Niagara Transformer Corporation

ERIE, NEW YORK

Periodic Review Report

NYSDEC Site Number: C915234

Prepared for:
Niagara Transformer Corporation
1747 Dale Road
Cheektowaga, New York 14225

Prepared by:
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SEPTEMBER 2013

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1.0 SITE OVERVIEW

1.1 Site Location & Description

The site is located at 1755 Dale Road in the Town of Cheektowaga County of Erie, New York and is identified as Block 3 and Lot 6.1 on the Town of Cheektowaga Tax Map. The site is an approximately 3-acre area bounded by Dale Road to the north, CSX rail corridor to the south, a vacant parcel (owned by NTC) to the east, and NTC's manufacturing facility located at 1747 Dale Road to the west (see Figure 1-1). The site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index# C915234-10-09, Site C915234, which was executed on November 19, 2009.

1.2 Nature and Extent of Contamination Prior to Remediation

Prior to site remediation under the Brownfields Cleanup Program (BCP), PCB contamination ranged from non-detectable to concentrations of 1060 ppm in the shallow soil/fill. The BCP RI sampling program included analysis for a broad range of potential contaminants (VOCs, SVOCs, metals and pesticides) and focused on potential PCB impacts at depths greater than 1 foot and in shallow surface soils at the northernmost end of the Site that were not addressed during an earlier (December 2007) investigation. The BCP RI detected PCBs in the soil/fill borings at concentrations up to 22 parts per million (ppm).

1.3 Site Remedial Program

An IRM was implemented under the Brownfield Cleanup Agreement at the Niagara Transformer 1755 Dale Road Site in February 2010. Details of the IRM approach are described in the August 2009 RI/IRM Work Plan (Ref. 1). Based on the nature and extent of contamination as indicated by prior investigations (primarily based on the PCB impacts identified as a result of the 2007 NTC Soil Investigation) and the planned redevelopment of the subject property, the IRM Work Plan called for source removal via excavation, with off-site disposal of impacted soil.

Impacted soil that exceeded the NYSDEC Part 375 restricted industrial SCOs for total poly-chlorinated biphenyls (PCBs) was identified in thirteen (13) excavation grids that were approximately 50 ft. by 50 ft. in area. These soils were further characterized as hazardous (i.e., greater than 50 ppm for total PCBs) or non-hazardous (i.e., less than 50 ppm for total PBCs) in each of the grids.

The following is a summary of the Remedial Actions performed at the site:

- Excavation and on-site staging of non-hazardous soil grids. Approximately 1,097 tons of non-hazardous soil was temporarily relocated to an onsite spoils lay down area for further testing and characterization prior to disposal off site. Grids identified as numbers 3, 4, 5 and 7 were characterized as non-hazardous based on the 2007 surface soil investigation performed by NTC. Grid 3, 4 and 7 sample results from the 2007 investigation indicated that the surficial soils were technically below the Part 375 Restricted Industrial SCO. However, it was determined that based on their location between other grids that exceeded the SCO that it was impractical to leave the soil/fill from these grids in place. Therefore they were included in the non-hazardous excavation plan.

- Excavation of PCBs hazardous (i.e.> 50 ppm) soil/fill. Approximately 2,075 tons of soil/fill were removed as hazardous waste for off-site disposal. Grids identified as numbers 1, 2, 6, 8, 9, 10, 11, 12 and 13 were characterized as hazardous based on the 2007 surface soil investigation performed by NTC.
- Characterization and off-site disposal of approximately 6 partially crushed and deteriorated drums containing non-hazardous roofing tar residuals;
- Excavation and on-site relocation of large pieces of concrete rubble from several designated grid areas;
- Verification sampling of the sidewalls and floor areas of the excavated. Golder personnel collected 11 sidewall, 20 floor and 4 sidewall verification samples within the excavation limits and from stockpiled soil from the non-hazardous grids;
- Off-site transportation and disposal of hazardous and non-hazardous soil/fill to the CWM Chemical Services TSD Facility, Model City, New York;
- Community dust monitoring program implemented during excavation activities;
- Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;
- Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.

The Site was remediated to meet the restricted industrial SCO for PCBs of 25 ppm. The materials that were removed were primarily non-native fill and small quantities of native soils, and natural vegetation in the contaminated areas. The total amount of material that was disposed of off-site was 3,172 tons.

No long-term treatment systems were required or installed as part of the site remedy based on the results of the RI and subsequent soil/fill removals performed under the IRM.

After completion of the remedial work, some contamination was left in the subsurface at this site, which is hereafter referred to as “remaining contamination.” The contamination remaining on the site consists of low levels of PCBs within the upper soil/fill layer that remains after completion of the remedial excavation across the majority of the site. In general, based on extensive geotechnical and environmental borings, this layer of soil/fill decreases in thickness at the north and west portions of the Site and increases to a thickness of 3 to 4 feet in the southern and western portions of the Site. The remaining concentrations of PCBs in the shallow soil/fill that exceed the Track 1 (unrestricted) SCO for PCBs (0.1 ppm) are were summarized in Table 1 of the Site Management Plan (SMP) [Ref. 2]. The residual concentrations range from 0.15 to 11.2 ppm with an average concentration across the 49 samples of 1.9 ppm. This data consists of samples collected during the December 2007 Investigation from areas of the Site that were not remediated as part of the IRM as well as supplemental BCP RI data and post-IRM remediation verification sample results collected from the IRM excavation areas.

A SMP was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. The SMP addresses the means for implementing the Institutional Controls (ICs) that are required by the Environmental Easement for the site.

1.4 Purpose of Periodic Review Report

This Periodic Review Report (PRR) presents information on the maintenance, monitoring and compliance activities for the Niagara Transformer Site No. C915234 for the period from June 16, 2012 to June 15, 2013.

During this time period both intrusive (excavations for new building foundations, HVAC support pads, utilities, etc.) and non-intrusive site work (grading and placement of imported structural fill (crushed stone), and topsoil placement and seeding was performed (beginning in December 2012) as a result of the new manufacturing facility and associated infrastructure that is being constructed on the Site as the centerpiece of the brownfield redevelopment project.

2.0 REMEDIAL SYSTEMS COMPLIANCE

There are no active remedial treatment or engineering control systems operating at the 1755 Dale Road BCP Site because the Interim Remedial Measure (IRM) conducted as part of the overall BCP achieved the Remedial Action Objectives for the Site of:

- Removal of PCB -impacted soil/fill within the Site to levels protective of human health for the intended future use of the Site (industrial Soil Cleanup Objectives [SCOs])
- Mitigate and minimize loadings to storm water from residual PCB-impacted soil/fill.

6NYCRR Part 375 Restricted Industrial SCOs were employed as soil cleanup goals to provide a measure of performance against these RAOs. The SCOs are soil concentration limits protective of human health and groundwater quality. Achievement of the SCOs was confirmed through verification sampling.

