	NS										
gamma-BHC (Lindane)	280.0		31.0	19.0	20.0	0.58			0.58		
gamma-Chlordane	540.0 *	70.0	44.0	66.0	36.0		0.64		0.68		
Heptachlor epoxide	77.0 *										
Methoxychlor	100,000 *						1.0		1.5		

Table 4B
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-U Fill Material 0-4' 04/16/14	SB-V Fill Material 0-4' 04/16/14	SB-W Fill Material 0-4' 04/16/14	SB-X Fill Material 0-4' 04/16/14	SB-X Upper Sand Lens 4-8' 04/16/14	SB-Y Upper Sand Lens 4-8' 04/17/14	SB-Z Fill Material 0-4' 04/18/14	SB-AA Silty Clay 4-8' 04/18/14	SB-BB Fill Material 0-4' 04/17/14	SB-BB Upper Sand Lens 4-8' 04/17/14
Metals (mg/kg)											
ARSENIC	16.0	12.3	**27.2**	**18.9**	**16.8**	2.5	0.93	4.0	4.5	2.7	1.7
BARIUM	350.0	**1,690**	**1,070**	**1,520**	278.0	48.3	9.1	46.8	92.4	36.7	10.6
CADMIUM	2.5	**98.7**	**31.2**	**26.1**	**6.4**	0.23	0.16	**8.1**	0.19	0.39	0.20
CHROMIUM, TOTAL	36.0	**198.0**	**404.0**	**126.0**	**252.0**	**86.4**	3.8	13.5	20.7	9.5	3.4
LEAD	400.0	**1,620**	**886.0**	**850.0**	**1,870**	11.3	5.4	43.0	14.5	22.0	5.1
SELENIUM	36.0	2.0	3.1	1.8	1.5						
SILVER	36.0	**226.0**	**112.0**	**95.8**	8.3						
MERCURY	0.81	**4.8**	**2.5**	**3.4**	0.57		0.0093	0.036	0.025	0.26	0.19

Notes:

mg/kg = milligrams per kilogram or parts per million.

ug/kg = micrograms per kilogram or parts per billion.

*** = Residential use soil cleanup objective from Commissioner Policy CP-51, Soil Cleanup Guidance.**

NS = No standard given in 6 NYCRR Part 375.

Blanks = concentration below laboratory detection limits.

Yellow shaded values exceed the 6 NYCRR Part 375 residential use soil cleanup objecives.

Table 4C
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-CC Fill Material 4-8' 04/17/14	SB-FF Upper Sand Lens 6-8' 04/18/14	SB-GG Fill Material 4-6' 04/18/14	SB-HH Upper Sand Lens 6-8' 04/18/14	SB-II Fill Material 0-4' 04/21/14	SB-II Upper Sand Lens 4-8' 04/21/14	SB-JJ Upper Sand Lens 4-8' 04/21/14	SB-KK Fill Material 0-4' 04/21/14		
Volatile Organic Compounds (ug/kg)											
1,2-DICHLOROBENZENE	100,000										
1,2-DICHLOROETHANE	2,300										
1,4-DICHLOROBENZENE	9,800				1.5						
ACETONE	100,000		11.0	14.0	13.0		16.0				
BENZENE	2,900										
CHLOROBENZENE	100,000	1.4			1.3		2.9				
ETHYLBENZENE	30,000	14.0									
ISOPROPYLBENZENE (CUMENE)	100,000 *	1.2									
METHYL ETHYL KETONE	100,000				7.9						
TOLUENE	100,000				1.3						
TRICHLOROETHYLENE (TCE)	10,000										
XYLENES, TOTAL	100,000	60.0			1.7						
Semi-Volatile Organic Compounds (ug/kg)											
2-METHYLNAPHTHALENE	410.0 *	21.0	6.9	88.0					32.0		
4-METHYLPHENOL (P-CRESOL)	100,000			20.0		130.0			260.0		
ACENAPHTHENE	100,000	12.0	72.0	12.0		54.0					
ACENAPHTHYLENE	100,000										
ACETOPHENONE	NS	13.0							39.0		
ANTHRACENE	100,000	8.8	5.5			110.0			28.0		
BENZALDEHYDE	NS			44.0		440.0					
BENZO(A)ANTHRACENE	1,000		7.5			430.0			170.0		
BENZO(A)PYRENE	1,000					430.0			190.0		
BENZO(B)FLUORANTHENE	1,000					610.0			300.0		
BENZO(G,H,I)PERYLENE	100,000								90.0		
BENZO(K)FLUORANTHENE	1,000					220.0			79.0		
BIPHENYL (DIPHENYL)	NS			22.0							
BIS(2-ETHYLHEXYL) PHTHALATE	50,000 *	410.0		190.0			670.0	88.0	72.0		
CAPROLACTAM	NS			67.0							
CARBAZOLE	NS		110.0			65.0			13.0		
CHRYSENE	1,000		7.0			680.0			440.0		
DIBENZ(A,H)ANTHRACENE	330.0										

