### ENVIRONMENTAL SOIL SAMPLING REPORT CORNING GLASS CENTER EXPANSION PROJECT CORNING, NEW YORK

by

Haley & Aldrich of New York Rochester, New York

for

Corning Incorporated Corning, New York

File No. 70589-020 April 1997 23 April 1997 File No. 70589-020

Ms. Tracy Anderson Gwin Sr. Environmental Control Engineer Corning Incorporated Energy, Environmental & Facility Services HP ME 01 025 B10 Corning, New York 14831

Subject:

Environmental Soil Sampling Report Corning Glass Center Expansion Project Corning, New York

Coming, New 1

Dear Ms. Gwin:

This report presents the results of the soil sampling program conducted by Haley & Aldrich of New York to support the construction activities associated with the expansion and modifications of the Corning Glass Center facility in Corning, New York. Our services on this project were provided in accordance with our proposal dated 12 November 1996 and Corning Purchase Order No. <u>CP-268225</u>.

This project involved a test pit excavation and soil sampling program at the Corning Incorporated Glass Center facility in Corning, New York. The purpose of this project is to assist Corning in determining the possible need for special handling of excavated soils at the site in conjunction with the construction activities for expansion of the Glass Center facility. Corning anticipates that subsurface soil and fill surrounding the Glass Center could contain non-native fills with various debris and ash associated with historical industrial activities. The specific objectives of this project were to identify whether non-native fills are present at the site and to evaluate whether such fills could contain elevated levels of certain metals at levels that could require special handling or disposal during the planned construction project.

The Corning Glass Center facility is located in the northwest corner of the intersection of Museumway and Centerway streets as shown on Figure 1. The area of interest for this project is on the east side of the facility where a new facility entrance area and ramp will be constructed. The soil sampling program involved the excavation of test pits in areas of the project site where below grade construction activities are planned. Selected samples of soil and fill were obtained from the test pits for laboratory analysis of total metals content. The following sections of this report detail the exploration program conducted and results of the analytical testing and our interpretations of the data obtained.

#### SOIL SAMPLING PROGRAM

The soil sampling program was conducted on December 10 and 11 1996 under the observation of a Haley & Aldrich field geologist. The program involved the excavation of a series of test pits across the site, making observations of soil conditions in the test pits and collection of soil samples for laboratory analyses. The test pit exploration services were provided by Nothnagle Drilling Incorporated of Scottsville, New York and laboratory analytical services provided by the Quanterra Environmental Services laboratories in Pittsburgh, Pennsylvania. Land surveying services were provided by Hunt Engineers of Corning, New York. The exploration program was initiated on the morning of 10 December 1996 with a utility stakeout coordinated between Haley & Aldrich, Nothnagle Drilling, the local utility companies as arranged by the UFPO and Corning Facility Services personnel.

#### **Excavation of Test Pits**

A total of 20 test pits were excavated on the site with a backhoe between 10 and 11 December 1996 at the locations shown on Figure 1. The locations and depths of the test pits were determined by Haley & Aldrich in consultation with Corning personnel and were focused in areas of the site where the planned building expansion would involve deeper soil excavations. These areas were identified to include: building column locations, the base of proposed elevator and escalator shafts, a new access roadway and adjacent sloped area in front of the building along Centerway Street. The specific objective of the exploration program was to excavate test pits to observe soil conditions in each of these areas to the same base elevation as required for the installation of the proposed new structures. The test pit locations, existing grade elevations and planned depth of cut elevations were surveyed at each location before the test pits were excavated. These elevations are shown on Figure 1. The test pits were excavated to the predetermined target depths identified which ranged from approximately 2 to 10 feet below existing grades. Observations of subsurface conditions identified during the exploration program are summarized on the Test Pit Reports in Appendix A.

#### Collection and Field Screening of Soil Samples

The soil sampling program involved the collection of a representative number of samples during the test pit program for analysis of selected heavy metals potentially present from past industrial activity. Soil samples were collected at 1- or 2- foot depth intervals in each test pit and at any location where debris, ash or other non-native soil material was visually apparent. The samples were collected by hand directly from the backhoe bucket or from the stockpiles placed alongside each excavation. The depths at which the soil samples were collected are identified in the Test Pit Reports in Appendix A. The samples were collected in glass samples containers provided by the analytical laboratory. Following the sampling, each test pit was backfilled with the excavated soils.

Soil samples were visually screened in the field, classified by soil type, and evaluated for volatile organic compounds (VOCs) presence a part of standard health and safety protocol. The VOC screening was performed using a Microtip photo ionization detector equipped with

a 10.6 eV light source. No VOCs were observed in any of the test pits above background levels normally observed with this equipment. Soil conditions observed are detailed on the Test Pit Reports in Appendix A.

#### Observation of Soil Conditions

The depth of the test excavations ranged from approximately 2 to 10 feet below the existing site grades with the deeper locations corresponding with proposed elevator and escalator shafts within the footprint of the building expansion area (refer to Figure 1). All of the test pits were excavated through fills and into native undisturbed soils except for test pit TP-19 which was terminated based on field instructions. The soil profile generally apparent from the ground surface down across the site location consisted of the following:

- O Topsoil consisting of dark brown organic soils generally less than 0.5 foot in thickness, with selected locations more than 1 foot in thickness.
- Fill consisting of reworked native soils primarily containing brown to light-brown silty clay ranging in thickness from approximately 2 to 4 feet across the site.
- Lacustrine derived sediments consisting of brown silty clay.
- Alluvial deposits consisting of fine to coarse sand with cobbles which were generally encountered at the base of test pits which were excavated below elevation 922.

In addition to the above soil types, there were several test pit locations where other types of soil materials were encountered in the fill zones. The first of these included an area penetrated by test pits TP-8, 12, and 15 where 4 to 5 feet of coarse brown sand was encountered. Corning personnel on-site during the exploration program indicated this material was most likely associated with the backfilling of a former pond which existed in this area in the past. This sand appeared clean with no visual indications of intermingled debris or other non-soil material. The second type of apparent non-native fill material was a black ashlike material found in several test pits. The ash was black and readily distinguishable, some of which contained brick and glass. This material was suspected to be associated with past industrial activities and as such was the focus of the sampling and analytical program for this project. The fills identified which did not contain ash appeared clean and other than being previously disturbed had no indications of the presence of debris or industrially-related materials.

#### Extent and Quantity of Ash

The black ash-like material was identified in 8 of the 20 test pit locations all of which are located outside of the proposed building expansion footprint shown on Figure 1. A summary of the locations, elevations and approximate thicknesses of the ash observed during the exploration is provided on Table 1. In general, the ash appears to have been deposited in a thin layer from 0.2 to 0.6 feet thick between elevations 926 and 927 with additional deeper

pockets of ash identified in two in test pits TP-1 at the south and TP-19 at the north ends of the site. The thin layer of ash appears to be present across most or all of the construction site outside of the proposed building

Because the pattern of ash placement is neither discernable nor predictable due to the more recent redevelopment of this former industrial site, it is impossible to estimate with any degree of accuracy the amount of ash-like fill which may be encountered in the planned construction. However, based on an apparent average ash thickness of 0.5 feet covering the area encompassed by the proposed new access road and ramp (assumed to be  $\pm$ 10 feet) and the adjoining sloped bank (assumed to be  $\pm$ 150 feet by  $\pm$ 10 feet) as shown on Figure 1, the volume of ash-like fill in this area might be in the range of 200 to 300 cubic yards.

The explorations conducted were not sufficient to determine the lateral or vertical extent of ash present in the other two areas where the thick ash pockets were encountered. One of these thick deposits was identified in test pit TP-1 where an approximate 4.5 foot layer of ash was identified between elevations 928 and 923. The second thick ash deposit was encountered in test pit TP-19 where a more than 1.5-foot thick layer of ash was identified extending from elevation 923.5 to the bottom of the test pit. This test pit was terminated as directed by Corning at elevation 922 before the ash layer was fully penetrated.

### SOIL SAMPLE ANALYTICAL RESULTS

The soil sample analytical program involved the submittal of seven soil samples that were visually identified as containing ash and associated debris to the analytical laboratory for analysis of total metal content. These samples were analyzed at the Quanterra laboratories for the 8 RCRA metal parameters, to determine if metals were present at characteristically hazardous concentrations. The samples were analyzed using standard EPA SW-846 methods. Copies of the laboratory analytical reports are provided in Appendix B. Results of the sample analytical program are summarized on Table 2.

Results of the sample analytical program are summarized on Table 2. These data are evaluated by comparison of the detected metal concentrations to the RCRA characteristically hazardous levels assuming the commonly used dilution factor (20x) to account for the extraction in the TCLP test method. Based on this comparison, three of the samples, those obtained from TP-1, 14, and 20, contain metal concentrations higher than the comparison eriteria. The exceeded analytes were lead in all three samples and arsenic in the TP-1 sample. The TP-1 sample had substantially higher detected concentrations than the concentrations detected in any of the other samples analyzed.

#### CONCLUSIONS AND RECOMMENDATIONS

Based on the findings above, it appears that industrial related materials, primarily composed of ash are present in portions of the proposed construction site, but the overall vertical and horizontal distribution of these materials does not appear to be extensive relative to the

specific areas that new facilities are planned to be constructed. The specific findings of this exploration program are as follows:

- O The ash identified appears to have been deposited in a relatively consistent thin layer over some portions of the site that because of its dark color was readily distinguishable from the surrounding soils
- A thin layer of ash approximately 0.2 to 0.6 feet thick was encountered in the eastern portion of the site outside the proposed building expansion foot print between the approximate elevations of 926 and 927. This ash layer appears to exist where the new access ramp is planned to be constructed, but was not evident within the footprint of the proposed building expansion. The ash is characterized as a black material with occasional zones containing brick pieces and glass shards.
- There were two thicker deposits of ash encountered in test pits TP-1 and TP-19. In TP-1 the ash observed was 4.5 thick. Explorations conducted were not sufficient to determine the vertical or horizontal extent of ash in either of these locations.
- Analysis of ash samples indicate the presence of elevated total lead and, to a lesser extent, arsenic in selected samples at detected concentrations that appear higher than the average levels for these elements at this location. in one of the seven samples analyzed. Three other samples had lead levels only slightly higher than the comparison criteria used in this report. The extent to which any of these samples could be hazardous would require further analysis by the TCLP testing method. In general however, the total metal levels detected during this investigation do not indicate a high potential the ash would be characteristically hazardous. The 20x dilution factor used to simulate the TCLP test is, from our experience, conservative. Normally, much higher total levels than what were detected at the site are needed to exceed the TCLP thresholds.
- Other soil and fill material identified in test pits was light to dark brown clay. We did not observe any ash, debris, glass or other apparently industrial-related materials in this soil other than the distinct ash layers discussed above. There was one area where a sandy fill was observed that was reported to be a backfilled pond which once existed at the site. This fill appeared clean with no ash, debris or glass discernable.

Based on these findings, Haley & Aldrich recommends the following concerning soil management for the proposed Glass Center construction project:

- O If construction activities in the vicinity of test pits TP-1 and TP-19 is planned, additional investigations in these areas may be warranted to further evaluate the extent of ash present.
- Corning should segregate any ash or other apparently industrial-related debris that is encountered during the construction. This material should be sampled and analyzed

to determine whether hazardous concentrations of metals or other constituents are present to allow classification and segregation for offsite disposal in a hazardous or solid waste management facility as found appropriate. If these materials are determined to be nonhazardous, there may also be options for on-site use, however, such usage would need to be conducted in accordance with applicable NYSDEC solid waste management regulation.

It has been a pleasure assisting you with this investigation. If you have questions or comments, or if you require additional information, please do not hesitate to contact us.