The approved SMP requires the implementation of a long term monitoring plan that incorporates semi-annual storm water and sediment analysis and annual inspections of the site to identify evidence of excessive soil erosion to the Site soils or deterioration of asphalt or concrete structures on the Site that might indicate that off-site transport of soil/fill is more likely to occur or is occurring. In particular, the annual inspections are to focus on the condition and integrity of the soil berms created as part of the BCP approved remedial program.

The results of the required monitoring activities and annual inspection are presented in Section 4 “Monitoring Plan Compliance Report”.

3.0 INSTITUTIONAL CONTROL COMPLIANCE

3.1 Introduction

3.1.1 General

Since remaining contaminated soil exists beneath the site, Institutional Controls (ICs) are required to protect human health and the environment. The Institutional Control Plan is a component of the SMP and describes the procedures for the implementation and management of all ICs at the site. The goals of the ICs are to: (1) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (2) limit the use and development of the site to industrial uses only.

3.2 Description of Institutional Controls

The Institutional Controls are:

- Compliance with the Environmental Easement and the SMP by the Grantor and the Grantor's successors and assigns;
- Performance of semi-annual storm water and sediment (when present) monitoring for PCBs as defined in the SMP;
- Implementation and documentation of the soil/fill management procedures provided in the Excavation Work Plan (EWP); and
- Reporting of the data and information pertinent to Site Management of the Controlled Property.

The site has a series of Institutional Controls in the form of site restrictions. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted industrial use provided that the long-term Institutional Controls included in this SMP are employed.
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
- The property may not be used for a higher level of use, such as restricted 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 and EWP;
- Vegetable gardens and farming on the property are prohibited;
- 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 Controlled 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 Controlled Property at 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.

The environmental easement summarizing the site use restrictions and requirements for the site was executed by the Department on June 22, 2010, and filed with the Erie County Clerk on July 15, 2010. The Easement A copy of the easement and proof of filing is provided in Appendix F of the SMP for this site.

3.2.1 Status of ICs

During the reporting period covered by this PRR, all ICs were in place and effective in meeting their objectives. Intrusive work was initiated and conducted at the Site from December 2012 through June 2013 that disturbed or otherwise displaced underlying soils, therefore, the Excavation Work Plan was utilized during this time. The Department was consulted on the nature and extent of intrusive work activities and all excess soils generated from the intrusive activities were sampled and analyzed in accordance with the Excavation Work Plan and DER-10 guidance (modified in consultation and with the approval of Department after completion and reporting of initial native soil testing results).

There are no corrective measures required to address deficiencies in the ICs at this time based on the results of the monitoring and annual inspection performed.

During the reporting period covered by this PRR only one round of storm water and sediment samples were collected. The initial samples were collected on October 30, 2012, which was the first occasion in 2012 that the storm water retention pond water level reached the overflow structure and storm water effluent was present in sufficient quantity for sampling at the outfall structure subsequent to the end of the previous PRR reporting period on June 15, 2012. Prior to this sampling date accumulated storm water had not discharged from the pond and the Site beginning with the mid-June 2012 start of the reporting period. Subsequent to this sampling event a second sampling date was scheduled for April or May, 2013 (i.e., approximately six months following the first sampling event). However due to the significant and ongoing site construction activities (including intrusive excavation activities) being undertaken during this time frame, it was determined that representative sampling should not be conducted and that the next sampling event will be scheduled for mid to late October 2013 when the exterior portion of the site construction work including all intrusive activities will be completed and soil stabilization and re-vegetation as well as permanent paving of temporary construction roads and access areas has been performed.

4.0 MONITORING PLAN COMPLIANCE REPORT

4.1 3.1 Introduction

4.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate residual contamination at the site, and all affected site media identified below. This Monitoring Plan may only be revised with the approval of NYSDEC.

4.1.2 Schedule

Semi-annual monitoring of the Site storm water and associated sediment is proposed to assess the effectiveness of the remedy and overall reduction in contamination on-site. Semi-annual monitoring will be conducted for the first 5 years. A reduction in frequency may be requested from the Department if after the initial 5 year monitoring period if the data demonstrates that PCBs are not being detected in the stormwater and sediment runoff from the BCP Site. Trends in PCB contaminant levels in storm water and sediment discharged from the Site will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. The Monitoring program is summarized in Table 4-1 and results of the monitoring performed are discussed further in Section 4.2 below.

Table 4-1: Monitoring/Inspection Schedule

Monitoring Program	Frequency*	Matrix	Analysis
Stormwater: Upstream, Outfall, Downstream	Semi-annually (first five years)	Stormwater runoff and sediment (when present)	PCBs, Method 8082
Annual Site Inspection	Annually	Visually inspect entire site (with particular focus on soil berms) for signs of deterioration/erosion	NA

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC and NYSDOH

4.2 Monitoring Program Results

4.2.1 Surface Water and Sediment Monitoring

As previously noted the pond water level did not reach the overflow structure level in sufficient volume to allow for sampling until late October of 2012. Storm water samples were collected on October 30, 2012 by Golder. Samples were collected at three (3) locations in accordance with the NTC C915234 Site SMP. Samples were collected from the storm water retention pond outfall structure on the East parcel (outfall

sample), in the drainage swale 50 feet east and upstream of the combined 1747/1755 storm water outfall (upstream sample) and in the drainage swale approximately 10 feet downstream of the combined outfall (downstream sample). Refer to Figure 4-1 for the location where these sample were collected.

The storm water samples were analyzed for PCBs. The analytical results from the October 2012 sampling event are summarized and compared to NYSDEC surface water standards (NYSDEC 1998) in Table 4-2. No detections were found in the Pond Discharge or Downstream stormwater samples. And one qualified (i.e., less than the reporting limit) detection of Arochlor 1242, was the only PCB detected above its NYSDEC surface water standard in the upstream sample, it was not detected in the downstream or Site outfall sample. The downstream sample includes contributions from the 1747 Dale Road site storm water discharge outfall to the drainage swale where the sample was collected.

In conjunction with the storm water sampling, 2 of the 3 sediment samples identified in the SMP Monitoring Plan were collected. The upstream and downstream sediment sample locations were sampled, however, there was not sufficient sediment present in the new outfall structure to allow for collection of this sample.

Arochlor 1260 was detected in the downstream sediment sample at a concentration of 2.0 mg/kg and in the upstream sediment sample at a concentration of 1.6 mg/kg. The analytical results from the October 2012 sediment sampling event are also summarized and presented in Table 4-2. This result is comparable to the concentrations detected in the NTC-001 downstream sediment samples collected and analyzed for the 1747 Dale Road SMP in 2009, 2010 and 2011.

A copy of the laboratory Analytical Report for all storm water and sediment analyses performed is attached in Appendix A

As noted in Section 3.2.1, the second storm water and sediment monitoring event planned for April/May of 2013 was not performed at that time or subsequently prior to June 15, 2013 due to the ongoing Site construction activities.

4.3 Annual Site Inspection Results

An annual inspection was performed on October 2012 in accordance with the SMP Monitoring Program requirements. A Site-wide inspection form was completed (Appendix B). The form compiles sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and

- Confirm that site records are up to date.