Table 4C
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-CC Fill Material 4-8' 04/17/14	SB-FF Upper Sand Lens 6-8' 04/18/14	SB-GG Fill Material 4-6' 04/18/14	SB-HH Upper Sand Lens 6-8' 04/18/14	SB-II Fill Material 0-4' 04/21/14	SB-II Upper Sand Lens 4-8' 04/21/14	SB-JJ Upper Sand Lens 4-8' 04/21/14	SB-KK Fill Material 0-4' 04/21/14		
Semi-Volatile Organic Compounds (continued)											
DIBENZOFURAN	14,000	14.0	110.0								
DIETHYL PHTHALATE	100,000 *								11.0		
DIMETHYL PHTHALATE	100,000 *										
DI-N-BUTYL PHTHALATE	100,000 *							130.0			
FLUORANTHENE	100,000	23.0	9.5	22.0	7.5	620.0			290.0		
FLUORENE	100,000	10.0	77.0						12.0		
INDENO(1,2,3-C,D)PYRENE	500.0										
NAPHTHALENE	100,000		12.0						68.0		
N-NITROSODIPHENYLAMINE	NS			52.0							
PENTACHLOROPHENOL	2,400			38.0							
PHENANTHRENE	100,000	39.0	13.0	75.0	7.9	650.0			160.0		
PYRENE	100,000	16.0	6.8	28.0	7.2	680.0			200.0		
Pesticides (ug/kg)											
4,4'-DDD	2,600	41.0	0.44	0.55		42.0	2.2				
4,4'-DDE	1,800	33.0	0.63	0.61	0.55	26.0	1.3				
4,4'-DDT	1,700			1.1	1.0	29.0	1.2	1.1	20.0		
Aldrin	19.0				1.3						
alpha-BHC	97.0	24.0	0.61				0.69				
beta-BHC	72.0										
delta-BHC	100,000	35.0		0.81	0.60	14.0	0.67				
Dieldrin	39.0	30.0									
Endosulfan I	4,800										
Endosulfan II	4,800		0.5	0.4							
Endosulfan Sulfate	4,800										
Endrin	2,200										
Endrin Aldehyde	NS										
Endrin Ketone	NS										
gamma-BHC (Lindane)	280.0		0.52								
gamma-Chlordane	540.0 *		0.61		0.83	16.0					
Heptachlor epoxide	77.0 *										
Methoxychlor	100,000 *			0.89		27.0					

Table 4C
Summary of Subsurface Soil Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Part 375 Residential Use Soil Cleanup Objectives	SB-CC Fill Material 4-8' 04/17/14	SB-FF Upper Sand Lens 6-8' 04/18/14	SB-GG Fill Material 4-6' 04/18/14	SB-HH Upper Sand Lens 6-8' 04/18/14	SB-II Fill Material 0-4' 04/21/14	SB-II Upper Sand Lens 4-8' 04/21/14	SB-JJ Upper Sand Lens 4-8' 04/21/14	SB-KK Fill Material 0-4' 04/21/14		
Metals (mg/kg)											
ARSENIC	16.0	2.7	1.5	2.7	2.4	5.0	3.0	3.0	5.4		
BARIUM	350.0	84.5	11.4	74.6	6.5	91.1	27.7	9.5	103.0		
CADMIUM	2.5	0.39	0.23	0.19	0.15	1.9	0.32	0.19	0.69		
CHROMIUM, TOTAL	36.0	10.1	4.5	14.8	3.0	19.9	7.1	4.6	14.8		
LEAD	400.0	18.4	5.7	9.9	4.5	92.5	17.2	4.2	193.0		
SELENIUM	36.0			0.58		0.82	0.74	0.67	0.81		
SILVER	36.0					1.5	0.26		0.71		
MERCURY	0.81	0.07		0.16		0.18	0.045		0.093		

Notes:

mg/kg = milligrams per kilogram or parts per million.

ug/kg = micrograms per kilogram or parts per billion.