Sincerely yours, HALEY & ALDRICH OF NEW YORK

Edward L. Hynes Senior Scientist

Stanley E. Walker, P.E. Vice President

ELH:SEW:gmc P:\70589\020\REPORT,WPF Attachments:

Figure 1 - Project Location Map

Table 1 - Summary of Test Pits Observed to Contain Ash

Table 2 - Soil Sample Analytical Summary

Appendix A - Test Pit Reports

Appendix B - Laboratory Analytical Results and Chain-of-Custody Documentation

TABLE 1
CORNING GLASS CENTER EXPANSION PROJECT

### SUMMARY OF TEST PITS OBSERVED TO CONTAIN ASH

Location	Elevation (ft.)	Approx. Thickness (ft.)
TP-1	928.1 to 923.6	4.5
TP-2	927.4 to 927.2	0.2
TP-3	926.9 to 926.4	0.5
TP-4	927.2 to 926.9	0.3
TP-5	926.2 to 926.7	0.5
TP-14	926.2 to 925.8	0.4
TP-19	926.4 to 926.2	0.2
	923.5 to 922.0	>1.5*
TP-20	926.3 to 925.7	0.6

<sup>\*</sup> Ash extended to base of test pit, therefore vertical extend of ash was not confirmed and likely greater than 1.5 feet in thickness.

See Figure 2 for Test Pit locations.

 $elh:\qpro6\70589-020\table1.wb2$ 

## CORNING GLASS CENTER PROJECT TABLE 2

# SOIL SAMPLE ANALYTICAL SUMMARY (TOTAL METALS IN mg/kg)

ATT		Sample	ALTONIALISME PROPORTY PROPORTY REGION RECORDS AND CALLED AND CALLE	Mandalus des proposes in the Contract of the C	27/550274W19400000000000000000000000000000000000	Palanda de la composição	Marketine of Parket Contract Address of	der des des des propriets des propriets des des des des des des des des des de		Santa de La Carta de La Car	
Test Pit No.	Sample	Depth	Material Sampled	Селонанического выполня даменторя, положения в	George anno communicación de la companya de la comp	Ar	nalytical Re	Analytical Results (mg/kg)	රි		
	Location	(ft.)	e de la companya de l	As	Pb	Ва	Se	5	Ċ	Ą	Hg
TP-I	S1 & S2 (comp.)	2-4	Black ash, brick, glass	43	3,800	77.2	13.4	10.3	13.6	ON	0.49
TP-3	S1 (grab)	1.5-2	Native clay with ash	12.1	SI	133	0.80	08.0	Ţ	QN	0.084
TP-4	S1 (grab)	1-1.5	Black ash with clay	10.1	83.1	91.8	1.2	0.57 B	8.2	QN	ND
TP-5	S1 (grab)	1.5-2	Native clay with ash mix	11.9	49.4	151	0.58 B	0.56 B	12.9	R	0.043
TP-14	S1 (grab)	1.5-2	Mix of soil and ash	18.3	259	901	5.	1.2	11.2	N	0.061
TP-19	S2A (grab)	4.5	Black ash	9.2	27.8	99.2	98.0	0.39 B	9.4	N	0.041
TP-20	S1 (grab)	1.5-2	Black ash and clay	8.6	135	79.4	1.2	0.31B	7.8	ND	0.034
RCRA TCLP (	Characteristic Compa	asion Value (	RCRA TCLP Characteristic Compasion Value (TCLP value/20x TCLP)	5.0/100	5.0/100	100/2000	1.0/20	1.0/20	5.0/100	5.0/100	0.2/4.0
				,	-		NE THE RESERVE OF THE PERSON O		The state of the s	Construction of the Constr	DESTRUCTION OF THE PROPERTY OF

Analytical results identified in bold type indicate reported values may exceed the RCRA TCLP comparison criteria. Refer to text of report for detailed discussion of comparison values.

- 1. Analytical results presented in mg/kg or ppm for total metals analysis.
- 2. Abbreviations:

Cr - Chromium Cd - Cadmium As - Arsenic Pb - Lead

Ag - Silver Hg - Mercury

Ba - Barium

Se - Selenium As - Arsenic

3. "B" is a laboratory qualifier indicating detected concentration below laboratory reporting limit. "ND" means not detected.

APPENDIX A

Test Pit Reports

	Const	ulting Ge		TER, NEW YORK Engineers, eologists	T	EST PIT REPORT		PIT NO. 1	89-020
PROJECT LOCATI CLIENT CONTRA EQUIPM	ON: ': .CTOR:	CORNII CORNII	NG INCORPOR SLE DRILLIN	ENTER, CORNING, NEW Y LATED	ork (	<u> </u>	ELEV	TION: SEE ATION: 928 ORATION DATE: REP.: J. MAR.	12/11/96
š	SAMPLE NUMBEF	1	I STRATA		DESCRIPTION OF	F MATERIALS		REMAR	KS
			0.3	Brown CLAY, trace	sand, wet.	THE RESIDENCE STATES AND ADDRESS OF THE PARTY OF THE PART	many puttern symmetry	EL. 928.4	1
-2	Sı	2.0							
			·	Black ASH, with bri	ck and glass, m	moist.			
4	S2	4.0							
			4.8		-FILI	j =	***************************************		
				Brown silty CLAY, m	oist.				
-6	S3	6.4			-LACUSTR	INE-			
	33	0.4		Bottom of Excavation	n at 6.4 ft.	, , , , , , , , , , , , , , , , , , , ,		E1. 922.0	
				Organic Vapor Monitusing a Photovac Miobserved.					
8						ř			
				•		·			
-10 -									
-12 -									
	WA	TER LEVE	L	APPR	OXIMATE PIT DIM	ENSIONS AT SURFACE		SUMMAF	ξY
DATI	3	TIME*	DEPTH FT	LENGTH 6.0 f	eet	WIDTH 2.	0 feet	DEPTH:	6.4
					15.0747	TODO		JAR SAMPLES:	3
		<del>1</del>		8" to 18" DIA		DERS = Vol.	cu ft	BAG SAMPLES: WATER LEVEL:	NE
± 11.	s aft	er compl	eted	Over 18" DIA		= Vol.	cu ft	TEST PIT NO.	1

	Consul	ting Geo	technical	TER, NEW YORK Engineers, geologists	TEST PIT REPORT	2	PIT NO. 2
PROJEC LOCATI CLIENT CONTRA EQUIPM	ON; ': CTOR:	CORNING CORNING	INCORPOR E DRILLIN	ENTER, CORNING, NEW YO LATED	rk	ELEV	TION: SEE MAP  VATION: 928.3  ORATION DATE: 12/11/96  REP.: J. MARSCHNER
	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE		DESCRIPTION OF MATERIALS		REMARKS
			0.9		-TOPSOIL-		El. 928.3
•			1.1	Black ASH, moist.	-FILL-		
-2	Sl	2.0					
				Brown silty CLAY, mo	ist.		
4 -	S2	4.0					
			5.6	Fine to coarse SAND,	-LACUSTRINE-	A A A A A A A A A A A A A A A A A A A	
6 —	S3	6.2	6.2		-ALLUVIAL DEPOSIT- tom of Excavation at 6.2 ft	-	El. 922.0
8 —		,		Organic Vapor Monito: using a Photovac Microbserved.	ring conducted during the exotip Model 200. No reading	xcavation program gs above background	
10 -							
12 -							
-							
	WATE	R LEVEL		APPROX	KIMATE PIT DIMENSIONS AT SU	RFACE	SUMMARY
DATE	т	IME*	DEPTH FT	LENGTH 6.0 fee	et WIDT	H 2.0 feet	DEPTH: 6.2  JAR SAMPLES: 3
				· · · · · · · · · · · · · · · · · · ·	BOULDERS		BAG SAMPLES: ~-
				8" to 18" DIAM	STER: No. = Vol.	cu ft	WATER LEVEL: NE
* Hr	s after	complet	ed	Over 18" DIAM	ETER: No. = Vol.	cu ft	TEST PIT NO. 2

				LENGTH 6.0 feet WIDTH 2.0 fee	et	JAR SAMPLES:	3
DAT		TIME*	DEPTH FT	APPROXIMATE PIT DIMENSIONS AT SURFACE		SUMMAR) DEPTH:	6.2
-	<u>l</u> WA	PER LEVE	<u></u>	APPROXIMATE PIT DIMENSIONS AT SURFACE		SUMMAR)	7
-							
-12 <del>-</del>							
T.O							
-10 -							
<del></del>				observed.			
-8	-			Organic Vapor Monitoring conducted during the excavation pusing a Photovac Microtip Model 200. No readings above ba			
				Bottom of Excavation at 6.2 ft.			
<del>-</del> 6	S3	6.2	6.2	-LACUSTRINE-		El. 922.0	
			-				
<del></del>		**					
-4	S2	4.0					
<del>-11</del> +04				Brown silty CLAY, moist.			
			D.Y.S.C.C.V.Z.				
-2 -	S1	1.5 to 2.0	1.8	Black ASH with glass and brick, moistFILL-	· · · · · · · · · · · · · · · · · · ·	THE PROPERTY OF THE PROPERTY O	
			1.3	Brown CLAY, trace sand, moistFILL-	WITH EAST EAST AND A STATE OF THE STATE OF T		
						El. 928.2	
SCALE IN FEET	SAMPLI NUMBEI		STRATA	DESCRIPTION OF MATERIALS		REMARK	s
	ACTOR:		NG INCORPORTED THE DRILLING CHOE		EXPL	ATION: 928. ORATION DATE: 1 REP.: J. MARS	2/11/96
PROJE LOCAT	ION:	CORNIN		INTER, CORNING, NEW YORK	LOCA'	TION: SEE	МАР
	Ge	ologists	and Hydro	reologists	FILE	NO. 7058	9-020

1-

	Consu	lting Geo	otechnica:	TER, NEW YORK l Engineers, geologists	Т	EST PIT REPORT	TEST	PIT NO. 4 NO. 70589-02	0
	ON: : : :CTOR:	CORNING CORNING	G INCORPOR LE DRILLI	ENTER, CORNING, NEW RATED	YORK		ELEVA	TION: SEE MAP ATION: 928.0 DRATION DATE: 12/11 REP.: J. MARSCHNE	
SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE		DESCRIPTION O	F MATERIALS		REMARKS	
			0.2		-TOPS	OIL-		El. 928.0	
			0.8	Light brown CLAY	, trace sand, d	ampFILL-	MARKETELS SERVICES SELECTION OF THE PERSON O		
	S1	1.0	1.1	Black ASH, damp.	-FILL-		STREET CONTROL STREET STREET STREET STREET		
-2 -				Brown silty CLAY, r	moist.				
			2.0	Во	ottom of Excava	tion at 2.0 ft.		El. 926.0	
<b>→</b> 4 —				Organic Vapor Monit using a Photovac Mi observed.	coring conducted	d during the exca	vation program above background		
-6									
-8									
-10 -									
			LEAN AND THE REAL PROPERTY OF						TO THE PARTY OF TH
-12 <del>-</del>									
								! 	
	TAW	ER LEVEL		APPF	ROXIMATE PIT DIN	MENSIONS AT SURFA	Œ	SUMMARY	
DAT	E	TIME*	DEPTH FI	E .	P		0.0.5	DEPTH: 2	
				LENGTH 5.0 f	Leet	WIDTH	2.0 feet	JAR SAMPLES: 1	
			DOMESTIC DE LA CONTRACTION DEL CONTRACTION DE LA		BOUL	LDERS		BAG SAMPLES:	
				8" to 18" DIA	AMETER: No.	≈ Vol.	cu ft	WATER LEVEL: NE	
* H	rs afte	r comple	ted	Over 18" DIF	AMETER: No.	= Vol.	cu ft	TEST PIT NO. 4	

-	H&A OF Consu	NEW YOR lting Ge	kk, ROCHES.	TER, NEW YORK Engineers, TEST PIT REPORT	ST PIT NO. 5
	Geo	logists	and Hydro	P	LE NO. 70589-020
PROJEC			SAMPLING P		CATION: SEE MAP
LOCATI			IG GLASS CH IG INCORPOR	ENTER, CORNING, NEW YORK	EVATION: 927.5
H	ACTOR:	NOTHAG ED: BAC	LE DRILLI	IG INC.	PLORATION DATE: 12/11/96
	T			I H&	A REP.: J. MARSCHNER
SCALE IN	SAMPLE	SAMPLE DEPTH		DESCRIPTION OF MATERIALS	REMARKS
FEET	NUMBER		1		CAMMICA
			0.3	-TOPSOIL-	E1. 927.5
***************************************				Brown CLAY, trace sand, moist.	•••
			1.3	-FILL-	
	Sı	1.5		Black ASH with glass and brick, moistFILL-	
_2		to 2.0	1.8		Minister
				Brown silty CLAY, moist.	
				Blown Silly Chai, Moise.	
_	ĺ				
-4					
	S2	4.5	4.5	-LACUSTRINE-	E1. 923.0
				Bottom of Excavation at 4.5 ft.	
-6				Observed Vapor Monitoring conducted during the excavation programusing a Photovac Microtip Model 200. No readings above background	nd
				observed.	
-8					
:					
-10 -					
-12 -					
	PAW	ER LEVE		APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DAT	Е	TIME*	DEPTH FT	•	DEPTH: 4.5
***************************************			*	LENGTH 5.0 feet WIDTH 2.0 feet	JAR SAMPLES: 2
				BOULDERS	BAG SAMPLES:
,				8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* H	rs afte	r comple	eted	Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 5

