## Phase II Environmental Site Assessment

100 Tonawanda Road Amherst, New York 14228 Tax IDs: # 26.00-1-6.1

Job No.: 11-543A

Report was written by:

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October, 2011

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#### 1.0 Overview

This Phase II Environmental Site Assessment (ESA) subsurface investigation was completed by Barron & Associates, P.C (B&A) on behalf of Jeffrey Palumbo to investigate potential recognized environmental conditions (RECs) associated with former environmental remedial activities at 100 Tonawanda Creek Road, New York (the property). This Phase II ESA included record review, hollow stem auger advancement, soil probe logging, photo-ionization detector (PID) screening, soil sample collection and soil laboratory analysis at TestAmerica Buffalo (Test America) of Amherst, New York. The following report sections discuss available historic records, field methodology, field observations, soil analytical results, conclusions and recommendations.

A USGS Site Location Plan is included as Figure 1 and a Direct Push Probe Location Plan is included as Figure 2. Figures 3 through 6 were generated utilizing available public records and property surveys:

- 1. "Survey of Part of Lot 1-T.13-R.8 & LOT 47-T.13-R.7 & Lot 17-T.12-R.8 & Lot 47-T.12-R.7 Holland Land Company Survey, Town of Amherst, Erie Co., NY" by Charles W. Janke, Tonawanda, NY, Land Surveyor Lic. No. 9981, May 20, 1953 and
- 2. "100 Tonawanda Creek Road, Boundary, Wetland and Topographic Survey" by W. M. Schutt Associates, March 8, 2011.

Site Photographs follow Figure 6. PID results were not detected above background. Detectable soil analytical data are summarized in Table 1. Soil Probe Logs are included as Attachment 1, Laboratory "Analytical Data Report" is included as Attachment 2 and available public records are included on CD as Attachment 3.

#### Property Summary

The property currently referred to as SBL: #26.00-1-6.1 is located at 100 Tonawanda Creek, Amherst, New York. In 1960, available records indicate the property was referred to as 170 Tonawanda Creek Road Tax ID 1-20-100 and in 1980 as 1-20-50. A farm house and outbuildings were erected in the center of the northern third of the property in approximately 1880 and burned in approximately 1982. Drums of phenolic tar resins containing tetrachlorinateddibenzo-p-dioxins and dibenzofuran generated by the Durez plant that was later owned by Occidental Chemical Cooperation (OCC) were transported to the site in the 1950's. The drums were apparently placed in the creekbank in an effort to provide resistance to fluvial erosion along the creek bank. Corrosion of the drums through the years caused contamination of the creek bank. Drum removal, remedial excavation and placement of rip-rap on the embankment was completed in 1985 and 1993. The site was delisted from New York State Department of Environmental Conservation (NYSDEC) hazardous waste disposal list in approximately 1995.

#### 2.0 Phase II ESA Summary

On September 6 and 7, 2011, B&A oversaw Phase II ESA activities on the property (Figures 1 and 2). Twenty-four soil probes were advanced with a direct push soil sampler to depths ranging from four to 30 feet below grade (ftbg). One petroleum above ground storage tank (AST) was observed in the vicinity of the garage. Soil probe locations are shown on Figure 2. This AST was apparently utilized to fuel vehicles associated with golf course operations. Property photographs are included following Figure 6.

#### 3.0 Potential RECs

This Phase II ESA was completed to investigate and confirm that former environmental remediation activities on the property were adequately completed to ensure compliance with Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Part 375 Restricted Residential Use and Residential Use Soil Cleanup Objectives (Part 375 RU and RRU SCOs) effective December 14, 2006 and NYSDEC CP-51 Supplemental SCOs, effective October 21, 2010.

#### 4.0 Subsurface Investigation Methodology

#### 4.1 Direct Push Probe Soil Sampling Methodology

On September 6 and 7, 2011, *B&A* oversaw *Buffalo Drilling Company*, *Inc.*, (*BDC*) of Clarence, New York, advance and sample 24 soil probes with a track-mounted direct push rig (refer to Figure 2). The soil probes were advanced in the vicinity of potential RECs (Section 6.0). Soil samples were obtained from grade to a depth of between four and thirty-two feet below grade (ftbg) dependent on field conditions and the location of potential AOCs. Continuous soil samples were obtained by direct push sampling using a four-foot long Macro-Core sampler.

Each Macro-Core sampler contained a dedicated inner acetate sleeve. Upon retrieval, each soil sample was visually classified for soil type and evidence of contamination (i.e., anomalous staining/odors). Each soil sample was screened, while still in the opened sample sleeve, with a MiniRAE, Model PGM 7613 photo-ionization detector (PID) for the potential presence of total volatile organic compounds (VOCs). A portion of each soil sample was removed and placed into a food-quality storage bag, sealed and allowed to stand/warm for approximately 10 minutes. The probe of the PID was inserted into the air space above the soil sample immediately upon breaking the seal of the storage bag. The description of each sample's visual characterization is presented on Soil Probe Logs, Attachment 1.

To avoid cross-contamination between samples, a pre-cleaned Macro-Core sampler was used for each sample. The Macro-Core sampler was cleaned using Alconox detergent and potable water with a final potable water rinse. A new acetate sleeve was then placed into the pre-cleaned Macro-Core sampler. Between probes, the drill rods and Macro-Core samplers were thoroughly cleaned following the aforementioned cleaning procedure. The completed probe holes were abandoned using soil samples that were obtained from each soil probe. The description of each sample's visual characterization is included in Soil Probe Logs, Attachment 1.