All areas of the Site were carefully inspected to assess the condition of surface soil integrity, asphalt (not present at time of inspection) and concrete areas to determine if evidence of erosion or related deterioration of the site soils, asphalt or concrete structures is occurring that would result in the erosion of Site soil/fill onto surrounding properties. In particular, special attention was given to inspecting the condition and integrity of the soil berms created in 2010 as part of the initial Site redevelopment plan. These berms were covered with clean topsoil in the spring of 2011 and seeded and planted with trees and grass as part of the approved landscaping plan with the Town. No erosion or deterioration in any areas was noted, and therefore no corrective actions were noted to address or otherwise correct the problem(s) identified during the inspection. A photo log of photos taken during the inspection is also provided in Appendix B.

4.4 Summary of Intrusive Activities During Reporting Period

Niagara Transformer initiated development of their new manufacturing building and associated supporting infrastructure in early December 2012. As part of this activity, a significant quantity of excess site soils were excavated for construction of building structural foundations, floors, utility trenches and related equipment pads and parking areas.

All excavated soils were inspected for suitability as reuse as on-site backfill in accordance with the Excavation Work Plan (EWP). Excess soils were inspected for obvious signs of visual or olfactory contamination and either reused for backfill or stockpiled for sampling/analysis in accordance with the EWP depending on the planned final disposition of the soil. A majority of shallow soil/fill excavated from the building footprint that comprised portions of the west and south berms that remained from the initial site grading activities in 2011 were segregated and tested for off-site disposal. The soils were characterized as non-hazardous and accepted for disposal at the Waste Management Chaffee landfill under Profile Number 110202NY. Between December 28, 2012 and January 2, 2013 a total of 1034 tons of soil were removed from the site and disposed of at the Chaffee Landfill under this profile.

Some of the soils excavated at depths below the previously remediated soil/fill were segregated and stockpiled as “native” soils based on their appearance and excavation location. The Department was contacted for approval of these soils to be used for clean fill at off-site locations and at their request Golder prepared a supplemental soil sampling plan for further characterization of these soils. This plan was submitted and approved by the Department on January 18, 2013 (please refer to Appendix C). Subsequently, from February 4 through March 15, 2013, approximately 1,500 cubic yards of native soils were tested in accordance with the supplemental January 18 2013 Sampling Plan and approved as suitable for off-site reuse. The site contractor removed these soils for backfill at several locations.

4.5 Conclusions and Recommendations

At the time of the annual inspection, the Site was only partially developed with completion of foundation base stone and grading and vegetation of soil berms completed. All monitoring results and inspection results were acceptable with no detection of PCBs in either the Site outfall discharge or downstream storm water samples and no deterioration or evidence of erosion from the soil berms and the Site. The low level positive detections of PCBs in the upstream storm water and sediment samples were consistent with detections reported for the samples collected in nearly the same locations as part of the SMP monitoring associated with the adjacent 1747 Dale Road Site (where contributions of storm water and sediment from the 1747 parcel are present).

No recommendations for changing of the monitoring and inspection program are proposed at this time.

5.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

Based on the initial monitoring and inspection results described in Section 4 and conducted during the timeframe covered by this PRR, compliance with all relevant components of the SMP ICs were achieved.

The limited storm water and sediment sampling completed to date (i.e., two events) cannot conclusively assess the performance of the remedy. However, the storm water sample results over the first two years and the overall condition of the site and integrity of the final vegetated soil berms provide solid evidence that the remedy performed under the BCP is achieving its intended goals of minimizing, to the extent feasible, exposure of remaining contamination to the environment through storm water runoff and associated sediment erosion.

The construction activity on the Site initiated in Decemebr of 2012 resulted in the cancelling of the second planned semi-annual storm water and sediment sampling event in the spring of 2013. However, Niagara Transformer is planning completion of all major exterior work by mid-October 2013 and will therefore arrange for collection of the required SMP Monitoring Plan samples as soon as outfall overflow occurs and sample collection is feasible for the first event of the current monitoring period. The expectation is that this will be possible in late October of 2013 dependent on precipitation during this timeframe.

In conjunction with this next sampling event, the Annual Inspection will be performed. The next semi-annual SMP sampling event would be performed in conjunction with the October 2013 monitoring event, contingent on storm water availability for sampling.

6.0 REFERENCES

1. Golder Associates Inc., *Remedial Investigation & Interim Remedial Measures Work Plan*, *Niagara Transformer Corporation – 1755 Dale Road Cheektowaga, New York,* prepared for New York State Department of Environmental Conservation, September 2009.

2. Golder Associates Inc., *Site Management Plan, Niagara Transformer Corporation, NYSDEC Site No. 915234*, prepared for Niagara Transformer Corporation, September 2010.

TABLE 4-2

(Table 4-1 in Text)

TABLE 4-2
SUMMARY OF ANALYTICAL RESULTS FOR STORMWATER AND SEDIMENT SAMPLING

PERIODIC REVIEW REPORT

1755 DALE RD. BCP SITE # C915234 - NIAGARA TRANSFORMER CORP
CHEEKTOWAGA, NY

Lab ID		480-27459-1	480-27459-2	480-27459-3	480-27459-4	480-27459-5
Sample ID		Pond Discharge	Upstream Surface Water	Downstream Surface Water	Upstream Sediment	Downstream Sediment
Sample Date		10/30/12	10/30/12	10/30/12	10/30/12	10/30/12
Sample Matrix		Water	Water	Water	Sediment	Sediment
Units		ug/L	ug/L	ug/L	ug/Kg	ug/Kg
Polychlorinated Biphenyls (8082)	NYSDEC Surface Water Standards (ug/L)					
Aroclor 1016		ND	ND	ND	ND	ND
Aroclor 1221		ND	ND	ND	ND	ND
Aroclor 1232		ND	ND	ND	ND	ND
Aroclor 1242		ND	0.21 J	ND	ND	ND
Aroclor 1248		ND	ND	ND	ND	ND
Aroclor 1254		ND	ND	ND	ND	ND
Aroclor 1260		ND	ND	ND	1600	2000
TOTAL PCBs	0.09	0	0.21	0	1600	2000

Data Qualifiers:

J = Result is less than reporting limit (RL) but greater than or equal to the MDL and the concentration is an approximate value.