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 6 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP CORNING GLASS CENTER, CORNING, NEW YORK LOCATION: CLIENT: CORNING INCORPORATED ELEVATION: 928.4 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE 928.4 Dark brown TOPSOIL 0.8 Sl S2 Brown CLAY, trace sand, damp. S3 -FILL-\$4 4.0 Gray silty CLAY, damp. -LACUSTRINE-4.5 Brown CLAY, trace sand, moist. S5 **S**6 -LACUSTRINE -6.8 **S**7 Brown fine to medium SAND, wet. \$8 -ALLUVIAL DEPOSIT-8.4 920.0 Bottom of Excavation at 8.4 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background -10 -12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 8.4 LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 8 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. WATER LEVEL: NE cu ft Over 18" DIAMETER: No. \* Hrs after completed = Vol. cu ft TEST PIT NO. 6

	Consu	lting Ge	otechnical	TER, NEW YORK Engineers, geologists	TEST PIT REPORT	TEST	PIT NO. 7 NO. 70589-020
PROJEC LOCATI CLIENT CONTRA EQUIPM	ON: ': .CTOR:	CORNIN CORNIN	G INCORPOR GLE DRILLI	ENTER, CORNING, NEW Y MATED	ork .	ELEV	TION: SEE MAP ATION: 928.4 DRATION DATE: 12/10/96 REP.: J. MARSCHNER
SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA		DESCRIPTION OF MATERIALS	·	REMARKS
				Dark brown TOPSOIL			928.4
	S1	1.0	0.8		Property Property State of Sta	and the same of th	
				Light brown CLAY, t	race sand with organic material, da	mp.	
→2 <del></del>	S2	2.0					
<del></del>	S3	3.0			-FILL-		
			3.5	Gray silty CLAY, wi	th gravel, damp.		
-4 <del></del>	S4	4.0	4.0	-			
	S5	5.0		Light brown CLAY, me	oist.		
-6	S6	6.0					
					-LACUSTRINE-		
	S7	7.0	7.0	Brown fine to medium	m SAND, moist.		
-8 —	S8	8.0	8.4		-ALLUVIAL DEPOSIT-		
			0.4	Bot	ttom of Excavation at 8.4 ft.	, , , , , , , , , , , , , , , , , , ,	920.0
-10 -				Observed Vapor Monit using a Photovac Mic observed.	toring conducted during the excavati crotip Model 200. No readings above	on program	
-							
-12 —							
			THE REAL PROPERTY OF THE PARTY				
	WAT	ER LEVEL		APPRO	DXIMATE PIT DIMENSIONS AT SURFACE		SUMMARY
DATE		TIME*	DEPTH FT			eet	DEPTH: 8.4
					DOTT DDD C		JAR SAMPLES: 8
			······································	8" to 18" DIA	BOULDERS  METER: No. = Vol.	cu ft	BAG SAMPLES: WATER LEVEL: NE
* Hx	s afte	r comple	ted	Over 18" DIAM		cu ft	TEST PIT NO. 7

n.

	Cons	ulting G	RK, ROCHEST eotechnical and Hydroc	TER, NEW YORK 1 Engineers, geologists	Т	EST PIT REPORT	TEST	PIT NO. 8 NO. 70589-020
PROJECT LOCAT: CLIENT CONTRA EQUIPM	CON: C: ACTOR:	CORNII CORNII	NG INCORPOR AGLE DRILL	ENTER, CORNING, NEW Y	YORK		LOCA ELEV EXPL	TION: SEE MAP  ATION: 928.4  ORATION DATE: 12/10/96  REP.: J. MARSCHNER
CALE IN FEET	SAMPL NUMBE	3	H STRATA		DESCRIPTION O	F MATERIALS		REMARKS
			0.2	Dark brown organic	material.			929.6
⊶W soon	S1	1.0		Brown SAND, common	cobbles, moist		VENTORISED MANAGEMENT (STREET, STREET,	0.2 to 4.0 ft. back-
-2	S2	2.0						filled area of former pond (as per Corning personel on-site)
<del>-</del> ,	S3	3.0						
_ 4	S4				-PIL	<b>Ŀ</b>		
- 4	54	4.0	4.0	Gray silty CLAY, mo	ist.		***************************************	
,	S5	5.0	5.0		***************************************			
6	S6	6.0		Brown silty CLAY, m	oist.			
	S7 S8	7.0	7.6		-LACUSTE	RINE-		
· 8		7.0	7.0	Во	ttom of Excavat	tion at 7.6 ft.		El. 922.0
'				Organic Vapor Monit using a Photovac Mi observed.	oring conducted crotip Model 20	during the excaval	tion program ove background	
10 —								
_								
12 —								
1	WA	TER LEVE	L	APPR	OXIMATE PIT DIN	MENSIONS AT SURFACE		SUMMARY
DATI	3	TIME*	DEPTH FT	LENGTH 6.0 fe	et	WIDTH 2.0	) feet	DEPTH: 7.6  JAR SAMPLES: 8
					BOUI	DERS	· · · · · · · · · · · · · · · · · · ·	BAG SAMPLES:
		1.1	· · · · · · · · · · · · · · · · · · ·	8" to 18" DIA	METER: No.	= Vol.	cu ft	WATER LEVEL: NE
* H1	s aft	er compl	eted	Over 18" DIA	METER: No.	= Vol.	cu ft	TEST PIT NO. 8

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 9 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION -SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 928.3 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER SCALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER CHANGE RANGE Dark brown TOPSOIL El. 928.3 0.5 1.0 S1 Light brown silty CLAY, damp. \$2 2.0 -FILL-S3 3.0 3.5 Gray silty CLAY, with gravel, moist. S4 4.0 -LACUSTRINE-4.5 Light brown silty CLAY, moist. **S**5 5.0 S6 6.0 Brown silty CLAY, moist. \$7 7.0 -LACUSTRINE-7.4 E1. 922.0 Brown fine to medium SAND, moist. S8 8.0 S9 9.0 9.0 Same, except wet. -ALLUVIAL DEPOSIT-El. 918.6 S10 9.7 9.7 -10 -Bottom of Excavation at 9.7 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. -12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 9.7 LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 9 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 9

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 10/11 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP CORNING GLASS CENTER, CORNING, NEW YORK LOCATION: CLIENT: CORNING INCORPORATED ELEVATION: 928.0 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Dark brown TOPSOIL El. 928.0 -FILL-Sl 1.0 \$2 2.0 2.0 Light brown CLAY, trace sand, damp. S3 3.0 **S4** 4.0 S5 5.0 S6 6.0 **S**7 7.0 \$8 8.0 S9 9.0 -FILL-S10 9.8 9.8 El. 918.2 -10 -Bottom of Excavation at 9.8 ft. This test pit excavated in fills along foundation of existing building. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background 12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 9.8 LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 10 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. ≈ Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 10/11

	Consu	lting Ge	otechnical	TER, NEW YORK L Engineers, geologists	TES	ST PIT REPORT	TEST	PIT NO. 12 NO. 70589-020
	CT: CON: C: ACTOR:	SOIL S CORNIN	AMPLING PR G GLASS CR G INCORPOR GLE DRILLI	ROGRAM ENTER, CORNING, NEW Y	/ORK		LOCA'	TION: SEE MAP  ATION: 929.8  ORATION DATE: 12/10/96  REP.: J. MARSCHNER
SCALE IN FEET	SAMPLE NUMBER	1	STRATA	·	DESCRIPTION OF	MATERIALS		REMARKS
			0.4	Dark brown CLAY, t	race organic mat	cerialTOPSOIL-		El. 929.8
				Brown SAND, common	cobbles, moist.			0.4 to 4.0 ft. backfill of former pond area.
-2	S1	2.0						
4	S2	4.0	4.0		-FILL-			
•		7.0	*.0	Gray silty CLAY, mo	ist. -LACUSTRI	NE-	***************************************	
			4.8	Brown silty CLAY, t				
-6 -	S3	6.0						
-8 -	S4.	8.0						
					-LACUSTRI	NE -		
-10 -	<b>S</b> 5	9.8	9.8	Bot	ttom of Excavati	on at 9.8 ft.		E1. 920.0
				Organic Vapor Monitousing a Photovac Mic	oring conducted	during the excavation	on program	
				observed.		-	-	
-12 —								
		ER LEVEL	1	APPRO	OXIMATE PIT DIME	NSIONS AT SURFACE		SUMMARY
DATE		TIME*	DEPTH FT	LENGTH 6.5 feet	t	WIDTH 2.0 fe	eet	DEPTH: 9.8
			· · · · · · · · · · · · · · · · · · ·		BOULD	FPC		JAR SAMPLES: 5
· · · · · · · · · · · · · · · · · · ·				8" to 18" DIA		**	cu ft	BAG SAMPLES: WATER LEVEL: NE
* H1	s afte	r comple	ted	-	METER: No.		cu ft	TEST PIT NO. 12

.

	Consul	ting Geo	technica	TER, NEW YORK l Engineers, geologists	TEST PIT REP	PORT	ST PIT NO. 13 LE NO. 70589-020
8	ION: I: ACTOR:	CORNING CORNING	INCORPORED	ENTER, CORNING, NEW Y RATED	ORK	EL	CATION: SEE MAP  EVATION: 928.3 PLORATION DATE: 12/11/ A REP.: J. MARSO
SCALE IN FEET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE		DESCRIPTION OF MATERIALS		REMARKS
			0.2	Organic material.	WARE THE TAXABLE PROPERTY OF THE PROPERTY OF T	- And December 2012	El. 928.3
		7 CO (1)	- Toward	Brown CLAY, trace s	and, moist.	Mariantini Mariantini di Amerika Mariantini Mariantini Marian	<del>-</del>
					-FILL-		
-2 -	Sl	2.0	2.0				
				Dark gray silty CLA	Y, moist. -LACUSTRINE-		
			2.8		ACCUPATION OF THE PARTY OF THE	TATALOGUE CONTRACTOR C	
			A A A A A A A A A A A A A A A A A A A	Brown CLAY, very fe	w cobbles, moist.		
<del>-</del> 4	S2	4.0	L. Control of the Con	·			
					-LACUSTRINE-		
6			5.8	Brown medium to fine	e SAND, moistALLUVIA	I. DEPOSIT-	
	S3	6.3	6.3		ttom of Excavation at 6.3		El. 922.0
					ccom of Excavacion at 6.3	It.	
				Organic Vapor Monitousing a Photovac Mioobserved.	oring conducted during th crotip Model 200. No rea	e excavation program dings above backgrour	ad
-8				SUBGIVEU,			
. 10							
-10 <b>-</b>							
-12 <b>-</b>							t L
	•						
	WATE	ER LEVEL		APPRO	OXIMATE PIT DIMENSIONS AT	SURFACE	SUMMARY
DAT	E 7	CIME*	DEPTH FT	1	o.t	Dritti 2 A F	DEPTH; 6.3
				LENGTH 5.5 fe	et WI	DTH 2.0 feet	JAR SAMPLES: 3
					BOULDERS	<u> </u>	BAG SAMPLES:
				8" to 18" DIA	METER: No. = Vol.	cu ft	WATER LEVEL: NE
± 11	rs after				METER: No. = Vol.		

