

# Soil/Fill Characterization Documentation

APPENDIX





**Sample Date:** 

June 2, 2004

**Sample Location:** 

Northern Boundary of the Facility Building Foundation

Sample ID:

Stockpile 1

**Analysis Performed:** 

T-Metals, SVOCs, Pesticides/PCBs, VOCs, Leachable pH, Total Cyanide

**Analysis Performed By:** 

Severn Trent Laboratories, Inc. (STL)

#### **Results:**

No detections were reported above the Site-Specific Action Limits (SSALs).

**Pesticides/PCBs:** Three low pesticide detections qualified as 'estimated', no PCB detections. No detections above the SSALs.

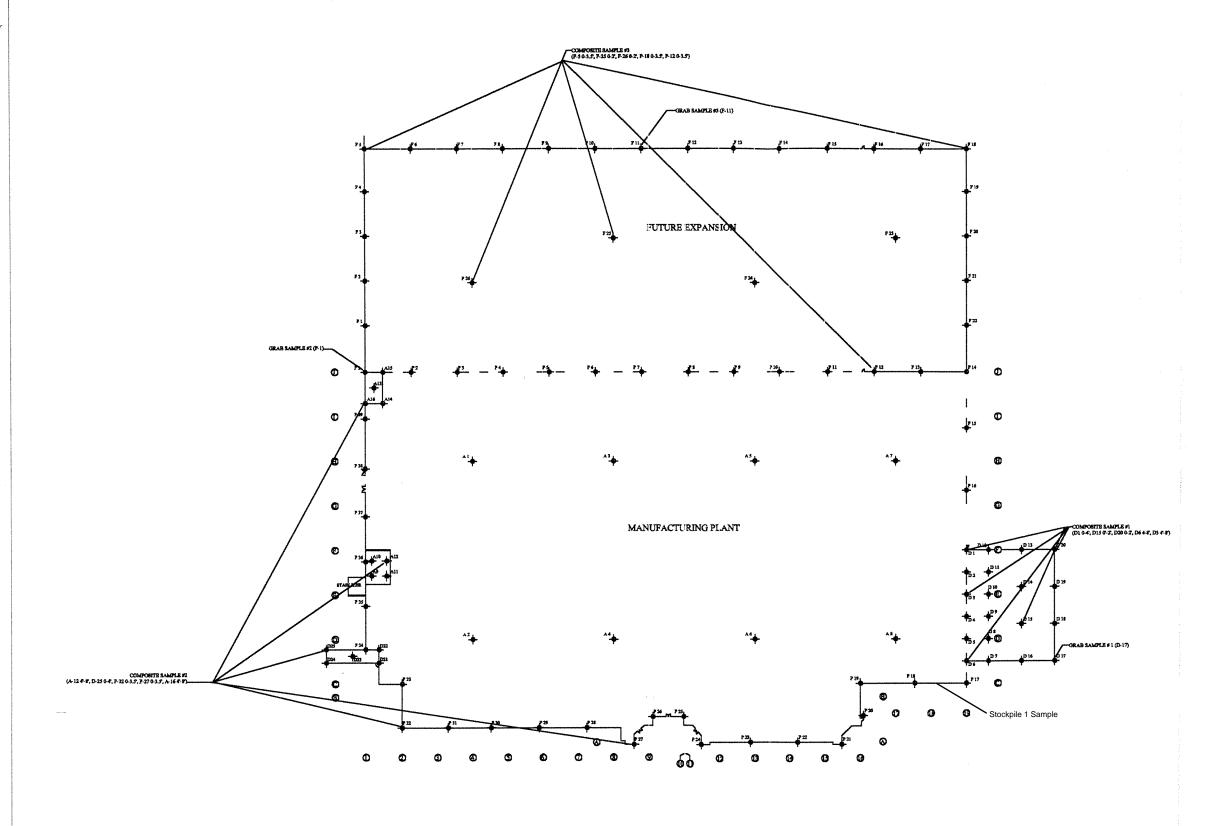
**SVOCs:** Several detections, with a maximum detection of 11,000 ug/kg for benzo(a)pyrene. No detections above the SSALs.

**VOCs:** Two low detections of Methylene Chloride (23 B ug/kg, also present in the trip blank) and Dichlorodifluoromethane (3 J ug/kg). No detections above the SSALs.

Metals: No detections above the SSALs.

Cyanide: Not detected above the SSAL.

pH: Reported as 9.68, limiting the material use to below-grade onsite fill areas only.





- BACH COMPOSITE AND GRAB SAMPLE WAS COLLECTED FOR A VOLUME OF ~2,000 CUBIC YARDS OF PROPOSED EXCAVATED MATERIAL
- PROPOSED EXCAVATED VOLUME: 1,300 CUBIC YARDS-AS GEVEN BY KROG CORP.
- 2 CYMPOSITE SAMPLES AND 3 GEAR SAMPLES REPRESENTING: 6 000 CURIC VARIA
- COMPOSITE BAMPLES PRODUCED PROM 5 TEST BORING LOCATIONS REPRESENTATIVE OF SOILVILL MATERIAL ENCOUNTERED
- IRAB SAMPLES COLLECTED FROM INDIVIDUAL TEST BORDING LOCATIONS REPRESENTATIVE OF SCIL/FILL MATERIAL ENCUUNTERED (FOR EVERY 2,000 CUBIC YARDS)



#### SOIL/FILL SAMPLING PLAN

SOIL/FILL SAMPLING & ANALYSIS PROGRAM
PROPOSED MANUFACTURING PLANT & OFFICES
HANNA FURNACE SITE-UNION SHIP CANAL
CITY OF BUFFALO, NEW YORK

PROJ NO.: BEV-03-040	FIGURE NO.: 3
DR BY: WP/CG	DATE: 01/19/04
CK BY: CG	SCALE: NTS

#### NOTES:



INDICATES APPROXIMATE TEST BORING LOCATION

- (A) INDICATES INTERIOR TEST BORINGS
- (P) INDICATES PERIMETER TEST BORINGS
- (D) INDICATES DOCK TEST BORINGS
- (F) INDICATES FUTURE EXPANSION TEST BORINGS



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Client ID Job No Lab Sample Date	ID	STOCKPILE 1 A04-5192 06/02/2004	A4519201	STOCKPILE 1FD A04-5192 A4519201F0 06/02/2004					rana and Bellevia - a mana and and an an an an
Analyte	Units	Sample Value	Reporting Limit			Sample Reporti Value Limit	Reporting Limit	Sample Value	Reporting Limit
alpha-BHC	UG/KG	ND	10	NŁD	10	NA		NA	<u> </u>
beta-BHC	UG/KG	ND	10	ND	10	NA.		NA NA	
del ta-BHC	UG/KG	NO	10	ND	10	NA		NA NA	
gamma-BKC (Lindane)	UG/KG	ND	10	ND	10	NA			
Heptachlor	UG/KG	מא	10	ND	10	NA NA		NA	
Aldrin	UG/KG	ND	10	ND	10	NA NA		NA	
Heptachlor epoxide	UG/KG	ND	iĎ	ND .	10	NA NA		NA	1
Endosulfan I	UG/KG	ND	10	ND .	10	na Na		NA	
Dieldrin	UG/KG	ND	20	ND ND	20			NA	
4,41-DDE	UG/KG	ND	20	ND I	20	NA		NA	
Endrin	UG/KG	ND	20	ND I	20	MA		NA.	
Endosulfan II	UG/KG	ND	20	ND	20	NA		NA	
4,41-DDD	UG/KG	ND	20	ND	20	NA		NA	
Endosulfen Sulfate	UG/KG	ND	20	ND ND		NA		NA	
4,41-ODT	UG/KG	8.9 JP	20	6.1 JP	20 20	NA		NA	
Methoxychlor	DG/KG	ND	100	ND ND		NA.		NA	
Endrin ketone	UG/KG	9.3 JP	20	NU 24 P	100	NA		NA	
Endrin aldehyde	UG/KG	8-0 J	20 20	3.9 JP	20 20	NA		NA	1
alpha-Chlordane	UG/KG	ND	10	3.9 31		NA		NA	
gamma-Chlordane	UG/KG	ND ND	10	ND ND	10	NA .		NA	
Toxaphene	UG/KG	ND	1000	ND ND	10	NA		NA.	
Aroclor 1016	UG/KG	ND	200	ND ND	1000	NA		NA	
Aroclor 1221	UG/KG	ND ND	410	ND ND	200 410	NA		NA	1
Aroclor 1232	UG/KG	ND	200	ND		NA		NA	
Aroclor 1242	UG/KG	ND ND	200		200	NA		NA	
Aroclor 1248	UG/KG	ND	200 200	ND	200	NA		NA	
Aroclor 1254	UG/KG	ND	200	ND	200	NA		NA	
Aroclor 1260	UG/KG	ND ND		ND	200	NA		NA	
M WOLG: IEGG	On ka	טמ	200	ND	200	NA		NA	l

图 002

A04-5192 A4519201 06/02/2004	A04-5192 06/02/2004	A4519201FD				
Sample Reporti Value Limit		Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
ND 810	B ND	8100				Limit
150 BJ 410		4000	NA		NA	
ND 410	ND ND	4000	NA NA		NA	
ND 410		4000	AN AN		NA	
ND 410		4000	NA NA		NA	
ND 410		4000	NA NA		NA	
ND 810		8100	NA NA	1	NA	-
ND 410		4000	NA NA		NA	
ND 410		4000	NA NA		NA	
ND 410		4000	NA.		NA	
ND 410		4000	NA		NA	
ND 410	· , 110	4000	NA NA		NA	
ND 410	. ,	4000	NA.		AN	
ND 410		4000	NA NA		NA	
ND 410		4000	NA		NA NA	
710	·   IIV	4000	NA		NA NA	
710	0,00	4000	NA		NA NA	
ND 410		4000	NA		NA NA	
[		4000	NA	1	NA NA	1
010	_ }	8100	NA	1	NA NA	İ
	. ,	4000	NA	1	NA	
	, ,,,,	4000	NA		NA	
7100	- 110	4000	NA		NA NA	
ND 4100 ND 9800		4000	NA		NA NA	
ND 8100	1 (10	9800	NA		NA NA	
ND 4100	110	8100	NA	i i	NA NA	
ND 9800	1 448	4000	NA	1	NA NA	
ND 4100	1 110	9800	NA		NA	
ND 4100	1 ""	.4000	NA		NA	
ND 4100		4000	NA		NA	
ND 9800	. 45	4000	NA	1	NA	
3000 J 4100		9800	NA		NA	
ND 9800	1	4000	NA		NA	)
ND 9800		9800	NA		NA	•
480 J 4100		9800	NA	İ	NA	Ĭ
ND 4100		4000	NA		NA.	
ND 4100		4000 4000	NA NA		NA	
830 J 4100		4000	NA		NA	I
ND 4100		4000	NA		NA	
ND 9800		9800	NA		NA	]
ND 9800	1		NA NA		NA	
ND 4100	ND					
		,,,,,	PIA .		NA	1
ND		1 10	7000	9800 ND 9800 NA	9800 ND 9800 NA	9800 ND 9800 NA NA

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06/21/2004 11:43 FAX 7166917991

Client ID Job No Lab ID Sample Date		STOCKPILE 1 A04-5192 06/02/2004	A4519201	STOCKPILE 1FD A04-5192 06/02/2004	A4519201FD				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Bromophenyl phenyl ether Hexachlorobenzene Atrazine Pentachlorophenol Phenanthrene Anthracene Carbazole Di-n-butyl phthalate fluoranthene Pyrene Butyl benzyl phthalate 3,3'-Dichlorobenzidine Benzo(a)anthracene Chrysene Bis(2-ethylhexyl) phthalate Di-n-octyl phthalate Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-cd)pyrene Dibenzo(a,h)anthracene	UG/KG UG/KG	ND ND ND 6000 1500 J 880 J ND 8600 8100 ND ND 7100 6500 ND ND ND ND 200 11000 9200 4100	4100 4100 8100 9806 4100 4100 4100 4100 4100 4100 4100 41	ND ND ND ND S500 J 850 J 520 J ND 6700 6200 ND ND ND 6100 5900 ND ND 12000 4800 12000 9700	4000 4000 8100 9800 4000 4000 4000 4000 4000 4000 4000 4000 4000 4000 4000 4000 4000 4000	NA NA NA NA NA NA NA NA NA NA NA NA NA N		NA NA NA NA NA NA NA NA NA NA NA NA	-
Benzo(ghi)perylene —IS/SURROGATE(S)— 1,4-Dichlorobenzene-D4 Naphthalene-D8 Acenaphthene-D10 Phenanthrene-D10 Chrysene-D12 Perylene-D12 Nitrobenzene-D5 2-Fluorobiphenyl p-Terphenyl-d14 Phenol-D5 2-Fluorophenol 2,4,6-Tribromophenol 2-Chlorophenol-d4 1,2-Dichlorobenzene-d4	UG/KG X X X X X X X X X X X X X	5900 85 83 82 87 98 130 50 85 89 67 64 52 64	4100 50-200 50-200 50-200 50-200 50-200 23-120 30-115 18-137 24-113 25-121 19-122 20-130 20-130	6300 94 92 91 93 107 141 51 82 90 69 66 60 66 58	4000 50-200 50-200 50-200 50-200 50-200 23-120 30-115 18-137 24-113 25-121 19-122 20-130	NA NA NA NA NA NA NA NA NA NA NA NA NA N		NA NA NA NA NA NA NA NA NA NA NA	

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Job Mo Lab ID Sample Date		\$TOCKPILE 1 A04-5192 06/02/2004	A4519201	STOCKPILE 1FD A04-5192 06/02/2004	A4519201FD				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
	UG/KG	ND	12	ND	12	NA		NA	
	UG/KG.	ND	12	ND	12	NA		NA	
	UG/KG	ND	12	ND	12	NA		NA	
	UG/KG	ND_	12	ND	12	NA	· ·	NA	
	UG/KG	23 B	12	18 8	12	NA		АИ	
	UG/KG	ND	12	ND	12	NA		NА	
	UG/KG	ND	12	ND	12	NA		NA	
	UG/KG	ND	12	ND	12	NA		NA	
	UG/KG	ND	12	ND	12	NA		NA	
1	UG/KG	HD	12	ND	12	NA		NA	
I -	UG/KG	ND	12	ND	12	NA	]	NA	1
	UG/KG	ND	12	ND	12	NA	]	NA	
	UG/KG	ND	12	ND	12	AK		NA	
	UG/KG UG/KG	ND	12	ND	12	AM	1	ŊA	
		ND	12	ND	12	NA	1	MA	
	UG/KG	ND	12	ND	12	NA		NA	
	UG/KG UG/KG	ND	12	ND	.12	NA	1	NA	
	UG/KG	ND	12	ND	12	NA		MA	
	UG/KG	ND	12	ND	12	NA		NA	
		ND	12	ND	12	NA		NA	
	UG/KG UG/KG	ND	12	ND	12	NA	1	AN	
	UG/KG	ND	12	ND	12	NA		₩A	
	UG/KG	ND ND	12	ND	12	NA		HA	
2- Hexanone	UG/KG	ND ND	12	ND	12	NA		NA	
	UG/KG	ND ND	12	ND	12	NA 		NA	
	UG/KG	ND	12	ND	12	NA		NA	
	UG/KG	ND ND	12 12	ND	12	NA '		NA	
	UG/KG	ND	12	ND	12	NA		NA	
	UG/KG	ND ND	12	ND	12	NA 		NA	
Styrene	UG/KG	ND	12	ND ND	12	NA.		NA	
1 -	UG/KG	ND	12	ND	12	NA		NA	
1,1,2-Trichloro-1,2,2-trifluor		ND	12	ND	12	NA		MA	
	IIE/RE	RD	12	MD	12 12	NA		KA	
	UG/KG	ND	12	ND		NA NA		NA A	
	UG/KG	<b>"3</b> J	12	2 J	12	NA NA		NA	
	UG/KG	NO	12	ND 5.1	12 12	NA NA	. 1	NA	
	UG/KG	ND	12	ND D		NA	i l	<b>NA</b>	
	UG/KG	ND	12	UND	12 12	NA.	1	NA	
	UG/KG	ND	12	ND	12	NA NA		NA	1
	UG/KG	NID	12	ND	12	NA NA		NA	1
	UG/KG UG/KG	ND	12	ND	12	NA NA		NA NA	
Isopropylbenzene	UG/KG	ND	12	ND	12	NA NA		na Na	

图 005

Client ID Job No Lab ID Sample Date		STOCKPILE 1 A04-5192 06/02/2004	A45 <b>192</b> 01	STOCKPILE 1FD A04-5192 06/02/2004	A4519201FD				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene 15/SURROGATE(S)	UG/KG UG/KG UG/KG UG/KG	ND ND ND NO ND	12 1 <u>2</u> 12 12 12	ND ND ND ND	12 12 12 12 12	NA NA NA NA NA		NA NA NA NA	
Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-D5 p-Bromofluorobenzene 1,2-Dichloroethane-D4 Toluene-D8	*****	109 115 111 93 98 95	50-200 50-200 50-200 50-200 59-113 70-121 84-138	109 114 108 94 96 98	50-200 50-200 50-200 59-113 70-121 84-138	NA NA NA NA NA		NA NA NA NA NA	

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T	***************************************		Sample	Reporting	Sample	Reporting	Sample	Reporting	Sample	Reporting
L	Analyte	Units	Value	Limit	Value	Limit	Value	Limit	Value	Limit
	loromethane omomethane	UG/L UG/L	NDND	10	NA NA		NA		NA	
		UG/L	ND	10	NA NA		NA NA		NA NA	
Ci	loroethane	UG/L	ND	10	NA.		NA NA		NA NA	
		UG/L	4 J	10	NA.		NA NA		NA NA	
		UG/L	ND	10	NA		NA		NA NA	İ
		UG/L	ND	10	NA		NA		NA	
		UG/L	ND	10	NA		NA		NA	
		UG/L	ND	10	NA		NA		NA	
	loroform	UG/L	ND	10	NA		NA		NA	1
		UG/L	ND	10	NA		NA		NA	
		UG/L	ND	10	NA		NA		NA	
	1,1-Trichloroethane	UG/L	ND	10	NA		NA	1	NA	
	rbon Tetrachloride omodichloromethane	UG/L	ND	10	NA		NA		NA	
	2-Dichloropropane	UG/L	ND	10	NA		NA	1	NA	
1		UG/L UG/L	ND	10	NA		NA	<b>!</b>	NA	
Tr	ichloroethene	UG/L	ND	10	NA NA		NA		NA	
	· ·	UG/L	ND ND	10	NA		NA		NA	
		UG/L	ND	10 10	NA NA		NA		NA	
		UG/L	ND	10	AA AA		NA		NA	
		UG/L	ND	10	NA NA		NA.		NA	
81		UG/L	ND	10	NA NA		NA NA	1	NA	
4-		UG/L	ND	10	NA NA		NA NA		NA 	
		UG/L	ND	10	NA NA		NA NA		NA	
Te		UG/L	ND	10	NA NA		NA NA		NA	
To		UG/L	ND	10	'NA		NA .		na Na	
1,	1,2,2-Tetrachloroethane	UG/L	ND	10	NA NA		NA NA		NA NA	
	lorobenzene	UG/L	ND	10	NA		NA .		NA NA	
	hyl benzene	UG/L	ND	10	NA		NA NA		NA	
		UG/L	ND	10	NA		NA NA		NA	
Ta		UG/L	ND	10	NA		NA		NA NA	
		UG/L	ND	10	NA		NA		NA	
		ilë\r	คืบ	10	ñФ		ŅA		ŅĄ	
1,	1,2-Trichloro-1,2,2-trifluor		ND	10	NA		NA	į į	NA	İ
tr	ans-1,2-Dichloroethene	UG/L	ND	10	NA		NA		NA	
#10	thy! tert buty! ether	UG/L	MD	10	NA.		NA		NA	1
		UG/L	ND	10	NA		NA	1	NA	
		UG/L	ND	10	NA		NA		NA	
		UG/L	ND	10	NA	1	NA		NA	
		UG/L	ND	10	NA		NA		NA	
1 25		UG/L	ND	10	NA		NA		NA	
1.7	3-01 Cittorobelizelle	UG/L	ND	10	NA		NA		AK	1

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Client ID Job No Lab ID Sample Date		TRIP BLANK A04-5192 06/02/2004	A4519202						
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,4-Dichlorobenzene 1,2-Dichlorobenzene	UG/L UG/L	ND ND	10 10	NA NA		NA NA		NA NA	
1,2-Dibromo-3-chloropropane 1,2,4-Trichlorobenzene Kethyl acetate LS/SURROGATE(S)	UG/L UG/L	ND ND	10 10 10	NA NA NA		AK AH AH		na na na	
Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-D5 p-Bromofluorobenzene 1,2-Dichloroethane-D4 Toluene-D8	% % % % % %	97 99 99 99 109	50-200 50-200 50-200 86-115 76-114 88-110	NA NA NA NA NA		AN AN AN AN AN		AA NA NA NA NA	

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Client ID Job No Lab I Sample Date	)	STOCKPILE 1 A04-5192 06/02/2004	A4519201	STOCKPILE 1FD A04-5192 06/02/2004	A4519201FD				
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Arsenic - Total Barium - Total Cadmium - Total	MG/KG MG/KG	20.0 N* 151_E	0.41 0.01	12.1 N* 159 E	0.41 0.01	AK AK		AH A	
Chromium - Total Lead - Total Lead - Total Mercury - Total Selenium - Total	MG/KG MG/KG MG/KG MG/KG MG/KG	2.7 E* 44.3 EN* 213 E* 0.423 N* 6.6	0.03 0.08 0.22 0.004 0.40	1.6 E* 47.8 EN* 154 E* 0.428 N*	0.03 0.08 0.22 0.004 0.39	NA NA NA NA NA		ДЧ ДН ДН ДН ДН	

SEVERN TRENT LAB.