#### 5.0 Potential AOCs Summary

The subsurface conditions of the following potential areas of concern (AOCs) were investigated:

- 1. Soil probe locations DP-1 through DP-6 and DP-24 were selected to investigate a rumor that a pit of chemicals and/or drums may have existed under the 9<sup>th</sup> green. Subsurface conditions indicate fill from zero to four ftbg and clean native fine sand and clay to 30 ftbg. Fill from DP-24 from 3-4' had some minor blackish discoloration. A sample was collected and submitted for analysis from DP-1 and DP-24 (Sections 6.0 and 7.0). The appropriate COCs for fill containing black discoloration are SVOCs.
- 2. Soil probe locations DP-7 and DP-8 were advanced to investigate the subsurface conditions of the drainage ditch from parallel to the 9<sup>th</sup> green, north towards Tonawanda Creek.
- 3. Soil probe locations DP-9, DP-10, DP-11 DP-12 and DP-13 were advanced to investigate the subsurface conditions of in the vicinity of the garage.
- 4. Soil probe locations DP-16, DP-17, DP-18, DP-19 and DP-20 were advanced to investigate the subsurface conditions of the former drum storage area and analyze for the presence of potential COCs. The COCs historically were TCDD (Section 10.5).
- 5. Soil probe locations DP-14, DP-15, DP-21, DP-22 and DP-23 were advanced to investigate the subsurface conditions of the area south of the drum storage area and analyze the topsoil for the presence of potential SVOCs. The topsoil was not an actual COC, but analysis of topsoil for SVOCs was determined to be prudent should there ever be future concerns associated with gulf course operations.

#### 6.0 Soil Sampling Methodology

To confirm the presence of visual impacts, soil samples were submitted to TestAmerica in pre-cleaned laboratory containers in a cooler under chain-of-custody for analysis. The selected samples were analyzed for semi-volatile organic compounds (SVOCs) by USEPA Method 8270 target compound list (TCL), and/or PCBs by USEPA Method 8082 and or Polychlorinated dioxins/Furans (PCDD/PDCFs) by USEPA Method 8280. PCDD is the appropriate analysis for what was previously referred to as TCDD. Potential RECs and the associated soil analytical methodology are summarized below.

- To quantify potential SVOCs observed in the field as slight visual discoloration, grab soil sample DP-1 0-4', composite samples C COMPOSITE 4-8', and C COMPOSITE 8-12' were submitted to TestAmerica for analysis of SVOCs and tentatively identified compounds (TICs).
- Though no PCBs were suspected onsite, select soil samples were selected for analysis of PCBs to ensure that PCBs were not a COC in the area. From the 9<sup>th</sup> green, composite soil samples DP-1 0-4'/DP-24 3-4' COMP and soil samples composited from along the creek bank, C COMP 4-8'/C COMP 8-12' COMP were submitted for PCBs by USEPA Method 8082.
- To analyze for any potential remaining dioxins and/or furans after the remedial cleanup along the creek bank and any potentially related fill under the 9<sup>th</sup> green, one composite sample COMP 02-05, a composite of soil samples C COMPOSITE 4-8', C COMPSITE 8-12', SOIL COMPOSITE 0-.5' and DP-24 3-4' were analyzed for PCDD/PDCFs by USEPA Method 8280A.

#### 6.1 AOC Summary

The analytical program specific for each selected soil sample and sample location is summarized below.

#	Potential REC	Sample Name and Location	Sample Matrix	Selected Laboratory Analysis
1	9 <sup>th</sup>	DP-1 0-4' and DP-24 3-4' DP-1 0-4'/DP-24 3-4'	Soil	SVOCs by USEPA Method 8270 TCL + TICs
	Green_	COMP	Soil	PCBs by USEPA Method 8082
2	Topsoil	SOIL COMPOSITE 0- 0.5' (DP-14 0-0.5', DP-21 0- 0.5', DP-22 0-0.5' and DP- 23' 0-0.5')	Soil	SVOCs by USEPA Method 8270 TCL + TICs PCBs by USEPA Method 8082
3	Creek banks, 9 <sup>th</sup> Green and topsoil	COMP 02-05 (DP-16, DP-17, DP-18, DP-19 and DP-20 4-8' and DP-16, DP-17, DP-18 and DP-20 8-12' and DP-14 0-0.5', DP-21 0-0.5', DP-22 0-0.5', DP-23' 0-0.5' and DP-24 3-4')	Soil	PCDD/PDCFs by USEPA 8280A
4	Creek banks	C COMPOSITE 4-8' (DP-16, DP-17, DP-18, DP-19 and DP-20 4-8') C COMPOSITE 8-12' (DP-16, DP-17, DP-18 and DP-20 8-12') C COMP 4-8'/ C COMP 8-12' COMP	Soil	SVOCs by USEPA Method 8270 TCL + TICs  PCBs by USEPA Method 8082

Soil analytical results were compared to Official Compilation of New York Codes, Rules and Regulations (6 NYCRR) Part 375 Restricted Residential Use, Residential Use Soil Cleanup Objectives (Part 375 RU and RRU SCOs) effective December 14, 2006 and NYSDEC CP-51 SCOs, effective October 21, 2010.

#### 7.0 Subsurface Conditions

Soil boring logs are included in Attachment 1 and observed subsurface conditions in the potential area of concern (AOC) are discussed below.

#### 7.1 Field Observations and AOCs

No PID readings above background were observed in subsurface conditions on the property. Saturated subsurface conditions were generally encountered at approximately seven ftbg.