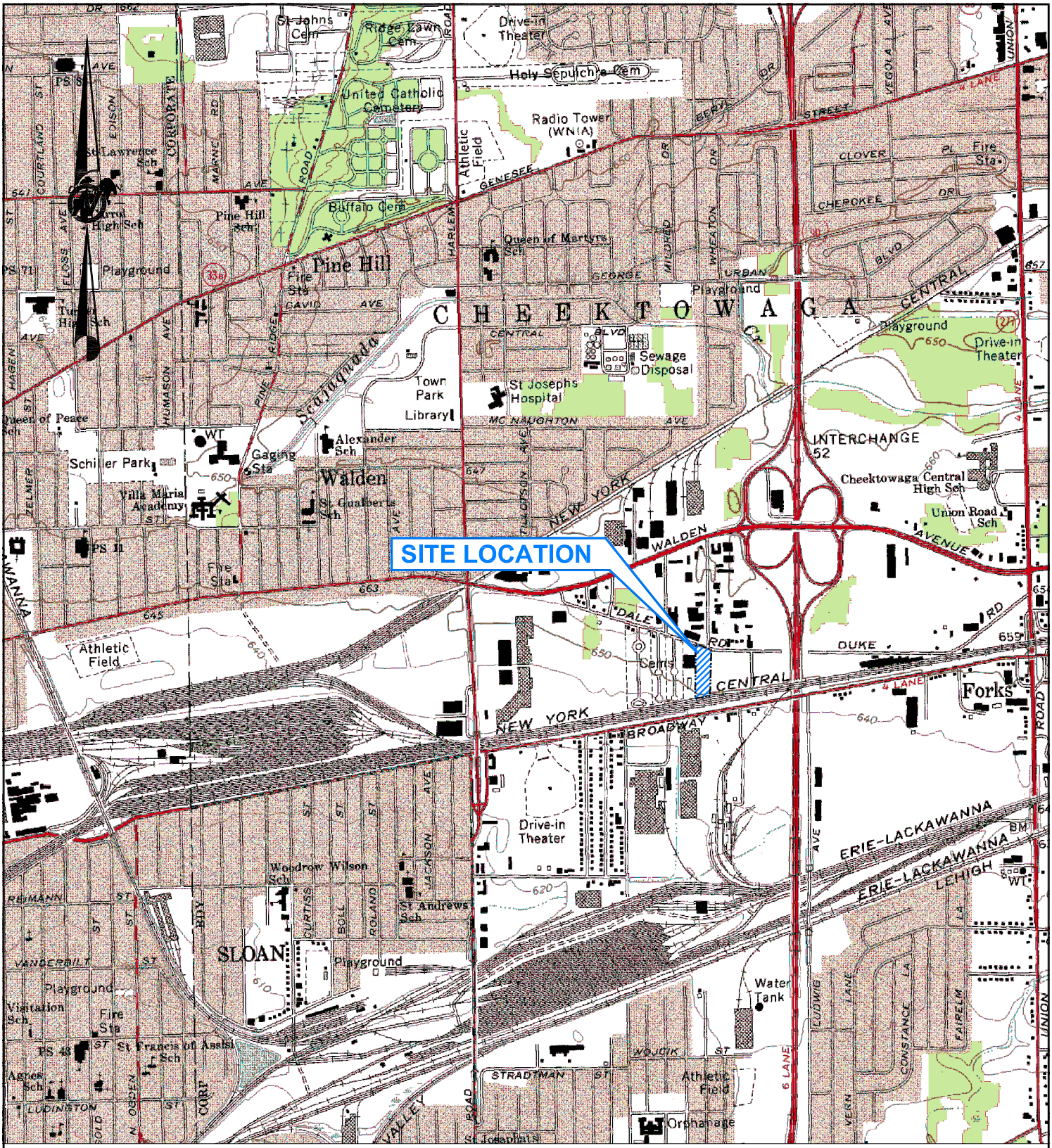
Footnotes:

All values are in Parts per Billion (PPB).
ND = Not detected at the RL.

Table by: AML
Checked by: DMP
Reviewed by: PTM

GOLDER ASSOCIATES

FIGURES



REFERENCE

1.) BASE FROM 7.5 MINUTE QUADRANGLE OF BUFFALO NORTHEAST, NEW YORK DATED 1965.

2000 0 2000
SCALE FEET

Golder Associates
Mt. Laurel, New Jersey

SCALE	AS SHOWN
DATE	07/06/09
DESIGN	PTM
CADD	GLS
CHECK	
REVIEW	

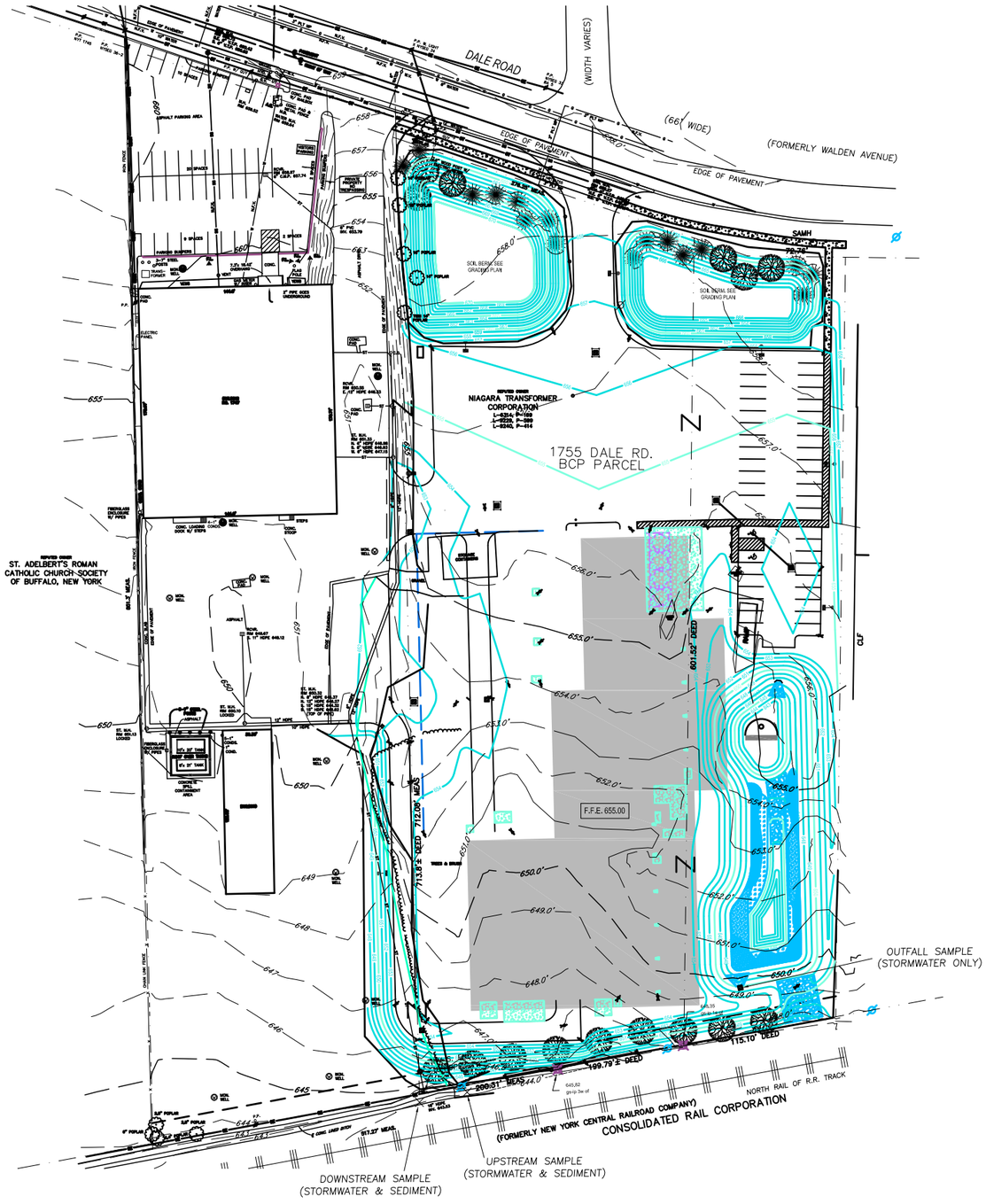
FILE No. 0938914402A001
PROJECT No. 093-89144-02 REV. 0

TITLE

SITE VICINITY MAP
1755 DALE ROAD BCP PARCEL
CHEEKTOWAGA, NEW YORK

NIAGARA TRANSFORMER CORP.