Date: 06/21/2004 Time: 10:52:27

### Nalcolm Pirnie - Soil Investigation

Soil Investigation WET CHEMISTRY ANALYSIS

Client ID Job No l Sample Date	Lab 1D		STOCKPILE 1 A04-5192 06/02/2004	A4519201	STOCKPILE 1FD A04-5192 06/02/2004	A4519201FD				
Analyte		Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Cyanide - Total Leachable pH	1	MG/KG S.U.	2.6 9.68	1.0 0	2.4 8.13	1.0 0	AN AN		NA NA	

Rept: AN0326



## TABLE E-1 SUMMARY OF ANALYTICAL RESULTS ON-SITE SOIL/FILL MATERIAL CERTAINTEED SITE

Sample Location	BCLP	Grab Sample #1	Grab Sample #2	Grab Sample #3	Grab Sample #4	Grab Sample #5	Grab Sample #6	Composite Sample #1		Composite Sample #2	Composite Sample #3	Composite Sample #4	Composite Sample #5	Composite Sample #6	Excavation #1
Sampling Depth (feet bgs)	Parcels 1&2	0 to 2	4 to 8	3 to 6	2 to 3	4 to 5	3 to 4		020 Boring	s A12, A16, D25, P27, P32	Borings F5, F25, F26, P12, P18	Borings FP17, FP24, FP31	Borings FP36, FP46, ST1	Borings FP8, ST16, ST29	West End Truck Dock
Collection Date	SSALs	12/24/2003	12/27/2003	12/31/2003	4/14/2004	4/15/2004	4/16/2004	12/24/2003		12/29/2003	12/31/2003	4/14/2004	4/15/2004	4/16/2004	2/20/2004
Collection Date	I SSALS	12/24/2003	12/2/12005	12/31/2003	4/14/2004	4/10/2004	-9 TO/E001	12272000		1220,2000				100000	
pri	100105 015	1	T					46	0.19	8.91	9.3	10.69	9.89	11.41	
рН	9.0-12.5, >21.5	-	-	*	-	-	•	- 4	9.19	6.91	9.0	10.00	J	17.44	
Volatile Organic Compound												r	T		-
Acetone	NA	71			22	27		- :			-	-			-
Benzene	NA					3		-			-	-			
Carbon Disulfide	NA	8	2	4	5	4		-			-	_	<u> </u>	-	<u> </u>
Chloromethane	NA	2								*	-	_	-		-
1,4-Dichlorobenzene	NA	ļ		2				-		*	-	-	-	-	
Toluene	NA	1	<u> </u>		1	4		<u> </u>		*		*	-		-
m&p-Xylene	NA					1				*		-	-		
Total VOCs	10,000	82	2	6	28	39		*		-	-	-	· ·	<u>-</u>	
Semivolatile Organic Compo															
Naphthalene	50,000	-	-		-	-	-		,100			2,800	1,200	290	**************************************
Acenaphthene	50,000	-		-	-	-			140						-
Fluorene	50,000	-	-		-				190		~ ~ ~		1.00	150	
Phenanthrene	50,000	-	-	-	-		•		,500	180	210	800	1,100	150	
Anthracene	50,000	-	-	-	-		-		330		180	670	780	100	•
Fluoranthene	50,000	-	-	•	-	-	-		100	230					
Pyrene	50,000	-	-	-	-	<u> </u>	-		,500	290	270				
Benzo(a)anthracene	50,000	-	-	-	-		-		,000	240	200			150	-
Crysene	50,000		-	-	-	-			,100	300 350	280			100	
Benzo(b)fluoranthene	50,000	<u> </u>	-	-	-	-	-		,200	290	290			100	-
Benzo(k)fluoranthene	50,000	-	-	-	•	-	<del></del>		580	290 330	230				
Benzo(a)pyrene	50,000	-	-	-	-	-	-		880	330	240	4,700		2,300	
Bis (2-ethylhexyl)phthalate	50,000	<u> </u>		-	-	-	-	<del></del>	770	370	210			2,000	
Indeno(1,2,3-cd)pyrene	50,000	-	-	-	-	-	-		140	370	210	340	370		-
Dibenzo(a,h)anthracene	50,000	<u> </u>	-	-	-	-	<del></del>	<del></del>	140			3,200	1,400		
2-Methylnapthalene	50,000	-		-	-	-	-		620	340	240				
Benzo(ghi)perylene	50,000	<u> </u>		-	-		<del></del>		150	2,920	2.350			3,090	
Total SVOCs	500,000	-	-	-	•		-		,130	2,320	2,000	10,700	00,010	5,000	L
Metals (mg/kg)			,						0.01	10	50.0	0.23	0.22		_
Cyanide (Total)	50	<u> </u>		-	-				3.0	1.0				0,11	
Mercury	1.0	ļ	-		-	•	-		0.25 16	0.09 41	0.2 34			<u> </u>	
Arsenic	50	·			-		*		290	240	34 190			250	
Barium	500	-	-		-		-		6.0		190			1.7	
Cadmium	20			•	-				28	38	49			25	
Chromium	200	<u> </u>	<u> </u>	-			-		120	160	130			<u>20</u>	
Lead	1,000	<del> </del>	ļ	-				· · · · · · · · · · · · · · · · · · ·	120	180	130	02	100	73	
Selenium	50	<b></b>	-	-		· · ·	-	<del>                                     </del>	_		0.65				
Silver	1,000	-	-	-	-	•	-				0.03		L		
Pesticides (ug/kg)						,				222					
a-BHC	NA NA	<b></b>	-,	-						0.004					
b-BHC	NA	<u> </u>			-			<u> </u>		0.008 0.012					· · · · · · · · · · · · · · · · · · ·
Total Pesticides	10,000	-	-	-	-	•	-			0.012			L		-
PCBe (ug/kg)															
Aroclor-1260	NA	•				-	•			0.05	0.032				-
Aroclor-1262	NA		-			-	*		062			90	110		-
Aroclor-1268	NA NA	-	-	-			-		0.12						-
Total PCBs	1,000		-		•	-	-	0.	182	0.05	0.032	90	110		ر

NOTES:
(1) Blanks indicate constituent was not detected.
- Only those analytes or compounds having a positive detection, and detected at a minimum of one location or have an SSAL established for them are shown .
NA = Not established
- = Not Analyzed



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SYRACUSE OFFICE

6730 Myers Road East Syracuse, NY 13057 Phone: (315) 437-3890 Fax: (315) 437-3582 SOIL / FILL CHARACTERIZATION REPORT
PROPOSED CERTAIN TEED MANUFACTURING PLANT
& OFFICES
HANNA FURNACE SITE / UNION SHIP CANAL
CITY OF BUFFALO, NEW YORK

PREPARED FOR:

THE KROG COMPANY
4 CENTRE DRIVE
ORCHARD PARK, NEW YORK 14127

PREPARED BY:

EMPIRE GEO-SERVICES, INC. HAMBURG, NEW YORK

PROJECT No. BEV-03-040 FEBRUARY 2004

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#### 1.0 INTRODUCTION

#### 1.1 GENERAL

This report presents the results of a Soil/Fill Characterization Program completed by Empire Geo-Services, Inc. (Empire) for the proposed Certain Teed Manufacturing Plant and Offices planned at the Hanna Furnace/Union Ship Canal (Former Railroad Yard-Subparcel 1) property located in Buffalo, New York. This work was completed in accordance with Empire's proposal to The Krog Company, dated December 11, 2003. The approximate location of the project site is shown on Figure No. 1.

The Krog Company retained Empire to complete a Soil/Fill Characterization Program for the subject site to evaluate the on-site soil/fill materials within the limits of the foundation excavation areas of the proposed new building. The Soil/Fill Characterization Program completed at the site, consisted of one hundred six (106) direct push borings and laboratory analyses of three (3) composite samples and three (3) grab samples. SJB Services, Inc. (SJB), Empire's affiliated subsurface exploration drilling company, completed the direct push borings for the Soil/Fill Characterization Program.

#### 1.2 PROJECT BACKGROUND

Previous investigations have been conducted on the Hanna Furnace Site and have indicated potential environmental concerns regarding polyaromatic hydrocarbons (PAHs), inorganic analytes, and elevated pH within the soils/fills across the site. In February 2002, Malcom Pirnie, Inc. prepared a Remedial Action Work Plan (RAWP) for a voluntary cleanup of Subparcel 1 to allow future development of the site for commercial and industrial use. As part of the RAWP, a Soil/Fill Management Plan (S/FMP) was prepared.

The S/FMP indicates that "all excavated and stockpiled soil/fill with evidence of contamination will be sampled and classified for reuse or disposal." Soil/fill with no evidence of contamination must also be characterized prior to its "use as subgrade or excavation subgrade backfill material at the site." It was expected that materials to be excavated might contain concentrations of contaminants similar to levels found in the previous investigations. Since it is possible that unsuspected contamination or localized "hot spots" may be encountered during redevelopment of the site, Site Specific Action Levels (SSALs) were established for the soil/fill at the site.

To minimize delays to the construction project, once it commenced, Empire characterized the soil/fill materials expected to be excavated for the foundation structures of the proposed new building prior to its excavation. Empire performed the following.

- Direct Push Soil Sampling over a pattern in the areas of concern on the site. Each sample
  obtained was screened using a photoionization detector (PID) to evaluate the presence of
  ionizable contaminants in the soils.
- An Environmental Specialist / Geologist was present on-site to perform the sampling and provide project oversight.
- A combination of composite and grab samples obtained from areas of concern were produced from the direct push samples for laboratory analysis.

It should be understood that this Soil/Fill Characterization Program is not a substitute for, and does not obviate the need for, on-site monitoring of soil/fill excavations by an experienced environmental professional during site development for the new building.

#### 1.3 SITE DESCRIPTION

The proposed development site is currently vacant industrial property. The Former Railroad Yard Area, located southeast of the Union Ship Canal, is composed of about 43 acreas, of which its eastern portion is to be redeveloped for the new Certain Teed Manufacturing Plant and Offices. The site has been extensively "filled" with wastes from former steel manufacturing processes including deposits of ash, brick, cinders, foundry sand, and lime.

At the time of our study, the land was mostly grass and brush covered. Ponded surface water and several debris piles were observed across the site.

#### 2.0 DIRECT PUSH SAMPLING

The Soil/Fill Characterization Program consisted of one hundred six (106) direct push borings advanced between December 24<sup>th</sup> and December 31, 2003 by SJB. The direct push borings are designated A-1 through A-16, P-1 through P-39, D-1 through D-25, and F-1 through F-26, and their locations are shown on Figure No. 2.

The direct push borehole locations were established in the field, by Empire, using tape measurements and referencing their locations to existing site features. The locations were determined by The Krog Corp. based on the quantity of soil to be excavated in various portions of the proposed building.

The direct push boreholes were advanced to depths ranging from 2.0 feet to 8.0 feet below the existing ground surface. The direct push borings were made using a SIMKO 2400 SK-1 Direct Push Sampler and applying impacts/vibration pressure techniques. Sampling was performed continuous for the full depth of each borehole. The direct push sampling was completed in general accordance with ASTM D6282 – Standard Guide for Direct Push Soil Sampling for Environmental Site Characterizations.

An environmental specialist prepared the direct push boring logs based on visual observation of the recovered soil samples. The soil samples were described based on a visual estimation of the grain size distribution, along with characteristics such as color, moisture, unusual odors, etc. The direct push boring logs are presented in Appendix A.

#### 2.1 ENVIRONMENTAL SCREENING PROCEDURE

A MSA Passport II Photoionization Detector (PID) was used to screen each sample collected. Representative samples were obtained from each sample tube and placed into a labeled widemouth glass vial. Each vial was sealed with aluminum foil and a screw top. At a temperature near 70 degrees Fahrenheit, each sample was screened for the presence of organic vapors using a properly calibrated PID, inserting its probe through the aluminum foil seal into the head space of the sample jar.

#### 2.2 COMPOSITE SAMPLING PROCEDURE

Equal portions of soil/fill from five individual direct push samples were transferred to a precleaned stainless steel mixing bowl. The soils were thoroughly mixed using a precleaned stainless steel scoop and transferred to precleaned sample jars provided by PSC Analytical Services, Inc. All sampling and mixing equipment (mixing bowl and scoop) were decontaminated following each composite sample produced.

Decontamination areas including wash and rinse buckets for the disposal of expendable materials, were provided for the decontamination of drilling and field sampling equipment, and workers. Drilling equipment (sampler and rods) were steam-cleaned with a high pressure - high temperature washer prior to the start of work to prevent cross contamination between borings (every 2,000 cubic yards, between representative sampling areas). The drilling and sampling equipment were cleaned at the completion of the work to prevent any contamination from leaving the site.

Disposable protective clothing such as tyvek suits, Nitrile gloves, and poly from the decontamination area were disposed of as solid waste.

Prior to collecting the composite and grab soil samples the following steps were taken in the field:

Cleaning of Sampling Equipment - All discrete sampling devices and compositing equipment (mixing bowls and spoons) were cleaned as followed:

- Scrubbed/Brushed with tap water and non-phosphate detergent;
- Rinsed with tap water;
- Rinsed with 1% HNO3, ultrapure;
- Rinsed with tap water;
- Rinsed with methanol;
- Rinsed with acetone;
- Rinsed with methanol;
- Rinsed with deionized water;
- Air dried; and
- Wrap in aluminum foil.

Only new direct push sample tube liners and new pre-cleaned sample containers and lids were used for sample collection and preservation.

#### 3.0 SUBSURFACE CONDITIONS

The general stratigraphy encountered in the direct push borings consists of variable fill materials underlain predominantly by silty clay sediments. The fill soils encountered are composed of slag fragments, ash, bricks, cinders, coal, foundry sands, crushed stone fragments, wood pieces, metal fragments, and gravelly sand and silt deposits intermixed with traces of organics. Distinct layered deposits of lime were noted in some of the borings.

Free standing water was noted in many of the borings at the completion of sampling. The water in these borings may represent perched water zones with in the relatively permeable fill soils present on the site. It is possible that water may not have had sufficient time to accumulate and stabilize in the remaining borings within the time period that had elapsed following the completion of direct push sampling.

We note that groundwater conditions may fluctuate with changes in soil conditions, along with precipitation and seasonal conditions. The soil stratigraphy encountered and the groundwater conditions observed are presented on the direct push boring logs in Appendix A.

#### 4.0 FIELD AND LABORATORY TESTING

#### 4.1 FIELD TESTING AND RESULTS

Organic vapors were measured on each boring sample collected using a photoionization detector (PID). The PID used to measure total organic vapors in the field was a MSA Passport PID II Organic Vapor Monitor with a 10.6 eV light source.

The organic vapor measurements were taken on samples in the field (at ~1'intervals from the liner, to be screened and preserved) and on the headspace area of the soil sample jars following direct push sampling, in the laboratory. No PID measurements above ambient background levels (0 ppm) were detected.

#### 4.2 LABORATORY TESTING AND RESULTS

Three (3) representative composite soil samples and three (3) grab samples were collected for analytical testing. Representative composite samples were selected from 5 locations (every 2000 cubic yards of proposed excavated soil/fill material---total 5300+/- cubic yards of soil/fill material to be removed for foundation excavations). In addition to the composite samples, discrete grab samples were taken for volatile organic compound analyses. Since there was no evidence of petroleum contamination in any of the samples and PID measurements were not above detectable limits, the grab samples were selected based upon the composition of the soils encountered, to allow for the most representative sample of the materials encountered to be sent to the laboratory for VOC analysis (for every 2,000 cubic yards of proposed excavated soil/fill).

The samples were prepared and placed into precleaned 8 oz. glass vials with teflon caps. The glass vials were labeled with the date, time, and location of the project, and placed in an ice cooler at approximately 4-degrees Celsius for transport via courier to PSC Analytical Services (PSC), a New York State Department of Health (NYSDOH) Health Laboratory Approval Program (ELAP)-certified laboratory located at 5555 North Service Road in Burlington, Ontario. Included with the samples was a chain-of custody record. Samples were analyzed using the current NYSDEC Analytical Services Protocols (ASP).

The composite samples were analyzed for the following parameters:

- Target Compound List (TCL) semi-volatile organic compounds (SVOCs);
- Pesticides:
- Polychlorinated biphenyls (PCBs);
- nH:
- Metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver plus cyanide;

The grab samples were analyzed for TCL volatile organic compounds (VOCs). All samples were requested to be analyzed using current NYSDEC Analytical Services Protocols (ASP).

PSC's Laboratory Analytical Report is included in Appendix B. Tables 1 through Table No. 6 summarize the analytical results of the compounds detected in each sample submitted for analysis, and compare those data to the S/FMP SSALs.



## TABLE NO. 1-SEMI-VOLATILE ORGANIC COMPOUNDS LABORATORY ANALYTICAL SUMMARY

A 1085-DARY OF SIR SERVICES, INC.			
PARAMETER	CONCENTRATION DETECTED (PPB)	SITE SPECIFIC ACTION LEVEL (PPB)	
COMPOSITE SAMPLE #1 (PRODUCEI	FROM DIRECT PUSH SAMPLE	S D1, D3, D6, D15, D20)	
Naphthalene	1,100	50,000	
Acenaphthylene	140	50,000	
Fluorene	190	50,000	
Phenanthrene	1,500	50,000	
Anthracene	330	50,000	
Fluoranthene	2,100	50,000	
Pyrene	1,500	50,000	
Benzo (a) anthracene	1,000	50,000	
Chyrsene	1,100	50,000	
Benzo (b) fluoranthene	1,200	50,000	
Benzo (k) fluoranthene	580	50,000	
Benzo (a) pyrene	880	50,000	
Indeno (1,2,3-cd) pyrene	770	50,000	
Dibenzo (a,h) anthracene	140	50,000	
Benzo (ghi) perylene	620	50,000	
TOTAL SVOCs	13,150	500,000	
COMPOSITE SAMPLE #2(PRODUCED			
Phenanthrene	180	50,000	
Fluoranthene	230	50,000	
Pyrene	290	50,000	
Benzo (a) anthracene	240	50,000	
Chrysene	300	50,000	
Benzo (b) fluoranthene	350	50,000	
Benzo (k) fluoranthene	290	50,000	
Benzo (a) pyrene	330	50,000	
Indeno (1,2,3-cd) pyrene	370	50,000	
Benzo (ghi) perylene	340	50,000	
TOTAL SVOCs	2,920	500,000	
COMPOSITE SAMPLE #3 (PRODUCED			
Phenanthrene	210	50,000	
Fluoranthene	180	50,000	
Pyrene	270	50,000	
Benzo (a) anthracene	200	50,000	
Chrysene	280	50,000	
Benzo (b) fluoranthene	290	50,000	
Benzo (k) fluoranthene	230	50,000 50,000	
Benzo (a) pyrene			
Indeno (1,2,3-cd) pyrene	210	50,000	
Benzo (ghi) perylene	240	50,000	
TOTAL SVOCs	2,350	500,000	



#### TABLE NO. 2 -VOLATILE ORGANIC COMPOUNDS EPA METHOD 8260B LABORATORY ANALYTICAL SUMMARY-VOCs DETECTED

PARAMETER	CONCENTRATION DETECTED (PPB)	SITE SPECIFIC ACTION LEVEL (PPB)				
GRAB SAMPLE #1 (SUBMITTED DIRECT PUSH SAMPLE HOLE D-17, 0'-2')						
TOTAL VOCs	82	10,000				
GRAB SAMPLE #2 (SUBMITTED DIRECT PU	JSH SAMPLE HOLE P-1	, 4' to 8')				
TOTAL VOCs	2	10,000				
GRAB SAMPLE #3 (SUBMITTED DIRECT PUSH SAMPLE HOLE F-11, 0' to 3'-6")						
TOTAL VOCs	6	10,000				



TABLE NO. 3-PESTICIDES LABORATORY ANALYTICAL SUMMARY PESTICIDES DETECTED

PARAMETER	CONCENTRATION DETECTED (PPB)	SITE SPECIFIC ACTION LEVEL (PPB)				
COMPOSITE SAMPLE #2 (PRODU	COMPOSITE SAMPLE #2 (PRODUCED FROM DIRECT PUSH SAMPLES D1, D3, D6, D15, D20)					
TOTAL PESTICIDES	0.012	10,000				



TABLE NO. 4-PCBs LABORATORY ANALYTICAL SUMMARY-PCBs DETECTED

l								
PARAMETER	CONCENTRATION DETECTED (PPB)	SITE SPECIFIC ACTION LEVEL (PPB)						
COMPOSITE SAMPLE #1 (PRODU	COMPOSITE SAMPLE #1 (PRODUCED FROM DIRECT PUSH SAMPLES D1, D3, D6, D15, D20)							
TOTAL PCBS	0.18	1,000 (0'-1') / 10,000 (below						
		1')						
COMPOSITE SAMPLE #2 (PRODU	CED FROM DIRECT PUSH SA	MPLES A12, A16, D25, P27, P32)						
TOTAL PCBS	0.05	1,000 (0'-1') / 10,000 (below						
		1')						
COMPOSITE SAMPLE #3 (PRODU	COMPOSITE SAMPLE #3 (PRODUCED FROM DIRECT PUSH SAMPLES F5, F25, F26, P12, P18)							
TOTAL PCBs	0.32	1,000 (0'-1') / 10,000 (below						
		. 1')						



## TABLE NO. 5-METALS LABORATORY ANALYTICAL SUMMARY-METALS DETECTED

PARAMETER	NYSDEC TAGM VALUES* (PPM)	CONCENTRATION DETECTED (PPM)	SITE SPECIFIC ACTION LEVEL (PPM)
COMPOSITE SAMPLE # 1 (PRC			D15, D20)
Arsenic	7.5 or Site Background	16	50
Barium	300 or Site Background	290	500
Cadmium	10	6	20
Chromium	50	28	200
Lead	1000	120	1000
Mercury	0.1	0.25	1
Selenium	2 or Site Background	_	50
Silver	Site Background	-	1000
Cyanide	1,600	. 3	50
COMPOSITE SAMPLE # 2 (PRC			
Arsenic	7.5 or Site Background	41	50
Barium	300 or Site Background	240	500
Cadmium	10	11	20
Chromium	50	38	200
Lead	1000	160	1000
Mercury	0.1	0.090	1
Selenium	2 or Site Background	-	50
Silver	Site Background	-	1000
Cyanide	1,600	1	50
COMPOSITE SAMPLE # 3 (PRO		H SAMPLES F5, F25, F2	
Arsenic	7.5 or Site Background	34	50
Barium	300 or Site Background	190	500
Cadmium	10	17	20
Chromium	50	49	200
Lead	1000	130	1000
Mercury	0.1	0.20	1
Selenium	2 or Site Background	-	50
Silver	Site Background	0.65	1000
Cyanide	1,600	50	50

EMPIRE S. IN C. S. E. R. Y. I. C. E. S. I. N. C. ADMINISTRATOR DISTANCES, INC.	TABLE NO. 6 LABORATORY ANALYTICAL SUMMARY-pH						
PARAMETER		CONCENTRATION DETECTED (PPM)	SITE SPECIFIC ACTION LEVEL				
COMPOSITE SAMI	PLE # 1 (PRO	DUCED FROM DIRECT PUSI	H SAMPLES D1, D3, D6, D15, D20)				
рH		10.19	9.0-12.5*, >12.5**				
COMPOSITE SAMI	PLE # 2 (PRO	DUCED FROM DIRECT PUSI	H SAMPLES A12, A16, D25, P27, P32)				
pH		8.1	9.0-12.5*, >12.5**				
COMPOSITE SAMI	COMPOSITE SAMPLE # 3 (PRODUCED FROM DIRECT PUSH SAMPLES F5, F25, F26, P12, P18)						
pН		9.3	9.0-12.5*, >12.5**				

NOTE:

It should be expected that the areas in which lime deposits were encountered, the pH of the soil may exceed the results of the composite samples submitted.

As per Section 2.1 of Malcom Pirnie's Remedial Action Work Plan:

- \* Any soil/fill with a pH greater than 9.0 but less than 12.5 may be reused on-site but only to fill in areas below grade (as per Section 2.1 of Malcom Pirnie's Remedial Action Work Plan
- \*\* Any soil/fill with a pH higher than 12.5 is considered hazardous and therefore must be properly disposed of off-site.

#### 5.0 DATA USABILITY SUMMARY REPORT

As required in the S/FMP, data packages were generated by the laboratory (PSC Analytical Services) for the analysis of the three composite samples (collected between December 24<sup>th</sup> and December 30<sup>th</sup>, 2003) submitted. The data packages were sent to Data Validation Services (DVS), 120 Cobble Creek Road, P.O. Box 208, North Creek, New York 12853. A Data Usability Summary Report (DUSR) was generated by DVS and is included in Appendix C.

#### 6.0 FINDINGS AND CONCLUSIONS

Comparison of the analytical results of this Soil/Fill Characterization Program to the SSALs of the Soil/Fill Management Plan prepared by Malcom Pirnie, Inc., indicates that the soil/fill materials analyzed are generally within the limits of the site specific action levels designated for this project, with the exception of pH.

The pH levels encountered in Composite Sample No. 1 and Composite Sample No. 3 exceeded 9.0, but were below 12.5. As such these soils may be reused on-site, but only as fill material below grade and may not be used as fill for utility trenches or for berm construction, as per Malcom Pirnie's Soil/Fill Management Plan. Further field-testing during construction excavation will be needed to confirm the pH of the on-site fills and to determine appropriate reuse of these materials.

This report is not an environmental evaluation of the entire site. The test results represent only those locations and depths investigated. The composite samples were produced only for a general screening of the contaminated soils and should not be used solely for determining the concentration of the contaminants.

This report has been prepared for the exclusive use of The Krog Company and their designated agents for the specific application to the subject property in accordance with generally accepted environmental practice. Should you have any questions or if we can be of further assistance, please contact our office.

Respectfully Submitted,

EMPIRE GEO SERVICES INC.