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 14 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP CORNING GLASS CENTER, CORNING, NEW YORK LOCATION: CLIENT: CORNING INCORPORATED ELEVATION: 927.5 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE 0.3 -TOPSOIL-El. 927.5 Brown CLAY, trace sand, moist. -FILL-1.3 Sl 1.5 Black ASH with brick, moist. -FILLtο 1.7 -2 2.0 Brown CLAY, trace sand moist. -LACUSTRINE-2.5 El. 925.0 Bottom of Excavation at 2.5 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. -10 --12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE DEPTH FT DEPTH: 2,5 LENGTH 4.5 feet WIDTH 2.0 feet JAR SAMPLES: BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. = Vol. WATER LEVEL: NE cu ft \* Hrs after completed Over 18" DIAMETER: No. = Vol. TEST PIT NO.

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 15 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP CORNING GLASS CENTER, CORNING, NEW YORK LOCATION: CLIENT: CORNING INCORPORATED ELEVATION: 930.2 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Dark brown CLAY, trace organic material. -TOPSOIL-El. 930.2 0.5 0.5 to 5.0 ft. backfill of former pond area. Brown SAND, common cobbles, moist. -2 -2.0 S1 S2 4.0 -FILL-5.0 Gray silty CLAY, moist. -LACUSTRINE-S3 6.0 6.3 Brown silty CLAY, trace sand, moist. 54 8.0 -LACUSTRINE--10 <del>-</del> S5 10.2 10.2 El. 920.0 Bottom of Excavation at 10.2 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. - 12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 10.2 LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 5 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 15

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 16 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP CORNING GLASS CENTER, CORNING, NEW YORK LOCATION: CLIENT: CORNING INCORPORATED ELEVATION: 928.5 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE El. 928.5 Dark brown TOPSOIL. 1.3 Brown CLAY, trace sand, moist. 2.0 Sl S2 4.0 -FILL-4.5 Gray silty CLAY, moist. -LACUSTRINE-5.1 Brown silty CLAY, trace organic material, moist. S3 6.0 -LACUSTRINE -8 -S4 0.8 8.5 El. 920.0 Bottom of Excavation at 8.5 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background 10 observed. -12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT 8.5 DEPTH: LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 4 BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 16

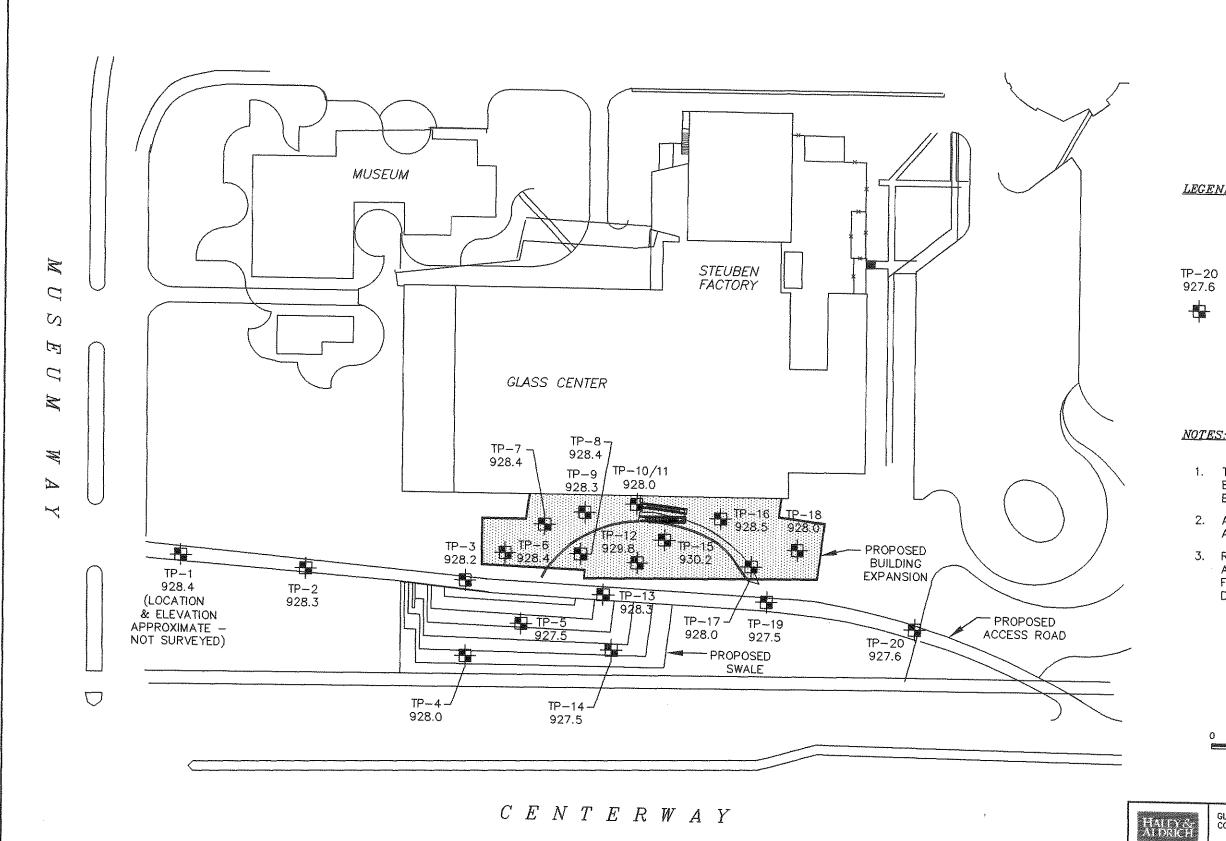
	Consu	lting Ge	otechnica	ER, NEW YORK Engineers, TEST PIT REPORT eologists	TEST PIT NO. 17 FILE NO. 70589-020
PROJECT LOCATIC CLIENT CONTRA	ON: : CTOR:	CORNIN CORNIN	G INCORPORTED	NTER, CORNING, NEW YORK ATED	LOCATION: SEE MAP  ELEVATION: 928.0  EXPLORATION DATE: 12/11/96  H&A REP.: J. MARSCHNER
	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA	DESCRIPTION OF MATERIALS	REMARKS
				-TOPSOIL-	El. 928.0
<del>-,</del>			0.6	Brown silty CLAY, trace root material, moist.	
		- 20		-FILL-	
-2	Sl	2.0	2.0	Gray silty CLAY, moistLACUSTRINE-	
				Brown silty CLAY, moist.	
-4	S2	4.0			
-					
-6 —	S3	6.0			***
-8	S4	8.0	8.0	-LACUSTRINE-	E1. 920.0
_				Bottom of Excavation at 8.0 ft.	B1. 920.0
				Organic Vapor Monitoring conducted during the excavation progrusing a Photovac Microtip Model 200. No readings above backgrobserved.	ram round
-10 -					
-12 -					
	WAT	ER LEVEI	,	APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DATE		TIME*	DEPTH FT	LENGTH 7.0 feet WIDTH 2.0 feet	DEPTH: 8.0
				WIDIR 2.0 Feet	JAR SAMPLES: 4
				BOULDERS	BAG SAMPLES:
				8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* Hr	s afte	r comple	ted	Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 17

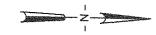
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H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 18 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589~020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 928.0 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Dark brown TOPSOIL. El. 928.0 0.7 Brown silty CLAY, moist. -2 -Sl 2.0 -FILL-2.5 Gray to dark brown silty CLAY, moist. S2 4.0 -LACUSTRINE--6 ---S3 6.0 6.0 El. 922.0 Bottom of Excavation at 6.0 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. -10 -+12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 6.0 LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. = Vol. WATER LEVEL: NE cu ft \* Hrs after completed Over 18" DIAMETER: No. = Vol. TEST PIT NO. 18 cu ft

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 19 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 927.5 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE -TOPSOIL-El. 927.5 Brown SAND and GRAVEL, moist. -FILL-1.1 1.3 Black ASH, moist. -FILL--2 -S1 2.0 Brown CLAY, trace sand, moist. -FILL-S2 4.0 4.0 S2a 4.5 Black ASH, moist. -FILL-S3 5.5 5.5 El. 922.0 Bottom of Exploration at 5.5 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. -10 -- 12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 5.5 LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. ≃ Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 19

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 20 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 927.6 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE -TOPSOIL-El. 927.6 0.4 Light brown CLAY, trace sand, moist. -FILL-1.3 1.5 Black ASH, moist. -FILL-1.9 to -2 -S1 2.0 Brown silty CLAY, moist. S2 4.0 -LACUSTRINE-S3 5.6 5.6 El. 922.0 Bottom of Excavation at 5.6 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. **.** 8 -10 -12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE DEPTH FT DEPTH: 5.6 LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. = Vol. WATER LEVEL: NE cu ft \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 20





#### **LEGEND**

APPROXIMATE LOCATION OF TEST PIT CONDUCTED BY NOTHNAGLE DRILLING FOR HALEY & ALDRICH OF NEW YORK, DECEMBER 1996, WITH GROUND SURFACE ELEVATION AS SURVEYED BY HUNT ENGINEERS. ELEVATIONS NOTED ARE AS WRITTEN ON SURVEY STAKES IN THE FIELD AT THE TIME OF THE EXPLORATION PROGRAM.

#### NOTES:

- 1. THIS FIGURE DEVELOPED FROM BASE PLAN PROVIDED BY HUNT ENGINEERS, CORNING, NY.
- 2. ALL LOCATIONS SHOWN ARE APPROXIMATE.
- 3. REFER TO TEXT OF HALEY & ALDRICH OF NEW YORK REPORT FOR DETAILS OF INFORMATION DEPICTED ON THIS PLAN.





GLASS CENTER EXPANSION PROJECT CORNING, NEW YORK

**LOCATION PLAN** 

Edereckiristd Enclosesisce Environmental Scellings

SCALE: AS SHOWN

MARCH 1997

APPENDIX A

**Test Pit Reports** 

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 1 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP CORNING GLASS CENTER, CORNING, NEW YORK LOCATION: CLIENT: CORNING INCORPORATED ELEVATION: 928.4 CONTRACTOR: NOTHAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER SCALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Brown CLAY, trace sand, wet. 0.3 EL. 928.4 - 2 --S1 2.0 Black ASH, with brick and glass, moist. - 4 S2 4.0 -FILL-4.8 Brown silty CLAY, moist. -LACUSTRINE-S3 6.4 El. 922,0 Bottom of Excavation at 6.4 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. -10 --12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 6.4 LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 1

	Consul	lting Ge	otechnical	TER, NEW YORK Engineers,	TEST P	IT REPORT		PIT NO. 2	20.000
	CT: CON: C: ACTOR:	SOIL S. CORNING CORNING	AMPLING PE G GLASS CE G INCORPOE LE DRILLIN	OGRAM YTER, CORNING, NEW YORK ATED		ETEAN TOCY.	FILE NO. 70589-020  LOCATION: SEE MAP  ELEVATION: 928.3  EXPLORATION DATE: 12/11/96  H&A REP.: J. MARSCHNER		
4	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA		DESCRIPTION OF MATE	ERIALS		REMAR	THE RESERVE THE PROPERTY OF TH
			0.9	Black ASH, moist.	-TOPSOIL-		CODE MAINTAIN WARRENCE IN	El. 928.3	A Parameter
2	Sl	2.0							
4	\$2	4.0	A THE STATE OF THE	Brown silty CLAY, m	oist.				
	52				-LACUSTRINE-				
<del></del> 6	\$3	6.2	5.6	Fine to coarse SAND	, with cobbles, mois -ALLUVIAL DEPOSI	Τ-		El. 922.0	
8				Organic Vapor Monitousing a Photovac Micobserved.	oring conducted duri protip Model 200. N	ng the excavation o readings above h	program packground		
77 77 88 60 60 60 60 60 60 60 60 60 60 60 60 60			A A A A A A A A A A A A A A A A A A A				TY W HAMADAGA ANA		
-10 -		***************************************	TANAPARATOR SS. 1.						
-12 -		, , , , , , , , , , , , , , , , , , ,	7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.7.				THE PROPERTY OF PARTY AND ADDRESS AND ADDR		
							T T T T T T T T T T T T T T T T T T T		
	WATER LEVEL			APPRO	SUMMAR	Y			
DATE	5 .	TIME*	DEPTH FT	LENGTH 6.0 fe	eet	WIDTH 2.0 f	Teet	DEPTH:	6.2
					BOULDERS			JAR SAMPLES: BAG SAMPLES:	3
				8" to 18" DIA		Vol. cu	ıft	WATER LEVEL:	NE
* H1	s after	comple	ted	Over 18" DIAN	METER: No. =	Vol. cu	ı ft	TEST PIT NO.	2