FIGURE 1-1



LEGEND

- STORMWATER/SEDIMENT SAMPLE LOCATION (DRAINAGE DITCH)
- STORMWATER OUTFALL STRUCTURE

REFERENCES

1.) BASE MAP FROM C&S DRAWING: NT-C103.DWG

100 0 100
SCALE FEET

Golder Associates
Mt. Laurel, New Jersey

PROJECT
NIAGARA TRANSFORMER CORP.
PERIODIC REVIEW REPORT
CHEEKTOWAGA, NEW YORK

TITLE
OCTOBER 2012
SURFACE WATER & SEDIMENT
SAMPLE LOCATIONS

PROJECT No.	093-89144-02	
FILE No.	0938914402A031	
REV. 0	SCALE AS SHOWN	
DESIGN	PTM	10/5/2012
CADD	AML	8/19/2013
CHECK	PTM	8/19/2013
REVIEW	PTM	8/19/2013

FIG 4-1

APPENDIX A

ANALTICAL DATA REPORT – TESTAMERICA

NOVEMBERT 6, 2012

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-27459-1
Client Project/Site: Golder - Niagara Transformer site

For:
Golder Associates Inc.
2430 North Forest Rd
Suite 100
Getzville, New York 14068

Attn: Mr. Patrick Martin

Joseph V. Giacomazza

Authorized for release by:
11/6/2012 3:13:05 PM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Brian Fischer
Project Manager II
brian.fischer@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
RER	Relative error ratio
DER	Duplicate error ratio (normalized absolute difference)
DLC	Decision level concentration
RL	Reporting Limit or Requested Limit (Radiochemistry only)

Case Narrative

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Job ID: 480-27459-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-27459-1

Receipt
The samples were received on 10/31/2012 8:05 AM; the samples arrived in good condition and properly preserved. The temperature of the cooler at receipt was 11.0º C.

Except:

The following samples were received at the laboratory outside the required temperature criteria (2-6 C): 1755 POND DISCHARGE (480-27459-1), DOWNSTREAM SEDIMENT (480-27459-5), DOWNSTREAM SURFACE WATER (480-27459-3), UPSTREAM SEDIMENT (480-27459-4), UPSTREAM SURFACE WATER (480-27459-2). The samples do not meet the acceptance criteria for temperature since they were submitted to the laboratory without any cooling media and there was no evidence that the chilling process had begun.

GC Semi VOA
Method 8082: The matrix spike (MS) recoveries associated with batch 88492 were outside control limits: (480-27459-4 MS). Matrix interference is suspected.

No other analytical or quality issues were noted.

Organic Prep
Method 3550B: A significant amount of liquid was present in the following samples : (480-27459-4 MS), (480-27459-4 MSD), DOWNSTREAM SEDIMENT (480-27459-5), UPSTREAM SEDIMENT (480-27459-4). These samples were decanted prior to preparation.

No other analytical or quality issues were noted.

Detection Summary

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Client Sample ID: 1755 POND DISCHARGE — Lab Sample ID: 480-27459-1

No Detections

Client Sample ID: UPSTREAM SURFACE WATER — Lab Sample ID: 480-27459-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1242	0.21	J	0.59	0.21	ug/L	1		8082	Total/NA

Client Sample ID: DOWNSTREAM SURFACE WATER — Lab Sample ID: 480-27459-3

No Detections

Client Sample ID: UPSTREAM SEDIMENT — Lab Sample ID: 480-27459-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	1600		420	200	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: DOWNSTREAM SEDIMENT — Lab Sample ID: 480-27459-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	2000		300	140	ug/Kg	1	☼	8082	Total/NA

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Client Sample ID: 1755 POND DISCHARGE
Date Collected: 10/30/12 17:00
Date Received: 10/31/12 08:05

Lab Sample ID: 480-27459-1
Matrix: Water

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 07:41	1
PCB-1221	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 07:41	1
PCB-1232	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 07:41	1
PCB-1242	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 07:41	1
PCB-1248	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 07:41	1
PCB-1254	ND		0.48	0.24	ug/L		11/02/12 07:08	11/03/12 07:41	1
PCB-1260	ND		0.48	0.24	ug/L		11/02/12 07:08	11/03/12 07:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*57*		*19 - 126*	*11/02/12 07:08*	*11/03/12 07:41*	*1*
Tetrachloro-m-xylene	*87*		*23 - 127*	*11/02/12 07:08*	*11/03/12 07:41*	*1*

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Client Sample ID: UPSTREAM SURFACE WATER
Lab Sample ID: 480-27459-2
Date Collected: 10/30/12 17:10
Matrix: Water
Date Received: 10/31/12 08:05

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.59	0.21	ug/L		11/02/12 07:08	11/03/12 07:56	1
PCB-1221	ND		0.59	0.21	ug/L		11/02/12 07:08	11/03/12 07:56	1
PCB-1232	ND		0.59	0.21	ug/L		11/02/12 07:08	11/03/12 07:56	1
PCB-1242	**0.21**	**J**	0.59	0.21	ug/L		11/02/12 07:08	11/03/12 07:56	1
PCB-1248	ND		0.59	0.21	ug/L		11/02/12 07:08	11/03/12 07:56	1
PCB-1254	ND		0.59	0.29	ug/L		11/02/12 07:08	11/03/12 07:56	1
PCB-1260	ND		0.59	0.29	ug/L		11/02/12 07:08	11/03/12 07:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*19 - 126*	*11/02/12 07:08*	*11/03/12 07:56*	*1*
Tetrachloro-m-xylene	*91*		*23 - 127*	*11/02/12 07:08*	*11/03/12 07:56*	*1*

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Client Sample ID: DOWNSTREAM SURFACE WATER
Lab Sample ID: 480-27459-3
Date Collected: 10/30/12 17:20
Matrix: Water
Date Received: 10/31/12 08:05

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 08:11	1
PCB-1221	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 08:11	1
PCB-1232	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 08:11	1
PCB-1242	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 08:11	1
PCB-1248	ND		0.48	0.17	ug/L		11/02/12 07:08	11/03/12 08:11	1
PCB-1254	ND		0.48	0.24	ug/L		11/02/12 07:08	11/03/12 08:11	1
PCB-1260	ND		0.48	0.24	ug/L		11/02/12 07:08	11/03/12 08:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*59*		*19 - 126*	*11/02/12 07:08*	*11/03/12 08:11*	*1*
Tetrachloro-m-xylene	*87*		*23 - 127*	*11/02/12 07:08*	*11/03/12 08:11*	*1*