Charles B. Guzzetta, CEI

Project Manager

Environmental Specialist

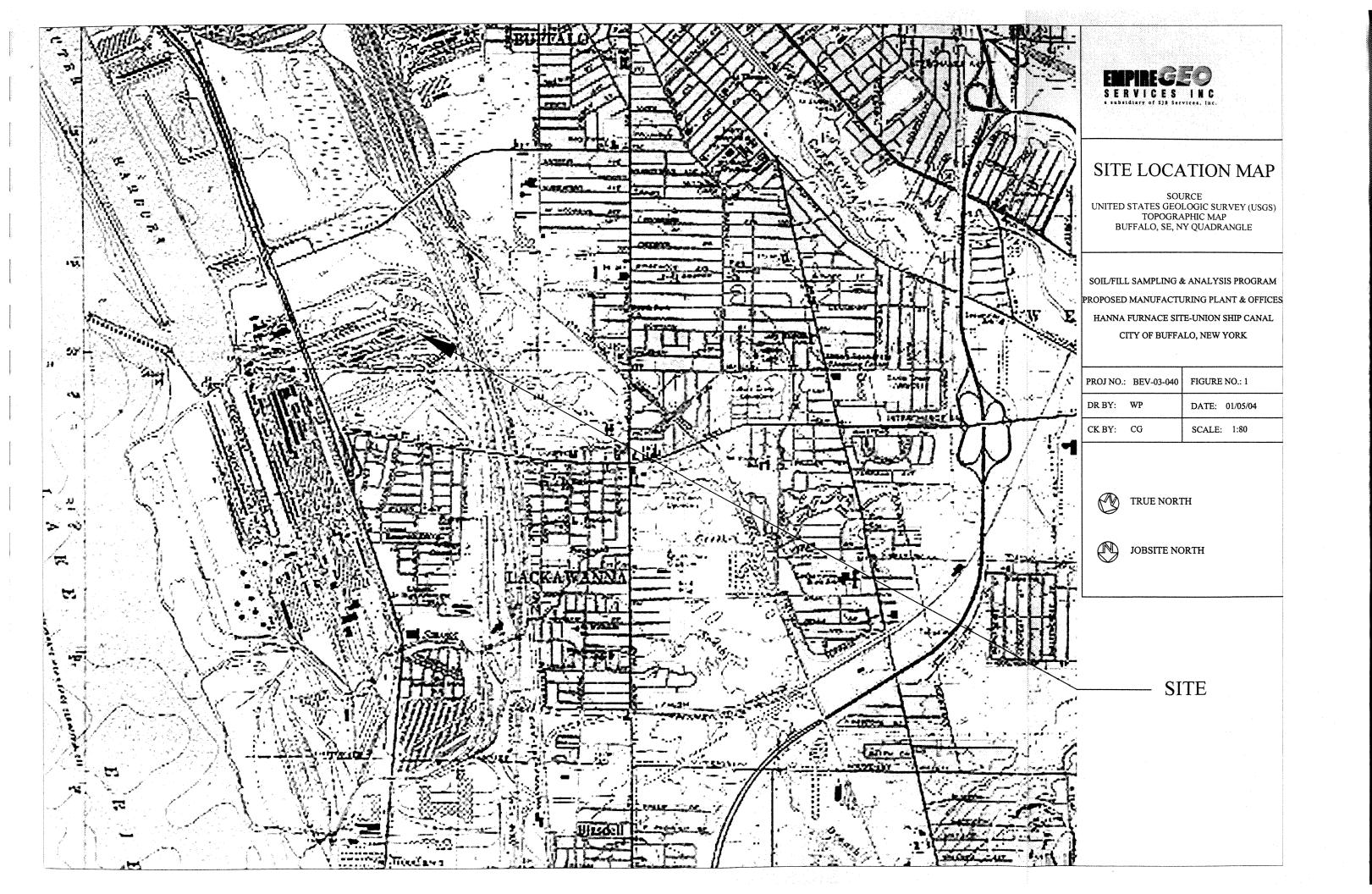
Ron Ausburn, CPG

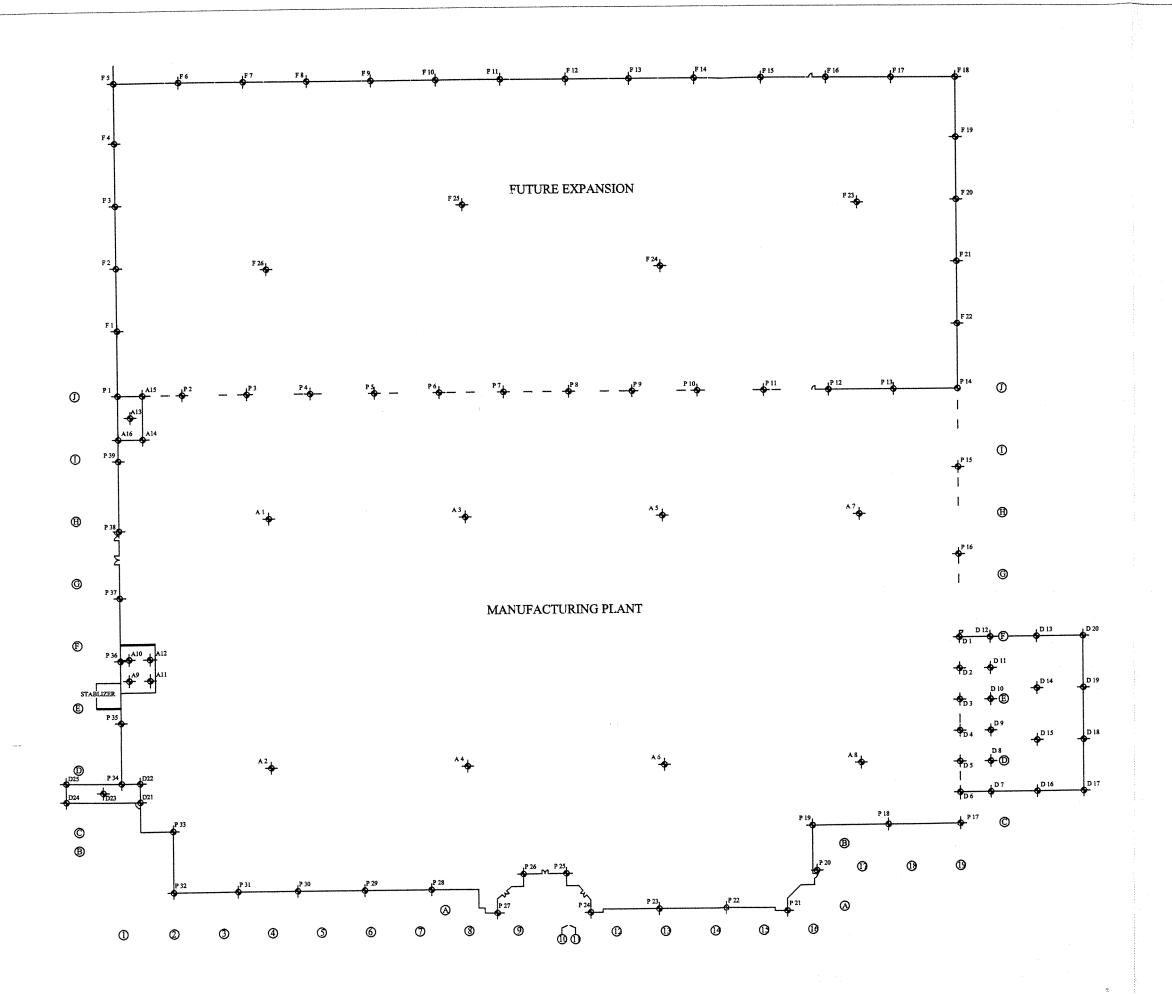
Project Report Reviewer

Geologist

### **FIGURES**

SITE LOCATION MAP SUBSURFACE EXPLORATION PLAN SOIL/FILL SAMPLING PLAN







#### SUBSURFACE EXPLORATION PLAN

SOIL/FILL SAMPLING & ANALYSIS PROGRAM
PROPOSED MANUFACTURING PLANT & OFFICES
HANNA FURNACE SITE-UNION SHIP CANAL
CITY OF BUFFALO, NEW YORK

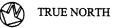
PROJ NO.: BEV-03-040	FIGURE NO.: 2
DR BY: WP	DATE: 01/05/04
CK BY: CG	SCALE: 1:80

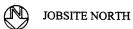
#### NOTES:

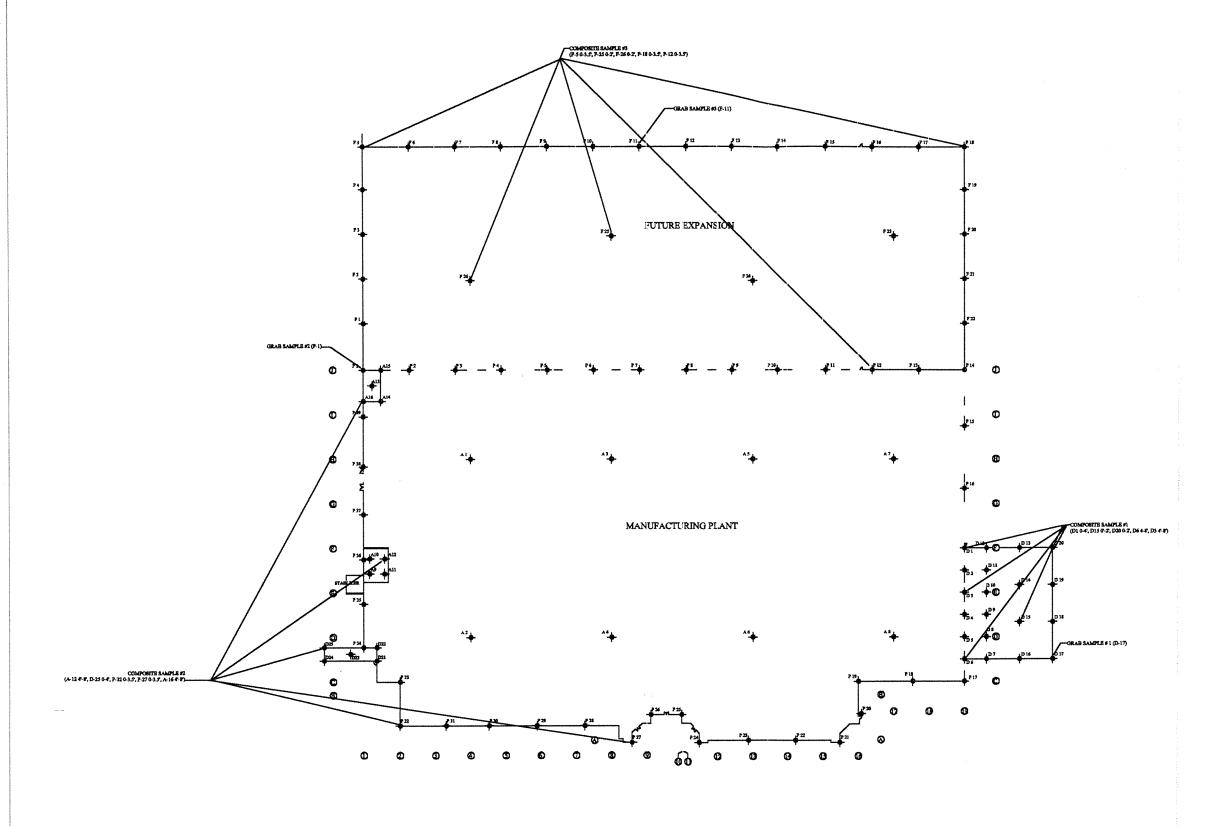


INDICATES APPROXIMATE TEST BORING LOCATION

- (A) INDICATES INTERIOR TEST BORINGS
- (P) INDICATES PERIMETER TEST BORINGS
- (D) INDICATES DOCK TEST BORINGS
- (F) INDICATES FUTURE EXPANSION TEST BORINGS







#### NOTES:

- BACH COMPOSITE AND GRAB SAMPLE WAS COLLECTED FOR A VOLUME OF ~1,000 CUBIC YARDS OF PROPOSED EXCAVATED MATERIAL
- . PROPOSED EXCAVATED VOLUMS: 1,300 CUBIC YARDS-AS GIVEN BY KROG CORP.
- 3 COMPOSITE SAMPLES AND 3 GRAB SAMPLES REPRESENTING: 6,000 CUBEC YARDS
- COMPOSITE BAMPLES PRODUCED PROM 5 TEST BORING LOCATIONS REPRESENTATIVE OF SOIL-FILL MATERIAL ENCOUNTERED
- GRAB SAMPLES COLLECTED FROM INDIVIDUAL TEST BORING LOCATIONS REPRESENTATIVE OF SCIL/FILL MATERIAL ENCOUNTERED (FOR EVERY 2,000 CUBIC YARDS)



#### SOIL/FILL SAMPLING PLAN

SOIL/FILL SAMPLING & ANALYSIS PROGRAM
PROPOSED MANUFACTURING PLANT & OFFICES
HANNA FURNACE SITE-UNION SHIP CANAL
CITY OF BUFFALO, NEW YORK

PROJ NO.: BEV-03-040	FIGURE NO.: 3
DR BY: WP/CG	DATE: 01/19/04
CK BY: CG	SCALE: NTS

#### NOTES:



INDICATES APPROXIMATE TEST BORING LOCATION

- (A) INDICATES INTERIOR TEST BORINGS
- (P) INDICATES PERIMETER TEST BORINGS
- (D) INDICATES DOCK TEST BORINGS
- (F) INDICATES FUTURE EXPANSION TEST BORINGS



TRUE NORTH



JOBSITE NORTH

## APPENDIX A DIRECT PUSH BORING LOGS

DATE: SJB SERVICES, INC. HOLE NO. 12/29/03 **STARTED DIRECT PUSH LOG** N/A SURF. ELEV 12/29/03 **FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices Former Railroad Yard Area (Subparcel 1)-Union Ship Canal City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. MSA PID used Gray SLAG Fragments, tr. cinders, tr. brick BKG expressed in ppm Brown f-c SAND and Cinders, tr. slag (moist, FILL) BKG= Background Contains numerous Slag Fragments, tr. brick No Free Standing Water Boring Complete at 3.5' Encountered at Boring Completion 16 20 22 24 26

DRILLER:

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. P-2 HOLE NO. 12/29/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/29/03 **FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING FT. TOPSOIL BKG Brown f-c SAND and Cinders, tr. slag (moist, FILL) 2 Contains numerous Slag Fragments, tr. brick No Free Standing Water Boring Complete at 3.5' Encountered at **Boring Completion** MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 18 20 22 24 26 28 30 32

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-3 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING **TOPSOIL** BKG Brown f-c SAND, little f-c Gravel, tr. cinders (moist, FILL) 2 Contains tr. coal, Contains numerous Slag Fragments No Free Standing Water Boring Complete at 3.5' Encountered at **Boring Completion** MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 20 22 24 26 28 30

DRILLER:

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-4 12/29/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/29/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING **TOPSOIL** BKG Brown f-c SAND, little f-c Gravel, tr. cinders (moist, FILL) 2 Contains tr. coal, Contains numerous Slag Fragments No Free Standing Water Boring Complete at 3.5' Encountered at Boring Completion MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 20 22 24 26 28 30

DRILLER:	

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. P-5 HOLE NO. 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION FT. READING Brown-Black and Red-Brown CINDERS, tr. sand, tr. slag (moist, FILL) BKG Gray-Brown f-c SAND, numerous Slag Fragments (wet, FILL) Free Standing Water Boring Complete at 3.5' Recorded at 3.0' at Boring Completion MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24 26

See Notes

CLASSIFIED BY: C.Guzzetta DRILL RIG TYPE: SYMCO 2500 DRILLER: M.Matthies Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

28

30

32

DATE: SJB SERVICES, INC. HOLE NO. P-6 STARTED 12/29/03 **DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices PROJ. NO.: City of Buffalo, Erie County, New York BEV-03-040 SOIL OR ROCK NOTES DEPTH CLASSIFICATION READING FT. Brown-Black and Red-Brown CINDERS and Slag (moist-wet, FILL) BKG Free Standing Water Boring Complete at 3.5' Recorded at 2.5' at **Boring Completion** BKG= Background MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24

DRILLER:

32

26

28

30

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: **FINISHED** 

SHEET

STARTED

12/29/03 12/29/03

1 OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV P-7 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices BEV-03-040

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
2	BKG	Brown-Black and Red-Brown CINDERS and Slag (moist-wet, FILL)	
4			Free Standing Water
6		Boring Complete at 3.5'	Recorded at ground surface at Boring
8	•		Completion
10			
12			MSA Passport
14			Photoionization  Detector (PID) used
16	-		expressed in parts-per-million (PPM)
18			BKG= Background
20			
. 22			
. 24			
. <sup>26</sup>	-		
28	1		
30	-		

DRILLER:	
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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

METHOD OF INVESTIGATION:

DIRECT PUSH SAMPLING

Environmental Specialist

DATE: SJB SERVICES, INC. HOLE NO. P-8 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices PROJ. NO.: City of Buffalo, Erie County, New York BEV-03-040 SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION READING FT. Brown-Black and Red-Brown CINDERS and Slag (moist-wet, FILL) **BKG** 2 Free Standing Water Boring Complete at 3.5' Recorded at ground surface at Boring Completion 12 MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 20 22 24 26 28

DRILLER:

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-9 STARTED 12/31/03 **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 DEPTH SOIL OR ROCK **NOTES** PID CLASSIFICATION READING FT. Brown f-c SAND and Slag Fragments (moist fill) **BKG** Gray SLAG Fragments and Cinders (wet fill) 2 Tan-Brown f-c SAND, tr. Slag (moist fill) Boring Complete at 3.5' Free Standing Water Recorded at 1.0' at **Boring Completion** MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 20 22 24 26 28

DRILLER:

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. P-10 HOLE NO. STARTED 12/31/03 **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices PROJ. NO.: BEV-03-040 City of Buffalo, Erie County, New York SOIL OR ROCK NOTES DEPTH CLASSIFICATION READING FT. Red-Brown CINDERS, tr. sand, tr. slag, tr. brick (moist-wet, FILL) BKG 2 Free Standing Water Boring Complete at 3.5' Recorded at 0.5' at **Boring Completion** MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 24

DRILLER:

32

26

28

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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-11 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes OF SHEET 1 LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices PROJ. NO.: City of Buffalo, Erie County, New York BEV-03-040 NOTES SOIL OR ROCK DEPTH PID FT. READING CLASSIFICATION Red-Brown f-c SAND and Silt, tr. cinders, tr. roots, tr. slag (moist-wet, FILL) BKG White LIME (f-c Sand Sized Fragments) tr. sand, tr. slag (wet fill) Boring Complete at 3.5' Free Standing Water Recorded at 0.5' at **Boring Completion** MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 16 18 20 22

DRILLER:

24

26

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV P-12

N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH FT. R	PID EADING	SOIL OR ROCK CLASSIFICATION	NOTES	
		Red-Brown Topsoil CINDERS and f-c Sand many Slag Fragments (moist, FILL)		
2		Gray SLAG Fragments (wet, FILL)		
		Brown f-c SAND and Slag (moist, FILL)		
- 4			Face Charding Water	
		Boring Complete at 3.5'	Free Standing Water Recorded at 1.5' at	
- 6				
			Boring Completion	
8 —			<b>110.1</b> D	
			MSA Passport II	
- 10			Photoionization	
. –			Detector (PID) used	
- 12			expressed in	
			parts-per-million (PPM)	
_ 14				
			BKG= Background	
16				
. 18				
. 20				
22				
			egeneral and a fin	
. 24				
. 26				
28				
30				
32				

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

PROJECT:

12/31/03 12/31/03 SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

P-13

SURF. ELEV G.W. DEPTH N/A See Notes

SHEET

1 OF

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJ. NO.:	BEV-03-040 City of Buffalo,	Erie County, New York
DEPTH PID FT. READING	SOIL OR ROCK	NOTES
BKG	Topsoil Red-Brown CINDERS and f-c Sand, many Slag Fragments (moist, FILL)  Tan-Brown and Gray f-c SAND, tr. slag, tr. lime, (moist, FILL)	
6	Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
10		MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
16		BKG= Background
20		
26		
32		

DRILLER:
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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-14 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes 1 OF SHEET LOCATION: Certain Teed Corporation-New Manufacturing Plant & Offices Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 **NOTES** SOIL OR ROCK DEPTH CLASSIFICATION READING FT. Brown SILT, little f-c Sand, tr. sand, tr. roots (moist, FILL) BKG Gray SLAG Fragments (moist, FILL) 2 Tan-Brown and Gray f-c SAND and Slag (moist, FILL) No Free Standing Water Boring Complete at 3.5' Encountered at Boring Completion MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 16 20 22 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILLER: M.Matthies DRILL RIG TYPE: Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-15 12/31/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. Topsoil Red-Brown CINDERS & Slag Fragments (moist, FILL) BKG 2 Gray SLAG Fragments (wet, FILL) Tan-Brown f-c SAND, tr. slag (wet, FILL) Boring Complete at 3.5' Free Standing Water Recorded at 1.0' at **Boring Completetion** 10 12 16 MSA Passport II 18 Photoionization Detector (PID) used 20 expressed in parts-per-million (PPM) 22 BKG= Background 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILL RIG TYPE: M.Matthies Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03 1 OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV P-16 N/A

G.W. DEPTH

See Notes

PROJECT:

Certain Teed Corporation-New Manufacturing Plant & Offices BEV-03-040

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJ.		BEV-03-040	City of Buffalo, Erie Cour	ity, New York
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION		NOTES
2	ВКG	Red-Brown CINDERS, little f-c Sand, little Slag Fragments, (wet, FILL)		
		Brown and Tan-Brown f-c SAND, tr. slag, tr. lime (wet, FILL)		
4		Boring Complete at 3.5'		Free Standing Water
6				Recorded at Ground
				Surface at Boring
8				Completetion
				— — — — — — — — — — — — — — — — — — —
10	-			Photoionization
	-		1	Detector (PID) used
12			1	expressed in
 14	1			parts-per-million (PPM)
17				
16				BKG= Background
18				-
	-			
20	4			_
22				-
	-			
24	-			
26				-
				_
28	4			_
	_			
30	1			-
	_			_
32				

DRILLER:

M.Matthies

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

**Environmental Specialist** 

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-17 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes OF SHEET Former Railroad Yard Area (Subparcel 1)-Union Ship Canal LOCATION: Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. **TOPSOIL BKG** White-Brown f-c SAND, tr. slag (wet, FILL) 2 Free Standing Water Boring Complete at 3.5' Recorded at 1.5' at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in parts-per-million (PPM) 14 BKG= Background 16 18 20 22 24 26 28

DRILLER:	
DKILLER.	

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED

12/31/03 12/31/03 SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

P-18

SURF. ELEV N/A **FINISHED** G.W. DEPTH See Notes 1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. **TOPSOIL** BKG Brown-gray SLAG, little f-c Sand, tr. organics (moist, FILL) White-Gray f-c SAND, tr. slag (wet, FILL) Free Standing Water Boring Complete at 3.5' Recorded at 2.0' at Boring Completion MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 16 20 22 24 26 28

DR	IL.	LE	R:	

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32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

**Environmental Specialist** 

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. P-19 HOLE NO. 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A **FINISHED** 12/31/03 G.W. DEPTH See Notes 1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING TOPSOIL BKG Brown f-c SAND, tr. brick, tr. slag (moist, FILL) 2 Becomes Blue-Gray Becomes Tan-Brown MSA Passport II Boring Complete at 3.5' Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 12 Free Standing Water Recorded at 2.5' at **Boring Completion** 16 20 22

DRILLER:

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. P-20 HOLE NO. 12/31/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH SHEET 1 OF See Notes LOCATION: PROJECT: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJ. NO.: City of Buffalo, Erie County, New York BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING **TOPSOIL** BKG 2 Brown-Gray f-c SAND, tr. slag (moist, FILL) No Free Standing Water Boring Complete at 3.5' Encountered at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 20 22 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILLER: M.Matthies DRILL RIG TYPE: Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-21 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION READING **TOPSOIL** BKG 2 Orange-Brown f-c SAND, tr. slag (moist, FILL) Brown - Gray SLAG Fragments, tr. sand (wet, FILL) White-Brown f-c SAND and Slag Fragments, tr. lime (moist, FiLL) MSA Passport II Boring Complete at 3.5' Photoionization Detector (PID) used expressed in parts-per-million (PPM) 10 BKG= Background 12 Free Standing Water Recorded at 2.5' at Boring Completion 20 22 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILL RIG TYPE: DRILLER: M.Matthies **Environmental Specialist** METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE: SJB SERVICES, INC. HOLE NO. P-22 12/31/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH See Notes SHEET 1 OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK PID DEPTH CLASSIFICATION READING TOPSOIL BKG Brown-Gray f-c SAND, tr. slag (moist, FILL) 2 No Free Standing Water Boring Complete at 3.5' Recorded at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in 12 parts-per-million (PPM) 14 BKG= Background 18 20 22

DRILLER:

24

26

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-23 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION READING TOPSOIL BKG Black-Brown CINDERS, tr. slag (moist, FILL) 2 Gray SLAG Fragments (moist-wet, FILL) Gray-Brown f-c SAND, tr. slag (moist, FILL) No Free Standing Water Boring Complete at 3.5' Recorded at Boring Completion MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 16 18 20 22 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILL RIG TYPE: DRILLER: M.Matthies Environmental Specialist METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE: STARTED **FINISHED** 

12/31/03 12/31/03

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV P-24 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ.		BEV-03-040		
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES	
	BKG	TOPSOIL		
2		Black-Brown CINDERS, some f-c Sand, many Slag Fragments, tr. brick		
		(moist, FILL)		
4				
		Boring Complete at 3.5'	No Free Standing Water	
6			Recorded at Boring	
			Completion	
8				
			MSA Passport II	
10			Photoionization	
3'			Detector (PID) used	
12			expressed in	
2			parts-per-million (PPM)	
14				
			BKG= Background	~
16				
18				
20				
	-			
22	1			
24	-			
<sup>26</sup>	-			
	1			
<sup>28</sup>	1			
	-			
30	-			
	1			
32				

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: STARTED

FINISHED

SHEET

12/31/03 12/31/03

M.Matthies

METHOD OF INVESTIGATION:

DRILLER:

DRILL RIG TYPE:

DIRECT PUSH SAMPLING

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

P-25

SURF. ELEV

N/A

Environmental Specialist

1 OF

G.W. DEPTH

See Notes

		100	ATION:	Farmar Daileand Vard A	on (Subpareed 1) Hairs Ship Count
PROJE		Collain 1000 Colporation	-	Former Railroad Yard Ar City of Buffalo, Erie Cour	ea (Subparcel 1)-Union Ship Canal
PROJ.	NO.:	BEV-03-040		Only of Danaio, Line Coul	
DEPTH	PID	SOIL OR ROCK			NOTES
FT.	READING	CLASSIFICATION			
www	BKG	TOPSOIL			
2		Black-Brown CINDERS and f-c Sand, tr. slag (moist, FILL)			-
		Gray Silty CLAY, tr. sand, tr. wood (moist, FILL)			-
4					
		Boring Complete at 3.5'			No Free Standing Water
6	•			ļ. :	Recorded at Boring
				ľ	Completion
_					
8	-				Recorded at Boring Completion  MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)  BKG= Background
				. 1	MSA Passport II
10				i	Photoionization
					Detector (PID) used
12					expressed in
				1	parts-per-million (PPM)
14	1				_
14	1				BKG= Background
	-				DNO- background
16	-				
					-
18					-
					_
20	1				
	1				
22	1				•
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24	4				
	]				• -
26					-
					•
28	1				_
	1				
	1				-
30	-				•
	4				-
32				·	
		SYMCO 2500			CLASSIFIED BY: C.Guzzetta

SYMCO 2500

DATE: SJB SERVICES, INC. HOLE NO. STARTED 12/31/03 **DIRECT PUSH LOG** SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH SHEET 1 OF LOCATION: PROJECT: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJ. NO.: City of Buffalo, Erie County, New York BEV-03-040 SOIL OR ROCK NOTES DEPTH CLASSIFICATION READING **TOPSOIL** BKG Black-Brown CINDERS and Slag Fragments (moist, FILL) 2 Blue-Green f-c SAND, tr. slag (moist, FILL) Boring Complete at 3.5' No Free Standing Water Recorded at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in 12 parts-per-million (PPM) 14 BKG= Background 16 18 20 22

DRILLER:

24

26

28

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32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

P-26

N/A

See Notes

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. P-27 HOLE NO. 12/31/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV **FINISHED** 12/31/03 G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES DEPTH CLASSIFICATION READING FT. **TOPSOIL** BKG Black CINDERS, tr. slag (moist, FILL) Free Standing Water Boring Complete at 3.5' Recorded at 2.0' at **Boring Completion** MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 16 18 20 22 24

DRILLER:	M.Matthies	DRILL RIG TYPE:	SYMCO 2500	CLASSIFIED BY: C.Guzzetta
DIGLECTION				Environmental Specialist
METHOD OF INVESTIGATION:		DIRECT PUSH S	SAMPLING	

26

28

30

32

DATE: SJB SERVICES, INC. HOLE NO. 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV 12/29/03 **FINISHED** G.W. DEPTH SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. Gray-Brown SLAG Fragments (wet, FILL) **BKG** Black-Brown CINDERS, little f-c Slag Fragments, tr. sand (moist, FILL) 2 No Free Standing Water Boring Complete at 3.5' Encountered at **Boring Completion** BKG= Background 10 12 MSA Passport Photoionization 14 Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 20 22 24

DRILLER:

26

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

P-37

N/A

See Notes

METHOD OF INVESTIGATION:

STARTED

12/29/03

SJB SERVICES, INC.