- 1. Soil probes DP-1 through DP-6 and DP-24 were advanced in and in the vicinity of the 9<sup>th</sup> green. Sand and silt fill was generally observed in the vicinity of the 9<sup>th</sup> green form 0 to 4 ftbg followed by native sand and silt to eight ftbg. Slight blackish discoloration was observed in DP-24 from three to four feet followed by clean native sand and silt to 23.5'. Between 23.5 and 28', grey to brown plastic clay was encountered followed by grey fine sand and silt from 28 to 32'.
- 2. Soil probes DP-7 and DP-8 were advanced in the drainage ditch to investigate potential RECs associated with potential drainage associated with the 9<sup>th</sup> green. Subsurface conditions indicated topsoil from zero to one ftbg followed by clean native fine brown sand and silt to eight ftbg. No discoloration or odors were observed.
- 3. Soil probes DP-9 through DP-13 were advanced on a mound in the center of the northern third of the property that a garage and equipment affiliated with the golf course operations is located. The mound was observed during Phase II ESA field activities and is also indicated on Figures 3 through 5. According to Figures 4 and 5 this fill mound is also associated with historic structures on the property including the current garage, former farm house and former outbuildings. According to Town of Amherst records (Section 10.1) the farm house burned in approximately 1982. North of the garage, soil probe DP-13 encountered refusal at 4.5 ftbg. This would generally indicate the potential for an abandoned petroleum underground storage tank (UST), but according to Gulf Course grounds personnel there was a former underground pool that was abandoned in the vicinity. This suggestion is reinforced by Town of Amherst records that report a steel pool formerly on the property associated with the former house and garage. Soil probes DP-9 and DP-13 have between six inches and five feet of brown silt and sand and fine to medium angular gravel fill that is consistent with the topographic mound in the center of the northern third of the property indicated by Figures 3 through 6. This suggests that prior to the construction of the historic buildings indicated by Figure 4, angular gravel with variable quantities of silt and sand was brought onto the property to raise the elevation. No discoloration or odors were observed associated with this fill and it is not considered a REC for the property.

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4. Soil probes DP-16 through DP-20 were advanced in the creek bank to investigate a potential REC associated with the former remedial activities discussed in Section 10.0. In DP-16 through DP-19 brown silt and fine to medium angular gravel was encountered from 0 to 4 ftbg. No PID odors, discoloration or odors were observed associated with the fill along the creek from 0 to 4 ftbg and it is not considered a REC for the property. Native silt and sand was observed below four ftbg in soil probe DP-15. Fill with mild to some odor and/ or some blackish discoloration was observed in soil probes DP-17 and DP-18 between five and ten ftbg. Soil samples collected from 4-8' were interpreted as reflective of the location of the former 55-gallon drums and samples from 8-12' were interpreted as reflective of the subsurface conditions under the location of the former drums. Soil samples were

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5. Subsurface conditions on the green (soil probes DP-14, DP-15, DP-21, DP-22 and DP-23) were investigated to observe subsurface conditions south of the creek bank. No discoloration or odors were observed and subsurface conditions consisted of clean native brown silt and sand. A composite topsoil sample was collected for analysis as discussed in Section 6.0.

#### 7.2 Soil Analytical Results

Soil analytical results are included in Attachment 2. Detected soil analytical results are listed in Table 1 and are summarized below.

PCBs in all soil samples were below laboratory detection limits.

collected for analysis as outlined in Section 6.0.

- PCDD/furans in soil sample COMP 02-05 were below laboratory detection limits.
- All analyzed compounds were below laboratory detection limits in soil samples DP-1 0-4', COMP 02-05, DP-1 0-4/DP-24 3-4' COMP and C COMP 4-8'/C COMP 8-12' COMP.
- SVOCs were detected above laboratory detection limits in soil samples C COMPOSITE 4-8', C COMPOSITE 8-12', SOIL COMPOSITE 0-0.5' and DP-24 3-4'. Quantities detected in all of these soil samples are labeled by TestAmerica with the qualifier "J" that indicates the result is less than the reliance limit, but greater than or equal to the method of detection limit and the concentration is an approximate value. All of the detected SVOCs were below NYSDEC 375 Restricted Residential, Residential and CP-51 SCOs and are not considered RECs for the property. The tentatively identified compounds (TICs) are estimates of potentially identified trace compounds, do not have SCOs and are not considered RECs for the property.

#### 8.0 Summary

No soil analytical results exceeded NYSDEC 375 Restricted Residential, Residential SCOs or CP-51 SCOs. The only compounds detected above laboratory detection limits were SVOCs and TICs, reported with a designation of "J", that indicates the soil analytical results were below the reliance level. These soil analytical results are negligible. The tentatively identified compounds (TICs) are estimates of potentially identified trace compounds, do not have SCOs and are not considered RECs for the property. B&A did not encounter any significant COC on the property detected by visual, olfactory or laboratory results.

#### 9.0 Discussion, Conclusions and Recommendations

Detected trace SVOCs and TICs may be from organics and/or petroleum operations on the property including former agricultural machinery and/or former and current lawn care equipment. These operations are considered less of a concern than RECs associated with equipment affiliated with currently operating agricultural farms and is deemed suitable for residential landuse.

Based on the Phase II ESA results and according to NYSDEC 375 Restricted Residential or Residential SCOs, B&A concludes that the remedial activities that removed and over-excavated drums of liquid and solid tars containing phenolic tar residues with TCDDs/PCDDs and dibenzofuran were effective at successfully remediating this site adequately for residential landuse. Should any impacted groundwater or soil or any petroleum storage or dispensing equipment be encountered on the property during future development activities, it should be handled according to local, state, and federal guidelines.