*** = Residential use soil cleanup objective from Commissioner Policy CP-51, Soil Cleanup Guidance.**

NS = No standard given in 6 NYCRR Part 375.

Blanks = concentration below laboratory detection limits.

Yellow shaded values exceed the 6 NYCRR Part 375 residential use soil cleanup objecives.

Table 5A
Summary of Groundwater Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	NYSDEC	OW-1	OW-2	OW-13	OW-14B	OW-16	OW-21	OW-22	OW-23	OW-24
Sample Date	Groundwater	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13
Depth to Water (ft below TOC)	Standards	3.09	2.17	3.06	3.23	6.18	4.66	3.96	3.68	5.20
Top of Casing Elevation (ft)		100.30	99.30	100.40	100.60	103.30	102.00	101.51	101.36	102.81
Groundwater Elevation (ft)		97.21	97.13	97.34	97.37	97.12	97.34	97.55	97.68	97.61
Volatile Organic Compounds (ug/L)										
1,4-DICHLOROBENZENE	3.0									**5.4**
ACETONE	50.0									
BENZENE	1.0					**2.9**				**1.8**
CARBON DISULFIDE	NS									
CHLOROBENZENE	5.0					**15.0**				**88.0**
ETHYLBENZENE	5.0									
ISOPROPYLBENZENE (CUMENE)	5.0									
METHYL ETHYL KETONE	50.0									
XYLENES, TOTAL	5.0									
Semi-Volatile Organic Compounds (ug/L)										
2,4-DIMETHYLPHENOL	50.0									
2-CHLOROPHENOL	1*									
2-METHYLNAPHTHALENE	NS									
2-METHYLPHENOL (O-CRESOL)	1*									
4-CHLORO-3-METHYLPHENOL	1*									
4-METHYLPHENOL (P-CRESOL)	1*			**3.2**						
ACETOPHENONE	NS					1.5				
ANTHRACENE	50.0			0.82						0.97
BENZALDEHYDE	NS	0.3		0.86		0.36		0.28		0.29
BIPHENYL (DIPHENYL)	5.0									
BIS(2-ETHYLHEXYL) PHTHALATE	5.0						2.8			3.1
DIETHYL PHTHALATE	50.0					0.49		0.57	0.21	0.33
DI-N-BUTYL PHTHALATE	50.0	0.67	0.47	0.48	0.75	1.0	0.59		0.50	
FLUORANTHENE	50.0			0.51				0.39	0.51	0.43
FLUORENE	50.0					0.41				
ISOPHORONE	50.0					0.43				
NAPHTHALENE	10.0									
NITROBENZENE	0.4		**0.89**							

Table 5A
Summary of Groundwater Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	NYSDEC	OW-1	OW-2	OW-13	OW-14B	OW-16	OW-21	OW-22	OW-23	OW-24
Sample Date	Groundwater	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13
Depth to Water (ft below TOC)	Standards	3.09	2.17	3.06	3.23	6.18	4.66	3.96	3.68	5.20
Top of Casing Elevation (ft)		100.30	99.30	100.40	100.60	103.30	102.00	101.51	101.36	102.81
Groundwater Elevation (ft)		97.21	97.13	97.34	97.37	97.12	97.34	97.55	97.68	97.61
Semi-Volatile Organic Compounds (continued)										
N-NITROSODI-N-PROPYLAMINE	NS									
PHENANTHRENE	50.0	0.78		0.84		0.83	0.91	0.80	0.85	1.0
PHENOL	1*						**2.5**			
PYRENE	50.0			0.36						
Pesticides (ug/L)										
4,4'-DDD	0.3			0.039		0.087				
4,4'-DDE	0.2									
4,4'-DDT	0.2					0.16				
Aldrin	ND			**0.018**		**0.085**				**0.049**
alpha-BHC	0.01			**0.019**	0.0075		**0.026**	**0.33**	0.0093	
alpha-Chlordane	0.05					**0.10**				
beta-BHC	0.04					**0.084**				
delta-BHC	0.04					**0.096**				
Dieldrin	0.004					**0.089**				
Endosulfan I	NS					0.10				
Endosulfan II	NS					0.18				
Endosulfan Sulfate	NS					0.050				
Endrin	ND									
Endrin Aldehyde	5.0			0.038		0.13				
Endrin Ketone	5.0			0.019						
gamma-BHC (Lindane)	0.05	**0.095**		0.010		**0.058**		0.031	0.0071	**0.060**
gamma-Chlordane	0.05			**0.072**		0.011			0.033	
Heptachlor	0.04									
Heptachlor epoxide	0.03									
Methoxychlor	35.0			0.050		0.027				0.080
Metals (ug/L)										
ARSENIC	25.0	5.9		12.0	5.9		11.0	6.1	12.0	7.3
BARIUM	1,000	65.0	69.0	44.0	70.0	**2,500**	150.0	210.0	170.0	180.0