HOLE NO.

P-38

FINISHE	D	12/29/03	DIRECT PUSH LOG	SURF. ELEV N/A
SHEET		1 OF 1		G.W. DEPTH See Notes
PROJECT:		Certain Teed Corporation-New M		Railroad Yard Area (Subparcel 1)-Union Ship Canal
PROJ. I		BEV-03-040	City of E	Buffalo, Erie County, New York
DEPTH	PID		SOIL OR ROCK	NOTES
FT.	READING		CLASSIFICATION	
	BKG	Moist Brown SAND (mo	sist, FILL)	
2				
4				
		Boring Complete at 3.5	•	No Free Standing Water
6				Encountered at
				Boring Completion
8				
10				BKG= Background
12				
				MSA Passport
14				Boring Completion  BKG= Background  MSA Passport Photoionization Detector (PID) used
				1
16				expressed in
	]			parts-per-million (PPM)
18				BKG= Background
20				
	1			
22	1			
24	1			
26				
28	1			
	1			_
30	1			_
	1			
32	1			
		_1		

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-39 12/29/03 **STARTED DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH SHEET OF See Notes LOCATION: PROJECT: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION READING SLAG (moist, FILL) BKG 2 No Free Standing Water Boring Complete at 3.5' Encountered at **Boring Completion** BKG= Background 12 MSA Passport Photoionization 14 Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 18 20 22 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILLER: M.Matthies DRILL RIG TYPE: **Environmental Specialist** DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/29/03 12/29/03

1 OF

BEV-03-040

# SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

A-1 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK	NOTES
FT.	READING BKG	CLASSIFICATION  Brown f-m SAND, little f-c Gravel, tr. slag (moist, FILL)	
2	פאם	Blown I-m SAND, mac i-c Graver, at oleg (male), 1229	
		Boring Complete at 2.0'	No Free Standing Water
4			Encountered at Boring
			Completion
6			
8			MSA Passport II
 10			Photoionization
- 10			Detector (PID) used
12			expressed in
			parts-per-million (PPM)
14			
			BKG= Background
_ 16			
***************************************			
_ 18			
20			
22			
	ŀ		
24			
_ 26			
_ 28			
30	1		
_ 30	1		
32	1		

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/29/03 12/29/03

BEV-03-040

# SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

A-2 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	Brown f-c SAND, numerous Slag Fragments, tr. brick, tr. roots, tr. paper	
_ 2		(moist, FILL)	5 Ot Wester
4		Boring Complete at 2.0'	Free Standing Water Recorded at 1.0' at Boring Completion
6			
8			MSA Passport II
10			Photoionization  Detector (PID) used  expressed in
14			parts-per-million (PPM)
16			BKG= Background
_ 18			
20			
22			
24			
28			
_ 30			
32			

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

METHOD OF INVESTIGATION:

DIRECT PUSH SAMPLING

Environmental Specialist

DATE:
STARTED
FINISHED
SHEET

PROJECT
PROJ. NO
DEPTH
FT. F

JA I E:					
STARTED	12/29/03	12/29/03			
INISHED	12/29/03				
SHEET	1 OF	1			

# SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV A-3 N/A

G.W. DEPTH

See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal City of Buffalo, Erie County, New York

PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES

DEPTH	PID READING	CLASSIFICATION	
FT.		Brown f-c SAND, fine Gravel (moist, FILL)	
	BKG	DEOWILL-C SAND, title Graver (moist, Filet)	
2			
		Boring Complete at 2.0'	No Free Standing Water
4			Encountered at
			Boring Completion
6	1		
—     —			
	1		
8	-		
			MSA Passport II
10			Photoionization
			Detector (PID) used
12	1		expressed in
<u> </u>	1		parts-per-million (PPM)
	1		, , ,
14	-		DICO- Basksmannd
	1		BKG= Background
16			
18			
	1		
	1		
20	4		
	1		
22	1		
24			
26	1		
26	-		
	4		
28	1		_
			-
30			
	1		
	1		
32	1		

DRILLER:
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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

METHOD OF INVESTIGATION:

DIRECT PUSH SAMPLING

Environmental Specialist

STARTED

**FINISHED** 

12/29/03 12/29/03

SHEET 1 OF

BEV-03-040

# SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

SURF. ELEV G.W. DEPTH N/A See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	Brown fine SAND at Topsoil (wet, FILL)	
2		Gray-Brown course SAND (wet, FILL)	
		Boring Complete at 2.0'	Free Standng Water
4			Recorded at Ground
			Surface at Boring
6			Completion
. 8			MSA Passport II
10			Photoionization
· · ·			Detector (PID) used
12			expressed in
			parts-per-million (PPM)
14			
			BKG= Background
16			
18			
20			
. 20			
22			
	•		
24			
-			
. 26			
28			
30			
. 30	1		
32	1		ļ

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED FINISHED

SHEET

12/31/03 12/31/03

1 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

A-6

SURF. ELEV G.W. DEPTH N/A See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK	NOTES
FT.	READING	CLASSIFICATION	
	BKG	TOPSOIL	-
_ 2 _		Brown f-c SAND, tr. brick, tr. slag (moist-wet, FILL)	
			-
_ 4 _		Boring Complete at 2.0'	No Free Standing Water
6		Borning Complete at 2.0	Encountered at Boring
-			Completion
8			
			MSA Passport II
10			Photoionization
			Detector (PID) used
12			expressed in
			parts-per-million (PPM)
_ 14			BICO - Packersound
			BKG= Background
16			
 18			
_ '0			
20			
22			
24		·	·
26			
28			
20			
30			'
32			

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV 12/29/03 **FINISHED** G.W. DEPTH SHEET 1 OF 1 LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices PROJ. NO .: City of Buffalo, Erie County, New York BEV-03-040 SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION READING FT. Brown f-c SAND and Cinders, tr. organics (wet, FILL) BKG Black-White LIME, f-c Sand, tr. cinders (wet, FILL) 2 Free Standing Water Boring Complete at 2.0' Recorded at Ground Surface at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in parts-per-million (PPM) BKG= Background

DRILLER:

26

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

A-7

N/A

See Notes

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. A-8 12/31/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION FT. READING **TOPSOIL** BKG 2 Brown f-c SAND, tr. silt (moist, FILL) Gray-Brown SLAG Fragments and f-c Sand, tr. silt, tr. brick, tr. cinders (moist, FILL) Boring Complete at 2.0' No Free Standing Water Encountered at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in parts-per-million (PPM) 20 22 26 28 30 32 CLASSIFIED BY: C.Guzzetta DRILL RIG TYPE: SYMCO 2500 DRILLER: M.Matthies **Environmental Specialist** DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

STARTED FINISHED

SHEET

12/29/03 12/29/03

# SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV A-9 N/A

1 OF 1

G.W. DEPTH

See Notes

חחט יר	· CT.	Out in Tank Connection New Magnifest vine Plant & Offices	LOCATION:	Former Railroad Yard	Area (Subparcel 1)-Union Ship Canal
PROJECT: PROJ. NO.:		Certain Teed Corporation-New Manufacturing Plant & Offices BEV-03-040		City of Buffalo, Erie Co	
		SOIL OR ROCK			NOTES
DEPTH FT.	PID READING	CLASSIFICATION			
	BKG	TOPSOIL			
2		Black-Brown CINDERS, tr. slag, tr. brick (moist, FILL)			
		Gray SLAG Fragments (wet, FILL)			
4					
<u> </u>	BKG	Gray Silty CLAY, little f-c Gravel, tr. sand (moist)			
6	DICO	Clay only only in the control of the			
_ ` _					
8		Contains tr. organics			
		Boring Complete at 8.0'			No Free Standing Water
10	†	Donny Complete at 0.0		•	Encountered at
'V					Boring Completion
10					
12	-				MSA Passport
					Photoionization
14	1				Mana.
					Detector (PID) usedexpressed in
16					·
	-				parts-per-million (PPM)
18	1				BKG= Background
	1				
20	4				
	-				
22	1				-
24					·
26					
28					
30	1				
	1				
32	1				
02	<u> </u>				
DRILLER:	M.Matth	ies DRILL RIG TYPE: SYMCO 2500	**************************************		CLASSIFIED BY: C.Guzzetta

DIRECT PUSH SAMPLING

METHOD OF INVESTIGATION:

STARTED

12/29/03 12/29/03 SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

A-10

SURF. ELEV N/A **FINISHED** G.W. DEPTH See Notes 1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO .: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. Gray SLAG and Brown Sand (wet, FILL) BKG 2 Gray and Brown Silty CLAY (moist-wet, slack water sediment) BKG No Free Standing Water Boring Complete at 8.0' Encountered at 10 **Boring Completion** 12 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 20 22 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILLER: M.Matthies DRILL RIG TYPE: Environmental Specialist

DIRECT PUSH SAMPLING

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. A-11 12/29/03 **STARTED DIRECT PUSH LOG** N/A SURF. ELEV 12/29/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING **BKG** Black-Brown CINDERS, tr. slag, tr. brick, tr. coal (moist, FILL) 2 Gray Clayey SILT and f-c Sand (moist) Gray Silty CLAY, tr. sand, tr. gravel (moist) **BKG** Gray SILT and Peat (moist) Gray Silty CLAY, tr. sand (moist) No Free Standing Water Boring Complete at 8.0' Encountered at 10 **Boring Completion** 12 MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 20 22

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

M.Matthies

24

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DRILLER:

DIRECT PUSH SAMPLING

DRILL RIG TYPE:

SYMCO 2500

DATE: SJB SERVICES, INC. HOLE NO. A-12 12/29/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/29/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO .: BEV-03-040 SOIL OR ROCK NOTES PID DEPTH CLASSIFICATION READING Brown SLAG and Brown Sand (wet, FILL) BKG 2 Gray and Brown Silty CLAY (moist-wet, slack water sediment) **BKG** No Free Standing Water Boring Complete at 8.0' Encountered at 10 **Boring Completion** 12 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24

DRILLER:

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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

SHEET

STARTED **FINISHED**  12/29/03 12/29/03

1 OF

#### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

A-13 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ. NO.:	BEV-03-040	
DEPTH PID	SOIL OR ROCK CLASSIFICATION	NOTES
2 BKC	SLAG and Brown Sand (moist, FILL)	_
4		. —
BK0	Brown SAND (wet, FILL, alluvial sediment)	_
8	Gray Silty CLAY, tr. organics (moist, slack water sediment)	
10		No Free Standing Water  Encountered at  Boring Completion
12		MSA Passport Photoionization
14		Detector (PID) used expressed in
18		parts-per-million (PPM)  BKG= Background
20		
22		
26		
28		
30		
32		

DRI	LL	ER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED FINISHED

SHEET

12/29/03 12/29/03

1 OF 1

# SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV A-14 N/A

G.W. DEPTH

See Notes

PROJE	CT:	Contain 1000 Composition	ard Area (Subparcel 1)-Union Ship Canal
PROJ.	NO.:	BEV-03-040 City of Buffalo, Erie	County, New York
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	Gray SHALE Fragments (moist, FILL)	
2		Black-Brown CINDERS, numerous Slag Fragments, little f-c Sand, tr. organics	
		(wet, FILL)	
4			
	BKG	Gray Clayey SILT and fine Sand (moist)	
6			
- 8		Parisa Campleta et 9 0'	Free Standing Water
10		Boring Complete at 8.0'	Recorded at 1.5' at Boring
- ''			Completion
12			
_ `	•		MSA Passport
14			Photoionization
			Detector (PID) used
16			expressed in
			parts-per-million (PPM)
_ 18	1		BKG= Background
**********			
20	4		
_ 22	_		
	-		
_ 24			
 26	1		
- ~ —			
28	1		
30	1		
32			
RILLER:	M.Matt	hies DRILL RIG TYPE: SYMCO 2500	CLASSIFIED BY: C.Guzzetta
	INVESTIGAT		Environmental Specialist

DATE: SJB SERVICES, INC. HOLE NO. A-15 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK PID DEPTH CLASSIFICATION READING Black CINDERS and Slag Fragments (moist, FILL) **BKG** 2 Gray Clayey SILT, tr. sand, tr. wood **BKG** (moist, FILL) VOID Gray SAND and Silty Clay (moist) Free Standing Water Boring Complete at 8.0' Recorded at 1.0' at Boring 10 Completion MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 18 20 22 26

DRILLER:	M.Matthies	thies DRILL RIG TYPE:	SYMCO 2500	CLASSIFIED BY: C.Guzzetta		
G1 (1222211111				Environmental Specialist		
METHOD OF INVESTIGATION:		DIRECT PUSH SAMPLING				

28

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STARTED FINISHED

12/29/03 12/29/03 SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO.

A-16 N/A

SURF. ELEV G.W. DEPTH

See Notes

1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. Brown SAND with Slag Organics (moist, FILL) BKG 2 SLAG BKG No Free Standing Water Boring Complete at 8.0' Encountered at Boring 10 Completion MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22

D	RIL	LEI	<:	

24

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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: HOLE NO. SJB SERVICES, INC. D-1 12/24/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/24/03 **FINISHED** G.W. DEPTH OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING TOPSOIL BKG Black-Brown CINDERS and f-c Sand, tr. slag, tr. brick, tr. organics (moist, FILL) 2 Brown f-c SAND and Slag Fragments, tr. cinders, tr. brick (moist, FILL) BKG Gray SLAG Fragments (wet, FILL) Free Standing Water Boring Complete at 8.0' Recorded at Ground 10 surface at Boring Completion 12 MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 20 22 24

SYMCO 2500 DRILL RIG TYPE: DRILLER: M.Matthies DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

See Notes

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32

DATE: STARTED

METHOD OF INVESTIGATION:

DIRECT PUSH SAMPLING

12/24/03

# SJB SERVICES, INC.

HOLE NO.

D-2

FINISHE	ED .	12/24/03	DIRECT PUSH LOG	SURF. ELEV N/A
SHEET		1 OF 1		G.W. DEPTH See Notes
				and and desired the second control and and and and and and and and and and
PROJE	CT:	Certain Teed Corporation-New N	Manufacturing Plant & Offices LOCATION: Former Railroad Yard	Area (Subparcel 1)-Union Ship Canal
PROJ.		BEV-03-040	City of Buffalo, Erie Co	ounty, New York
DEPTH	PID		SOIL OR ROCK	NOTES
FT.	READING		CLASSIFICATION	
	BKG		TOPSOIL	, —
2		1	- little Silt, tr. gravel, tr. slag, tr. cinders (moist, FILL) /	
		<del></del>	SLAG Fragments, tr. cinders, tr. coal, tr. brick (moist, FILL)	
4		Tan-Brown f-c SAND, r	numerous Slag Fragments (moist, FILL)	
	BKG			
6		Gray SLAG Fragments	and Lime Deposits, tr. sand	]
		(wet, FILL)		
8				
		Boring Complete at 8.0	,	Free Standing Water
10			•	Recorded at 4.1'
				at Boring Completion
12				
'				MSA Passport
14				Photoionization
' +				Detector (PID) used
4.0		And the second s		expressed in
16				parts-per-million (PPM)
4.0				BKG= Background
18	•			DICO Busingiouna
	-			<del></del>
20	-			
22	1			
	1			
24	1			
	_			
26	_			
28				_
30				
	1			
32	1			
	1			
DRILLER:	M.Matt	hies DRILL RIG TY	PE: SYMCO 2500	CLASSIFIED BY: C.Guzzetta

STARTED **FINISHED** 

PROJECT:

SHEET

12/24/03 12/24/03

1 OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

D-3

SURF. ELEV G.W. DEPTH N/A See Notes

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJ.		BEV-03-040 Ci	City of Buffolo Erio County, New York	
DEPTH	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES	
FT.	BKG	TOPSOIL		
2	BRG	Brown f-m SAND and Silt, tr. slag, tr. cinders (moist, FILL)		
	1	Gray SLAG Fragments, tr. cinders, tr. coal, tr. brick (moist, FILL)		
4	1	Brown f-c SAND and Slag Fragments (moist, FILL)		
+	BKG	Blown 1-6 0/110 and oldg 1 legisles (1 leg		
6	BNG	Gray SLAG and Lime Deposits, tr. sand (wet, FILL)		
_ 6	1	Total of the popular at the control of the control		
	4			
_ 8		Boring Complete at 8.0'	Free Standing Water	
40		Boning Complete at 6.0	Recorded at 3.5'	
10	4		at Boring Completion	
40	-			
12	4		MSA Passport	
	-		Photoionization	
_ 14	4		Detector (PID) used	
	-		expressed in	
16	4		parts-per-million (PPM)	
	4		BKG= Background	
18	4			
	_		_	
20	4			
******	4			
22	_		_	
	1		_	
24	-			
	_		_	
26	_		_	
	_		_	
28	_		_	
			_	
30			_	
			_	
32				
		Hhire DRILL RIG TYPE: SYMCO 2500	CLASSIFIED BY: C.Guzzetta	

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED FINISHED 12/24/03 12/24/03

SHEET 1 OF 1

SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO.

SURF. ELEV N

N/A

G.W. DEPTH

See Notes

PROJE	CT:	Certain reed corporation non-income	rd Area (Subparcel 1)-Union Ship Canal
PROJ.		BEV-03-040 City of Buffalo, Erie	County, New York
DEPTH	PID	SOIL OR ROCK	NOTES
FT.	READING	CLASSIFICATION	
	BKG	TOPSOIL	
2		Brown SILT, little fine Sand, tr. gravel, tr. brick, tr. cinders, tr. slag (moist, FILL)	
		Brown-Black CINDERS, tr. slag (moist, FILL)	
4		White ASH and Slag Fragments, tr. sand (wet, FILL)	
	BKG	Gray SLAG Fragments (wet, FILL)	
6			
		White-Gray and Bluish Gray f-c SAND and Slag Fragments, tr. lime	
8		(moist-wet, FILL)	
		Boring Complete at 8.0'	Free Standing Water
10	1		Recorded at 1.0'
	1		at Boring Completion
12	1		
<del></del> '			MSA Passport
14			Photoionization
<del> </del>	1		Detector (PID) used
16	1		expressed in
10	1		parts-per-million (PPM)
40	-		BKG= Background
18	-		
	-		
20	-		
	4		
22	4		-
	4		
24	-		
-	4		
26	4		
	4		
28	4		_
	4		
30	_		
	_		
32			
DOULED.	M.Mat	tthies DRILL RIG TYPE: SYMCO 2500	CLASSIFIED BY: C.Guzzetta
DRILLER:	wi.iviai	mines State of the state of the	Environmental Specialist

DIRECT PUSH SAMPLING

METHOD OF INVESTIGATION:

STARTED

12/24/03 12/24/03 SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

D-5

SURF. ELEV

N/A

**FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING FT. **TOPSOIL BKG** Brown f-c SAND, little f-c gravel, tr. slag (moist, FILL) White ASH, tr. cinders, tr. slag, tr. sand, tr. gravel (moist, FILL) White-Gray SLAG Fragments and Sand (wet, FILL) White-Gray f-c SAND and Slag Fragments (moist, FILL) BKG Becomes Blue-Green Brown-Black CINDERS, tr. coal, tr. slag, tr. sand (moist, FILL) Free Standing Water Boring Complete at 8.0' Recorded at Ground 10 Surface at Boring Completion 12 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24 26 28 30

DRIL	FR.	