10.0 Additional Records

10.1 Town of Amherst Records

- Source:

Town of Amherst Assessor's Office

- Date(s):

September 14, 2011

On September 14, 2011, B&A collected property records from Town of Amherst Assessor's Office. Available assessor records for the assessed property are included in Attachment 3 and are summarized below.

Job No.: 11-543A

Date: October, 2011

RPS Version 3, August 2, 2007

Owner: Evergreen Golf Course, Inc.

Location: 100 Tonawanda Creek Road, Amherst, New York

Property Class: 552, Golf Course

Utilities: community public sewer, community public water and gas and electric utilities

Effective Yr Built: 1956 (former)

Effective Yr Built: 1996

#### 100 Tonawanda Creek Road (formerly Tonawanda Creek Road) Assessor Notes and Records

	Purchase			Mortgage Amt	
Owner	Date	Liber	Page	(\$)	Price (\$)
Creekside Gulf & Lanes, Inc.	09/1961	6704	131	97,810.00	268,810.00
Anthony M. Palumbo	10/1977	8574	167		320,000.00
Creekside Gulf Course, Inc.	01/1978	8609	547	229.590.00	387,590.00
Tennis Schreckengost	08/1985	9476	44	Referees Deed	
Evergreen Gulf Course, Inc.	08/1985	9476	42	Quit claim	

- On October 7, 1969 the property included tees, fairways, a garage and a clubhouse on the 9 hole golf course.
- In 1982 the house burned, assessment = \$ 63,000.00.
- In 1985, economic obsolescence added due to dioxin stored on property. When removed, assessment will revert to original (potential), assessment = \$50,000.00.
- In 1989, assessment = \$450,000.00.
- In 1990, the assessment was reviewed due to toxic chemicals, assessment = \$ 225,000.00.
- In 2000, the assessment was updated, assessment = \$312,500.00.
- In 2002, the assessment review determined, assessment = \$ 275,000.00.
- In 2009, the assessment was updated, assessment = \$ 769,800.00.
- In 2009, BAR, the assessment was updated, assessment = \$ 725,000.00.
- On June 9, 2011, WM Schutt Associates (WMSA) of Lancaster, New York forwarded a letter containing proposed street names to Town of Amherst Planning Department.

#### 100 Tonawanda Creek Road (formerly 4391 Tonawanda Creek Road) Building Department Permits

• On December 21, 1994 electrical permit #2245-1994 was issued to Evergreen Golf Course.

170 Tonawanda Creek Road (formerly 1 Tonawanda Creek Road) Assessor notes

	Purchase		
Owner	Date	Liber	Page
Tarr Tara Country Club	08/1945		
Anthony M. Palumbo	10/1977	8574	167

- The lot size was 200' x 200' with no frontage.
- Two story house with basement, Detached garage and steel pool (20' x 40'), replacement value \$ 31,395.00

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Date: October, 2011

- House burned
- In 1980 the property referred to as 1-20-50 and 1-20-100, 1 Tonawanda Creek Road was merged into 1-20-50.

#### 170 Tonawanda Creek Road (formerly 4391 Tonawanda Creek Road) Building Department Permits

- On September 19, 1960, commercial permit # 894-1960 was issued to Tennis Schreckengost.
- On May 8, 1961, commercial permit # 296-1961 was issued to Tennis Schreckengost.
- On October 30, 1961, commercial permit # 980-1961 was issued to Creekside Bowling Lanes.
- On August 5, 1994, electrical permit 1339-1994 was issued to Manor Lanes II.

#### 10.3 County Records

#### **Erie County Property Description**

- Source:

Erie County On-line Mapping System

- Date(s):

September 2, 2011

A 2008 aerial photograph and property description of the assessed property are included in Attachment 3 and parcel records are summarized below.

Address	Parcel SBL	Property Class	Property Desc.	Owner	Deed Date	Deed Book	Deed Page
				Evergreen Golf			
				Course, Inc.			
100				C/O Attn:			
Tonawanda			C – Golf	Brenda			
Creek Road	26.00-1-6.1	552	course	Turchiarelli	08/15/1985	00042	00042

#### 10.4 Erie County Property Information

- Source: Erie County Real Property Information

- Date(s): September 27, 2011

Property records are included in Attachment 3 and parcel records are summarized below.

SBL: 26.00-1-6.1

Owner: Evergreen Golf Course, INC. Location: 100 Tonawanda Creek Road Property Class: 552 Golf Course

	Date		
Reputed Owner	Purchased	Liber	Page
Creekside Golf Course, Inc.	09/01/1961	6704	131
Schreckengost Tennis	08/15/1985	9476	44
Evergreen Golf Course, Inc.	08/15/1985	9476	42

#### 10.5 NYSDEC Records

Available NYSDEC property records are included in Attachment 3 and are summarized below.

Between approximately 1948 and 1953, Tennis Schreckengost Sr. owned and operated Schreck's Scrap Services (Inc.). During the time Mr. Schreckengost owned and used the property. It is alleged that Mr. Schreckengost ordered truck drivers in his employ to transport drums containing industrial waste from the North Tonawanda facility, Durez Plastics and Chemicals, Inc. of which OCC is the successor, to the property.

On May 17, 1985, Brehm Laboratory of Wright State University of Dayton, Ohio forwarded analytical results from soil, liquid resin tar and solid resin tar samples collected by New York State Department of Health (NYSDOH) from Creekside gulf course to NYSDEC. Analytical results indicated samples C-2-A, C-2-B, C-3-A and C-3-B had concentrations between 10 and 214 parts per billion (ppb) of total tetrachlorinated dibenzop-dioxins (TCDDs).