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists				l Engineers,	TEST PIT REPORT		T PIT NO. 3 E NO. 70589-020			
	ION: f: ACTOR:	CORNING CORNING	: INCORPO: Æ DRILLI	ENTER, CORNING, NEW Y RATED	YORK	EXPL	TION: SEE MAP  ATION: 928.2  ORATION DATE: 12/11/96  REP.: J. MARSCHNER			
CALE IN EET	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE		DESCRIPTION OF MATERIALS		REMARKS			
		1.5	1.3	Brown CLAY, trace s	and, moistFILL- es and brick, moistFILL-		El. 928.2			
2	SI	to 2.0	1.8	Brown silty CLAY, m						
4	.S2	4.0								
δ	<b>S</b> 3	6.2	6.2	Во	-LACUSTRINE- ttom of Excavation at 6.2 ft.		El. 922.0			
8 —		AND THE RESIDENCE AND THE PROPERTY OF THE PROP		Organic Vapor Monitousing a Photovac Misobserved.	oring conducted during the exc crotip Model 200. No readings	avation program above background				
		Total Control	And the state of t							
L2 —			The state of the s							
	HTAW	R LEVEL		APPRO	OXIMATE PIT DIMENSIONS AT SURF.	ACE	SUMMARY			
DATI	e I	IME*	DEPTH FT	LENGTH 6.0 fe	eet WIDTH	2.0 feet	DEPTH: 6.2  JAR SAMPLES: 3			
					BOULDERS		BAG SAMPLES:			
				8" to 18" DIA	METER: No. = Vol.	cu ft	WATER LEVEL: NE			
* H	rs after	complet	ed	Over 18" DIA	METER: No. = Vol.	cu ft	TEST PIT NO. 3			

	Consul	ting Geo	otechnica:	TER, NEW YORK 1 Engineers, geologists	TEST PIT	REPORT	TEST FILE	PIT NO. 4 NO. 705	589~020	
PROJECT: SOIL SAMPLING PROLOCATION: CORNING GLASS CENCLIENT: CORNING INCORPORA CONTRACTOR: NOTHAGLE DRILLING EQUIPMENT USED: BACKHOE				OGRAM LOCA NTER, CORNING, NEW YORK ATED ELEV. G INC. EXPL			ATION: SEE MAP VATION: 928.0  ORATION DATE: 12/11/96 REP.: J. MARSCHNER			
	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA		DESCRIPTION OF MATER	IALS		REMAR	ks	
			0.2		-TOPSOIL-			El. 928.0		
			0.8	Light brown CLAY,	trace sand, damp.	-FILL-				
<b>→4</b> (**±000	S1	1.0		Black ASH, damp.						
				Brown silty CLAY, m	oist,			THE PERSON NAMED IN COLUMN TO THE PE		
-2			2.0	Во	ttom of Excavation at	2.0 ft.	,	E1. 926.0		
- 4			and the state of t	Organic Vapor Monitusing a Photovac Miobserved.	oring conducted during crotip Model 200. No	g the excavation readings above	on program e background			
6 —		A STATE OF THE STA	STATE STATE OF STATE							
-										
8										
10			**************************************							
12		111111111111111111111111111111111111111	A THE REAL PROPERTY OF THE PERSON OF THE PER							
WATER LEVEL				APPRO	SUMWAF	łΥ				
DATE	T E	'IME*	DEPTH FT	LENGTH 5.0 fe	eet	WIDTH 2.0	feet	DEPTH:  JAR SAMPLES:	2	
					BOULDERS			BAG SAMPLES:		
				8" to 18" DIAM	METER: No. = V	ol,	cu ft	WATER LEVEL:	NE	
* Hr	s after	complet	Led	Over 18" DIAM	METER: No. = V	ol. ·	cu ft	TEST PIT NO.	4	

	Consul	ting Geo	otechnical	TER, NEW YORK Engineers, geologists	Ti	EST PIT REPORT	Į	PIT NO. 5	89-020
LOCATI CLIENT CONTRA	LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED CONTRACTOR: NOTHAGLE DRILLING INC. EXP.						ATION: SEE MAP  VATION: 927.5  CORATION DATE: 12/11/96  REP.: J. MARSCHNER		
	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA		DESCRIPTION OF	? MATERIALS		REMAR	KS
			0.3	Brown CLAY, trace s	-TOPSO			E1. 927.5	
- 2	S1	1.5 to 2.0	1.8	Black ASH with glas		oistFILL-		The state of the s	
<del>-</del> 4	S2	4.5	4.5	Во		E1. 923.0			
6 —		Transformer programment in the specimens of the specimens		Observed Vapor Moni using a Photovac Mi observed.	toring conducte crotip Model 20	ed during the exca 10. No readings a	wation program ubove background	CLASS CONTRACTOR CONTR	
-8			THE PARTY OF THE P						
-10		and the state of t	POPULATION AND AND AND AND AND AND AND AND AND AN						
		The state of the s	TTTTT TTTTT						
-12 -		Academical Avenue of the control of	THE PERSONNEL LANDS TO						
			1						
WATER LEVEL  DATE TIME* DEPTH FT			***	LENGTH 5.0 f:	SUMMAR DEPTH:	4.5			
					BOUL			JAR SAMPLES: BAG SAMPLES:	2
* Hr	s after	comple	ted	8" to 18" DIA Over 18" DIA		w Vol.	cu ft	WATER LEVEL: TEST PIT NO.	NE 5

	Consul	ting Geo	otechnical	ER, NEW YORK Engineers, TESI eologists	PIT REPORT	TEST PIT NO. 6 FILE NO. 70589-020
LOCATI CLIENT CONTRA	OCATION: CORNING GLASS CENTER, CORNING, NEW YORK LIENT: CORNING INCORPORATED ONTRACTOR: NOTHNAGLE DRILLING INC. EXPL				LOCATION: SEE MAP  ELEVATION: 928.4  EXPLORATION DATE: 12/10/96  H&A REP.: J. MARSCHI	
	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF M	ATERIALS	REMARKS
	S1	- Continues of the Cont	0.8	Dark brown TOPSOIL		928.4
-2	S2	The state of the s		Brown CLAY, trace sand, damp.		
-4	S3 S4		4.0	-FILL-		
			4.5	Gray silty CLAY, dampLACUSTRINE- Brown CLAY, trace sand, moist.		
	S5		7 - 20.5 & 1.5 & 20.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1.5 & 1	2227 110405.		
-6 —	\$6					
	S7		6.8	-LACUSTRINI Brown fine to medium SAND, wet.	3-	
-8	\$8					
			8.4	-ALLUVIAL DEPO		920.0
-10 -		1777		Organic Vapor Monitoring conducted du using a Photovac Microtip Model 200. observed.	aring the excavation progra No readings above backgro	am ound
•						
-12 -						
-			ALL			
	WATE	R LEVEL		APPROXIMATE PIT DIMENS	IONS AT SURFACE	SUMMARY
DATE	Т.	IME*	DEPTH FT	LENGTH 7.0 feet	WIDTH 2.0 feet	DEPTH: 8.4  JAR SAMPLES: 8
, , , , , , , , , , , , , , , , , , ,				BOULDER	S	BAG SAMPLES:
				8" to 18" DIAMETER: No.	= Vol. cu ft	WATER LEVEL: NE
* Hr	s after	. complet	ced	Over 18" DIAMETER: No.	≈ Vol. cu ft	TEST PIT NO. 6

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 7 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 928.4 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER SCALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Dark brown TOPSOIL 928.4 0.8 S1 1.0 Light brown CLAY, trace sand with organic material, damp. 2 -S2 2.0 -FILL~ \$3 3.0 3.5 Gray silty CLAY, with gravel, damp. -LACUSTRINE-\$44.0 4.0 95 5.0 Light brown CLAY, moist. S6 6.0 -LACUSTRINE-\$7 7.0 7.0 Brown fine to medium SAND, moist. 8.0 \$8 -ALLUVIAL DEPOSIT-8.4 920.0 Bottom of Excavation at 8.4 ft. Observed Vapor Monitoring conducted during the excavation program -10 using a Photovac Microtip Model 200. No readings above background observed. -12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME \* DEPTH FT DEPTH; 8.4 LENGTH 8.0 feet WIDTH 2.0 feet JAR SAMPLES: 8 BOILDERS BAG SAMPLES: --8" to 18" DIAMETER: No.  $f \cap V =$ cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 7

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 8 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SCIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 928.4 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER SCALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE 0.2 Dark brown organic material. 929.6 Brown SAND, common cobbles, moist. S11.0 0.2 to 4.0 ft. backfilled area of former pond (as per Corning S2 2.0 personel on-site) S3 3.0 -FILL-- 4 S4 4.0 4.0 Gray silty CLAY, moist. S5 5.0 5.0 6 \$6 6.0 Brown silty CLAY, moist. \$7 7.0 -LACUSTRINE-S8 7.6 7.6 El. 922.0 Bottom of Excavation at 7.6 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. 10 -12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 7.6 LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 8 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE

Over 18" DIAMETER: No.

= Vol.

cu ft

TEST PIT NO. 8

\* Hrs after completed

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 9 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 928.3 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER SCALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Dark brown TOPSOIL El. 928.3 0.5 S11.0 Light brown silty CLAY, damp. \$2 2.0 -FILL-3.0 \$3 3.5 Gray silty CLAY, with gravel, moist. 4 S4 4.0 -LACUSTRINE-4.5 Light brown silty CLAY, moist. S5 5.0 .6 -S6 6.0 Brown silty CLAY, moist. S77.0 -LACUSTRINE-7.4 El. 922.0 Brown fine to medium SAND, moist. - 8 S8 8.0 S9 9.0 9.0 Same, except wet. -ALLUVIAL DEPOSIT-El. 918.6 \$10 9.7 9.7 10 . Bottom of Excavation at 9.7 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. 12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 9.7 LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 9 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. cu ft. WATER LEVEL: NE

Over 18" DIAMETER: No.

= Vol.

cu ft

TEST PIT NO. 9

\* Hrs after completed

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 10/11 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP CORNING GLASS CENTER, CORNING, NEW YORK LOCATION: CLIENT: CORNING INCORPORATED ELEVATION: 928.0 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE SAMPLE TN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Dark brown TOPSOIL El. 928.0 -FILL-\$1 1.0 2 \$2 2.0 2.0 Light brown CLAY, trace sand, damp. 3.0 \$3 \$4 4.0 35 5.0 S6 6.0 \$77.0 S8 8.0 S9 9.0 -77779-S10 9.8 9.8 El. 918.2 -10 . Bottom of Excavation at 9.8 ft. This test pit excavated in fills along foundation of existing building. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed -12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TTME\* DEPTH FT DEPTH: 9.8 LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 10 BOULDERS. BAG SAMPLES: --

8" to 18" DIAMETER: No.

Over 18" DIAMETER: No.

\* Hrs after completed

= Vol.