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED

12/24/03 12/24/03

# SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV

D-6 N/A

**FINISHED** G.W. DEPTH See Notes 1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. **TOPSOIL BKG** Black CINDERS and f-c Sand, tr. slag (moist, FILL) Brown-Gray f-c SAND, tr. slag, tr. brick (moist, FILL) Contains tr. coal (wet) BKG White-Blue and Bluish-Green SLAG and f-c Sand, tr. lime (wet, FILL) Free Standing Water Boring Complete at 8.0' Recorded at 3.5' at Boring Completion 12 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILL RIG TYPE: M.Matthies DRILLER: Environmental Specialist

DIRECT PUSH SAMPLING

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. D-7 12/24/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/24/03 **FINISHED** G.W. DEPTH SHEET 1 OF LOCATION: PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJ. NO.: City of Buffalo, Erie County, New York BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING **TOPSOIL** BKG Brown-Black CINDERS and f-m Sand, tr. slag, tr. gravel (moist, FILL) 2 Blue-Green SLAG and f-c Sand (moist, FILL) Free Standing Water Boring Complete at 4.0' Recorded at 0.5' at Boring Completion MSA Passport Photoionization 10 Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 14 16 20

22

24

26

28

30

See Notes

32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILL RIG TYPE: DRILLER: M.Matthies Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/24/03 12/24/03

1 OF

BEV-03-040

## SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV D-8 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH PID FT. READIN	SOIL OR ROCK CLASSIFICATION	NOTES	
FT. READIN			
2	Interlayered Brown f-m SAND and Black Cinders, tr. slag, tr. brick (moist, FILL)		
4	White-Gray and Blue-Green SAND and Slag, tr. lime (wet, FILL)		
	Boring Complete at 4.0'	Free Standing Water Recorded at Ground	
6		Surface at Boring	
		Completion	
- 8 —		MSA Passport	
10		Photoionization	
		Detector (PID) used	
12		expressed in	
		parts-per-million (PPM)	
14		BKG= Background	
_ 16			
18			
- 10			
20			
22			
_ 24			
26			
_ 26			
28			
_ 30			
32			

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-28 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes 1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING **TOPSOIL** BKG Brown-Black CINDERS and f-c Sand, Slag Fragments (wet, FILL) 2 Brown-Gray SLAG Fragments and f-c Sand (wet, FILL) Free Standing Water Boring Complete at 3.5' Recorded at 0.5' at **Boring Completion** MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 16 20 22 24

DRILLER:

26

28

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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-29 STARTED 12/31/03 **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES DEPTH PID CLASSIFICATION FT. READING **TOPSOIL** BKG Brown f-c SAND, some Cinders, come Brick Fragments, tr. slag (moist, FILL) No Free Standing Water Boring Complete with Sample Spoon Refusal at 1.0' Encountered at Boring Completion BKG= Background MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) 16 18 20 22 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta **SYMCO 2500** DRILLER: DRILL RIG TYPE: M.Matthies Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-29 A 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes OF SHEET Former Railroad Yard Area (Subparcel 1)-Union Ship Canal LOCATION: PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. **TOPSOIL BKG** Brown f-c SAND, some Cinders, some Brick Fragments, tr. slag (moist, FILL) 2 Gray-Black and Blue-Gray SLAG, tr. lime (moist, FILL) No Free Standing Water Boring Complete with Refusal at 2.5' Encountered at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 16 18 20 22

DRILLER:

26

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

1 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV P-30 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES	
FT.	BKG	TOPSOIL		
2		Brown Clayey SILT, tr. cinders, tr. slag, tr. gravel (moist, FILL)		
		Blue-Gray SLAG Fragments, tr. sand, tr. lime (wet, FILL)		
4				
		Boring Complete at 3.5'	Free Standing Water	
6			Recorded at 1.0' at	
			Boring Completion	
8				
			MSA Passport II	
10			Photoionization	
			Detector (PID) used	
12			expressed in	
			parts-per-million (PPM)	
14				
			BKG= Background	
16				
18				
20				
22				
24				
26				
28				
30				
32				

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-31 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK NOTES CLASSIFICATION FT. READING TOPSOIL **BKG** Brown-Gray SLAG Fragments, little f-c Sand, tr. brick fragments, tr. organics (wet, FILL) 2 Black-Gray Organic Clayey SILT, some f-c Sand (moist, FILL) Free Standing Water Boring Complete at 3.5' Recorded at 0.5' at Boring Completion MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 20 22 24 26 28 30

DRILLER:

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-32 STARTED 12/31/03 **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH SHEET OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING TOPSOIL BKG Brown Clayey SILT, tr. sand, tr. shale, tr. crushed limestone (moist, FILL) 2 Gray SLAG and Cinders (wet, FILL) Free Standing Water Boring Complete at 3.5' Recorded at 0.5' at Boring Completion MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 18 20 22

DRILLER:
----------

32

26

28

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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

See Notes

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING **TOPSOIL** BKG 2 Gray-Brown and Tan Clayey SILT, tr. sand, tr. roots (moist, FILL) No Free Standing Boring Complete at 3.5' Water Recorded at Boring Completion MSA Passport II Photoionization 10 Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 16 18 20 22 24 26

DRILLER:

32

28

30

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

P-33

See Notes

N/A

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

1 OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

SURF. ELEV

N/A

G.W. DEPTH See Notes

PROJE	CT:
PROJ.	NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

FROS.	<del></del>	DEV-00-040	NOTES	
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION		
1.35	BKG	TOPSOIL		
. 2	1	Brown Clayey SILT, tr. sand, tr. gravel, tr. wood, tr. slag, tr. brick (moist, FILL)		_
		Becomes Gray-Brown	_/	
4		Gray-Brown Silty CLAY, little f-c Gravel, tr. slag, tr. sand, tr. wood (moist, FILL)		
	вкс			
6				-
	_			-
8			MOA Process to 11	
	_	Boring Complete at 8.0'	MSA Passport II Photoionization	$\dashv$
10_	4		Detector (PID) used	$\dashv$
	_		expressed in	
12	-		parts-per-million (PPM)	$\dashv$
	-		parto per milion (1 1 m)	
14	_		BKG= Background	
	-			
16	-		Free Standing Water	
18	_		Recorded at 1.5' at	
- '°-	-		Boring Completion	
20				
	1			
22	-			
24				
26				
	_			
28	_			
_	_			
30_	_			
-	_			
32				
-		0,4100,0500	CLASSIFIED BY: C.Guzzetta	а

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. P-35 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH 1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING Black-Brown TOPSOIL and Slag Fragments (moist, FILL) BKG Brown-Black and Red-Brown CINDERS, tr. slag, tr. coal (moist, FILL) No Free Standing Water Boring Complete at 3.5' Encountered at Boring Completion BKG= Background 10 12 MSA Passport Photoionization 14 Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24

26

28

30

32

See Notes

DRILLER:	M.Matthies	DRILL RIG TYPE:	SYMCO 2500	CLASSIFIED BY: C.Guzzetta Environmental Specialist
METHOD O	F INVESTIGATION:	DIRECT PUSH	SAMPLING	

DATE: SJB SERVICES, INC. HOLE NO. P-36 12/29/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/29/03 **FINISHED** G.W. DEPTH SHEET OF See Notes LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 SOIL OR ROCK **NOTES** DEPTH PID CLASSIFICATION FT. READING **BKG** Brown SAND with Gravel (moist, FILL) 2 No Free Standing Boring Complete at 3.5' Water Encountered at **Boring Completion** BKG= Background MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background 20 22 24 26 30 32

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

12/24/03 12/24/03

1 OF SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

D-9

SURF. ELEV G.W. DEPTH N/A See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ.		SOIL OR ROCK	NOTES
DEPTH FT.	PID READING	CLASSIFICATION	
	BKG	TOPSOIL	
2		Brown CINDERS and f-c Sand, tr. gravel, tr. slag (moist, FILL)	
			-
4		Contains tr. metal fragments, numerous Slag pieces	
		Boring Complete at 4.0'	No Free Standing Water
6			Encountered at Boring
			Completion
8			
			MSA Passport
10	-		Photoionization
	-		Detector (PID) usedexpressed in
12	-		parts-per-million (PPM)
	-		BKG= Background
14	4		DIKO Badingradika
40	-		
16	-		
18			
10	-		
20	1		
	1		
22	1		
	1		
24			
	1		_
26			-
			_
28			-
	_		
30			_
			-
32			

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. D-10 HOLE NO. 12/24/03 STARTED **DIRECT PUSH LOG** N/A SURF. ELEV 12/24/03 **FINISHED** G.W. DEPTH See Notes SHEET 1 OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING Possible Concrete Slab **TOPSOIL** BKG Gray CONCRETE Slab Fragments (moist, FILL) Encountered at 1.0' Brown CINDERS and Slag, little f-c Sand, tr. brick (moist, FILL) No Free Standing Water Boring Complete at 4.0' Encountered at Boring Completion MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background "Hand" Sampling 16 noted at 1.0' 18 20

DRILLER:

26

28

30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED

FINISHED

12/ /03 12/ /03

SHEET

1 OF

BEV-03-040

## SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. D-11 SURF. ELEV N/A G.W. DEPTH See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES	
FT2	BKG	TOPSOIL Black-Brown CINDERS, tr. slag, tr. sand (moist, FILL)		
4		Brown-Gray SLAG Fragments, tr. cinders, tr. sand, tr. coal (wet, FILL)		
6		Boring Complete at 4.0'	Free Standing Water Recorded at 1.0' at Boring Completion	
8 8			MSA Passport Photoionization	
12			Detector (PID) used expressed in parts-per-million (PPM)	
14			BKG= Background "Hand" Sampling	****
1618			noted at 1.0'	
20	-			******
2224	-			
26				MARKAN AND AND AND AND AND AND AND AND AND A
2830				
32				

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED FINISHED

SHEET

12/31/03 12/31/03

BEV-03-040

#### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

D-12

SURF. ELEV G.W. DEPTH N/A

See Notes

PROJE	CT:
PROJ.	NO.:

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES	
	BKG	Gray-Brown SLAG Fragments and Cinders, tr. sand, tr. organics (moist, FILL)		-
2		Brown Foundry SAND, tr. slag (moist-wet, FILL)		
4	1	Blue-Gray and White SAND and Slag, tr. lime (moist, FILL)		
		Boring Complete at 4.0'	MSA Passport II	_
6			Photoionization	
			Detector (PID) used	
8			expressed in	
	-		parts-per-million (PPM)	
10	-		240 2 1	
	4		BKG= Background	
12	-		Free Standing Water	
	4		Recorded at 0.5" at	-,
14	-		Boring Completion	
40	-		Borning Complesion	
16	1			
18	+			
10	1			
20	1			
	-			
22	1			
24				
26				
28	4			
-				
30	4			
	1			
32				

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. D-13 12/31/03 STARTED N/A SURF. ELEV **DIRECT PUSH LOG** 12/31/03 **FINISHED** See Notes G.W. DEPTH OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK PID DEPTH CLASSIFICATION READING FT. **TOPSOIL BKG** Red-Brown CINDERS, tr. slag (moist, FILL) 2 White-Gray Foundry Sand, tr. silt, tr. lime (moist, FILL) Free Standing Water Boring Complete at 2.0' Recorded at 1.0' at **Boring Completion** MSA Passport II Photoionization Detector (PID) used expressed in 12 parts-per-million (PPM) BKG= Background 18 20 22 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILL RIG TYPE: DRILLER: M.Matthies Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV D-14 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJ. NO.:	BEV-	03-040	City of Buffalo, Erie County, New York	
1	PID	SOIL OR ROCK CLASSIFICATION		NOTES
	KG Brov	vn and Gray f-c SAND, Slag Fragments and Cinders, tr. brick, ganics (moist, FILL)		-
4		Boring Complete at 2.0'	[	No Free Standing Water Encountered at Boring
6			.	Completion _
8				- MSA Passport II
10				Photoionization  Detector (PID) used
_ 12				expressed in
16				
18				
_20				
_ 22				
_ 24				
_ 26				
30				
32				

DR	1 1	FR:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED FINISHED

SHEET

12/31/03 12/31/03

1 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

D-15

SURF. ELEV

N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	Brown and Gray SLAG Fragments, some f-c Sand, tr. brick, tr. cinders	
_ 2		(moist, FILL)  Boring Complete at 2.0'	No Free Standing Water
_ 4			Encountered at Boring
6			Completion
- " =			
8			MSA Passport II
10			Photoionization
			Detector (PID) used
_ 12			expressed in parts-per-million (PPM)
14			ps. 10 ps. 11
_ 16			
_ 18			
20			
_ 20			
_ 22			
24			
_ 26			
28			
_ 30			
32			

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

METHOD OF INVESTIGATION:

DIRECT PUSH SAMPLING

Environmental Specialist

STARTED **FINISHED** 

12/31/03 12/31/03 1

1 OF

BEV-03-040

# SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

D-16 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK CLASSIFICATION	NOTES
FT.	READING BKG	Gray-Brown and Blue-Black SLAG Fragments, tr. sand, tr. silt (moist, FILL)	-
_ 2			MSA Passport II
4			
	BKG	Contains tr. lime	Detector (PID) used expressed in
6			parts-per-million (PPM)
8			BKG=Background
		Boring Complete at 8.0'	No Free Standing
10		Defining complete service	Water Encountered at
12			Boring Completion
14			
_ '			
_ 16			
18			
	1		
20			
22			
24			
	1		
26			
28	-		
_ 30			
32	-		

DRI	LL	ER:
$D_{1,i}$		

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

PROJECT:

12/31/03 12/31/03

#### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

D-17

SURF. ELEV G.W. DEPTH N/A See Notes

OF 1

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJ.		BEV-03-040	City of Buffalo, Erie County, New York
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
FI.	BKG	Gray-Brown SLAG Fragments and foundry Sand, tr. silt, tr. cinders	Possible Petroleum in PID
2		(wet, FILL)	
		Boring Complete at 2.0'	Free Standing Water
4			Recorded at 1.0' at
			Boring Completion
6			
8			MSA Passport II
	-		Photoionization
10	4		Detector (PID) used
12			expressed in
'-			parts-per-million (PPM)
14	1		
16			
			_
18			-
ļ	-		
20			
	-		
22	-		
24	-		
	1		
26	1		
	1		_
28			-
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30_	_		-
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32			

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v	•	-	-	_	٠.,	

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

SHEET

OF

BEV-03-040

## SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

D-18 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK CLASSIFICATION	NOTES
FT.	READING BKG	Brown-Gray SLAG Fragments, little f-c Sand, tr. silt, tr. brick, tr. cinders, tr. coal	_
2		(moist, FILL)	
		Boring Complete at 2.0'	No Free Standing Water
4			Encountered at  Boring Completion
_			Borning Completion
6			-
8			_
			MSA Passport II
10			Photoionization
			Detector (PID) used
12			expressed in parts-per-million (PPM)
			parts-per-million (PPIVI)
14			-
 16			-
'0			-
18			-
20	4		
	-		•
22	-		
24			•
26	]		
	-		
28	4		
	-		
30	+		
32	+		

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

OF

1

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

D-19 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

1

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK CLASSIFICATION	NOTES	
FT.	READING BKG	TOPSOIL		
2		Gray-Brown SLAG Fragments, little f-c Sand, tr. silt, tr. cinders (moist, FILL)		_
		Boring Complete at 2.0'	Free Standing Water	$\dashv$
4			Recorded at 1.0' at	$\dashv$
			Boring Completion	-
6				$\dashv$
				$\dashv$
8			MSA Passport II	ᅱ
	-		Photoionization	
10	1		Detector (PID) used	コ
12	1		expressed in	
'-			parts-per-million (PPM)	
14				$\perp$
				_
16				l
				$\dashv$
18				ᅱ
				$\dashv$
20	-			ĺ
	-			
22	-			
24	1			
	1			
26				_
				_
28				_
	_			$\dashv$
30	_			-
	4			$\dashv$
32				

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

D-20 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PID READING	BEV-03-040 SOIL OR ROCK	NOTES
READING		
	CLASSIFICATION	MSA Passport II
BKG	Red-Brown and Gray CINDERS, tr. slag	Photoionization
		Detector (PID) used
		expressed in
		parts-per-million (PPM)
BKG		
		_
		No Free Standing Water
		Encountered at Boring
		Completion
		_
		_
		_
		_
1		_
]		_
]		
1		_
-		-
		_
-		
4		_
-		_
-		
-		
-		
+		
	BKG	BKG

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

METHOD OF INVESTIGATION:

DIRECT PUSH SAMPLING

Environmental Specialist

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

BEV-03-040

1 OF

#### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV D-21 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK	NOTES	
FT.	READING	CLASSIFICATION  TOPSOIL		
2	BKG	Tan-Brown Silty CLAY, little f-c Gravel, tr. sand, tr. slag, occasional cobbles,		
		tr. organics (moist, FILL)		
4				
6		Brown PEAT, tr. sand, tr. silt (moist, FILL)		
8		Boring Complete at 8.0'	MSA Passport II	
10			Photoionization	
			Detector (PID) used	***************************************
12	1		expressed in	•
			parts-per-million (PPM)	******
14				
			BKG= Background	******
16	-		No Free Standing Water	
			Recorded at Boring	-
18			Completion	
20				
	1			
22				
24	-			
<del></del>	4			
26	-			*****
28	-			
^0	1			
30	1			
	1			
32				

NR	11	ER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta Environmental Specialist

METHOD OF INVESTIGATION:

SHEET

STARTED **FINISHED**  12/31/03 12/31/03

OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV D-22 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ.		SOIL OR ROCK	NOTES	
DEPTH FT.	PID READING	CLASSIFICATION		
	BKG	TOPSOIL		
2		Brown f-c SAND and Slag Fragments (moist, FILL)		$\dashv$
		Brown Clayey SILT, little f-c Sand (moist, FILL)		-
4		Brown f-c Sand and Peat, Contains Coal and Cobble (moist, FILL)		$\dashv$
	BKG	Brown-Gray Silty CLAY, tr little f-c Gravel, tr. sand, tr. organics, occasional		$\dashv$
6		cobble (moist, FILL)		$\dashv$
8				
		Boring Complete at 8.0'	MSA Passport II	-
10			Photoionization	-
			Detector (PID) used expressed in	
12			parts-per-million (PPM)	-
	ļ.		parts-per-minori (FFM)	
14	4		BKG= Background	-
			Bro- Baokground	
16			No Free Standing Water	
	-		Encountered at Boring	
18	1		Completion	
	-			
20	-			
22	-			
	1			
24	1			
	1			
26	1			
	1			
28				
30	1			
32				

DRI	LL	ER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta Environmental Specialist

METHOD OF INVESTIGATION:

STARTED

12/31/03 12/31/03 **FINISHED** 1 OF SHEET

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV D-23 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

1

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK CLASSIFICATION	NOTES	
FT.	READING BKG	Gray Crushed STONE and Slag (moist, FILL)		
2	ВКО	Brown Clayey SILT, tr. sand (moist, FILL)		
4		Gray Silty CLAY, occasional silt, tr. peat, tr. wood (moist, FILL)		
	BKG			
6				
8				
		Boring Complete at 8.0'	MSA Passport II	
10		·	Photoionization  Detector (PID) used	-
			expressed in	
_ 12			parts-per-million (PPM)	
1.1				
14			BKG= Background	
16				
			No Free Standing Water Encountered at Boring	
18	4		Completion	-
	-		Completion	
20	-			
22	1			_
	1			_
24				
				-
26	-			•
20	-			-
28	-			_
30				-
				-
32				

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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

OF

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

D-24 N/A

SURF, ELEV G.W. DEPTH

See Notes

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040

DEPTH	PID	SOIL OR ROCK	NOTES	
FT.	READING	CLASSIFICATION		
	BKG	TOPSOIL		$\dashv$
2		Brown-Black CINDERS, tr. sand (moist, FILL)		$\neg$
		Brown f-c Sand and Slag Fragments, some Cinders, tr. organics (wet, FILL)		
4		During Complete et 4.01	MSA Passport II	
		Boring Complete at 4.0'	Photoionization	
6			Detector (PID) used	
			expressed in	
8			parts-per-million (PPM)	
10			BKG= Background	
12				
12	1		Free Standing Water	
14			Recorded at 2.0' at	
- '	İ		Boring Completion	
16	1			
— · · —	1			
18	1			
	1			
20	1			
	1			
22				
	1			
24				
26				
				*******
28				
	_			
30				********
	_			
32				

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

D-25 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ. NO	SOIL OR ROCK	NOTES
DEPTH PI	a control Tichi	
Bh		_
2	(moist, FILL)	_
		_
4		
	Boring Complete at 4.0'	MSA Passport II
6		Photoionization
		Detector (PID) used
8		expressed in
		parts-per-million (PPM)
10		-
		BKG= Background
12		- Otropico Materi
		Free Standing Water  Recorded at 2.0' at
14		-
		Boring Completion
16		
		-
18		•
		-
20		
		-
22		
24		·
26		
28		
30		
32		

DR	ILI	ER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

METHOD OF INVESTIGATION:

DIRECT PUSH SAMPLING

Environmental Specialist

STARTED

12/31/03 12/31/03

### SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO.

F-1 N/A

SURF. ELEV

FINISHED		12/31/03	DIRECT PUSH L	OG		SURF. ELEV N/A
SHEET		1 OF 1				G.W. DEPTH See Notes
PROJECT:	Ce	ertain Teed Corporation-New M	anufacturing Plant & Offices	LOCATION:		Area (Subparcel 1)-Union Ship Canal
PROJ. NO.:		EV-03-040			City of Buffalo, Erie Co	unty, New York
DEPTH PI	1		SOIL OR ROCK CLASSIFICATION			NOTES
FT. REAL						
BK	(G B	rown CINDERS, tr. Sa	nd, tr. Gravel (moist, FILL)			
. 2	G	ray SLAG Fragments	(moist, FILL)			
4		-				
- '	ь	oring Complete at 3.5				No Free Standing Water
_ —	P	omig Complete at 5.5				Encountered at Boring
6 —						Completion
						Comprosion.
8						
10						
-						
12						
_ 12						MSA Passport
						Photoionization
_ 14						
						Detector (PID) used
16						expressed in
						parts-per-million (PPM)
18						BKG= Background
- '°	į					
_ 20						
22						
	ŀ					
24						
_ 26						
28						
30						
_ ~ —	İ					
32						
32						CLASSIFIED BY: C.Guzzetta
RILLER:	M.Matthi	es DRILL RIG TY	PE: SYMCO 2500			Environmental Specialis

DIRECT PUSH SAMPLING

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH SHEET 1 OF LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 **NOTES** SOIL OR ROCK DEPTH CLASSIFICATION READING **BKG** Black CINDERS and Slag Fragments, tr. Brick (moist, fill) 2 No Free Standing Water Boring Complete at 3.5' **Encountered at Boring** Completion 12 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24

F-2

N/A

See Notes

CLASSIFIED BY: C.Guzzetta DRILL RIG TYPE: SYMCO 2500 DRILLER: M.Matthies Environmental Specialist

METHOD OF INVESTIGATION:

26

28

30

32

STARTED **FINISHED** 

PROJ. NO.:

12/31/03 12/31/03

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

F-3

SURF. ELEV G.W. DEPTH N/A See Notes

1 OF SHEET PROJECT:

BEV-03-040

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

		SOIL OR ROCK	NOTES	
DEPTH FT.	PID READING	CLASSIFICATION		
	BKG	Yellow-Green f-c SAND, with Silt, tr. slag (moist, FILL)		_
2		Black-Brown CINDERS, tr. slag (moist, FILL)		_
		Gray SLAG Fragments, (moist, wet, FILL)		
4				_
		Boring Complete at 3.5'	No Free Standing Water	
6			Encountered at Boring	
			Completion	
8				_
10				
	1			
. 12	1			
	1		MSA Passport	
14	1		Photoionization	
	1		Detector (PID) used	
16			expressed in	
	1		parts-per-million (PPM)	
18			BKG= Background	
	1			
20	1			
	1			
22	1			
	1			
24	1			
	1			
26				
28	1			
	1			
30	1			
<b>—</b> ~	1			
32	1			
		SVMCQ 2500	CLASSIFIED BY: C.Guzzett	а

DRILLE	R:
DUILLE	1.

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

F-4

SURF. ELEV G.W. DEPTH N/A See Notes

PROJECT:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJE		BEV-03-040	City of Buffalo, Erie County, New York
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
2	BKG	Brown-Gray SLAG Fragments and Cinders (moist, FILL)	
		Gray Silty CLAY, tr. Sand (moist, FILL)	
_ 4		Boring Complete at 3.5'	No Free Standing Water  Encountered at Boring
6  8			Completion
_ ° 	1		
12			
14			MSA Passport  Photoionization  Detector (PID) used
16	4		expressed in parts-per-million (PPM)
18			BKG= Background
20	_		
22	-		
24			
26 <u></u>	1		
28	1		
<sup>30</sup>			
32 DRILLER:	M.Mat	thies DRILL RIG TYPE: SYMCO 2500	CLASSIFIED BY: C.Guzzetta Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

PROJECT:

PROJ. NO.:

12/31/03 12/31/03 SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

F-5 N/A

SURF. ELEV G.W. DEPTH

See Notes

1 OF SHEET

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices City of Buffalo, Erie County, New York BEV-03-040

PROJ. I		SOIL OR ROCK	NOTES
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	
rı.	BKG	Black-Gray CINDERS and Slag Fragments (moist, FILL)	***************************************
2	2.00	•	
4			
		IRONNO COMDIELE ALS.S	No Free Standing Water  Encountered at Boring
6			Completion
			Completion
8			
	1	,	
10	-		
12	1		MSA Passport
14	-		Photoionization
<del></del>	-		Detector (PID) used
16			expressed in
├─ <sup>1</sup>	-		parts-per-million (PPM)
18	1		BKG= Background
	1		
20			
			_
22			
24	_		
	_		
26	4		_
	4		
28	4		
	-		
30 _	+		_
	-		
32		0.04.00.0500	CLASSIFIED BY: C.Guzzetta

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

OF

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

F-6 N/A

SURF. ELEV G.W. DEPTH

See Notes

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York BEV-03-040 PROJ. NO.:

PROJ.	NO.:	BEV-03-040 <u>3.9, 1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2</u>	
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	CINDERS and TOPSOIL FILL	
2		Gray SLAG, some Black Cinders, little f-c Sand (moist, FILL)	
4			
		Boring Complete at 3.5'	No Free Standing Water
6			Encountered at Boring
_ `			Completion
. 8	4		
40	1		
10	4		
	-		
12	-		MSA Passport
	-		Photoionization
_ 14	4		Detector (PID) used
	4		expressed in
_ 16			parts-per-million (PPM)
	_		BKG= Background
18			BNG- Background
20			
	1		
22	7		
	1		
24	7		
_	-		
20	-		
_ <sup>26</sup> _	-		
	-		
_ 28	_		
	_		
_ 30 _	_		
32			

DRILLER:	•
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M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03 1

OF

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV F-7 N/A

G.W. DEPTH

See Notes

PROJECT:

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJECT		BEV-03-040	City of Buffalo, Erie County, New York	
DEPTH	PID EADING	SOIL OR ROCK CLASSIFICATION	NOTES	
	BKG	Gray SLAG, some Black Cinders, little f-c Sand (moist, fill)		
6		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion	
_ 8 10				
12			MSA Passport Photoionization Detector (PID) used	
18			expressed in  parts-per-million (PPM)  BKG= Background	
20				
2426				
28				
32		SYMCO 2500	CLASSIFIED BY: C.Guzzetta	