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Client Sample ID: UPSTREAM SEDIMENT
Date Collected: 10/30/12 17:15
Date Received: 10/31/12 08:05

Lab Sample ID: 480-27459-4
Matrix: Solid
Percent Solids: 55.3

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		420	82	ug/Kg	☼	11/01/12 08:07	11/03/12 04:44	1
PCB-1221	ND		420	82	ug/Kg	☼	11/01/12 08:07	11/03/12 04:44	1
PCB-1232	ND		420	82	ug/Kg	☼	11/01/12 08:07	11/03/12 04:44	1
PCB-1242	ND		420	82	ug/Kg	☼	11/01/12 08:07	11/03/12 04:44	1
PCB-1248	ND		420	82	ug/Kg	☼	11/01/12 08:07	11/03/12 04:44	1
PCB-1254	ND		420	200	ug/Kg	☼	11/01/12 08:07	11/03/12 04:44	1
PCB-1260	**1600**		420	200	ug/Kg	☼	11/01/12 08:07	11/03/12 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*140*		*36 - 182*	*11/01/12 08:07*	*11/03/12 04:44*	*1*
Tetrachloro-m-xylene	*125*		*24 - 172*	*11/01/12 08:07*	*11/03/12 04:44*	*1*

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Client Sample ID: DOWNSTREAM SEDIMENT
Date Collected: 10/30/12 17:25
Date Received: 10/31/12 08:05

Lab Sample ID: 480-27459-5
Matrix: Solid
Percent Solids: 58.0

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		300	59	ug/Kg	☼	11/01/12 08:07	11/03/12 04:59	1
PCB-1221	ND		300	59	ug/Kg	☼	11/01/12 08:07	11/03/12 04:59	1
PCB-1232	ND		300	59	ug/Kg	☼	11/01/12 08:07	11/03/12 04:59	1
PCB-1242	ND		300	59	ug/Kg	☼	11/01/12 08:07	11/03/12 04:59	1
PCB-1248	ND		300	59	ug/Kg	☼	11/01/12 08:07	11/03/12 04:59	1
PCB-1254	ND		300	140	ug/Kg	☼	11/01/12 08:07	11/03/12 04:59	1
PCB-1260	**2000**		300	140	ug/Kg	☼	11/01/12 08:07	11/03/12 04:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*181*		*36 - 182*	*11/01/12 08:07*	*11/03/12 04:59*	*1*
Tetrachloro-m-xylene	*166*		*24 - 172*	*11/01/12 08:07*	*11/03/12 04:59*	*1*

Surrogate Summary

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		DCB2	TCX2								
Lab Sample ID	Client Sample ID	(36-182)	(24-172)								
480-27459-4	UPSTREAM SEDIMENT	140	125								
480-27459-4 MS	UPSTREAM SEDIMENT	211 X	185 X								
480-27459-4 MSD	UPSTREAM SEDIMENT	171	149								
480-27459-5	DOWNSTREAM SEDIMENT	181	166								
LCS 480-88492/2-A	Lab Control Sample	142	126								
MB 480-88492/1-A	Method Blank	126	115								

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		DCB2	TCX2								
Lab Sample ID	Client Sample ID	(19-126)	(23-127)								
480-27459-1	1755 POND DISCHARGE	57	87								
480-27459-2	UPSTREAM SURFACE WATER	70	91								
480-27459-3	DOWNSTREAM SURFACE WATEF	59	87								
LCS 480-88681/2-A	Lab Control Sample	75	85								
MB 480-88681/1-A	Method Blank	75	84								

Surrogate Legend

DCB = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-88492/1-A
Matrix: Solid
Analysis Batch: 88828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88492

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		170	34	ug/Kg		11/01/12 08:07	11/03/12 03:45	1
PCB-1221	ND		170	34	ug/Kg		11/01/12 08:07	11/03/12 03:45	1
PCB-1232	ND		170	34	ug/Kg		11/01/12 08:07	11/03/12 03:45	1
PCB-1242	ND		170	34	ug/Kg		11/01/12 08:07	11/03/12 03:45	1
PCB-1248	ND		170	34	ug/Kg		11/01/12 08:07	11/03/12 03:45	1
PCB-1254	ND		170	82	ug/Kg		11/01/12 08:07	11/03/12 03:45	1
PCB-1260	ND		170	82	ug/Kg		11/01/12 08:07	11/03/12 03:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*126*		*36 - 182*	*11/01/12 08:07*	*11/03/12 03:45*	*1*
Tetrachloro-m-xylene	*115*		*24 - 172*	*11/01/12 08:07*	*11/03/12 03:45*	*1*

Lab Sample ID: LCS 480-88492/2-A
Matrix: Solid
Analysis Batch: 88828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88492

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	2070	2480		ug/Kg		120	51 - 185
PCB-1260	2070	2550		ug/Kg		123	61 - 184

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*142*		*36 - 182*
Tetrachloro-m-xylene	*126*		*24 - 172*

Lab Sample ID: 480-27459-4 MS
Matrix: Solid
Analysis Batch: 88828

Client Sample ID: UPSTREAM SEDIMENT
Prep Type: Total/NA
Prep Batch: 88492

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	ND		3330	4780		ug/Kg	☼	143	42 - 159
PCB-1260	1600		3330	6980	F	ug/Kg	☼	162	47 - 153

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*211*	*X*	*36 - 182*
Tetrachloro-m-xylene	*185*	*X*	*24 - 172*

Lab Sample ID: 480-27459-4 MSD
Matrix: Solid
Analysis Batch: 88828

Client Sample ID: UPSTREAM SEDIMENT
Prep Type: Total/NA
Prep Batch: 88492

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		3910	4800		ug/Kg	☼	123	42 - 159	0	50
PCB-1260	1600		3910	7220		ug/Kg	☼	144	47 - 153	3	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*171*		*36 - 182*
Tetrachloro-m-xylene	*149*		*24 - 172*

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 480-88681/1-A
Matrix: Water
Analysis Batch: 88828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 88681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		11/02/12 07:08	11/03/12 06:13	1
PCB-1221	ND		0.50	0.18	ug/L		11/02/12 07:08	11/03/12 06:13	1
PCB-1232	ND		0.50	0.18	ug/L		11/02/12 07:08	11/03/12 06:13	1
PCB-1242	ND		0.50	0.18	ug/L		11/02/12 07:08	11/03/12 06:13	1
PCB-1248	ND		0.50	0.18	ug/L		11/02/12 07:08	11/03/12 06:13	1
PCB-1254	ND		0.50	0.25	ug/L		11/02/12 07:08	11/03/12 06:13	1
PCB-1260	ND		0.50	0.25	ug/L		11/02/12 07:08	11/03/12 06:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*75*		*19 - 126*	*11/02/12 07:08*	*11/03/12 06:13*	*1*
Tetrachloro-m-xylene	*84*		*23 - 127*	*11/02/12 07:08*	*11/03/12 06:13*	*1*