On August 30, 1985, NYSDEC accepted a bid for remedial activities at Creekside Gulf Course from Clean Harbours, Inc. On November 12 through 27, 1985, remedial activities at the property including the removal and over-excavation of 120 drums and riprap placement were completed.

By January 25, 1993, an additional 631 drums were removed and over-excavated from the creek bank and by February 19, 1993 backfilling activities were completed. NYSDEC delisted the property from NYSDEC inactive hazardous waste disposal list.

## Figures and Photographs

Figure 1	USGS Site Location Plan
Figure 2	Direct Push Probe Location Plan
Figure 3	Tax Map
Figure 4	1953 Survey Map
Figure 5	1963 Site Map
Figure 6	2008 Site Map
September 6 and 7, 2	Site Photographs

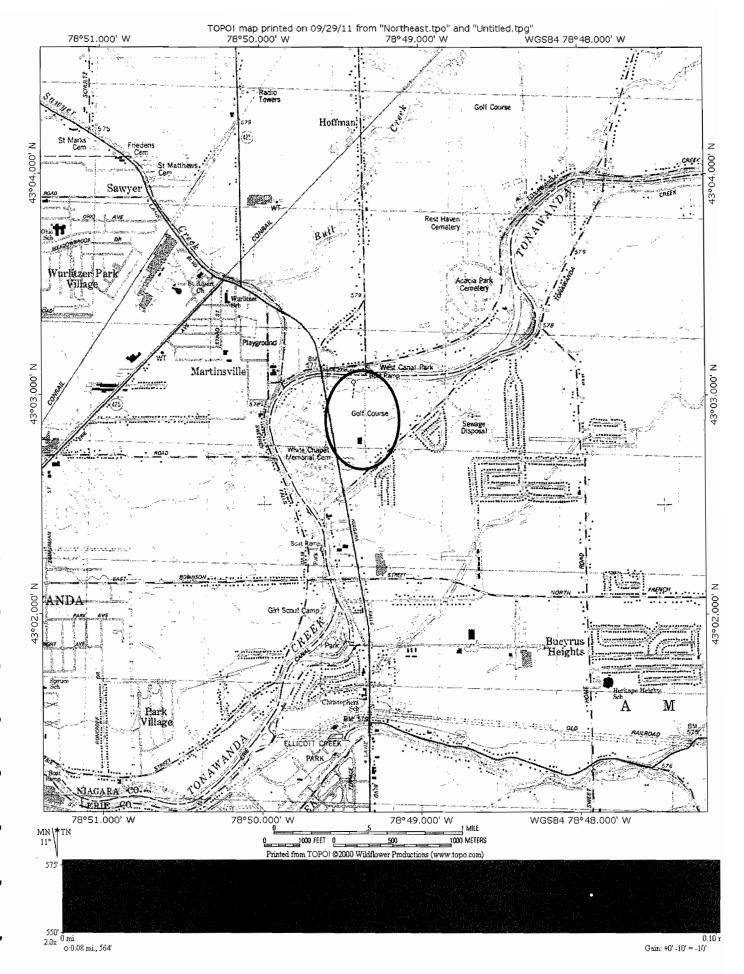
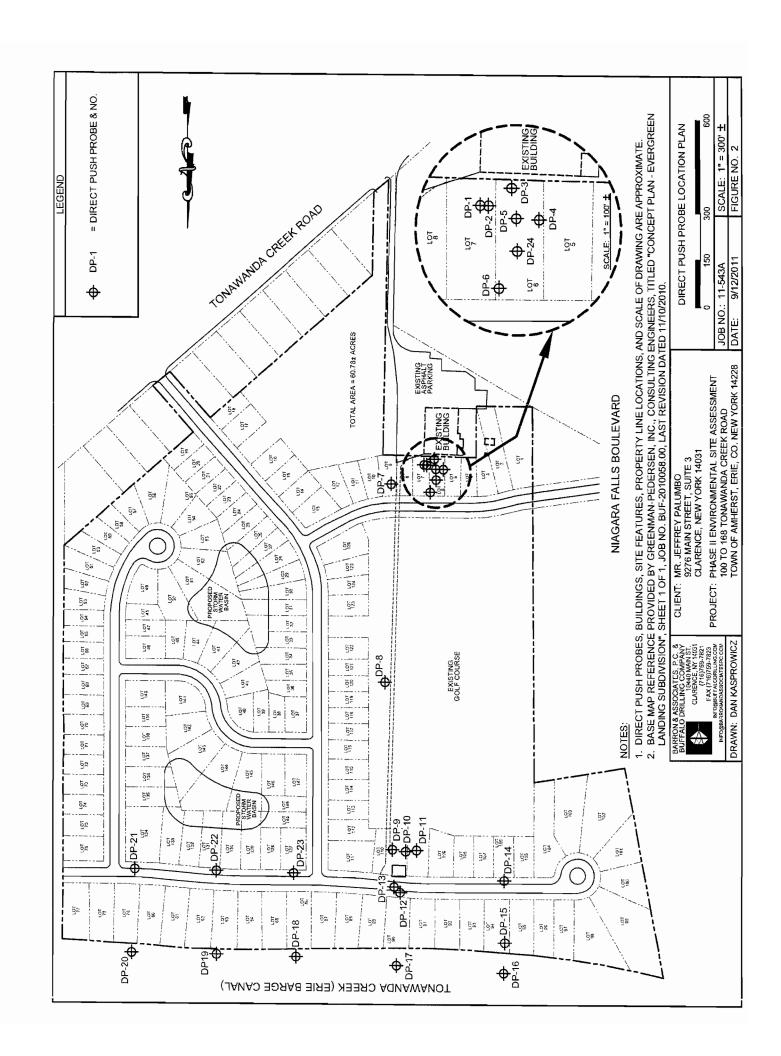
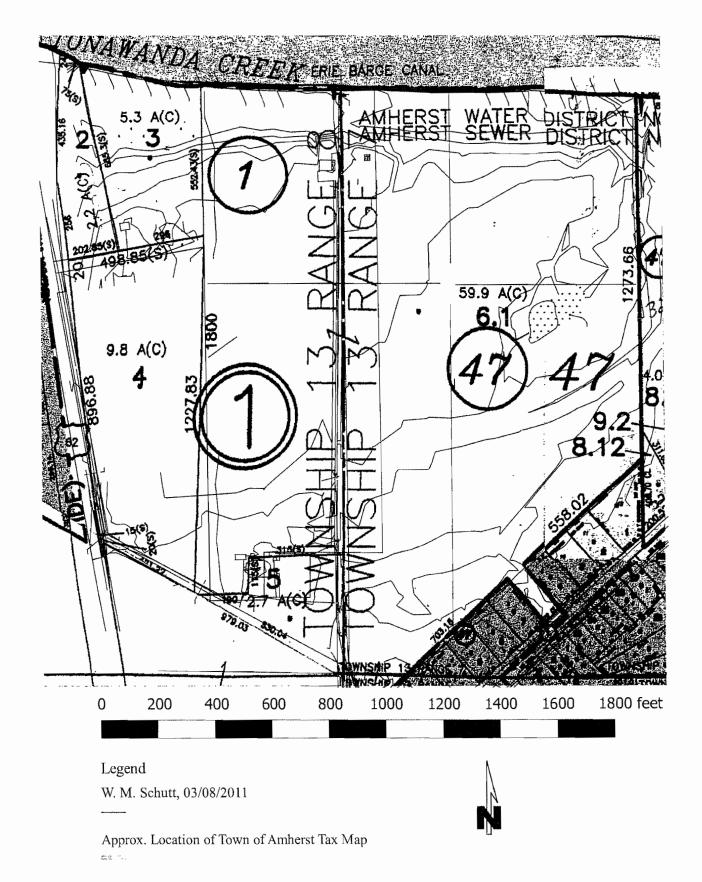
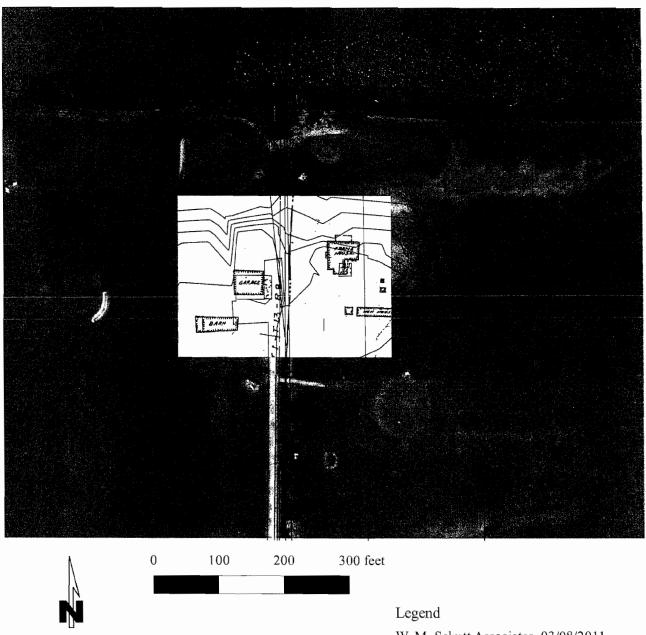