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED FINISHED

SHEET

12/31/03 12/31/03

1 OF 1

# SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO.

F-8 N/A

SURF. ELEV G.W. DEPTH

See Notes

			( ) ( ) die Diest o Offices	LOCATION:	Former Railroad Yard Ar	rea (Subparcel 1)-Union Ship Canal	
PROJE PROJ.		Certain Teed Corporation-New M BEV-03-040	Manufacturing Plant & Offices		City of Buffalo, Erie Coul		_
PROJ.		T BEV-03-040	SOIL OR ROCK			NOTES	
DEPTH	PID		CLASSIFICATION				
FT.	READING	Red Brown CINDERS	and f-c Sand, tr.slag (moist, FILL)				
	BKG	Red-Blown Chaption	and to during thistag (was a first				
_ 2	ļ	Di LO CIAC From	monts (wat FILL)				
	2-3.5'	Black-Gray SLAG Frag	ments (wet, r ict)				
_ 4 _						Free Standing Water	
	4	Boring Complete at 3.5	Y		1	Recorded at 1.0' at Boring	
_ 6 _	4				1	Completion	
						Completion.	***************************************
8	_						
***************************************	_						
10							,
							*******
12						_	
						MSA Passport	
14	1					Photoionization	
	1					Detector (PID) used	
16	1					expressed in	
	-					parts-per-million (PPM)	
40	1					BKG= Background	****
18	-						
	4						
20	-						
-	_						
22	_						*******
-							
24	_						
26							-
	7						
28							
30							
~_							
	_						
32						CLASSIFIED BY: C.Guzzetta	a ·
DRILLER:	M.Ma	atthies DRILL RIG T	YPE: SYMCO 2500			Environmental Specia	
	OF INVESTIGA	ATIONI: DIRE	CT PUSH SAMPLING			<b></b>	

STARTED FINISHED 12/31/03 12/31/03 SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV F-9 N/A

G.W. DEPTH

See Notes

1 OF SHEET Former Railroad Yard Area (Subparcel 1)-Union Ship Canal LOCATION: Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION FT. READING Red-Brown CINDERS and f-c Sand (moist, FILL) BKG 2 Becomes Black, tr. brick (moist, FILL) No Free Standing Water Boring Complete at 3.5' Encountered at Boring Completion BKG= Background 12 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24 26 28 30 32 CLASSIFIED BY: C.Guzzetta SYMCO 2500 DRILL RIG TYPE: M.Matthies DRILLER: Environmental Specialist

DIRECT PUSH SAMPLING

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

OF

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

F-10

SURF. ELEV G.W. DEPTH N/A See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

PROJ. NO.:	BEV-03-040	City of Buffalo, Erie County, New York
1	DING SOIL OR ROCK CLASSIFICATION	NOTES
	KG Black-Brown CINDERS, tr. slag, tr. sand (moist, FILL)	
68	Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
10		
14		MSA Passport  Photoionization  Detector (PID) used  expressed in  parts-per-million (PPM)
18		BKG= Background
22		
2628		
30		

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV F-11 N/A

G.W. DEPTH

See Notes

PROJECT:

PROJ. NO.:

Certain Teed Corporation-New Manufacturing Plant & Offices

1

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

L	PROJ.		SOIL OR ROCK	NOTES
	DEPTH FT.	PID READING	CLASSIFICATION	
-		BKG	Black-Brown CINDERS, tr. slag, tr. sand (moist, FILL)	_
	2			
ľ				
	4			
			Boring Complete at 3.5'	No Free Standing Water
	6		·	Encountered at Boring
				Completion
2000	8			
	***************************************	-		
	10			
		-		
-	12	-		MSA Passport
		1		Photoionization
-	14	-		Detector (PID) used
	16	-		expressed in
-		1		parts-per-million (PPM)
0000	18	1		BKG= Background
*	'`			
2	20	1		
000000		1		
8	22	1		
00000				
2000	24			
	26	_		
		_		
	28	_		
		4		
	30			_
		1		_
	32			
	DRILLER.	M.Mat	thies DRILL RIG TYPE: SYMCO 2500	CLASSIFIED BY: C.Guzzetta

DR	IL	L	E	R:

M.Matthies

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

1 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

F-12

SURF. ELEV G.W. DEPTH N/A See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
FT	BKG	Brown-Black CINDERS and Slag Fragments, tr. brick, tr. sand (moist, FILL)	
4			
6		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring
	-		Completion
8	-		-
10	_		=
12			MSA Passport Photoionization
14_	-		Detector (PID) used
16			expressed in parts-per-million (PPM)
18			BKG= Background
20_			
22_			_
24			
26			
28			_
30			
32		SYMCO 2500	CLASSIFIED BY: C.Guzzetta

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV F-13 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO .:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ.		BEV-03-040	NOTES
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	Red-Brown CINDERS, tr. slag, tr. sand, tr. organics	
_ 2		(wet, FILL)	_
4			Ala Francistanding Motor
		Boring Complete at 3.5'	No Free Standing Water  Encountered at Boring
6			Completion
	1		Completion
8			-
***************************************	_		-
10	-		-
<del></del>	4		_
12	-		MSA Passport _
	4		Photoionization
14	4		Detector (PID) used
	-		expressed in
16	-		parts-per-million (PPM)
4.0	+		BKG= Background
18	-		_
20	-		
	-		_
22	-		_
	1		-
24	1		
	7		-
26	1		•
	1		-
28			
			-
30			
32			

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: STARTED **FINISHED** 

12/31/03 12/31/03 1 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO. SURF. ELEV F-14 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ. NO.:	BEV-03-040	NOTES
DEPTH PI	or a colfic A TION	
ВК		_
2	tr. sand (moist, FILL)	_
_ 4	125	No Free Standing Water
	Boring Complete at 3.5'	Encountered at Boring
_ 6 _		Completion
8		_
		_
10		_
12		MSA Passport
14		Photoionization
		Detector (PID) used
16		expressed in
		parts-per-million (PPM)  BKG= Background
18		
20		_
22		-
		-
24		
		-
26		_
20		-
28		-
30		-
		-
32		
DRILLER:	M.Matthies DRILL RIG TYPE: SYMCO 2500	CLASSIFIED BY: C.Guzzetta  Environmental Specialist

M.Matthies

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03 1 OF

BEV-03-040

SJB SERVICES, INC. **DIRECT PUSH LOG** 

HOLE NO.

F-15

SURF. ELEV G.W. DEPTH N/A See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES	
FT.	BKG	Black-Brown CINDERS, tr. sand, tr. brick, tr. coal, tr. slag (moist, FILL)		_
2		Gray SLAG Fragments (moist, FILL)		_
		Tan-Brown f-c SAND, tr. silt (moist, FILL)		
4		Boring Complete at 3.5'	No Free Standing Water	_
6			Encountered at Boring Completion	-
8				-
10				-
	1		MSA Passport Photoionization	
14			Detector (PID) used expressed in	
_ 16	-		parts-per-million (PPM)	
18			BKG= Background	
20				
22	1			
24				
28				
30				
32				

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: STARTE FINISHE SHEET		12/31/03 12/31/03 1 OF 1	SJB SERVICES, INC. DIRECT PUSH LOG	SU	•	F-15 N/A See Notes
PROJE	CT:	Certain Teed Corporation-New M	allulacturing Flatt & Offices	ormer Railroad Yard Area		Ship Canal
PROJ. I	NO.:	BEV-03-040		ity of Buffalo, Erie County		
DEPTH	PID		SOIL OR ROCK CLASSIFICATION		NOTE	5
FT.	READING	Black Brown CINDERS	, tr. sand, tr. brick, tr. coal, tr. slag (moist, FILL)			
2	BKG	Gray SLAG Fragments				
		Tan-Brown f-c SAND, tr				
4		Tan Blown to o. t. c.				
		Boring Complete at 3.5			o Free Standing	
6				1	ncountered at E	Boring
				C	ompletion	
8						
				-		
10						
12					/ISA Passport	
	1			1	hotoionization	
14	-			i	etector (PID) u	sed
	-				expressed in	
<sup>16</sup>	4				arts-per-million	(PPM)
	-				KG= Backgrou	l l
18 —	-					
	-					
20_	1					
22	1					
	-					
24	1					
26	1					_
28						
				A A A A A A A A A A A A A A A A A A A		

DRILLER:

32

30

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

1 OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV F-16 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK	NOTES
FT.	READING	CLASSIFICATION	
	BKG	Brown CINDERS, tr. slag (moist, FILL)  Gray CONCRETE Slag Fragments (moist, FILL)	
2		Boring Complete with Sampler Refusal at 2.01'	No Free Standing Water
4		Borning Complete with Gample, Reliada at 2.0	Encountered at Boring
_ 4			Completion
6			
_ ~			
8			
			MSA Passport
10	1		Photoionization
	1		Detector (PID) used
12	]		expressed in
			parts-per-million (PPM)
14			
			BKG= Background
16			
18	-		
***************************************	-		
20			
	-		
_ 22	-		
24	-		
_ 24			
 26	-		
	1		
28	1		
	1		
30			
32	7		

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: STARTED FINISHED SHEET

12/31/03 12/31/03 1 OF 1

# SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV F-16A N/A

G.W. DEPTH

See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices  BEV-03-040  DEPTH PID SOIL OR ROCK CLASSIFICATION  BKG Red-Brown CINDERS, tr. slag, tr. brick (moist, FILL)  Gray CONCRETE Slag Fragments (moist, FILL)  Red-Brown CINDERS, tr. slag (moist, FILL)  Boring Complete at 3.5'	N: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal City of Buffalo, Erie County, New York  NOTES  Free Standing Water Recorded at 3.0' at Boring Completion
DEPTH PID SOIL OR ROCK FT. READING CLASSIFICATION  BKG Red-Brown CINDERS, tr. slag, tr. brick (moist, FILL)  Gray CONCRETE Slag Fragments (moist, FILL)  Red-Brown CINDERS, tr. slag (moist, FILL)  Borring Complete at 3.5'	Free Standing Water Recorded at 3.0' at
FT. READING CLASSIFICATION  BKG Red-Brown CINDERS, tr. slag, tr. brick (moist, FILL)  Gray CONCRETE Slag Fragments (moist, FILL)  Red-Brown CINDERS, tr. slag (moist, FILL)  Boring Complete at 3.5'	Free Standing Water Recorded at 3.0' at
BKG Red-Brown CINDERS, tr. slag. tr. brick (moist, FILL)  Gray CONCRETE Slag Fragments (moist, FILL)  Red-Brown CINDERS, tr. slag (moist, FILL)  Boring Complete at 3.5'	Recorded at 3.0' at
2 Gray CONCRETE Slag Fragments (moist, FILL)  Red-Brown CINDERS, tr. slag (moist, FILL)  Boring Complete at 3.5'	Recorded at 3.0' at
Red-Brown CINDERS, tr. slag (moist, FILL)  Boring Complete at 3.5'	Recorded at 3.0' at
Red-Brown CINDERS, tr. slag (moist, FILL)  Boring Complete at 3.5'	Recorded at 3.0' at
Boring Complete at 3.5'	Recorded at 3.0' at
Boring Complete at 3.5'	Recorded at 3.0' at
6	Recorded at 3.0' at
	Bonng Completion
8	
10	
42	
_ 12	MSA Passport
	Photoionization
_ 14	
	Detector (PID) used
16	expressed in
	parts-per-million (PPM)
10	BKG= Background
_ 18	
20	
22	
24	
_ 24	
_ <sup>26</sup>	
28	
30	
<del>-</del> <sup> </sup>	
32	
DRILLER: M.Matthies DRILL RIG TYPE: SYMCO 2500	CLASSIFIED BY: C.Guzze

DIRECT PUSH SAMPLING

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. F-17 12/31/03 STARTED N/A **DIRECT PUSH LOG** SURF. ELEV 12/31/03 **FINISHED** G.W. DEPTH See Notes 1 1 OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH CLASSIFICATION READING FT. Brown-Gray CINDERS and Slag Fragments, tr. coal BKG (moist, FILL) 2 No Free Standing Boring Complete at 3.5' Water Encountered at Boring Completion 10 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20 22 24 26 28

DRILLER:
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30

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

1 OF SHEET

SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV F-18 N/A

G.W. DEPTH

Detector (PID) used

See Notes

PROJECT: PROJ. NO.:		Certain Teed Corporation-New Manufacturing Plant & Offices BEV-03-040	LOCATION:	Former Railroad Yard Area (Subparcel 1)-Union Ship Canal City of Buffalo, Erie County, New York
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION		NOTES
_ 2	BKG	Brown f-c SAND, tr. brick, tr. soil, tr. clay, tr. roots, tr. cr. (moist, FILL)  Gray SLAG Fragments, Contains numerous Brick Frag		
68 10		Boring Complete at 3.5'		No Free Standing  Water Encountered at  Boring Completion
12				MSA PassportPhotoionization

16							expressed in	
''							parts-per-million (PPN	Л)
18							BKG= Background	
								<del></del>
20								
22								
24								
 26								
20								
 28								
30								
32								
DRILLER:	M.Matth	nies	DRILL RIG T	YPE:	SYMCO 2500	- Appropriate Control of the Control	CLASSIFIED BY: C	.Guzzetta al Specialist
			מוסד	OT DUCH SAMPLING	<u>.</u>			

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. F-19 12/31/03 STARTED **DIRECT PUSH LOG** SURF. ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH See Notes OF SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: BEV-03-040 NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING Red-Brown and Gray-Brown Silt CLAY (moist FILL) BKG Red-Brown CINDERS and Gray Slag Fragments (moist\_FILL) 2 Blue-Green SLAG Fragments, tr. sand (moist, FILL) Red-Brown CINDERS (moist, FILL) No Free Standing Boring Complete at 3.5' Water Encountered at **Boring Completion** MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 20 22 26 28

DRILLER:

32

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03

SHEET

OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO.

F-20 N/A

SURF. ELEV G.W. DEPTH

See Notes

PROJE	CT:
PROJ.	NO.:

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ.	NO	BEV-03-040	NOTES	
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES	
	BKG	Brown f-c SAnD, tr. silt, tr. clay, tr. granite, Contains many Slag Fragments,		
2		tr. coal, tr. cinders (moist, FILL)		
_ 4			No Free Standing	
		Boring Complete at 3.5'	Water Encountered at	***************************************
6	1		Boring Completion	
-	-			
_ 8 _				
40				
10	1			_
12	1			
· · · · · · · · · · · · · · · · · · ·	1		MSA Passport	-
14	1		Photoionization	-
	1		Detector (PID) used	
16			expressed in	
			parts-per-million (PPM) BKG= Background	-
18			BNG= Background	-
	_			-
20	4			
	_			-
22				
	4			
24	-			
 26	_			
20				
 28	-			
30	1			
	-			
32				

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03 OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV F-21 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK CLASSIFICATION	NOTES
FT.	READING BKG	Red-Brown CINDERS, tr. sand (moist, FILL)	
2	BRO	Gray SLAG Fragments (moist, FILL)	/
		Tan-Brown f-c SAND, tr. silt, tr. slag (moist, FILL)	
4			
		Boring Complete at 3.5'	No Free Standing
6	1		Water Encountered at
	]		Boring Completion
8			
	1		
10	4		
	4		
12	-		MSA Passport
			Photoionization
14	-		Detector (PID) used
 16	-		expressed in
. ''			parts-per-million (PPM)
18	-		BKG= Background
	1		
20			
22			
********	_		
24	_		
	-		
26	_		
	-		
28	-		
20	1		
30	-		
32	1		

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

SHEET

STARTED **FINISHED**  12/31/03 12/31/03

1 OF

BEV-03-040

SJB SERVICES, INC. DIRECT PUSH LOG

HOLE NO. SURF. ELEV F-22 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK CLASSIFICATION	NOTES	
FT.	READING BKG	Red-Brown SILT, some Cinders, tr little f-c Sand (moist, FILL)		
2		Gray SLAG Fragments (moist, FILL)	/	
		Gray-White LIME and f-c Sand, tr. slag (moist, FILL)		
4		:	Free Standing Water	
		Boring Complete at 3.5'	Encountered at 3.0' at	
6	1		Boring Completion	
8				
10				
	-			
. 12	-		MSA Passport	
— 14	-		Photoionization	
. '			Detector (PID) used	
16			expressed in	
			parts-per-million (PPM) BKG= Background	
_ 18	_		BNO- Background	
	_			
20	_			
22				
_ 24				
	_			
_ 26				
28				
_ 30 _				
 32	-			

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED** 

SHEET

12/31/03 12/31/03

OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV

F-23 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.: Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK	NOTES	
FT.	READING BKG	CLASSIFICATION  Gray SLAG Fragments and f-c Sand, tr. brick, tr. cinders, tr. ash, tr. lime (moist, FILL)		
2	DICO	Contains tr. organics, tr. metal fragments, tr. coal		
		Containts tr. glass, tr. clay, tr. silt, tr. gravel		
4				
		Boring Complete at 4.0'	Free Standing Water Encountered at 3.0' at	
6			Boring Completion	
8				
10			BKG= Background	
	]			
12			MOA Bassassi	
			MSA Passport Photoionization	
14			Detector (PID) used	
10			expressed in	
16	-		parts-per-million (PPM)	
18			BKG= Background	
20				
	_			
22	4			
	-			
24	-			
 26	1			
28				-
	_			
30				
	_			
32			CLASSIFIED BY: C.Guzze	

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

DATE: SJB SERVICES, INC. HOLE NO. F-24 STARTED 12/31/03 **DIRECT PUSH LOG** SURF, ELEV N/A 12/31/03 **FINISHED** G.W. DEPTH OF 1 SHEET LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal Certain Teed Corporation-New Manufacturing Plant & Offices PROJECT: City of Buffalo, Erie County, New York PROJ. NO.: NOTES SOIL OR ROCK DEPTH PID CLASSIFICATION READING FT. Brown-Gray SLAG and Foundry Sand (moist-wet, FILL) **BKG** Contains tr. coal, tr. lime (wet, FILL) 2 Free Standing Water Boring Complete at 4.0' Encountered at 3.0' at Boring Completion 10 MSA Passport Photoionization Detector (PID) used expressed in 16 parts-per-million (PPM) BKG= Background 18 20

22

24

26

28

30

32

See Notes

CLASSIFIED BY: C.Guzzetta SYMCO 2500 M.Matthies DRILL RIG TYPE: DRILLER: Environmental Specialist DIRECT PUSH SAMPLING METHOD OF INVESTIGATION:

SHEET

STARTED FINISHED

12/31/03 12/31/03 1 OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV F-25 N/A

G.W. DEPTH

See Notes

PROJE	ECT:
PROJ.	NO.:

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

PROJ.		BEV-03-040	NOTES
DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	Brown-Gray SLAG and Foundry Sand (moist, FILL)	_
_ 2			
		White LIME (wet, FILL)	
_ 4		Red-Brown SLAG and f-c Sand, tr. gravel, tr. coal (wet, FILL)	Free Standing Water
		Boring Complete at 4.0'	Encountered at 3.5 at
_ 6			Boring Completion _
8	-		_
			_
10	]		-
			-
_ 12	1		MSA Passport
	-		Photoionization
_ 14	$\dashv$		Detector (PID) used
4.0	-		expressed in
_ 16	_		parts-per-million (PPM)
 18	1		BKG= Background
'`	1		-
20			
			•
22	_		
	_		
24	-		
	_		
26	-		
 28	1		
	1		
30			
32			

DRILLER:

M.Matthies

DRILL RIG TYPE:

Environmental Specialist

METHOD OF INVESTIGATION:

STARTED **FINISHED**  12/31/03 12/31/03 1

OF

BEV-03-040

### SJB SERVICES, INC. **DIRECT PUSH LOG**

HOLE NO. SURF. ELEV F-26 N/A

G.W. DEPTH

See Notes

PROJECT: PROJ. NO.:

SHEET

Certain Teed Corporation-New Manufacturing Plant & Offices

LOCATION: Former Railroad Yard Area (Subparcel 1)-Union Ship Canal

City of Buffalo, Erie County, New York

DEPTH	PID	SOIL OR ROCK	NOTES	
FT.	READING	CLASSIFICATION		
	BKG	TOPSOIL and SLAG		
2	-	Reddish Brown-Gray Cinders and Foundry Sand (moist, FILL)		
		Red-Brown SLAG and f-c Sand, tr. cinders (wet, FILL)		
4				
		Boring Complete at 4.0'	Free Standing Water	
6			Encountered at 1.5 at	_
			Boring Completion	-
8				_
10				-
				_
12				_
			MSA Passport	-
14			Photoionization	
			Detector (PID) used expressed in	-
16				
			parts-per-million (PPM)	-
18			BKG= Background	-
				-
20	1			
	-			-
22	4			-
				-
24	4			
	4			-
26	4			•
*********	4			-
28	4			٠
	4			-
30	4			•
	4			
32				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

DRILLER:

M.Matthies

DRILL RIG TYPE:

SYMCO 2500

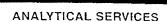
CLASSIFIED BY: C.Guzzetta

Environmental Specialist

METHOD OF INVESTIGATION:

## APPENDIX B

PSC ANALYTICAL SERVICES LABORATORY ANALYTICAL REPORT



## Certificate of Analysis

#### **CLIENT INFORMATION**

LABORATORY INFORMATION

Attention:

Chuck Guzzetta

Empire Geo-Services Inc.

Client Name: Project:

BEU-03-041

Project Desc:

901 Fuhrman Blvd.

Address:

5167 South Park Ave.

Hamburg, NY

14075

Fax Number:

716-649-8051 Phone Number: 716-649-8110 Contact:

Mike Challis, B.Sc, C.Chem.

Project:

AN031731

Date Received:

26-Dec-2003

Date Reported:

08-Jan-2004

Submission No.:

3L1032

Sample No.:

078091-078093

NOTES:

"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available

LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33

Solids data is based on dry weight except for biota analyses.