Lab Sample ID: LCS 480-88681/2-A
Matrix: Water
Analysis Batch: 88828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 88681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	5.00	5.07		ug/L		101	61 - 137
PCB-1260	5.00	4.10		ug/L		82	45 - 139

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*75*		*19 - 126*
Tetrachloro-m-xylene	*85*		*23 - 127*

QC Association Summary

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

GC Semi VOA

Prep Batch: 88492

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-27459-4	UPSTREAM SEDIMENT	Total/NA	Solid	3550B	
480-27459-4 MS	UPSTREAM SEDIMENT	Total/NA	Solid	3550B	
480-27459-4 MSD	UPSTREAM SEDIMENT	Total/NA	Solid	3550B	
480-27459-5	DOWNSTREAM SEDIMENT	Total/NA	Solid	3550B	
LCS 480-88492/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 480-88492/1-A	Method Blank	Total/NA	Solid	3550B	

Prep Batch: 88681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-27459-1	1755 POND DISCHARGE	Total/NA	Water	3510C	
480-27459-2	UPSTREAM SURFACE WATER	Total/NA	Water	3510C	
480-27459-3	DOWNSTREAM SURFACE WATER	Total/NA	Water	3510C	
LCS 480-88681/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 480-88681/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 88828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-27459-1	1755 POND DISCHARGE	Total/NA	Water	8082	88681
480-27459-2	UPSTREAM SURFACE WATER	Total/NA	Water	8082	88681
480-27459-3	DOWNSTREAM SURFACE WATER	Total/NA	Water	8082	88681
480-27459-4	UPSTREAM SEDIMENT	Total/NA	Solid	8082	88492
480-27459-4 MS	UPSTREAM SEDIMENT	Total/NA	Solid	8082	88492
480-27459-4 MSD	UPSTREAM SEDIMENT	Total/NA	Solid	8082	88492
480-27459-5	DOWNSTREAM SEDIMENT	Total/NA	Solid	8082	88492
LCS 480-88492/2-A	Lab Control Sample	Total/NA	Solid	8082	88492
LCS 480-88681/2-A	Lab Control Sample	Total/NA	Water	8082	88681
MB 480-88492/1-A	Method Blank	Total/NA	Solid	8082	88492
MB 480-88681/1-A	Method Blank	Total/NA	Water	8082	88681

General Chemistry

Analysis Batch: 88639

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-27459-4	UPSTREAM SEDIMENT	Total/NA	Solid	Moisture	
480-27459-5	DOWNSTREAM SEDIMENT	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Client Sample ID: 1755 POND DISCHARGE

Lab Sample ID: 480-27459-1
Matrix: Water
Date Collected: 10/30/12 17:00
Date Received: 10/31/12 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			88681	11/02/12 07:08	TR	TAL BUF
Total/NA	Analysis	8082		1	88828	11/03/12 07:41	JM	TAL BUF

Client Sample ID: UPSTREAM SURFACE WATER

Lab Sample ID: 480-27459-2
Matrix: Water
Date Collected: 10/30/12 17:10
Date Received: 10/31/12 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			88681	11/02/12 07:08	TR	TAL BUF
Total/NA	Analysis	8082		1	88828	11/03/12 07:56	JM	TAL BUF

Client Sample ID: DOWNSTREAM SURFACE WATER

Lab Sample ID: 480-27459-3
Matrix: Water
Date Collected: 10/30/12 17:20
Date Received: 10/31/12 08:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			88681	11/02/12 07:08	TR	TAL BUF
Total/NA	Analysis	8082		1	88828	11/03/12 08:11	JM	TAL BUF

Client Sample ID: UPSTREAM SEDIMENT

Lab Sample ID: 480-27459-4
Matrix: Solid
Date Collected: 10/30/12 17:15
Date Received: 10/31/12 08:05
Percent Solids: 55.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			88492	11/01/12 08:07	TR	TAL BUF
Total/NA	Analysis	8082		1	88828	11/03/12 04:44	JM	TAL BUF
Total/NA	Analysis	Moisture		1	88639	11/01/12 17:52	MD	TAL BUF

Client Sample ID: DOWNSTREAM SEDIMENT

Lab Sample ID: 480-27459-5
Matrix: Solid
Date Collected: 10/30/12 17:25
Date Received: 10/31/12 08:05
Percent Solids: 58.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			88492	11/01/12 08:07	TR	TAL BUF
Total/NA	Analysis	8082		1	88828	11/03/12 04:59	JM	TAL BUF
Total/NA	Analysis	Moisture		1	88639	11/01/12 17:52	MD	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Laboratory: TestAmerica Buffalo

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAC	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAC	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAC	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13
Kansas	NELAC	7	E-10187	01-31-13
Kentucky	State Program	4	90029	12-31-12
Kentucky (UST)	State Program	4	30	04-01-13
Louisiana	NELAC	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-12
Maryland	State Program	3	294	03-31-13
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13
Minnesota	NELAC	5	036-999-337	12-31-12
New Hampshire	NELAC	1	2973	09-11-13
New Hampshire	NELAC	1	2337	11-17-12
New Jersey	NELAC	2	NY455	06-30-13
New York	NELAC	2	10026	03-31-13
North Dakota	State Program	8	R-176	03-31-13
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAC	10	NY200003	06-09-13
Pennsylvania	NELAC	3	68-00281	07-31-13
Tennessee	State Program	4	TN02970	04-01-13
Texas	NELAC	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAC	3	460185	09-14-13
Washington	State Program	10	C784	02-10-13
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

Method Summary

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: Golder Associates Inc.
Project/Site: Golder - Niagara Transformer site

TestAmerica Job ID: 480-27459-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-27459-1	1755 POND DISCHARGE	Water	10/30/12 17:00	10/31/12 08:05
480-27459-2	UPSTREAM SURFACE WATER	Water	10/30/12 17:10	10/31/12 08:05
480-27459-3	DOWNSTREAM SURFACE WATER	Water	10/30/12 17:20	10/31/12 08:05
480-27459-4	UPSTREAM SEDIMENT	Solid	10/30/12 17:15	10/31/12 08:05
480-27459-5	DOWNSTREAM SEDIMENT	Solid	10/30/12 17:25	10/31/12 08:05

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
GOLDER ASSOCIATES	PATRICK MARTIN	10/31/12	232694
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
2430 N. FOREST RD STE 100	(716) 204-5880		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
GETZVILLE / NY / 14068	P. MARTIN	B. FISCHER	
Project Name and Location (State)	**Carrier/Waybill Number**		
NIAGARA TRANSFORMER LANCASTER NY			
Contract/Purchase Order/Quote No.			
093-8914402			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	PCBs
1755 POND DISCHARGE	10/30/12	1700		X			2						X
UPSTREAM SURFACE WATER	10/30/12	1710		X			2						X
DOWNSTREAM SURFACE WATER	10/30/12	1720		X			2						X
UPSTREAM SEDIMENT	10/30/12	1715			X		1						X
DOWNSTREAM SEDIMENT	10/30/12	1725			X		1						X

Analysis (Attach list if more space is needed)

Special Instructions/ Conditions of Receipt

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☒ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By	Date	Time	1. Received By	Date	Time
Patrick T. Martin	10/31/12	0805	[signature]	10/31/12	0805
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments: 11.0 °C NO ICE #3

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Golder Associates Inc.