Table 5A
Summary of Groundwater Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	NYSDEC	OW-1	OW-2	OW-13	OW-14B	OW-16	OW-21	OW-22	OW-23	OW-24
Sample Date	Groundwater	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13	08/02/13
Depth to Water (ft below TOC)	Standards	3.09	2.17	3.06	3.23	6.18	4.66	3.96	3.68	5.20
Top of Casing Elevation (ft)		100.30	99.30	100.40	100.60	103.30	102.00	101.51	101.36	102.81
Groundwater Elevation (ft)		97.21	97.13	97.34	97.37	97.12	97.34	97.55	97.68	97.61
Metals (continued)										
CADMIUM	5.0	1.1	0.67	0.57			0.73	1.4	3.2	1.4
CHROMIUM, TOTAL	50.0	5.9	2.1	9.4	8.3	3.5	23.0	7.2	27.0	3.4
LEAD	25.0			22.0	4.0	17.0	5.1	**39.0**	**30.0**	
MERCURY	0.7									
SELENIUM	10.0									

Notes:

ND = Standard is below detection limits.

NS = No standard or guidance value available.

ug/L = micrograms per liter or parts per billion.

*** = Standard applies to total chlorinated phenols.**

Blanks = concentration below laboratory detection limits.

Yellow shaded values exceed NYSDEC groundwater standards or guidance values.

Table 5B
Summary of Groundwater Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	NYSDEC	OW-16	OW-31	OW-32	OW-33	OW-34	OW-35	OW-36	OW-37
Sample Date	Groundwater	05/19/14	05/20/14	05/19/14	05/20/14	05/19/14	05/19/14	05/19/14	05/20/14
Depth to Water (ft below TOC)	Standards	4.66	3.80	4.59	6.03	4.00	4.66	3.99	3.50
Top of Casing Elevation (ft)		103.30	102.37	103.00	NC	NC	NC	NC	101.38
Groundwater Elevation (ft)		98.64	98.57	98.41	NA	NA	NA	NA	97.88
Volatile Organic Compounds (ug/L)									
1,4-DICHLOROBENZENE	3.0	**3.4**							
ACETONE	50.0		6.6						4.6
BENZENE	1.0	**3.2**					**3.8**	**3.1**	
CARBON DISULFIDE	NS		1.7						1.0
CHLOROBENZENE	5.0	**16.0**					**80.0**	**19.0**	
ETHYLBENZENE	5.0							**220.0**	
ISOPROPYLBENZENE (CUMENE)	5.0							**13.0**	
METHYL ETHYL KETONE	50.0		2.0						
XYLENES, TOTAL	5.0							**1,700**	
Semi-Volatile Organic Compounds (ug/L)									
2,4-DIMETHYLPHENOL	50.0							18.0	
2-CHLOROPHENOL	1*						0.68		
2-METHYLNAPHTHALENE	NS	0.92						1.2	
2-METHYLPHENOL (O-CRESOL)	1*	**2.1**	0.47						
4-CHLORO-3-METHYLPHENOL	1*							**7.5**	
4-METHYLPHENOL (P-CRESOL)	1*		**3.5**	**1.8**	**1.4**	**2.2**	**2.8**	**2.7**	**1.8**
ACETOPHENONE	NS	1.5	1.4						
ANTHRACENE	50.0								
BENZALDEHYDE	NS	0.45	0.44				0.39		0.32
BIPHENYL (DIPHENYL)	5.0							**17.0**	
BIS(2-ETHYLHEXYL) PHTHALATE	5.0	3.6						**5.4**	
DIETHYL PHTHALATE	50.0	0.70		0.47				0.79	
DI-N-BUTYL PHTHALATE	50.0	0.48	0.81	0.53	0.58	0.41	0.63	1.3	0.40
FLUORANTHENE	50.0								
FLUORENE	50.0								
ISOPHORONE	50.0								
NAPHTHALENE	10.0	0.82	0.78					7.1	2.0
NITROBENZENE	0.4								