Organic analyses are not corrected for extraction recovery standards except for isotope

dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

The enclosed copy of the Chain of Custody Record may contain information necessary for the

interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

(1) Outside of Control Limits

Certified by: \_\_\_\_\_

Page 1 of 10

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 078091 03 24-Dec-2003	Blank Spike 078091 03 24-Dec-2003	% Recovery 078091 03 24-Dec-2003	Composite Sample #1 078092 03 24-Dec-2003	Composite Sample #1 078092 03 24-Dec-2003 Duplicate
Soil pH measured in water			, <b>-</b>	-	-	10.19	10.16
Cyanide total	0.100	mg/kg	<	2.6	100	3.0	-
Mercury	0.04	mg/kg	<	1.0	100	0.25	-
Arsenic	1.0	mg/kg	<	25	99	16	-
Barium	0.50	**	<	51	100	290	-
Cadmium	0.50	**	<	25	99	6.0	-
Chromium	0.50	17	<	50	100	28	-
Lead	1.0	11	<	49	99	120	-
Selenium	1.0	17	<	25	99	<	-
Silver	0.50	11	<	24	97	<	-

pH Analysis by 9045C Cyanide Analysis by 9012A Mercury Analysis by 7471A Metals Analysis by 6010B

Page 5

Date	Client ID: Lab No.: e Sampled:		Method Blank 078091 03 24-Dec-2003	Blank Spike 078091 03 24-Dec-2003	% Recovery 078091 03 24-Dec-2003	Composite Sample #1 078092 03 24-Dec-2003
Component	MDL	Units				
Aldrin	0.004	ug/gm	<	0.049	82	<
a-BHC	0.003	17	<	0.044	73	<
b-BHC	0.005	11	<	0.048	80	<
g-BHC (Lindane)	0.002	37	<	0.046	77 25	<
d-BHC	0.004	17	<	0.051	85	<
a-Chlordane	0.005	**	<	0.058	96	<
g-Chlordane	0.006		<	0.052	87	<
Isodrin	0.004	17	<	0.048	80	< <
p,p'-DDD	0.006	" "	<	0.050	83	<
p,p'-DDE	0.004	"	<	0.050	83	<
p,p'-DDT	0.009	"	<	0.061	100 81	<
Dieldrin	0.006	"	<	0.049	87	<
a-Endosulfan	0.003	,,	< <	0.052 0.054	91	<
b-Endosulfan	0.008	**	<	0.053	88	<
Endosulfan Sulfate	0.005		<	0.053	89	. <
Endrin	0.003	**	<	0.053	96	<
Endrin Ketone	0.005	n	<	0.037	55	<
Endrin Aldehyde	0.004 0.004	74	<	0.033	82	<
Heptachlor		"	<	0.049	82	<
Heptachlor Epoxide	0.003 0.025	71	<	0.27	110	<
Methoxychlor	0.023	н	<	0.11	89	<
Mirex	0.100	**	<	NS	-	<
Toxaphene	0.100			145		•
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			51	53	53	50
Decachlorobiphenyl			79	86	86	74
Aroclor-1016	0.038	ug/gm	<	0.44	110	<
Aroclor-1221	0.041	**	<	NS	-	< -
Aroclor-1232	0.038	14	<	NS	-	<
Aroclor-1242	0.050	**	<	NS	-	<
Aroclor-1248	0.031	**	<	NS	-	<
Aroclor-1254	0.059	**	<	NS	-	<
Aroclor-1260	0.031	"	<	0.47	120	<
Aroclor-1262	0.031	"	<	NS	-	0.062
Aroclor-1268	0.049	"	<	NS	-	0.12
Total PCB	0.059	10	<	0.90	110	0.18
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			94	. 105	105	82
Decachlorobiphenyl			104	111	111	105

Pesticide analysis by 8081B PCB Analysis by 8082A

#### PASC - Certificate of Analysis

	Client ID: Lab No.: te Sampled: MDL	Units	Method Blank 078091 03 24-Dec-2003	Blank Spike 078091 03 24-Dec-2003	% Recovery 078091 03 24-Dec-2003	Grab Sample #1, D-17 078093 03 24-Dec-2003
Component	MDL	Omis				
Acetone	0.020	mg/kg	<	0.049	78	0.071
Acrolein	0.010	19	<	0.057	92	< 0.015
Acrylonitrile	0.010	**	<	0.051	82	< 0.015
Benzene	0.001	1.0	<	0.057	91	< 0.002
Bromoform	0.001	ø	<	0.053	85	< 0.002
Bromomethane	0.006	10	<	0.048	76	< 0.009
2-Butanone	0.005	10	<	0.056	89	<0.008
Carbon Disulfide	0.001	58	<	0.049	78	0.008
Carbon Tetrachloride	0.001	11	<	0.058	93	< 0.002
Chlorobenzene	0.001	ti	<	0.054	87	< 0.002
Chlorodibromomethane	0.001	71	<	0.053	85	< 0.002
Chloroethane	0.001	*1	<	0.068	110	< 0.002
Chloroform	0.001	н	<	0.056	.89	< 0.002
Chloromethane	0.001	#1	<	0.066	110	0.002
1,2-Dichlorobenzene	0.001	H	<	0.050	79	< 0.002
1,3-Dichlorobenzene	0.001	**	<	0.052	84	< 0.002
1,4-Dichlorobenzene	0.001	n	<	0.051	82	< 0.002
Dichlorobromomethane	0.001	Ħ	<	0.056	89	< 0.002
1,1-Dichloroethane	0.001		<	0.056	90	< 0.002
1,2-Dichloroethane	0.001	**	<	0.054	86	< 0.002
1,1-Dichloroethene	0.001	1*	<	0.057	91	< 0.002
Dichloromethane	0.020	17	<	0.058	93	< 0.030
Methyl-t-butylether	0.001	10	<	NS	-	< 0.002
Ethylene Dibromide	0.001	17	<	0.051	82	< 0.002
1,2-Dibromo-3-Chloropropane	0.005	11	<	0.047	76	< 0.008
cis-1,2-Dichloroethene	0.001	18	<	0.058	93	< 0.002
trans-1,2-Dichloroethene	0.001	11	<	0.056	90	< 0.002
1,2-Dichloropropane	0.001	**	<	0.055	88	< 0.002
cis-1,3-Dichloropropene	0.001	**	<	0.056	89	< 0.002
trans-1,3-Dichloropropene	0.001	*1	<	0.049	78	< 0.002
Ethylbenzene	0.001	*1	<	0.055	88	< 0.002
2-Hexanone	0.005	+1	<	0.052	83	< 0.008
4-Methyl-2-Pentanone	0.005	*1	<	0.054	86	< 0.008
Styrene	100.0	н	<	0.058	93	< 0.002
1,1,1,2-Tetrachloroethane	0.001	11	<	0.054	86	< 0.002
1,1,2,2-Tetrachloroethane	0.001	**	<	0.049	79	< 0.002
Tetrachloroethene	0.001	"	<	0.055	88	< 0.002
Toluene	0.001	м	<	0.054	87	0.001
1,1,1-Trichloroethane	0.001	Ħ	<	0.057	91	< 0.002
1,1,2-Trichloroethane	0.001	19	<	0.052	83	< 0.002
Trichloroethene	0.001	**	<	0.057	92	< 0.002
Trichlorfluoromethane	0.001	н	<	0.057	91	< 0.002
Vinyl Chloride	0.001	н	<	0.072	120	< 0.002
m&p-Xylene	0.001		<	0.11	90	< 0.002
o-Xylene	0.001		<	0.054	87	< 0.002
Isopropylbenzene	0.001		<	0.050	80	< 0.002
1 17						
Surrogate Recoveries		%				
d4-1,2-Dichloroethane			72	68	68	68
d8-Toluene			77	69	69	76
Bromofluorobenzene			81	74	74	77
d10-Ethylbenzene			91	90	90	68

Client:Empire Geo-Services Inc. Project:BEU-03-041

SVOC Analysis by 8270C	Client ID: Lab No.:		Method Blank 078091 03	Blank Spike 078091 03	% Recovery 078091 03	Blank Spike Recovery 078091 03	% Recovery 078091 03
	Date Sampled: MDL	Units	24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003
Component	MDL	Omts					
Phenol	0. 26	mg/kg	< 0.52	9.9	99	9.5	95
Bis(2-chloroethyl)ether	0.18	17	< 0.36	NS	-	NS	-
2-Chlorophenol	0.48	11	< 0.96	10	100	9.9	99
1,3-Dichlorobenzene	0.20	11	< 0.40	NS	-	NS	-
1,4-Dichlorobenzene	0.20	17	< 0.40	3.8	76	4.0	79
1,2-Dichlorobenzene	0.20	12	< 0.40	NS	~	NS	•
Bis(2-chloroisopropyl)ether	0.15	. #	< 0.30	NS	-	NS	-
Hexachloroethane	0.20	57	< 0.40	NS	-	NS	-
N-Nitroso-di-N-Propylamine	0.21	11	< 0.42	4.3	85	4.4	89
Nitrobenzene	0.20	11	< 0.40	NS	-	NS	
Isophorone	0.40	19	<0.80	NS	-	NS	• ,
2-Nitrophenol	0.14	**	<0.28	NS	=	NS	-
2,4-Dimethylphenol	0.17	11	< 0.34	NS	-	NS	-
Bis(2-chloroethoxy)methane		"	< 0.26	NS	-	NS	-
2,4-Dichlorophenol	0.15	14	< 0.30	NS	-	NS	- 02
1,2,4-Trichlorobenzene	0.20	10	< 0.40	3.9	79	4.1	82
Naphthalene	0.09	14	< 0.18	NS	-	NS	-
Hexachlorobutadiene	0.20	**	< 0.40	NS	-	NS 8.9	-
4-Chloro-3-Methylphenol	0.15	11	< 0.30	9.7	97	NS	89
Hexachlorocyclopentadiene		**	<0.40	NS	-	NS NS	-
2,4,6-Trichlorophenol	0.12	**	<0.24	NS	-	NS NS	-
2-Chloronaphthalene	0.34	**	< 0.68	NS	-	NS	•
Acenaphthylene	0.04	**	<0.08	NS NS		NS	-
Dimethyl phthalate	0.11		<0.22	NS NS	-	NS	-
2,6-Dinitrotoluene	0.06	"	< 0.12	NS 4.5	90	4.4	88
Acenaphthene	0.07	17	<0.14 <0.96	NS	<del>-</del>	NS	-
2,4-Dinitrophenol	0.48		<0.96 <0.44	4.7	93	4.4	89
2,4-Dinitrotoluene	0.22	19	<0.44	8.8	88	7.3	73
4-Nitrophenol	0.17	11	<0.12	NS	-	NS	,,
Fluorene	0.06	19	<0.12	NS.	_	NS	-
4-Chlorophenylphenylether		**	<0.18	NS		NS	-
Diethyl phthalate	0.11	**	< 0.32	. NS	_	NS	_
4,6-Dinitro-2-methylphenol	0.16 0.19	10	< 0.32	NS	-	NS	-
N-Nitrosodiphenylamine		**	< 0.08	NS		NS	-
4-Bromophenylphenylether	0.04	**	< 0.40	NS	<u>-</u>	NS	-
Hexachlorobenzene	0.20	11	< 0.62	9.9	99	8.7	86
Pentachlorophenol	0.03	**	< 0.02	NS	-	NS	
Phenanthrene	0.03	**	< 0.12	NS	_	NS	-
Anthracene	0.11	**	< 0.22	NS	_	NS	-
Di-n-butyl phthalate	0.05	11	< 0.10	NA	<	NA	< '
Fluoranthene	0.05	11	<0.12	4.5	90	4.4	87
Pyrene	0.00	11	< 0.20	NS	_	NS	_
Benzyl butyl phthalate	0.10	**	< 0.68	NS	-	NS	-
3,3-Dichlorobenzidine	0.34	12	<0.03	NS	-	NS	-
Benzo(a)anthracene	0.05		<0.10	NS	_	NS	-
Chrysene			<1.5	NS	_	NS	-
Bis(2-ethylhexyl)phthalate	0.73	**	<0.22	NS	_	NS	-
Di-n-octyl phthalate	0.11		< 0.22	NS	-	NS .	_
Benzo(b)fluoranthene	0.04		<0.08	NS	_	NS	-
Benzo(k)fluoranthene	0.04		-0.00			•	

Client:Empire Geo-Services Inc. Project:BEU-03-041

SVOC Analysis by 8270C . Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 078091 03 24-Dec-2003	Blank Spike 078091 03 24-Dec-2003	% Recovery 078091 03 24-Dec-2003	Blank Spike Recovery 078091 03 24-Dec-2003	% Recovery 078091 03 24-Dec-2003
D(-)	0.05	mg/kg	< 0.10	NS	-	NS	-
Benzo(a)pyrene	0.06	1116/16	< 0.12	NS	**	NS	-
Indeno(1,2,3-cd)pyrene	0.06	**	<0.12	NS	-	NS	-
Dibenzo(a,h)anthracene	0.05	*1	< 0.10	NS	-	NS	-
Benzo(ghi)perylene	0.05		00				
Surrogate Recoveries		%					
2-Fluorophenol			73	80	80	67	67
d5-Phenol			92	90	90	82	82
d5-Nitrobenzene			79	78	78	71	71
2-Fluorobiphenyl			92	89	89	82	82
2,4,6-Tribromophenol			92	92	92	87	87
d14-p-Terphenyl			106	93	93	89	89
d14-p-101phony1							
N-Nitrosodimethylamine	1.0	mg/kg	<2.0	NS	-	NS	-
Aniline	0.50	"	<1.0	NS	-	NS	-
Benzyl alcohol	0.50	47	<1.0	NS	-	NS	-
Carbazole	0.50	**	<1.0	NS	-	NS	-
2-Methylphenol	0.50	17	<1.0	NS		NS	-
3&4-Methylphenol	0.50	**	<1.0	NS	-	NS	-
Benzoic acid	0.50	74	<1.0	NS	-	NS	-
4-Chloroaniline	0.50	**	<1.0	NS	-	NS	-
2-Methylnaphthalene	0.34	**	< 0.68	NS	-	NS	
2,4,5-Trichlorophenol	0.10	**	< 0.20	NS	-	NS	-
2-Nitroaniline	0.50	н	<1.0	NS	-	NS	-
3-Nitroaniline	0.50	17	<1.0	NS	~	NS	-
Dibenzofuran	0.50	11	<1.0	NS	-	NS	-
Benzidine	0.50	17	<1.0	NS	-	NS	-
4-Nitroaniline	0.50	28	<1.0	NS	-	NS	-

SVOC Analysis by 8270C	Client ID: Lab No.:		Composite Sample #1 078092 03
			24-Dec-2003
	Date Sampled:	** **	24-000-2003
Component	MDL	Units	
Discussion	0. 26	mg/kg	< 0.52
Phenol	0.18	11 67 66	< 0.36
Bis(2-chloroethyl)ether	0.48	11	< 0.96
2-Chlorophenol		17	< 0.40
1,3-Dichlorobenzene	0.20	,,	
1,4-Dichlorobenzene	0.20	.,	< 0.40
1,2-Dichlorobenzene	0.20	19	< 0.40
Bis(2-chloroisopropyl)ether	0.15		< 0.30
Hexachloroethane	0.20	"	< 0.40
N-Nitroso-di-N-Propylamin		"	< 0.42
Nitrobenzene	0.20		< 0.40
Isophorone	0.40	Ħ	< 0.80
2-Nitrophenol	0.14	н	< 0.28
2,4-Dimethylphenol	0.17	н	< 0.34
Bis(2-chloroethoxy)methan	e 0.13	. **	< 0.26
2,4-Dichlorophenol	0.15	18	< 0.30
1,2,4-Trichlorobenzene	0.20	19	< 0.40
Naphthalene	0.09	17	1.1
Hexachlorobutadiene	0.20	**	< 0.40
4-Chloro-3-Methylphenol	0.15	**	< 0.30
Hexachlorocyclopentadiene	0.20	H	< 0.40
2,4,6-Trichlorophenol	0.12	*	< 0.24
2-Chloronaphthalene	0.34	*1	< 0.68
Acenaphthylene	0.04	1r	< 0.08
Dimethyl phthalate	0.11	19	< 0.22
2,6-Dinitrotoluene	0.06	11	< 0.12
	0.07	**	0.14
Acenaphthene	0.48	***	< 0.96
2,4-Dinitrophenol	0.22	*	< 0.44
2,4-Dinitrotoluene	0.17	н	< 0.34
4-Nitrophenol		н	0.19
Fluorene	0.06	**	< 0.19
4-Chlorophenylphenylethe		17	
Diethyl phthalate	0.11	12	<0.22
4,6-Dinitro-2-methylpheno		10	< 0.32
N-Nitrosodiphenylamine	0.19	**	< 0.38
4-Bromophenylphenylethe			<0.08
Hexachlorobenzene	0.20	**	<0.40
Pentachlorophenol	0.31	*	< 0.62
Phenanthrene	0.03	n	1.5
Anthracene	0.06	11	0.33
Di-n-butyl phthalate	0.11		< 0.22
Fluoranthene	0.05	1#	2.1
Pyrene	0.06	**	1.5
Benzyl butyl phthalate	0.10	, PI	< 0.20
3,3-Dichlorobenzidine	0.34		< 0.68
Benzo(a)anthracene	0.05	**	1.0
Chrysene	0.06	**	1.1
-		11	<1.5
Bis(2-ethylhexyl)phthalate	0.11	14	<0.22
Di-n-octyl phthalate	0.04	71	1.2
Benzo(b)fluoranthene		14	0.58
Benzo(k)fluoranthene	0.04		0.50

SVOC Analysis by 8270C  Component	Client ID: Lab No.: Date Sampled: MDL	Units	Composite Sample #1 078092 03 24-Dec-2003
Benzo(a)pyrene	0.05	mg/kg	0.88
Indeno(1,2,3-cd)pyrene	0.06	и	0.77
Dibenzo(a,h)anthracene	0.06	п	0.14
Benzo(ghi)perylene	0.05	*	0.62
Surrogate Recoveries		%	
2-Fluorophenol			51
d5-Phenol			65
d5-Nitrobenzene			44
2-Fluorobiphenyl			68
2,4,6-Tribromophenol			84
d14-p-Terphenyl			93
N-Nitrosodimethylamine	1.0	mg/kg	<2.0
Aniline	0.50	**	<1.0
Benzyl alcohol	0.50	"	<1.0
Carbazole	0.50	н	<1.0
2-Methylphenol	0.50	M	<1.0
3&4-Methylphenol	0.50	11	<1.0
Benzoic acid	0.50	11	<1.0
4-Chloroaniline	0.50	19	<1.0
2-Methylnaphthalene	0.34	£#	1.3
2,4,5-Trichlorophenol	0.10		< 0.20
2-Nitroaniline	0.50	11*	<1.0
3-Nitroaniline	0.50	17	<1.0
Dibenzofuran	0.50	11	<1.0
Benzidine	0.50	t)	<1.0
4-Nitroaniline	0.50	**	<1.0

Batch Code:	0102VPH1
Soil pH measured in water	078092 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02
Date / Toparou.	
Batch Code:	0105VPC1
Cyanide total	078091 03
<u> </u>	078092 03
Date Analysed:	04/01/07
Date Prepared:	04/01/05
Batch Code:	0105MBS1
Mercury	078091 03
	078092 03
Date Analysed:	04/01/06
Date Prepared:	04/01/05
Batch Code:	0106VPX1
Arsenic	078091 03
	078092 03
Date Analysed:	04/01/06
Date Prepared:	04/01/06
	0105MG01
Batch Code:	078091 03
Aldrin	078091 03
	04/01/07
Date Analysed:	04/01/07
Date Prepared:	04/01/03
Batch Code:	0105MG01
Aroclor-1016	078091 03
	078092 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
	010508401
Batch Code:	0105SM01 078091 03
Acetone	078093 03
	04/01/05
Date Analysed:	04/01/05
Date Prepared:	04/01/03
Batch Code:	. 0105SM01
cis-1,2-Dichloroethene	078091 03
	078093 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
n car Colle	0102SPX1
Batch Code:	078091 03
Phenol	078092 03
	010032 03

Date Analysed:	04/01/06
Date Prepared:	04/01/02
Batch Code:	0102SPX1
2-Chloronaphthalene	078091 03
•	078092 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02
Batch Code:	0102SPX1
Di-n-butyl phthalate	078091 03
21.1.1.1.3.1	078092 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02
Batch Code:	0102SPX1
N-Nitrosodimethylamine	078091 03
.,	078092 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02
*	

CHAIN OF CUSTODY

	ANALYTIC 3555 North Si	ANALYTICAL SERVICES 5555 North Service Road Burlington Ontario 171, 5H7		Toll	Toll Free: 1-800-668-0639 Tel: (905) 332-8788 Fax: (905) 332-9169	168-0639 132-8788 132-9169		ANAL	Pe ANALYSIS REQUESTED	Page	Jo _	
CLIENT	r LION	Company Name: Emprile Geo Project Manager: CHARLES   Address: S/67 Scrttl   Address: HAMBIRE / NA	1 2	3 2 3	B. GLAZETA PARK ALTINE  OU HAKK 140755	25.		100 2925 1, 211128 (CAMMUNICINO) MMINING (SIN 257	58104;	SUNDAT MOJ SINY	noitsnim	(umoux
	ř	Phone #:Sampled by:	CANTETTO (	Fax#:	CH.		3910L/5	DIN (VVE	Hd > 's:ens	910 70	stnoo to lev	vel of conts w, high, un
Philip Use Only	Comp	Field Sample ID Countrestre Sauna */	# Bottles 2-8-62 7-8-62	Matrix Sol	Date /2-24-63 /2-24-43	33091W		₹11/ / \	X Y	<u> </u>	97	01) 7
TAT (Turnaround Time)	(emi)	PROJECT INFORMATION	Z	was a constant of the second	SPECIAL	SPECIAL DETECTION LIMITS	LIMITS		REMARKS	0		
RUSH TAT MUST HAVE PRIOR APPROVAL	HAVE:	Project #: BEU-C3-C4O	3-040 PAINE ST	72	MISA 🗆			:	\$	ASP Brejed	<u> </u>	
please contact Lab	ا لإلاا	PO#:			SPECIAL	REQUIREM	SPECIAL REQUIREMENTS / REGULATIONS	JLATIONS				
RUSH 5 Business Days RUSH 2 Business Days RIGH 1 Business Days	Jays C	Philip Project #:				. [					Account of the second control of the second	
Other Business Days	ys,	Philip Contact:							Rec'd By:			
Client Signature: (	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	16 11 1 1 1 2 1 2 2 1 2 2 2 2 2 2 2 2 2		Received By Affiliation: Date/Time:		W X W	07.30	Aug	Date/Time			
FELC	CLIENT							SE	E OVER FOR	SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS	LING INSTRUC	CTIONS



### Certificate of Analysis

#### **CLIENT INFORMATION**

LABORATORY INFORMATION

Attention:

Chuck Guzzetta

Client Name:

Empire Geo-Services Inc.

Project:

BEU-03-040

Project Desc:

Hanna Furnace Site

Address:

5167 South Park Ave.

Hamburg, NY

14075

Fax Number:

716-649-8051

Phone Number: 716-649-8110

Contact:

Mike Challis, B.Sc, C.Chem.

Project:

AN031794

Date Received:

30-Dec-2003

Date Reported:

08-Jan-2004

Submission No.: 3L1059

Sample No.:

078170-078172

NOTES:

"-' = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available

LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33

Solids data is based on dry weight except for biota analyses.

Organic analyses are not corrected for extraction recovery standards except for isotope

dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

The enclosed copy of the Chain of Custody Record may contain information necessary for the

interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

- (1) Outside of Control Limits Endrin Aldehyde
- (2) Dilution of 5 times run
- (3) Surrogate Recovery Outside Acceptable Limits

Certified by:

Page 1 of 10

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1/8/04

Client ID:         Blank         Spike         Recovery         Composite)           Lab No.:         078170 03         078170 03         078170 03         078171 03           Date Sampled:         29-Dec-2003         29-Dec-2003         29-Dec-2003         29-Dec-2003           MDL         Units	8.91	0.100 mg/kg < 2.6 100 1.0	0.04 mg/kg < 1.0 100 0.090	(2)	1.0 mg/kg < 25 100 41	. < 52 100	" < 26 100	100	" < 51 100	" < 26 100	100
C-Z (Composite) 078171 03 5 29-Dec-2003 Duplicate	3	3	0.090		•		•	•	,	•	•
C-Z (Composite) 078171 03 29-Dec-2003 M. Spike	•				•	,	•	•	,	•	1
C-Z (Composite) 078171 03 29-Dec-2003 MS % Rec.	1	•	100		,	,	•		•	,	

pH Analysis by 9045C Cyanide Analysis by 9012A Mercury Analysis by 7471A Metals Analysis by 6010B

	Client ID: Lab No.: Sampled: MDL	Units	Method Blank 078170 03 29-Dec-2003	Blank Spike 078170 03 29-Dec-2003	% Recovery 078170 03 29-Dec-2003	C-Z (Composite) 078171 03 29-Dec-2003
Component						(3)
			(1)	0.040	82	(3)
Aldrin	0.004	ug/gm	<	0.049	73	0.004
a-BHC	0.003	47	<	0.044	80	0.004
b-BHC	0.005	n	<	0.048	77	<.
g-BHC (Lindane)	0.002	H	<	0.046	85	<
d-BHC	0.004	**	<	0.051	96	<
a-Chlordane	0.005	**	<	0.058	90 87	<
g-Chlordane	0.006	17	<	0.052	80	<
Isodrin	0.004	*	<	0.048	83	<
p,p'-DDD	0.006	**	<	0.050	83	<
p,p'-DDE	0.004	11	<	0.050		<
p,p'-DDT	0.009	19	<	0.061	100 81	<
Dieldrin	0.006	"	<	0.049	87	<
a-Endosulfan	0.003	17	<	0.052		<
b-Endosulfan	0.008	11	<	0.054	91	<
Endosulfan Sulfate	0.005	19	<	0.053	88	<
Endrin	0.003	19	<	0.053	89	<
Endrin Ketone	0.005	"	<	0.057	96	. <
Endrin Aldehyde	0.004	**	< .	0.033	55	<
Heptachlor	0.004	**	<	0.049	82	<
Heptachlor Epoxide	0.003	**	<	0.049	82	<
Methoxychlor	0.025	11	<	0.27	110	<
Mirex	0.007	17	<	0.11	89	<
Toxaphene	0.100	17	<	NS	•	
<b>.</b>		%				
Surrogate Recoveries		,,	51	53	53	48
4,4'-Dibromooctaflourobiphenyl			79	86	86	71
Decachlorobiphenyl			.,			
Aroclor-1016	0.038	ug/gm	<	0.44	110	<
Aroclor-1010 Aroclor-1221	0.041	*	<	NS	-	<
Aroclor-1232	0.038	• н	<	NS	<b>-</b>	<
Aroclor-1242	0.050	19	<	NS	-	. <
Aroclor-1248	0.031	**	<	NS	-	<
Aroclor-1254	0.059	•	<	NS	**	<
	0.031	19	<	0.47	120	0.050
Aroclor-1260 Aroclor-1262	0.031	n	<	NS	-	<
	0.049	19	<	NS	-	<
Aroclor-1268 Total PCB	0.059	19	<	0.90	110	<
Total I CD						
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			94	105	105	70
Decachlorobiphenyl			104	111	111	87