= Vol.

cu ft

cu ft

WATER LEVEL: NE

TEST PIT NO. 10/11

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 12 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 929.8 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE TN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE 0.4 Dark brown CLAY, trace organic material. -TOPSOIL-El. 929.8 0.4 to 4.0 ft. backfill Brown SAND, common cobbles, moist. of former pond area. S1 2.0 -FILL-\$2 4.0 4.0 Gray silty CLAY, moist. -LACUSTRINE-4.8 Brown silty CLAY, trace sand, common cobbles, moist. S3 6.0 --8 ---S4 8.0 -LACUSTRINE-S5 9.8 9.8 E1. 920.0 -10 -Bottom of Excavation at 9.8 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. -12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TTME\* DEPTH FT DEPTH: 9.8 LENGTH 6.5 feet WIDTH 2.0 feet JAR SAMPLES: 5 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 12

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 13 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 928.3 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Organic material. El. 928.3 Brown CLAY, trace sand, moist. -FILL-2 -S12.0 2.0 Dark gray silty CLAY, moist. -LACUSTRINE-2.8 Brown CLAY, very few cobbles, moist. S2 4.0 -LACUSTRINE-5.8 6 Brown medium to fine SAND, moist. -ALLUVIAL DEPOSIT-S3 6.3 6.3 El. 922.0 Bottom of Excavation at 6.3 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. 8 -10 --12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 6.3 LENGTH 5.5 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 13

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 14 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 927.5 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE 0.3 -TOPSOIL-El. 927.5 Brown CLAY, trace sand, moist. -FILL-1.3 S11.5 Black ASH with brick, moist. -FILL-1.7 to 2 2.0 Brown CLAY, trace sand moist. -LACUSTRINE-2.5 El. 925.0 Bottom of Excavation at 2.5 ft. Organic Vapor Monitoring conducted during the excavation program **4** using a Photovac Microtip Model 200. No readings above background observed. -10 -12 · WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TTME\* DEPTH FT DEPTH: 2.5 LENGTH 4.5 feet WIDTH 2.0 feet JAR SAMPLES: BOULDERS BAG SAMPLES: 8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 14

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 15 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 930.2 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/10/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE SAMPLE IN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE Dark brown CLAY, trace organic material. -TOPSOIL-0.5 0.5 to 5.0 ft. backfill of former pond area. Brown SAND, common cobbles, moist. -2 -S1 2.0 S2 4.0 -FILL-5.0 Gray silty CLAY, moist. -LACUSTRINE-S3 6.0 6.3 Brown silty CLAY, trace sand, moist. 8.0 S4 -LACUSTRINE--10 -10.2 \$5 10.2 El. 920.0 Bottom of Excavation at 10.2 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. -12 -WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TME:\* DEPTH FT DEPTH: 10.2 LENGTH 7.0 feet WIDTH 2.0 feet JAR SAMPLES: 5 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. ≈ Vol. cu ft WATER LEVEL: NE

Over 18" DIAMETER: No.

= Vol.

cu ft

TEST PIT NO. 15

\* Hrs after completed

	Consu	lting Ge	otechnical	TER, NEW YORK Engineers, geologists	Ţ	EST PIT REPORT	TEST	PIT NO. 16 NO. 70589-020
PROJEC LOCATI CLIENT CONTRA EQUIPM	ON: ': .CTOR:	CORNING CORNING	G INCORPOR GLE DRILL1	INTER, CORNING, NEW Y MATED	YORK		ELEV	TION: SEE MAP  ATION: 928.5  ORATION DATE: 12/10/96  REF.: J. MARSCHNER
1	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE		DESCRIPTION OF	F MATERIALS		REMARKS
-2	S1	2.0	3.3	Dark brown TOPSOIL. Brown CLAY, trace s	THE STATE OF THE S			E1. 928.5
4	S2	4.0	4.5 5.1	Gray silty CLAY, mo		STRINE-		
6	S3	6.0		Brown silty CLAY, t	race organic ma	tterial, moist.		
-10 -	S4	8.0	8.5	Bo Organic Vapor Monit using a Photovac Mi observed.	-LACUSTR ttom of Excavat oring conducted crotip Model 20	tion at 8.5 ft.	ation program	El. 920.0
- 12 -		A CONTRACTOR OF THE PROPERTY O						
	WAT	ER LEVEL		APPR	OXIMATE PIT DIM	ENSIONS AT SURFAC	TR	SUMMARY
DATE		TIME*	DEPTH FT		et	WIDTH 2	700	DEPTH: 8.5 JAR SAMPLES: 4
				8" to 18" DIA		= Vol.	cu ft	BAG SAMPLES: WATER LEVEL: NE
* Hi	s afte	r comple	ted	Over 18" DIA	METER: No.	= Vol.	cu ft	TEST PIT NO. 16

H&A OF NEW YORK, ROCHESTER, NEW YORK Consulting Geotechnical Engineers, Geologists and Hydrogeologists

TEST PIT REPORT

TEST PIT NO. 17

FILE NO.

70589-020

PROJECT: SOIL SAMPLING PROGRAM
LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK
CLIENT: CORNING INCORPORATED
CONTRACTOR: NOTHNAGLE DRILLING INC.

LOCATION: SEE MAP

ELEVATION: 928.0

CLIENT CONTRA EQUIPN	ACTOR:		INCORPOR LE DRILLI IOE	NG INC. EXP	VATION: 928.0 LORATION DATE: 12/11/96 REP.: J. MARSCHNER
scale In Feet	SAMPLE NUMBER	SAMPLE DEPTH RANGE	STRATA CHANGE	DESCRIPTION OF MATERIALS	REMARKS
			0.6	-TOPSOIL-	El. 928.0
			0.0	Brown silty CLAY, trace root material, moist.	
The second secon					
2	S1	2.0	2.0	-FILL-	
X-1	0	2.0	2.5	Gray silty CLAY, moistLACUSTRINE-	
			2,3		
9775 TOOMMAN				Brown silty CLAY, moist.	
L4	S2	4.0			
S (100 C) (100					
		OVA ACCOUNT			
<u>_</u> 6	S3	6.0			
_					To the same of the
one many open and the contract of the contract				-LACUSTRINE-	
8 —	S4	8.0	8.0		El. 920.0
				Bottom of Excavation at 8.0 ft.	
<u> </u>				Organic Vapor Monitoring conducted during the excavation program	
				using a Photovac Microtip Model 200. No readings above background observed.	
10 -					
12 -					F 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	WAT	ER LEVEL		APPROXIMATE PIT DIMENSIONS AT SURFACE	SUMMARY
DAT	Ε ,	rime*	DEPTH FT	LENGTH 7.0 feet WIDTH 2.0 feet	DEPTH: 8.0
				MIDIN 2.0 LEGE	JAR SAMPLES: 4
				BOULDERS	BAG SAMPLES:
				8" to 18" DIAMETER: No. = Vol. cu ft	WATER LEVEL: NE
* H1	rs afte	r complet	ed	Over 18" DIAMETER: No. = Vol. cu ft	TEST PIT NO. 17

CALE SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS		Consi	ılting Ge	otechnical	FER, NEW YORK L Engineers, geologists	TEST :	PIT REPORT	TEST FILE	PIT NO. 18	-020
N SMULE DEFTE STANDS ST	LOCATI CLIENT CONTRA	ON; : CTOR;	CORNIN CORNIN NOTHNA	G GLASS C G INCORPO GLE DRILL:	SS CENTER, CORNING, NEW YORK ORPORATED RILLING INC. EXPLOR				ATION: 928.0 ORATION DATE:	
DATE TIME* DEPTH T  Description:  Stay to dark brown silty CLAY, moist.  Stay to dark brown silty CLAY, moist.  Fill.  Capanic Vapor Monitoring conducted during the excavation program using a theorem. Microring Model 200. No readings above background observed.  Approximate PTT DIMENSIONS AT SUMPACS  CHARLEST TAME.  Approximate PTT DIMENSIONS AT SUMPACS  CHARLES. 3  BOULDERS  EAZ SAMPLES: 3  BOULDERS			DEPTH	STRATA		DESCRIPTION OF MAT	TERIALS		REMA	RKS
2.5				0.7	MANAGEMENT AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS O	NAMES OF THE PERSON NAMES			El. 928.0	
A - S2 4.0	-2	\$1	2.0	2.5		-PILL-			A CONTRACTOR OF THE PROPERTY O	
Bottom of Excavation at 6.0 ft.  Bottom of Excavation at 6.0 ft.  Cryanic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.  DATE LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY  DATE TIME* DEPTH FT LENGTH 6.0 feet BOULDERS BOULDERS BL. 922.0  Bottom of Excavation at 6.0 ft.  SIMPLES: 3  BOULDERS BOULDERS BL. 922.0  Bottom of Excavation at 6.0 ft.  Bil. 922.0  Bil. 9	- 4	S2	4.0	Name of the Control o	Gray to dark brown	silty CLAY, moist.				
Bottom of Excavation at 6.0 ft.  Bottom of Excavation at 6.0 ft.  Cryanic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed.  DATE LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY  DATE TIME* DEPTH FT LENGTH 6.0 feet BOULDERS BOULDERS BL. 922.0  Bottom of Excavation at 6.0 ft.  SIMPLES: 3  BOULDERS BOULDERS BL. 922.0  Bottom of Excavation at 6.0 ft.  Bil. 922.0  Bil. 9			***************************************			- LACTISTRING				
WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY  DATE TIME* DEPTH PT  LENGTH 6.0 feet WIDTH 2.0 feet  BOULDERS  BAG SAMPLES: 3  BAG SAMPLES:	6 -	\$3	6.0	6.0	Во				El. 922.0	
WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY  DATE TIME* DEPTH FT LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES:	8				using a Photovac Mi	oring conducted dur crotip Model 200.	ing the excavat	zion program ove background		
WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY  DATE TIME* DEPTH FT LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES:	1.0									
WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY  DATE TIME* DEPTH FT LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3  BOULDERS BAG SAMPLES:										
DATE TIME* DEPTH FT LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3  BOULDERS BAG SAMPLES:	12			THE REAL PROPERTY OF THE PROPE						
DATE TIME* DEPTH FT LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3  BOULDERS BAG SAMPLES:					T					
LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3  BOULDERS BAG SAMPLES:	DZ mr.					DALMATE PIT DIMENSI	ONS AT SURFACE			
	DATE	·	TIME	DEPTH FT	1	feet	WIDTH	2.0 feet		
8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE									BAG SAMPLES:	
* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 18							= Vol.	cu ft	WATER LEVEL:	NE

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 19 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 927.5 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE SAMPLE TN DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET NUMBER RANGE CHANGE -TOPSOIL-El. 927.5 Brown SAND and GRAVEL, moist. -FILL-1.1 1.3 -FILL-Black ASH, moist. -2 -S1 2.0 Brown CLAY, trace sand, moist. -FILL--4  $s_2$ 4.0 4.0 \$2a 4.5 Black ASH, moist. -FILL-\$3 5.5 5.5 Bl. 922.0 Bottom of Exploration at 5.5 ft. Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. 8 . -10 -12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 5.5 LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE \* Hrs after completed Over 18" DIAMETER: No. = Vol. cu ft TEST PIT NO. 19

H&A OF NEW YORK, ROCHESTER, NEW YORK TEST PIT NO. 20 Consulting Geotechnical Engineers, TEST PIT REPORT Geologists and Hydrogeologists FILE NO. 70589-020 PROJECT: SOIL SAMPLING PROGRAM LOCATION: SEE MAP LOCATION: CORNING GLASS CENTER, CORNING, NEW YORK CLIENT: CORNING INCORPORATED ELEVATION: 927.6 CONTRACTOR: NOTHNAGLE DRILLING INC. EXPLORATION DATE: 12/11/96 EQUIPMENT USED: BACKHOE H&A REP.: J. MARSCHNER CALE SAMPLE IN SAMPLE DEPTH STRATA DESCRIPTION OF MATERIALS REMARKS FEET CHANGE NUMBER RANGE -TOPSOIL-El. 927.6 0,4 Light brown CLAY, trace sand, moist. -FILL-1.3 1.5 Black ASH, moist. -FILLto 1.9 2 -S1 2.0 Brown silty CLAY, moist. S2 4.0 -LACUSTRINE-S3 5.6 5.6 El. 922.0 Bottom of Excavation at 5.6 ft. - 6 Organic Vapor Monitoring conducted during the excavation program using a Photovac Microtip Model 200. No readings above background observed. 8 -10 -12 WATER LEVEL APPROXIMATE PIT DIMENSIONS AT SURFACE SUMMARY DATE TIME\* DEPTH FT DEPTH: 5.6 LENGTH 6.0 feet WIDTH 2.0 feet JAR SAMPLES: 3 BOULDERS BAG SAMPLES: --8" to 18" DIAMETER: No. = Vol. cu ft WATER LEVEL: NE

Over 18" DIAMETER: No.

= Vol.

cu ft

TEST PIT NO. 20

\* Hrs after completed

#### APPENDIX B

Laboratory Analytical Results and Chain-of-Custody Documentation



Quanterra Incorporated 450 William Pitt Way Pittsburgh, Pennsylvania 15238

412 820-8380 Telephone 412 820-2080 Fax

### ANALYTICAL REPORT

PROJECT NO. HALEY & ALDRICH

HALEY & ALDRICH

Lot #: C6L180120

ED HYNES

Haley & Aldrich

QUANTERRA INCORPORATED

Carrie L. Gamber Project Manager Tanker

January 13, 1997



#### CASE NARRATIVE

PROJECT: CORNING GLASS

PROJECT NUMBER: 70589-020

LOT NUMBER: C6L180120

**NOTE:** The analyses for mercury and silver were performed at our Quanterra laboratory in Denver, Colorado. These results are enclosed.