Table 5B
Summary of Groundwater Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	NYSDEC	OW-16	OW-31	OW-32	OW-33	OW-34	OW-35	OW-36	OW-37
Sample Date	Groundwater	05/19/14	05/20/14	05/19/14	05/20/14	05/19/14	05/19/14	05/19/14	05/20/14
Depth to Water (ft below TOC)	Standards	4.66	3.80	4.59	6.03	4.00	4.66	3.99	3.50
Top of Casing Elevation (ft)		103.30	102.37	103.00	NC	NC	NC	NC	101.38
Groundwater Elevation (ft)		98.64	98.57	98.41	NA	NA	NA	NA	97.88
Semi-Volatile Organic Compounds (continued)									
N-NITROSODI-N-PROPYLAMINE	NS							0.5	
PHENANTHRENE	50.0	0.45	0.75	0.96	0.50	0.46	0.62	0.60	0.85
PHENOL	1*		**1.1**					**2.8**	
PYRENE	50.0								
Pesticides (ug/L)									
4,4'-DDD	0.3			0.039		0.012	0.016	0.022	0.032
4,4'-DDE	0.2		0.033		0.011		0.019	0.019	0.015
4,4'-DDT	0.2		0.056	0.053	0.029		0.025	0.032	0.051
Aldrin	ND			**0.011**		**0.033**			
alpha-BHC	0.01		**0.031**		**0.017**		**0.013**	**0.022**	**0.029**
alpha-Chlordane	0.05		0.030						
beta-BHC	0.04								
delta-BHC	0.04		0.015	**0.069**		0.015		0.018	
Dieldrin	0.004		**0.013**	**0.027**					**0.0094**
Endosulfan I	NS		0.024	0.028					
Endosulfan II	NS		0.014						0.011
Endosulfan Sulfate	NS								
Endrin	ND		**0.015**	**0.070**					**0.019**
Endrin Aldehyde	5.0			0.038	0.024			0.022	0.042
Endrin Ketone	5.0		0.016	0.017					
gamma-BHC (Lindane)	0.05		0.014			0.016	0.026	0.022	
gamma-Chlordane	0.05		0.045		0.012		0.011		0.02
Heptachlor	0.04		0.014	0.021					
Heptachlor epoxide	0.03								0.018
Methoxychlor	35.0		0.044	0.094		0.051			0.053
Metals (ug/L)									
ARSENIC	25.0		7.9	8.3		6.9	9.5	7.5	6.8
BARIUM	1,000	220.0	42.0	73.0	45.0	89.0	540.0	230.0	270.0

Table 5B
Summary of Groundwater Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Well Number	NYSDEC	OW-16	OW-31	OW-32	OW-33	OW-34	OW-35	OW-36	OW-37
Sample Date	Groundwater	05/19/14	05/20/14	05/19/14	05/20/14	05/19/14	05/19/14	05/19/14	05/20/14
Depth to Water (ft below TOC)	Standards	4.66	3.80	4.59	6.03	4.00	4.66	3.99	3.50
Top of Casing Elevation (ft)		103.30	102.37	103.00	NC	NC	NC	NC	101.38
Groundwater Elevation (ft)		98.64	98.57	98.41	NA	NA	NA	NA	97.88
Metals (continued)									
CADMIUM	5.0								
CHROMIUM, TOTAL	50.0	1.3		1.2				1.1	
LEAD	25.0	5.9						3.4	4.9
MERCURY	0.7			0.14					
SELENIUM	10.0								

Notes:

NA = Not applicable.
NC = Not collected.
ND = Standard is below detection limits.
NS = No standard or guidance value available.
ug/L = micrograms per liter or parts per billion.
*** = Standard applies to total chlorinated phenols.**
Blanks = concentration below laboratory detection limits.
Yellow shaded values exceed NYSDEC groundwater standards or guidance values.