Figure 1 USGS Site Location Plan







W. M. Schutt Associates, 03/08/2011

Approx. location of C.W. Janke, 05/20/1953

NYSGIS 2008 Orthophoto

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Figure 4 generated by Geological Assessments www.geological-assessments.com





0	200	400	600	800	1000 feet	Legend
584	* 1.1			16.		W. M. S

W. M. Schutt Associates 03/08/2011

USGS Aerial Photograph 05/07/1963

Figure 5 generated by: Geological Assessments www.geological-assessments.com





0	200	400	600	800	1000 feet
41 41 63 24 4 64 25 64 27 64 27 64 27 64	4.34		(4)		

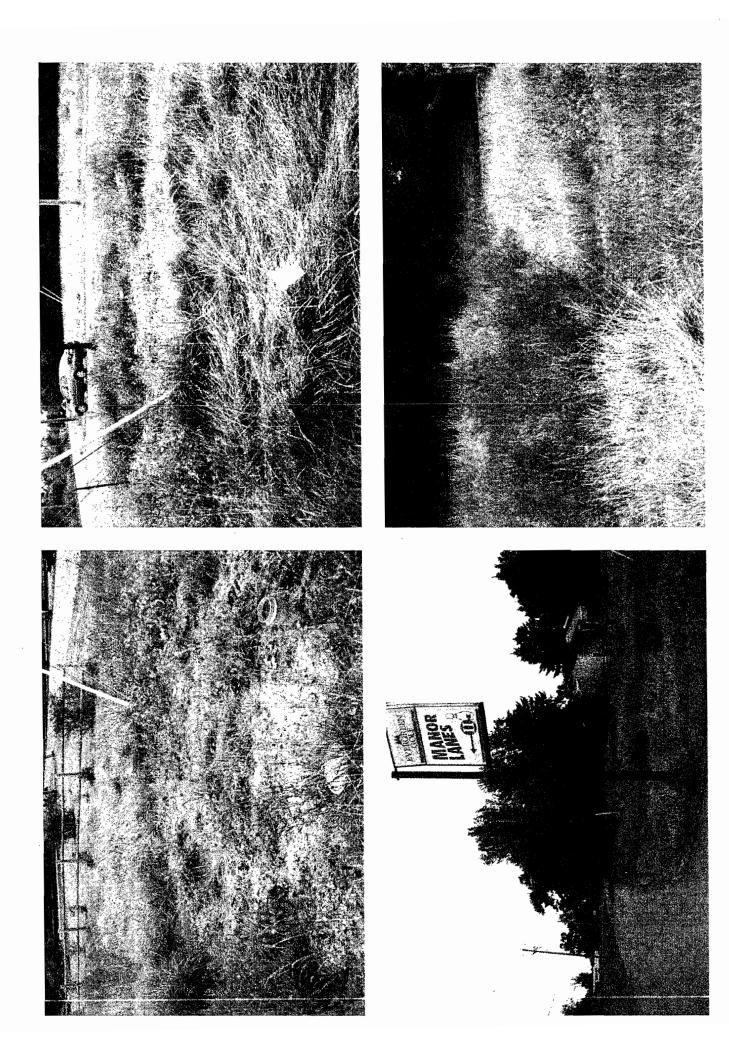
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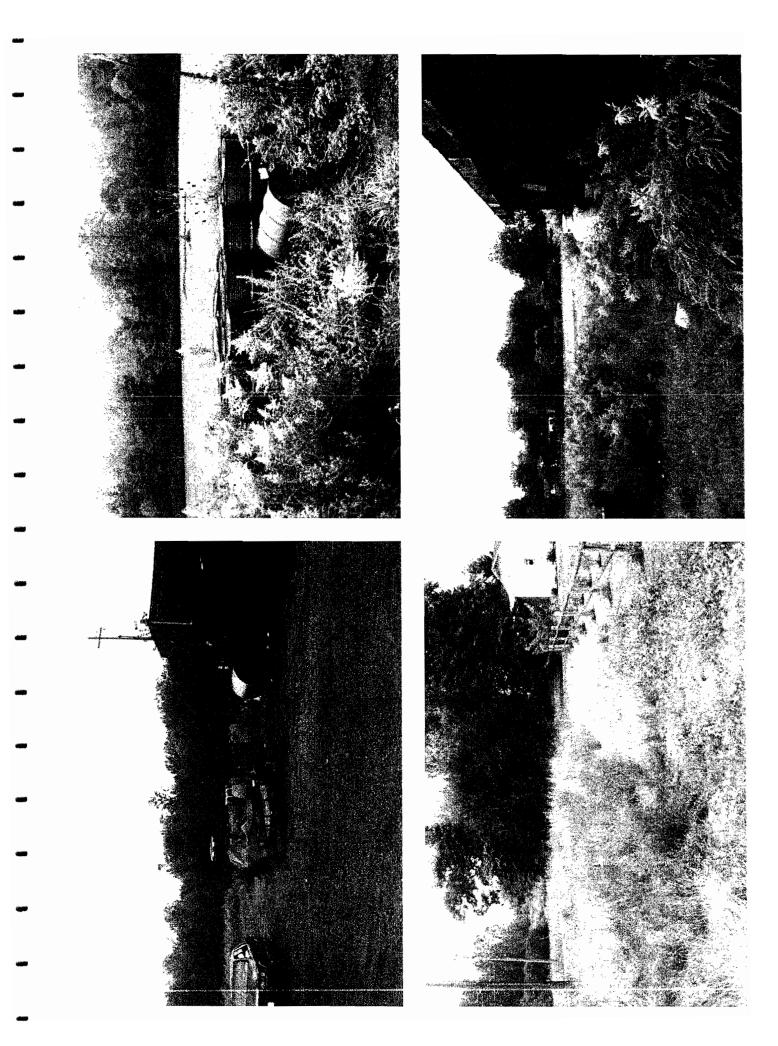
W. M. Schutt Associates, 03/08/2011

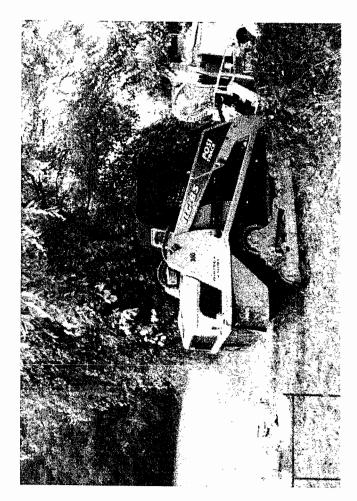
USGS 2008 Orthophoto

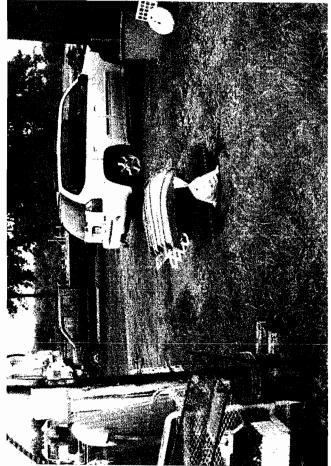
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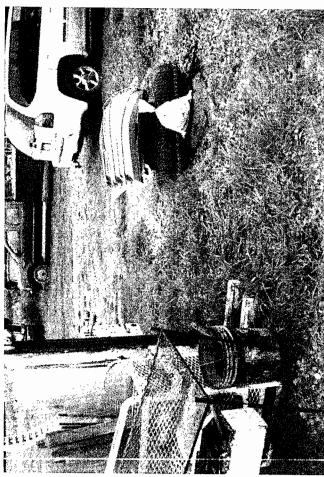
Figure 6 generated by: Geological Assessments www.geological-assessments.com