Job Number: 480-27459-1

Login Number: 27459

List Source: TestAmerica Buffalo

List Number: 1

Creator: Robitaille, Zach L

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	False	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GOLDER
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX B

ANNUAL SITE INSPECTION FORM - OCTOBER 30, 2012

Niagara Transformer Corporation

ERIE, NEW YORK

Site Management Plan

NYSDEC Site Number: C915234

SITE-WIDE INSPECTION FORM

Inspection Item Description	Frequency	Comments	Corrective Action (If Required)
BCP Site General Conditions	Annually	GOOD CONDITION	NONE
Excavation Work Locations – General Conditions	Per Occurrence	NOT APPLICABLE AT TIME OF INSPECTION	
Stormwater Retention Pond-Outfall Sampling Location General Condition	Annually	EXCELLENT CONDITION - NO SEDIMENT BUILDUP OR OTHER	NONE
SOIL BERMS		OBSERVED ALL BERMS TO BE COMPLETELY VEGETATED - NO EROSION NOTED	NONE

10/30/12

PATRICK T. MARTIN

Patrick T Martin

Project Title: Site Management Plan: Niagara Transformer Corp. – PRR Site Inspection

PHOTO 1 Looking North: West Property line vegetation adjacent to 1747 Dale Rd parcel	
PHOTO 2 Looking North: West Soil Berm near entrance road	

PHOTO 3 Looking Northeast: Stormwater retention pond on East parcel adjacent to BCP Parcel	
PHOTO 4 Looking East: Vegatation on East Berm adjacent to entrance road	

APPENDIX C

SOIL SAMPLING PLAN FOR CHARACTERIZATION OF SOILS FOR OFF-SITE REUSE & NYSDEC APPROVAL LETTER (JANUARY 18, 2013)

January 18, 2013 093-8914402

David Szymanski, EPS-1
New York State Department of
Environmental Conservation, Region 9
270 Michigan Ave.
Buffalo, New York 14203

RE: BCP SITE # C915234
NIAGARA TRANSFORMER CORPORATION – 1755 DALE ROAD
SITE MANAGEMENT PLAN – SOIL SAMPLING PLAN for CHARACTERIZATION OF SOILS FOR OFF-SITE REUSE

Dear Mr. Szymanski:

On behalf of Niagara Transformer Corporation, in accordance with the Site Management Plan (SMP) for BCP Site C915234 (1755 Dale Road) and as discussed based on initiation of intrusive work for foundation construction in December 2012, this soil sampling plan has been prepared for the Department's review and approval.

Specifically as detailed in my December 18, 2012 email to you, we are proposing to test some of the excavated soils from the deep foundation locations that have been stockpiled and consist of native soils (i.e., soils located at depths below the historic fill that was removed or relocated on-Site (to berms) and documented at the Site). The purpose of this testing would be to prove it is not a solid waste and document its suitability for off-Site reuse as clean fill.

The site contractor, American Paving, has estimated that up to 1,000 CY of native soils may be excavated and stockpiled for testing to be qualified for off-Site reuse. To date, four separate stockpiles of native soils have been segregated and staged for testing. Our sampling plan for these stockpiles and any additional soils that are excavated from deep foundations is as follows:

- Stockpile volume quantities will be estimated by Golder. Golder will then identify stockpiles that in aggregate amount to less than 300 CY total for both composite and discrete sample collection as described below in further detail.
- One composite sample for the analysis of TAL Metals plus mercury, TCL PCBs, TCL Semi-Volatile Compounds and TCL Pesticides will be collected per 300 CY of soil. The composite will at a minimum consist of no less than six discrete grab samples (four grabs per stockpile if less than 200CY and six grabs from any stockpile exceeding 200 CY).
- Four discrete grab samples for the analysis of TCL Volatile Organic Compounds (VOCs) will be collected for analysis per 300 CY of soil.
- All samples will be analyzed by a NYSDOH certified laboratory.
- A tabular results summary for each composite sample representative of 300 CY will be prepared and compared to the NYCRR Part 375 Residential Soil Clean-up Objectives for submittal to the Department.

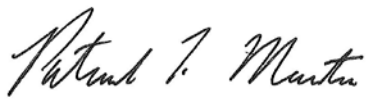
Golder Associates Inc.
2430 North Forest Rd., Suite 100
Getzville, NY 143068 USA
Tel: (716) 204-5880 Fax: (716) 204-5878 www.golder.com

If the data indicates the soil is suitable for reuse and the Department concurs, Golder will obtain the proposed off-site location where the tested soil is planned to be reused as clean fill by American Paving and notify the Department prior to any movement of soil off-Site.

It is anticipated that foundation and utility site development work that may generate additional native soils that may be suitable for off-Site reuse will continue through March 2013. Sampling, testing and reporting to the Department of these soils may therefore occur on three to four occasions depending on the final quantity of the soils excavated and as 250 CY stockpiles are accumulated.

Please contact Patrick Martin at 716-204-5880 if you have any questions or require additional information pertaining to this sampling plan. If there are any concerns related to this proposed approach please contact us at your earliest convenience.

GOLDER ASSOCIATES INC.



Patrick T. Martin, P.E., BCEE
Senior Consultant

CC: John Darby, Niagara Transformer

New York State Department of Environmental Conservation
Division of Environmental Remediation
270 Michigan Ave, Buffalo, New York 14203-2915
Phone: (716) 851-7220; **Fax:** (716) 851-7226
Website: www.dec.ny.gov

Joe Martens
Commissioner

January 18, 2013

Golder Associates, Inc.
Attn: Patrick T. Martin, P.E., BCEE
2430 North Forest Road, Suite 200
Getzville, New York 14068-1535

Dear Mr. Martin:

Native Soil Sampling Plan
Niagara Transformer Corporation - 1755 Dale Road
Site #: C915234
Cheektowaga (T), Erie County

The Department has reviewed the above-noted sampling plan submitted on January 18, 2013 and approves of its implementation. Please provide the Department with analytical results as they are generated along with descriptions of the stockpiles you will be generating during the noted Site work. The Department will consider proposed soil reuse pending review of the data.

If you have any questions or comments, please contact me at 716-851-7220 or e-mail: dsszyman@gw.dec.state.ny.us.

Sincerely,

David Szymanski
Project Manager

DS:sz

ec: Mr. Martin Doster, NYSDEC
Mr. Matthew Forcucci, NYS Department of Health
Mr. John Darby, Niagara Transformer Corporation