**METALS:** The following metals were detected in the blank at values less than the reporting limit but greater than the method detection limit: lead, barium, and cadmium. These results are flagged with a "B" qualifier on the blank sheet.

The following metals had percent recoveries in the matrix spike and/or matrix spike duplicate outside QC limits: lead, cadmium, and chromium The RPD for lead and chromium was also outside QC limits.

#### **METHODS SUMMARY**



#### C6L180120

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Inductively Coupled Plasma (ICP) Metals Total Residue as Percent Solids	SW846 6010A MCAWW 160.3 MOD	SW846 3050 MCAWW 160.3 MOD
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010A	SW846 3050

#### References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

#### SAMPLE SUMMARY



#### C6L180120

WO # SAMPLE# CLIENT SAMPLE ID	DATE TIME	
C7DRH 001 TES PIT 1 (COMPOSITE OF S1,S2) C7DRM 002 TEST PIT3 S1 C7DRQ 003 TEST PIT4 S1 C7DRT 004 TEST PIT5 S1 C7DRW 005 TEST PIT14 S1 C7DT0 006 TEST PIT19 S2A C7DT1 007 TEST PIT20 S1	12/11/96 12:00 12/11/96 11:02 12/11/96 12:28 12/11/96 12:50 12/11/96 13:10 12/11/96 09:21	0 2 8 0 0

#### NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.



## Client Sample ID: TES PIT 1 (COMPOSITE OF S1,S2)

Environmental Services

#### TOTAL Metals

Lot-Sample #. Date Sampled.	Matrix:	SOLID				
PARAMETER Prep Batch #.	RESULT 6362143	REPORTII LIMIT	NG UNITS	METHOD	PREPARATION - ANALYSIS DATE	WORK ORDER #
						•

Arsenic	143	1.2 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRH102
Lead	3800	3.5 mg/kg Dilution Factor: 10 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRH103
Barium	77.2	23.2 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRH106
Selenium	13.4	0.58 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRH104
Cadmium	10.3	0.58 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRH107
Chromium	13.6	1.2 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRH108

Results and reporting limits have been adjusted for dry weight.

NOTE(S):



**Environmental** Services

#### Client Sample ID: TES PIT 1 (COMPOSITE OF S1,S2)

#### General Chemistry

Lot-Sample #...: C6L180120-001

Work Order #...: C7DRH

Matrix....: SOLID

Date Sampled...: 12/11/96

Date Received..: 12/18/96

PREPARATION-PREP

PARAMETER

RESULT UNITS

METHOD

ANALYSIS DATE BATCH #

Percent Solids

86.3

MCAWW 160.3 MOD

12/19/96

6354143

Dilution Factor: 1

MS Run #.....: 6354030



Client Sample ID: TEST PIT3 S1

TOTAL Metals

Lot-Sample #...: C6L180120-002

Date Sampled...: 12/11/96

Date Received..: 12/18/96

Matrix....: SOLID

Services

REPORTING PREPARATION- WORK

PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6362143

Arsenic	12.1	1.1 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRM102
Lead	115	0.33 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRM103
Barium	133	21.8 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRM106
Selenium	0.80	0.54 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRM104
Cadmium	0.80	0.54 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRM107
Chromium	11.1	1.1 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRM108

Results and reporting limits have been adjusted for dry weight.

NOTE(S):



Services

#### HALEY & ALDRICH

Client Sample ID: TEST PIT3

#### General Chemistry

Lot-Sample #...: C6L180120-002

Date Sampled...: 12/11/96

Work Order #...: C7DRM

Date Received..: 12/18/96

Matrix....: SOLID

PARAMETER

RESULT

UNITS

METHOD

PREPARATION-ANALYSIS DATE

PREP

Percent Solids

91.8

MCAWW 160.3 MOD

12/19/96

BATCH # 6354143

MS Run #..... 6354030

Dilution Factor: 1

NOTE(S):

RL Reporting Limit



#### Client Sample ID: TEST PIT4

Environmental Services

#### TOTAL Metals

Matrix....: SOLID Date Sampled...: 12/11/96 Date Received..: 12/18/96 REPORTING PREPARATION-WORK PARAMETER RESULT LIMIT UNITS ANALYSIS DATE ORDER #

Prep Batch #...: 6362143

Lot-Sample #...: C6L180120-003

Arsenic	10.1	1.2 mg/kg	SW846 6010A	12/27-01/06/97 C7DRQ102
		Dilution Factor: 1		==/1. 01/00/37 C/DRQ102
		MS Run #: 6362027		
Lead	83.1	0.36 mg/kg	SW846 6010A	12/27-01/06/97 C7DRQ103
		Dilution Factor: 1	570 40 002022	12/2/-01/00/9/ C/DRQ103
		MS Run #: 6362027	·	
Barium	91.8	24.1 mg/kg	SW846 6010A	12/27-01/06/97 C7DRQ106
		Dilution Factor: 1		12/2. 01/00/3/ C/DRQ106
		MS Run # 6362027		
Selenium	1.2	0.60 mg/kg	SW846 6010A	12/27-01/06/97 C7DRQ104
		Dilution Factor: 1		12/2/ 01/00/3/ C/DRQ104
		MS Run # 6362027		
Cadmium	0.57 B	0.60 mg/kg	SW846 6010A	12/27-01/06/97 C7DRQ107
		Dilution Factor: 1		12/2/~01/00/3/ C/DRQIU/
		MS Run #: 6362027		
Chromium	8.2	1.2 mg/kg	SW846 6010A	12/27-01/06/97 C7DRQ108
		Dilution Factor: 1		/2/ 01/00/3/ C/DRQ108
		Ms Run #: 6362027		

NOTE(S):

B Estimated result. Result is less than RL.



Client Sample ID: TEST PIT4 SI

#### General Chemistry

Lot-Sample #...: C6L180120-003 Date Sampled...: 12/11/96

Work Order #...: C7DRQ

Date Received..: 12/18/96

Matrix....: SOLID

Services

PARAMETER

RESULT

PREPARATION-

PREP

Percent Solids

METHOD

ANALYSIS DATE

BATCH #

82.9

MCAWW 160.3 MOD

12/19/96

6354143

Dilution Factor: 1

MS Run #..... 6354030

NOTE(S):

RL Reporting Limit



Client Sample ID: TEST PIT5

Environmental Services

#### TOTAL Metals

Lot-Sample #...: C6L180120-004

Date Sampled...: 12/11/96

Date Received..: 12/18/96

Matrix....: SOLID

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PREPARATION-WORK PARAMETER RESULT LIMIT UNITS METHOD ANALYSIS DATE ORDER #

Prep Batch #...: 6362143

Arsenic	11.9	1.3 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRT102
Lead	49.4	0.39 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRT103
Barium	151	26.2 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRT106
Selenium	0.58 B	0.66 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRT104
Cadmium	0.56 В	0.66 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRT107
Chromium	12.9	1.3 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DRT108

NOTE(S):

B Estimated result. Result is less than RL.



Services

#### HALEY & ALDRICH

Client Sample ID: TEST PIT5 S1

#### General Chemistry

Lot-Sample #...: C6L180120-004

Work Order #...: C7DRT

Matrix....: SOLID

Date Sampled...: 12/11/96

Date Received..: 12/18/96

PREP

PARAMETER

RESULT

UNITS

METHOD

PREPARATION-ANALYSIS DATE

Percent Solids

76.2

MCAWW 160.3 MOD

12/19/96

Dilution Factor: 1

MS Run #....: 6354030

NOTE(S):

RL Reporting Limit



#### Client Sample ID: TEST PIT14 S1

Environmental Services

#### TOTAL Metals

Lot-Sample #...: C6L180120-005

Date Sampled...: 12/11/96

Date Received..: 12/18/96

Matrix....: SOLID

WORK

REPORTING PREPARATION-PARAMETER LIMIT UNITS ANALYSIS DATE ORDER #

Prep Batch #...: 6362143

				ę
Arsenic	18.3	1.1 mg/kg Dilution Factor: 1	SW846 6010A	12/27-01/06/97 C7DRW102
		MS Run #: 6362027		
Lead	259	0.34 mg/kg	SW846 6010A	12/27-01/06/97 C7DRW103
		Dilution Factor: 1	J., J.	12/2/-01/00/3/ C/DRW103
		MS Run #: 6362027		
Barium	106	22.5 mg/kg	SW846 6010A	12/27-01/06/97 C7DRW106
		Dilution Factor: 1		, , , ,
		MS Run #: 6362027		•
Selenium	1.3	0.56 mg/kg	SW846 6010A	12/27-01/06/97 C7DRW104
		Dilution Factor: 1		
		MS Run #: 6362027		
Cadmium	1.2	0.56 mg/kg	SW846 6010A	12/27-01/06/97 C7DRW107
		Dilution Factor: 1		-, -: ou, oo, y, c.b.m.tu,
		MS Run #: 6362027		
Chromium	11.2	1.1 mg/kg	SW846 6010A	12/27-01/06/97 C7DRW108
		Dilution Factor: 1		
		MS Run #: 6362027		

NOTE(S):



#### Client Sample ID: TEST PIT14 Sl

#### General Chemistry

Lot-Sample #...: C6L180120-005

Work Order #...: C7DRW

Date Sampled...: 12/11/96

Date Received..: 12/18/96

Matrix....: SOLID

Services

PARAMETER

RESULT

METHOD

PREPARATION-

PREP

Percent Solids

ANALYSIS DATE

BATCH #

88.9

MCAWW 160.3 MOD

12/19/96

6354143

Dilution Factor: 1

MS Run #....: 6354030

NOTE(S):

RL Reporting Limit



Environmental Services

#### Client Sample ID: TEST PIT19 S2A

#### TOTAL Metals

Lot-Sample #...: C6L180120-006

Date Sampled...: 12/11/96

Date Received..: 12/18/96

Matrix....: SOLID

RE	P	OI	łΊ	ľ	1	Į	(

PREPARATION-WORK PARAMETER RESULT LIMIT UNITS ANALYSIS DATE ORDER #

Prep Batch #...: 6362143

Arsenic	9.2	1.2 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DT0102
Lead	27.8	0.35 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DT0103
Barium	99.2	23.6 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DT0106
Selenium	0.86	0.59 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DT0104
Cadmium	0.39 В	<b>0.59</b> mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DT0107
Chromium	9.4	1.2 mg/kg Dilution Factor: 1 MS Run #: 6362027	SW846 6010A	12/27-01/06/97 C7DT0108

NOTE(S):

B Estimated result. Result is less than RL.



Client Sample ID: TEST PIT19

Environmental Services

General Chemistry

Lot-Sample #...: C6L180120-006

Work Order #...: C7DT0

Matrix....: SOLID

Date Sampled...: 12/11/96

Date Received..: 12/18/96

RESULT

UNITS

METHOD

PREPARATION-

PREP

Percent Solids

PARAMETER

84.9

MCAWW 160.3 MOD

ANALYSIS DATE 12/19/96

BATCH # 6354143

Dilution Factor: 1

MS Run #....: 6354030

NOTE(S):

RL Reporting Limit



Client Sample ID: TEST PIT20 S1

Environmental Services

Matrix....: SOLID

#### TOTAL Metals

Date Sampled...: 12/11/96 Date Received..: 12/18/96

PARAMETER Prep Batch #.	RESULT: 6362143	REPORTIN LIMIT	IG UNITS	METHOD	PREPARATION - ANALYSIS DATE	WORK ORDER #
Arsenic	9.8	1.2 Dilution Fac MS Run #		SW846 6010A	12/27-01/06/97	C7DT1102
Lead	135	0.36 Dilution Factor MS Run #		SW846 6010A	12/27-01/06/97	C7DT1103
Barium	79.4	<b>24.1</b> Dilution Fact MS Run #		SW846 6010A	12/27-01/06/97	C7DT1106
Selenium	1.2	0.60 Dilution Fact MS Run #		SW846 6010A	12/27-01/06/97	C7DT1104
Cadmium	0.31 B	0.60 Dilution Fact MS Run #		SW846 6010A	12/27-01/06/97	C7DT1107
Chromium	7 - 8	1.2 Dilution Fact MS Run #		SW846 6010A	12/27-01/06/97	C7DT1108

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

Lot-Sample #...: C6L180120-007

B Estimated result. Result is less than RL.