Table 6
Summary of Sediment Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Depth (ft) Sample Date	Sediment Guidance Values Class A *	Sediment Guidance Values Class B **	Sediment Guidance Values Class C +	Sediment Guidance Values for PAHs ++	SED-1 Sediment 0.0-0.17' 05/29/13
Metals (mg/kg)					
ARSENIC	< 10	10 - 33	> 33		5.2
BARIUM	NS	NS	NS		81.4
CADMIUM	<1	1 - 5	> 5		**2.0**
CHROMIUM, TOTAL	<43	43 - 110	> 110		22.7
LEAD	< 36	36 - 130	> 130		**76.3**
SELENIUM	NS	NS	NS		1.3
MERCURY	< 0.2	0.2 - 1	> 1		**0.470**
Semi-Volatile Organic Compounds (ug/kg)					
ACENAPHTHENE				9,820	7.0
BENZALDEHYDE				NS	47.0
BENZO(A)ANTHRACENE				16,820	60.0
BENZO(A)PYRENE				19,340	67.0
BENZO(B)FLUORANTHENE				19,580	110.0
BENZO(G,H,I)PERYLENE				21,900	31.0
BENZO(K)FLUORANTHENE				19,600	59.0
CHRYSENE				16,860	74.0
DIBENZ(A,H)ANTHRACENE				22,440	190.0
FLUORANTHENE				14,160	120.0
INDENO(1,2,3-CD)PYRENE				22,300	25.0
PHENANTHRENE				11,940	63.0
PYRENE				13,960	86.0

Notes:

*** = Sediment is considered to present a low risk to aquatic life.**

**** = Sediment is considered to be moderately contaminated.**

+ = Sediment is considered highly contaminated and likely to present a high risk to aquatic life.

++ = PAH sediment guidance value assuming 2% TOC.

mg/kg = milligrams per kilogram or parts per million.

ug/kg = micrograms per kilogram or parts per billion.

NS = No standard or guidance value available.

Yellow shaded values exceed 1 or more sediment guidance values.

Table 7
Summary of Surface Water Analytical Results
Niagara Sanitation Site, Site No. 932054
Wheatfield, New York

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Sample Point Sample Type Sample Date	NYSDEC Surface Water Standards	SW-1 Surface Water 05/29/13	SW-2 Surface Water 05/29/13	SW-3 Surface Water 05/29/13	SW-4 Surface Water 05/29/13	SW-5 Surface Water 05/29/13	SW-6 Surface Water 05/29/13	SW-7 Surface Water 05/29/13
Pesticides (ug/L)								
4,4'-DDE	0.2					0.013		
alpha-BHC	0.01		**0.016**	**0.024**		**0.012**		**0.010**
beta-BHC	0.04			**0.042**				
Dieldrin	0.004		**0.011**					
gamma-BHC (Lindane)	0.05		0.012	0.019		0.021		0.015
gamme-Chlordane	0.05		**0.33**					
Heptachlor epoxide	0.03			0.024				
Semi-Volatile Organic Compounds (ug/L)								
2-METHYLPHENOL (O-CRESOL)	1*		**5.1**					**1.2**
4-METHYLPHENOL (P-CRESOL)	1*		**36.0**					**1.0**
BENZALDEHYDE	NS	3.3	0.6	12.0	5.1	4.0	1.0	6.0
BIS(2-CHLOROISOPROPYL)ETHER	5.0	1.0						
DI-N-BUTYL PHTHALATE	50.0	0.68	0.59	0.47	0.50	0.56	0.52	0.39
PHENOL	1*		0.73					

Notes:

NS = No standard or guidance value available.

ug/L = micrograms per liter or parts per billion.

*** = Standard applies to total phenols.**

Blanks = concentration below laboratory detection limits.

Yellow shaded values exceed NYSDEC surface water standards or guidance values.