## **Tables**

Table 1 Detectable Soil Analytical Data

Detectable Soil Analytical Data 100 Tonawanda Creek Road Amherst, New York Table 1

Detectable Semi-volatile					C Composite	C Composite	C Composite C Composite Soil Composite	4)
Compounds		6NYCRR	6NYCRR	DP-1 0-4'	4-8'	8-12'	0-0.5	DP-24 3-4'
Depth (feet)	Conc.	PART 375-	PART 375-	0-4,	4-8	8-12	0-0.5	3-4
Date	Unit	$6.8(b)^{1}$	$6.8(b)^{2}$	9/6/2011	9/7/2011	9/7/2011	9/7/2011	9/7/2011
benzo (a) anthracene	ddd	1,000	1,000	ND	ND	ND	22 J	7.7 J
benzo(a) pyrene	qdd	1,000	1,000	ND	QN	QN	27 J	QN
benzo (b) flouranthene	ppb	1,000	1,000	ND	QN	ND	32 J	QN
benzo (k) flouranthene	ppb	1,000	3,900	ND	ND	ND	23 J	QN
chrysene	ppb	1,000	3,900	QN	ND	QN	28 J	6.3 J
Diethylphthalate	bpb	$100,000^3$	NA	ND	20 J	27 J	26 J	21 J
fluoranthene	qdd·	100,000	100,000	ND	ND	N	43 J	9.5 J
indeno (1,2,3-cd) pyrene	qďď	500	500	QN	QN	ND	19 J	QN
napthalene	ddd	100,000	100,000	ND	ND	ND	QN	QN
phenanthrene	qdd	100,000	100,000	ND	ND	ND	19 J	QN
pyrene	qdd	100,000	100,000	QN	ND	ON	34 J	7.8 J
Total SVOCs	qdd	NC	NC	ND	20 J	27 J	273	52
N. 4								

# Notes:

ND - Not detected above laboratory method of detection limit (MDL) NC - No criteria

J - Result is less than the reporting limit, but greater than or equal to the method of detection limit and the concentration is an approximate value.

N - Presumptive evidence of material.

T - Result is a tentatively identified compound (TIC) and is an estimated value.

 <sup>6</sup>NYCRR PART 375 Residential Use Soil Cleanup Objectives (SCOs), effective December 14, 2006.
 Restricted Residential Use
 CP-51 Supplemental SCOs, effective October 21, 2010

Detectable Soil Analytical Data 100 Tonawanda Creek Road Amherst, New York Table 1

Detectable Semi-volatile					C Composite	C Composite	Composite Composite Soil Composite	
Compounds		6NYCRR	6NYCRR	DP-1 0-4'	4-8'	8-12'	0-0.5	DP-24 3-4'
Depth (feet)	Conc.	PART 375-	PART 375-	0-4'	4-8	8-12	0-0.5	3-4
Date	Unit	$6.8(b)^{1}$	$6.8(b)^{2}$	9/6/2011	9/7/2011	9/7/2011	9/7/2011	9/7/2011
azulene	ppb	NC	NC	ND	ND	ND	ND	240 T J N
Unknown	qdd	NC	NC	ND	ND	ON.	910 T J	330 T J
Unknown	qdd	NC	NC	QN	ND	QN	4,400 T J	970 T J
Unknown	ppb	NC	NC	ON	ND	QN	6,200 T J	320 T J
Unknown	qdd	NC	NC	ND	ND	ND	510 T J	430 T J
Unknown	qdd	NC	NC	QN	QN	ON	510 T J	160 T J
Unknown	qdd	NC	NC	630 T J	220 T J	320 T J	590 T J	270 T J
Unknown	qdd	NC	NC	ND	170 T J	270 T J	500 T J	ND
1-Docosene	qďď	NC	NC	750 T J N	ON	ND	ON	ND
.gammaSitosterol	qďď	NC	NC	410 T J N	QN	ND	ON	N
VOA Target	qdd	NC	NC	ND	420 T J	340 T J	540 T J	330 T J
VOA Target	qdd	NC	NC	ND	680 T J	490 T J	ND	710 T J
Octadecane	qdd	NC	NC	QN	QN	220 T J N	ND	ON
Nonadecane	qdd	NC	NC	ND	ND	220 T J N	ND	ND
Unknown alkane	ddd	NC	NC	ND	ND	220 T J N	580 T J	ND
Unknown alkane	ddd	NC	NC	ND	ND	180 T J	ND	ND
Unknown alkane	qdd	NC	NC	ND	ND	170 T J	ND	ND
Octacosane	ppb	NC	NC	ND	ND	200 T J N	ND	ND
1-Eicosanol	ppb	NC	NC	ND	ND	ON	580 T J N	ND
1,2,3,5,6,7,8,8a-octahydro-1,4-	•				,			
H0p-22(29)-en-3.Deta01	qdd	NC	NC	ND	ND	ND	ND	300 T J N

## Notes:

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N - Presumptive evidence of material.

T - Result is a tentatively identified compound (TIC) and is an estimated value.

 <sup>6</sup>NYCRR PART 375 Residential Usc Soil Cleanup Objectives (SCOs), effective December 14, 2006.
 Restricted Residential Use
 CP-51 Supplemental SCOs, effective October 21, 2010