Client Sample ID: TEST PIT20 S1

#### General Chemistry

Lot-Sample #...: C6L180120-007

Work Order #...: C7DT1

Matrix....: SOLID

Date Sampled...: 12/11/96

Date Received..: 12/18/96

PREPARATION- E

PREP

PARAMETER

RESULT

UNITS

METHOD

ANALYSIS DATE

BATCH #

Percent Solids

83.1

ONTID

MCAWW 160.3 MOD

12/19/96

6354143

Dilution Factor: 1

MS Run #..... 6354030

NOTE(S):

RL Reporting Limit



# **QUALITY CONTROL SECTION**



# QUALITY ASSURANCE/QUALITY CONTROL PROGRAM SUMMARY

Environmental

Quanterra Incorporated considers continuous analytical performance evaluations to be an integral portion of the data package, and routinely includes the pertinent QA/QC data associated with various analytical reports. Brief discussions of the various QA/QC procedures utilized to measure acceptable method and matrix performance follow.

## SURROGATE SPIKE RECOVERY EVALUATIONS

Known concentrations of designated surrogate spikes, consisting of a number of similar, non-method compounds or method compounds analogues, are added, as appropriate, to routine GC and GC/MS sample fractions prior to extraction and analysis. The percent recoveries calculated from the subsequent spike recovery data is displayed alongside acceptable analytical method performance limits at the bottom of each applicable analytical result report sheet.

NOTE: Acceptable method performance for Base/Neutral Acid extractables is indicated by two (2) of three (3) surrogates for each fraction with a minimum recovery of ten percent (10%) each. For Pesticides, one (1) of two (2) surrogates meeting performance criteria is acceptable.

## LABORATORY ANALYTICAL METHOD BLANK EVALUATIONS

Laboratory analytical method blanks are systematically prepared and analyzed in order to continuously evaluate the system interferences and background contamination levels associated with each analytical method. These method blanks include all aspects of actual laboratory method analysis (chemical reagents, glassware, etc.) substituting laboratory reagent water or solid for actual sample. The method blank must not contain any analytes above the reported detection limit. The following common laboratory contaminants are exceptions to this rule, provided they are not present at a greater than five times the detection limit.

Volatiles
Methylene chloride
2-Butanone
Acetone

Semi-volatiles
Dimethyl phthalate
Diethyl phthalate
Di-n-butyl phthalate
Butyl benzyl phthalate
Bis (2-ethylhexyl) phthalate

A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method blanks.



# QUALITY ASSURANCE/QUALITY CONTROL PROGRAM SUMMARY (CONT)

Environmental Services

## LABORATORY ANALYTICAL METHOD CHECK SAMPLE EVALUATIONS

Known concentrations of designated matrix spikes (actual analytical method compounds) are added to a laboratory reagent blank prior to extraction and analysis. Percent recovery determinations demonstrate the performance of the analytical method. Failure of a check sample to meet established laboratory recovery criteria is cause to stop the analysis until the problem is resolved. All compounds must meet laboratory recovery criteria. A minimum of five percent (5%) of all laboratory analyses are laboratory analytical method check samples.

## MATRIX SPIKE(MS)/MATRIX SPIKE DUPLICATE(MSD) RECOVERY EVALUATION

Known concentration of designated matrix spikes (actual analytical method compounds) are added to two of three separate aliquots of a sequentially predetermined sample prior to extraction and analysis. Percent recovery determinations are calculated from both of the spiked samples by comparison to the actual values generated from the unspiked sample. These percent recovery determinations indicate the accuracy of the analysis at recovering actual analytical method compounds from the matrix. Actual percent recovery data is displayed alongside the acceptable analytical method performance limits in the QA/QC section of the report. The MS/MSD are considered in control when the associated check sample has been found to be acceptable. A minimum of ten percent (10%) of all analyses are MS/MSD quality control samples.

		EXAMPLE						
COMPOUND	SAMPLE	MS	MSD	QC LIMITS'				
	CONCENTRATION	% RECOVERY	% RECOVERY	RECOVERY				
4-4'-DDT	0	95	112	(66-119)				
Benzene	10	86	93	(39-150)				
compound name	sample result	1st % recovery	2nd % recovery	acceptable method limits				

<sup>1</sup>QC limits are statistically derived from historical laboratory data. Where insufficient data exists to statistically derive these limits, they will be labelled "advisory". In this case, they are based on the best available technical information.

For metals analyses, the recoveries of the MS/MSD must be within the range of 80-120%. If they do not meet this criteria, but the RPD of the two results is <20% <u>OR</u> the absolute difference is less than 10% when the recoveries are below 50%, no corrective action is required. If these criteria are not met, the sample with its MS/MSD is reprepared and reanalyzed once more.

#### METHOD BLANK REPORT



#### TOTAL Metals

Client Lot #...: C6L180120

Matrix....: SOLID

PARAMETER	RESULT	REPORTII LIMIT	NG <u>UNITS</u>	METHO.	D	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample Arsenic	#: C6L270000 ND	0-143 Prep 1 1.0 Dilution Fac	mg/kg		6010A	12/27-01/06/97	C7H71101
Lead	0.21 B	0.30 Dilution Fac	mg/kg	SW846	6010A	12/27-01/06/97	C7H71102
Barium	0.056 B	<b>20.0</b> Dilution Fac	mg/kg	SW846	6010A	12/27-01/06/97	С7Н71105
Selenium	ND	0.50 Dilution Fac	mg/kg	SW846	6010A	12/27-01/06/97	С7Н71103
Cadmium	0.22 B	0.50 Dilution Fac	mg/kg	SW846	6010A	12/27-01/06/97	С7Н71106
Chromium	ND	l.O Dilution Fac	mg/kg	SW846	6010A	12/27-01/06/97	C7H71107
NOTE(S):							

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result, Result is less than RL.



#### LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### TOTAL Metals

Client Lot #:	C6L180120			Matrix	: SOLID
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#:	C6L270000-	143 Prep Ba	tch #: 6362143		
Arsenic	87	(70 - 129) Dilution Facto	SW846 6010A	12/27-01/06/97	C7H71108
Lead	86	(74 - 127) Dilution Facto	SW846 6010A r: 1	12/27-01/06/97	С7Н71109
Selenium	83	(71 - 129) Dilution Facto	SW846 6010A r: 1	12/27-01/06/97	С7Н7110А
Barium	105	(73 - 127) Dilution Factor	SW846 6010A r: 1	12/27-01/06/97	C7H7110D
Cadmium	85	(73 - 128) Dilution Factor	SW846 6010A	12/27-01/06/97	С7Н7110Е
Chromium	100	(76 - 124) Dilution Factor		12/27-01/06/97	С7Н7110F

Calculations are performed before rounding to avoid round-off errors in calculated results.

NOTE(S):

#### MATRIX SPIKE SAMPLE EVALUATION REPORT



12/27-01/06/97 C7DRH10R

#### TOTAL Metals

Client Lot   Date Sampled			Received	: 12/18/	/96	Matrix	: SOLID
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS RPD	RPD LIMITS	METHOD		PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sampl Arsenic	l <b>e #:</b> C6L18 83 83	80120-001 Prep F (80 - 120) (80 - 120) 0.35 Dilution Fac MS Run #	(0-20)	SW846 60 SW846 60	)10A	12/27-01/06/97 12/27-01/06/97	
Lead	423 N 0.0 N,*	(80 - 120) (80 - 120) 200 Dilution Fac MS Run #	tor: 10			12/27-01/06/97 12/27-01/06/97	
Barium	98 103	(80 - 120) (80 - 120) 3.8 Dilution Fac MS Run #	tor: 1	SW846 60 SW846 60		12/27-01/06/97 12/27-01/06/97	
Selenium	92 92	(80 - 120) (80 - 120) 0.10 Dilution Fact MS Run #	or: 1			12/27-01/06/97 12/27-01/06/97	
Cadmium	3.0 N 5.3 N	(80 - 120) (80 - 120) 1.3 Dilution Fact MS Run #	or: 1	SW846 601 SW846 601		12/27-01/06/97 12/27-01/06/97	C7DRH10N C7DRH10P
Chromium	105 69 N,*	(80 - 120) (80 - 120) 25	(0-20)	SW846 601		12/27-01/06/97	

(0-20)

SW846 6010A

#### NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results. Results and reporting limits have been adjusted for dry weight.

(80 - 120) 25

Dilution Factor: 1
MS Run #.....: 6362027

69 N \*

N Spiked analyte recovery is outside stated control limits.

<sup>\*</sup> Relative percent difference (RPD) is outside stated control limits.



Environmental Services

#### SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Work Order #...: C7DRH-SMP

C7DRH-DUP

Matrix....: SOLID

**Date Sampled...:** 12/11/96

Client Lot #...: C6L180120

Date Received..: 12/18/96

DUPLICATE RPD PREPARATION-PREP PARAM RESULT RESULT UNITS RPD LIMIT METHOD ANALYSIS DATE BATCH # Percent Solids SD Lot-Sample #: C6L180120-001 86.3 85.3 Ŷ 1.2 (0-20) MCAWW 160.3 MOD 12/19/96 6354143

Dilution Factor: 1

Prep Date....: 6354030 Analysis Date..:

Prep Batch #...:

H & A OF NEW YORK	ANALYSIS REQUEST FORM	ORM	Nº 1231
Rochester, New York 14604 (716) 232-7386	CHAIN-OF-CUSTODY RECORD		Pery Date: 12/19/96
Project Name: Assumer, G-0455	Laboratory: QUAUTE DA	Pro	Project Manager: ED HYLLES
H & A FILE NO. TO KEN - CLD	Address: USO WILLIAM PIT WA		Final Report Due Date:
	BETSI AG HUNGSTING	96	Turnaround Time: 2-3 -days weeks
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# Cooler Receipt Form Quanterra Environmental Services Pittsburgh

Clie	nt: HiA of N.Y	Project:	Quote:	
Cool	ler Rec'd & Opened for Temp. Check on:	12/18/96	MA	
Cool	lers Opened and Unpacked on:	12/14/96	_ 8x: ////	
Quai	aterra Lot Number: CLL	180120	(Sign	lature)
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Į.	Were custody seals on the outside of the co	oler?	$\nu$	<u>/</u> <u>:</u>
	If YES, how many and where? Quantity	Location	1	organish exhibition will be seen
	Were signatures and date correct?	•		
2.	Were custody papers included inside the co-	•	<i>Y</i>	
<b>3</b> .	Were custody papers properly filled out (inl			
4.	Did you sign the custody papers in the appro	opriate place?	V	/
5.	Was shippers packing slip attached to this fo	•		
6.	Were packing materials used?			
	If YES, what type?	fack But		
7.	Were the samples chilled? (Record tempera	nures on reverse side.)		
8.	Were the samples appropriately preserved?		<u>N</u>	
9.	Were all bottles sealed in separate plastic ba	<b>ZS</b> ?		
10.	Did all bottles arrive in good condition (unb	roken)?	V.	
11.	Were all bottle labels complete (date, signed	i, analysis, preservarives)?		· .
12.	Did all bottle labels and tags agree with cust		re	
13.	Were correct bottles used for tests indicated	7	· · · · · · · · · · · · · · · · · · ·	
14.	Were all VOA vials checked for the presence	e of air bubbles?		<u> </u>
15.	Was a sufficient amount of sample sent in e	ach bottle?	·/	
16.	Samples received by: FEDEX UPS C	LIENT DROP-OFF OTHER		
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Page 1 of 2

## Cooler Receipt Form

# Quanterra Environmental Services Pittsburgh

P: Preserved

UP: Unpreserved

Sample D	TMET PH<2	DMET PH<2	HG PH<2	NUT PH<2	CN PH=> 2	OG TPHC	PHEN PH<2	SULF ?H=>12	TOC PH<2	TOX 24<2	VOA P/UP				
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