Pesticide analysis by 8081B PCB Analysis by 8082A

#### PASC - Certificate of Analysis

VOC Analysis by 8260B	Client ID:		Method	Blank	%	P-1 (Grab
	w w 16.7		Blank 078170 03	Spike 078170 03	Recovery 078170 03	Sample #2) 078172 03
	Lab No.:					29-Dec-2003
D	ate Sampled:		29-Dec-2003	29-Dec-2003	29-Dec-2003	29-1000-2003
Component	MDL	Units				
					<b>7</b> 0	_
Acetone	0.020	mg/kg	<	0.049	78	<
Acrolein	0.010	14	<	0.057	92	<
Acrylonitrile	0.010	"	<	0.051	82	<
Benzene	0.001	**	< '	0.057	91	<
Bromoform	0.001	**	<	0.053	85	<
Bromomethane	0.006	11	<	0.048	76	<
2-Butanone	0.005	"	<	0.056	89	<
Carbon Disulfide	100.0	>+	<	0.049	78	0.002
Carbon Tetrachloride	0.001	17	<	0.058	93	<
Chlorobenzene	100.0	"	<	0.054	87	<
Chlorodibromomethane	0.001	н	<	0.053	85	<
Chloroethane	0.001	73	<	0.068	110	<
Chloroform	0.001	19	<	0.056	89	<
Chloromethane	0.001	**	<	0.066	110	<
1,2-Dichlorobenzene	0.001	**	<	0.050	79	<
1,3-Dichlorobenzene	0.001	12	<	0.052	84	<
1,4-Dichlorobenzene	0.001	**	<	0.051	82	<
Dichlorobromomethane	0.001	n	<	0.056	89	<
1,1-Dichloroethane	0.001	H4.	<	0.056	90	<,
1,2-Dichloroethane	0.001	**	<	0.054	86	<
1,1-Dichloroethene	0.001	20	<	0.057	91	<
Dichloromethane	0.020	10	<	0.058	93	<
Methyl-t-butylether	0.001	**	<	NS	-	<
Ethylene Dibromide	0.001	12	<	0.051	82	<
1,2-Dibromo-3-Chloropropand		17	<	0.047	76	<
cis-1,2-Dichloroethene	0.001	**	<	0.058	93	<
trans-1,2-Dichloroethene	0.001	н	<	0.056	90	<
-	0.001	*	<	0.055	88	<
1,2-Dichloropropane cis-1,3-Dichloropropene	0.001	17	· <	0.056	89	<
trans-1,3-Dichloropropene	0.001	н	<	0.049	78	< .
	100.0	19	<	0.055	88	<
Ethylbenzene 2-Hexanone	0.005	**	<	0.052	83	<
	0.005	**	. <	0.054	86	<
4-Methyl-2-Pentanone	0.003	12	<	0.058	93	<
Styrene 1,1,1,2-Tetrachloroethane	0.001	,,	<	0.054	86	<
1,1,2,2-Tetrachloroethane	0.001	19	<	0.049	79	<
* * *	0.001	**	<	0.055	88	<
Tetrachloroethene	0.001	**	. <	0.054	87	<
Toluene	0.001	**	<	0.057	91	<
1,1,1-Trichloroethane	0.001	*	<	0.052	83	<
1,1,2-Trichloroethane	0.001	H	<	0.057	92	<
Trichloroethene		,	<	0.057	91	<
Trichlorfluoromethane	100.0	**	<	0.072	120	<
Vinyl Chloride	0.001	· •	<	0.11	90	<
m&p-Xylene	0.001	,,	<	0.054	87	<
o-Xylene	0.001	,,			80	<
Isopropylbenzene	0.001	"	<	0.050	80	
		%				
Surrogate Recoveries		70	72	68	68	67
d4-1,2-Dichloroethane			77	69	69	7 <del>9</del>
d8-Toluene			81	74	74	73
Bromofluorobenzene				90	90	84
d10-Ethylbenzene			91	70	<i>5</i> 0	0,7

Client:Empire Geo-Services Inc. Project:BEU-03-040

SVOC Analysis by 8270C	Client ID: Lab No.:		Method Blank 078170 03	Method Blank 078170 03	Method Blank 078170 03	Method Blank 078170 03	Method Blank 078170 03
	Date Sampled:		29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003
-	MDL	Units	2, 200 200				
Component	MDL	Cinto					
Dhamai	0. 26	mg/kg	< 0.52	9.9	99	9.5	95
Phenol Bis(2-chloroethyl)ether	0.18	#	< 0.36	NS	-	NS	-
2-Chlorophenol	0.48	n	< 0.96	10	100	9.9	99
1,3-Dichlorobenzene	0.20	17	< 0.40	NS	-	NS	-
1,4-Dichlorobenzene	0.20	79	< 0.40	3.8	76	4.0	79
1,2-Dichlorobenzene	0.20	**	< 0.40	NS	-	NS	-
Bis(2-chloroisopropyl)ether	0.15	**	< 0.30	NS	-	NS	~
Hexachloroethane	0.20	77	< 0.40	NS	-	NS	-
N-Nitroso-di-N-Propylamin		Ð	< 0.42	4.3	85	4.4	89
Nitrobenzene	0.20	**	< 0.40	NS	-	NS	-
Isophorone	0.40	Ħ	< 0.80	NS	-	NS	-
2-Nitrophenol	0.14	н	< 0.28	NS	-	NS	-
2,4-Dimethylphenol	0.17	H	< 0.34	NS	-	NS	-
Bis(2-chloroethoxy)methan		н	< 0.26	NS	-	NS	-
2,4-Dichlorophenol	0.15	11	< 0.30	NS	-	NS	-
1,2,4-Trichlorobenzene	0.20	**	< 0.40	3.9	79	4.1	82
Naphthalene	0.09	n	< 0.18	NS	-	NS	-
Hexachlorobutadiene	0.20	H	< 0.40	NS	-	NS	-
4-Chloro-3-Methylphenol	0.15	н	< 0.30	9.7	97	8.9	89
Hexachlorocyclopentadiene		11	< 0.40	NS	~	NS	, <b>-</b>
2,4,6-Trichlorophenol	0.12	**	< 0.24	NS	-	NS	•
2-Chloronaphthalene	0.34	19	< 0.68	NS	-	NS	-
Acenaphthylene	0.04	**	< 0.08	NS	•	NS	-
Dimethyl phthalate	0.11	19	< 0.22	NS	-	NS	-
2,6-Dinitrotoluene	0.06	. **	< 0.12	NS	-	NS	-
Acenaphthene	0.07	17	< 0.14	4.5	90	4.4	88
2,4-Dinitrophenol	0.48	**	< 0.96	NS	-	NS	-
2,4-Dinitrotoluene	0.22	**	< 0.44	4.7	93	4.4	89
4-Nitrophenol	0.17	11	< 0.34	8.8	88	7.3	73
Fluorene	0.06	17	< 0.12	NS	-	NS	-
4-Chlorophenylphenylether		**	< 0.18	NS	-	NS	-
Diethyl phthalate	0.11	**	< 0.22	NS	-	NS	-
4,6-Dinitro-2-methylpheno		24	< 0.32	NS	-	NS	-
N-Nitrosodiphenylamine	0.19	н	< 0.38	NS	-	NS	-
4-Bromophenylphenylether		**	< 0.08	NS	-	NS	-
Hexachlorobenzene	0.20		< 0.40	NS	-	NS	-
Pentachlorophenol	0.31	**	< 0.62	9.9	99	8.7	86
Phenanthrene	0.03	н	< 0.06	NS	-	NS	-
Anthracene	0.06	н	< 0.12	NS	-	NS	-
Di-n-butyl phthalate	0.11	**	< 0.22	NS	-	NS	-
Fluoranthene	0.05	н	< 0.10	NS	-	NS	-
	0.06	н	< 0.12	4.5	90	4.4	87
Pyrene	0.10	**	< 0.20	NS	-	NS	-
Benzyl butyl phthalate	0.34	11	<0.68	NS	-	NS	-
3,3-Dichlorobenzidine	0.05	19	< 0.10	NS		NS	-
Benzo(a)anthracene	0.05	н	<0.12	NS	_	NS	-
Chrysene	0.06	n	<1.5	NS	-	NS	-
Bis(2-ethylhexyl)phthalate	0.73	10	<0.22	NS	-	NS	-
Di-n-octyl phthalate	0.11	11	< 0.08	NS	_	NS	-
Benzo(b)fluoranthene	0.04	**	<0.08	NS	<u>.</u>	NS	-
Benzo(k)fluoranthene	. 0.04		0.00				

SVOC Analysis by 8270C	Client ID: Lab No.: Date Sampled:		Method Blank 078170 03 29-Dec-2003	Method Blank 078170 03 29-Dec-2003	Method Blank 078170 03 29-Dec-2003	Method Blank 078170 03 29-Dec-2003	Method Blank 078170 03 29-Dec-2003
Component	MDL	Units					
Benzo(a)pyrene	0.05	mg/kg	< 0.10	NS	-	NS	•
Indeno(1,2,3-cd)pyrene	0.06		< 0.12	NS	-	NS	· -
Dibenzo(a,h)anthracene	0.06	**	< 0.12	NS	-	NS	-
Benzo(ghi)perylene	0.05	**	< 0.10	NS	-	NS	~
Surrogate Recoveries		%					
2-Fluorophenol			73	80	80	67	67
d5-Phenol			92	90	90	82	82
d5-Nitrobenzene			79	78	78	71	71
2-Fluorobiphenyl			92	89	89	82	82
2,4,6-Tribromophenol			92	92	92	87	87
d14-p-Terphenyl			106	93	93	89	89
N-Nitrosodimethylamine	1.0	mg/kg	<2.0	NS	<u>-</u>	NS	-
Aniline	0.50	"	<1.0	NS	-	NS	-
Benzyl alcohol	0.50	**	<1.0	NS	-	NS	-
Carbazole	0.50	19	<1.0	NS	-	NS	-
2-Methylphenol	0.50	**	<1.0	NS	-	NS	-
3&4-Methylphenol	0.50	11	<1.0	NS	-	NS	-
Benzoic acid	0.50	24	<1.0	NS	-	NS	-
4-Chloroaniline	0.50	**	<1.0	NS	-	NS	-
2-Methylnaphthalene	0.34	n	< 0.68	NS	-	NS	-
2,4,5-Trichlorophenol	0.10	n	< 0.20	NS	-	NS	-
2-Nitroaniline	0.50	H	<1.0	NS	-	NS	-
3-Nitroaniline	0.50	32	<1.0	NS		NS	-
Dibenzofuran	0.50	n	<1.0	NS	-	NS	-
Benzidine	0.50	H	<1.0	NS	-	NS	•
4-Nitroaniline	0.50	**	<1.0	NS	-	NS	

SVOC Analysis by 8270C			C-Z
SVOC Analysis by 02700	Client ID:		(Composite)
	Lab No.:		078171 03
	Date Sampled:		29-Dec-2003
	MDL	Units	
Component	143.033	Cirics	
Phenol	0. 26	mg/kg	< 0.52
Bis(2-chloroethyl)ether	0.18	11	< 0.36
2-Chlorophenol	0.48	11	< 0.96
1,3-Dichlorobenzene	0.20	**	< 0.40
1,4-Dichlorobenzene	0.20	**	< 0.40
1,2-Dichlorobenzene	0.20	**	< 0.40
Bis(2-chloroisopropyl)ether	0.15	17	< 0.30
Hexachloroethane	0.20	**	< 0.40
N-Nitroso-di-N-Propylamine	0.21	**	< 0.42
Nitrobenzene	0.20	**	< 0.40
Isophorone	0.40	*	< 0.80
2-Nitrophenol	0.14	78	< 0.28
2,4-Dimethylphenol	0.17	16	< 0.34
Bis(2-chloroethoxy)methane	0.13	*	< 0.26
2,4-Dichlorophenol	0.15	17	< 0.30
	0.20	**	< 0.40
1,2,4-Trichlorobenzene	0.09	11	< 0.18
Naphthalene	0.20	11	< 0.40
Hexachlorobutadiene	0.15	11	< 0.30
4-Chloro-3-Methylphenol	0.20	17	< 0.40
Hexachlorocyclopentadiene	0.12	17	< 0.24
2,4,6-Trichlorophenol	0.34	17	< 0.68
2-Chloronaphthalene	0.04	14	< 0.08
Acenaphthylene	0.11	14	< 0.22
Dimethyl phthalate	0.06	29	< 0.12
2,6-Dinitrotoluene	0.07	**	< 0.14
Acenaphthene	0.48	н	< 0.96
2,4-Dinitrophenol	0.22	11	< 0.44
2,4-Dinitrotoluene	0.17	17	< 0.34
4-Nitrophenol	0.06	97	< 0.12
Fluorene		"	< 0.18
4-Chlorophenylphenylether	0.11	**	< 0.22
Diethyl phthalate		n	< 0.32
4,6-Dinitro-2-methylphenol	0.19	rt	< 0.38
N-Nitrosodiphenylamine		19	< 0.08
4-Bromophenylphenylether	0.20	19	<0.40
Hexachlorobenzene	0.20	**	<0.62
Pentachlorophenol	0.03	19	0.18
Phenanthrene	0.06	n	<0.12
Anthracene	0.00	17	<0.22
Di-n-butyl phthalate	0.11	*	0.23
Fluoranthene		H	0.29
Pyrene	0.06	19	< 0.20
Benzyl butyl phthalate	0.10	**	< 0.20
3,3-Dichlorobenzidine	0.34	17	0.24
Benzo(a)anthracene	0.05	**	
Chrysene	0.06	,,	0.30
Bis(2-ethylhexyl)phthalate	0.75	,,	<1.5
Di-n-octyl phthalate	0.11	,,	<0.22
Benzo(b)fluoranthene	0.04	"	0.35
Benzo(k)fluoranthene	0.04		0.29

SVOC Analysis by 8270C  Component	Client ID: Lab No.: Date Sampled: MDL	Units	C-Z (Composite) 078171 03 29-Dec-2003
Benzo(a)pyrene	0.05	mg/kg	0.33
Indeno(1,2,3-cd)pyrene	0.06	. н	0.37
Dibenzo(a,h)anthracene	0.06	**	< 0.12
Benzo(ghi)perylene	0.05	**	0.34
Surrogate Recoveries		%	
2-Fluorophenol			44
d5-Phenol			73
d5-Nitrobenzene			52
2-Fluorobiphenyl			78
2,4,6-Tribromophenol			83
d14-p-Terphenyl			91
N-Nitrosodimethylamine	1.0	mg/kg	<2.0
Aniline	0.50	34	<1.0
Benzyl alcohol	0.50	1)	<1.0
Carbazole	0.50	at .	<1.0
2-Methylphenol	0.50	**	<1.0
3&4-Methylphenol	0.50	29	<1.0
Benzoic acid	0.50	**	<1.0
4-Chloroaniline	0.50	19	<1.0
2-Methylnaphthalene	0.34	**	<0.68
2,4,5-Trichlorophenol	0.10	**	< 0.20
2-Nitroaniline	0.50	"	<1.0
3-Nitroaniline	0.50	17	<1.0
Dibenzofuran	0.50	11	<1.0
Benzidine	0.50	17	<1.0
4-Nitroaniline	0.50	79	<1.0

Batch Code:	0102VPH1
Soil pH measured in water	078171 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02
Batch Code:	0105VPC1
Cyanide total	078170 03
Cyamuc total	078171 03
Date Analysed:	04/01/07
Date Prepared:	04/01/05
Date Freparett	
Batch Code:	0105MBS1
Mercury	078170 03
,	078171 03
Date Analysed:	04/01/06
Date Prepared:	04/01/05
<u>-</u>	
Batch Code:	0102VPX3
Arsenic	078170 03
	078171 03
Date Analysed:	04/01/05
Date Prepared:	04/01/02
Batch Code:	0105MG01
Aldrin	078170 03
Aldim	078171 03
Date Analysed:	04/01/07
Date Prepared:	04/01/05
Dato 110paron.	
Batch Code:	0105MG01
Aroclor-1016	078170 03
	078171 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
	0105SM01
Batch Code:	078170 03
Acetone	078170 03
	04/01/05
Date Analysed:	04/01/05
Date Prepared:	04/03/03
Batch Code:	0105SM01
cis-1,2-Dichloroethene	078170 03
	078172 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
m i I Oi In	0102SPX1
Batch Code:	078170 03
Phenol	070170 03

078171 03

04/01/06

Date Analysed:	04/01/06
Date Prepared:	04/01/02
Batch Code:	0102SPX1
2-Chloronaphthalene	078170 03
,	078171 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02
Batch Code:	0102SPX1
Di-n-butyl phthalate	078170 03
	078171 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02
Batch Code:	0102SPX1
N-Nitrosodimethylamine	078170 03
14-14)11 000 011110 11-1	078171 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02

5555 Nort	TICAL SERVICES In Service Road I, Ontario L7L 5H7		Free: 1-800-6 Tel: (905) 3 Fax: (905) 3	332-8788 332-9169	Page of										
CLIENT INFORMATION	Company Name:	- Guzz 57 S.P BURG, 1 I- 8110	19 14 15 Fax #: 2	/ 1075		TEL SOM-CHANTLE		RUCHONOMIED SIMENS	CANAMA LEPA MENCHAN	H/SW	L VOLATILE ORGANIC				Level of contamination
Philip Use Only C	Field Sample ID  - Z (COMPOSITE)  (GIAB SAMPLE)	# Bottles 2-16-22 2-14-22	Matrix SOIL SOIL	Date  2-29-03  72-27-63	Time 5 Pro. [2-2] 144	X	X	Ž X	X 500 X	X	X				
V															
				CDECIAL	DETECTIO	NIIMIT	S			REN	MARKS	7.53	And the second s		
SH 5 Business Days SH 2 Business Days	PROJECT INFORMATI Project #: BEU- 6: Site: HANNA FURA PO#: Philip Quote #: Philip Project #:	3-040		MISA 🗆			makes subsequences vivil	ULATI	ONS		ASF		eure Kaj		
ner Business Days	Philip Contact:  Philip		Received B Affiliation: _ Date/Time:	1105		1					c'd By: <sub>-</sub>				



#### Certificate of Analysis

#### CLIENT INFORMATION

LABORATORY INFORMATION

Attention:

Chuck Guzzetta

Client Name:

Empire Geo-Services Inc.

Project:

BEU-03-040

Project Desc:

Address:

Hanna Furnace Site

5167 South Park Ave.

Hamburg, NY

14075

Fax Number:

716-649-8051 Phone Number: 716-649-8110 Contact:

Mike Challis, B.Sc, C.Chem.

Project:

AN031794

Date Received: Date Reported: 31-Dec-2003 08-Jan-2004

Submission No.: 3L1085

Sample No.:

078303-078305

NOTES:

"-" = not analysed '<' = less than Method Detection Limit (MDL) 'NA' = no data available

LOQ can by determined for all analytes by multiplying the appropriate MDL X 3.33

Solids data is based on dry weight except for biota analyses.

Organic analyses are not corrected for extraction recovery standards except for isotope

dilution methods, (i.e. CARB 429 PAH, all PCDD/F and DBD/DBF analyses)

The enclosed copy of the Chain of Custody Record may contain information necessary for the

interpretation of the data.

Methods used by PSC Analytical Services are based upon those found in 'Standard Methods for the Examination of Water and Wastewater', Twentieth Edition. Other methods are based on the principles of MISA or EPA methodologies. New York State: ELAP Identification Number 10756.

All work recorded herein has been done in accordance with normal professional standards using accepted testing methodologies, quality assurance and quality control procedures except where otherwise agreed to by the client and testing company in writing. Any and all use of these test results shall be limited to the actual cost of the pertinent analysis done. There is no other warranty expressed or implied. Your samples will be retained at PSC Analytical Services for a period of three weeks from receipt of data or as per contract.

#### **COMMENTS:**

- (1) Outside of Control Limits Endrin Aldehyde
- (2) Sample run at a 5 times dilution

Certified by:

Page 1 of 12

### PASC - Certificate of Analysis

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 078303 03 30-Dec-2003	Method Blank 078303 03 30-Dec-2003	Method Blank 078303 03 30-Dec-2003	C-3 (Composite Samp) 078304 03 30-Dec-2003	C-3 (Composite Samp) 078304.03 30-Dec-2003 Duplicate	C-3 (Composite Samp) 078304 03 30-Dec-2003 M. Spike	C-3 (Composite Samp) 078304 03 30-Dec-2003 MS % Rec.
Soil pH measured in water			-	-	-	9.30	•	•	÷
Cyanide total	0.100	mg/kg	<	2.6	100	50	49	76	110
Mercury	0.04	mg/kg	<	1.0	100	0.20 (2)	•	•	•
Arsenic Barium Cadmium Chromium Lead Selenium	1.0 0.50 0.50 0.50 1.0 1.0	mg/kg " " " " "	< < < < <	26 52 26 51 51 26 26	100 100 100 100 100 100	34 190 17 49 130 <5.0 0.65	• • • •	- - - - -	- - - -
Silver	0.50		-						

pH Analysis by 9045C Cyanide Analysis by 9012A Mercury Analysis by 7471A Metals Analysis by 6010B

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 078303 03 30-Dec-2003	Blank Spike 078303 03 30-Dec-2003	% Recovery 078303 03 30-Dec-2003	C-3 (Composite Samp) 078304 03 30-Dec-2003
		•				
			(1)			
Aldrin	0.004	ug/gm	<	0.049	82	<
a-BHC	0.003	Ħ	<	0.044	73	<
b-BHC	0.005	**	<	0.048	80	<
g-BHC (Lindane)	0.002	н	<	0.046	77	<
d-BHC	0.004	11	<	0.051	85	<
a-Chlordane	0.005	14	<	0.058	96	<
g-Chlordane	0.006	**	<	0.052	87	<
Isodrin	0.004		<	0.048	80	<
p,p'-DDD	0.006	. 17	<	0.050	83	
p,p'-DDE	0.004	"	<	0.050	83	< <
p,p'-DDT	0.009	"	<	0.061	100 81	<
Dieldrin	0.006	**	<	0.049	87	<
a-Endosulfan	0.003		<	0.052	91	<
b-Endosulfan	0.008		<	0.054 0.053	88	. <
Endosulfan Sulfate	0.005	11	< <	0.053	89	<
Endrin	0.003	tr			96	<
Endrin Ketone	0.005	**	<	0.057	55	<
Endrin Aldehyde	0.004	н	<	0.033	82	<
Heptachlor	0.004	н	<	0.049 0.049	82 82	<
Heptachlor Epoxide	0.003	н н	<	0.049	110	<
Methoxychlor	0.025		<		89	<
Mirex	0.007	"	<	0.11 NS	07	<
Toxaphene	0.100	"	<	NS.	-	
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiph	enyl		51	53	53	47
Decachlorobiphenyl	•		79	86	86	65
Aroclor-1016	0.038	ug/gm	<	0.44	110	<
Aroclor-1010 Aroclor-1221	0.041	ug/giii	<	NS	-	<
Aroclor-1232	0.038	20	<	NS	-	<
Aroclor-1242	0.050	н	<	NS	•	<
Aroclor-1248	0.031	11	<	NS	-	<
Aroclor-1254	0.059	71	<	NS	•	<
Aroclor-1260	0.031	16	<	0.47	120	0.032
Aroclor-1262	0.031	ţ1	<	NS	-	<
Aroclor-1268	0.049	**	<	NS	-	<
Total PCB	0.059	**	<	0.90	110	<
Surrogate Recoveries	0.039	%		<b>4.7</b> 0		
4,4'-Dibromooctaflourobiph	nenvi	70	94	105	105	81
-	icitài		104	111	111	97
Decachlorobiphenyl			104	* * *	. * * *	7.

Pesticide analysis by 8081B PCB Analysis by 8082A

Component	Client ID: Lab No.: Date Sampled: MDL	Units	C-3 (Composite Samp) 078304 03 30-Dec-2003 M. Spike	C-3 (Composite Samp) 078304 03 30-Dec-2003 MS % Rec.	C-3 (Composite Samp) 078304 03 30-Dec-2003 MS Dup	C-3 (Composite Samp) 078304 03 30-Dec-2003 MSD % Rec.
Aldrin	0.004	ug/gm	-	-	-	
a-BHC	0.003	"	•	-	-	•
b-BHC	0.005	**	-	-	•	-
g-BHC (Lindane)	0.002	11	-	~	-	<del>.</del>
d-BHC	0.004	11	-	-	-	-
a-Chlordane	0.005	**	-	*	-	-
g-Chlordane	0.006	**		-	-	-
Isodrin	0.004	**	-	-	-	-
p,p'-DDD	0.006	. "	-	-	-	-
p,p'-DDE	0.004	71	-	-	-	<b>-</b>
p,p'-DDT	0.009	24	-	-	-	-
Dieldrin	0.006	**	-	-	•	<b>-</b> ,
a-Endosulfan	0.003	**	-	_	-	-
b-Endosulfan	0.008	11	-	-	<del>-</del> ,	-
Endosulfan Sulfate	0.005	**	-	•	-	-
Endrin	0.003	11	-	-	-	-
Endrin Ketone	0.005	0	-	-	· <u>-</u>	. •
Endrin Aldehyde	0.004	11	-	-	-	-
Heptachlor	0.004	17	-	-	-	-
Heptachlor Epoxide	0.003	tr	-	•	-	-
Methoxychlor	0.025	Ħ	-	•	-	
Mirex	0.007	11	-	-	-	-
Toxaphene	0.100	11	•	-	-	-
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiph	enyl		-	•	•	-
Decachlorobiphenyl			-	-	-	<b>-</b>
Aroclor-1016	0.038	ug/gm	0.49	120	0.37	91
Aroclor-1221	0.041	11	NS	-	NS	-
Aroclor-1232	0.038	17	NS	-	NS	-
Aroclor-1242	0.050	19	NS	-	NS	-
Aroclor-1248	0.031	**	NS	-	NS	-
Aroclor-1254	0.059	17	NS	<u>-</u>	NS	-
Aroclor-1260	0.031	17	0.64	160	0.46	110
Aroclor-1262	0.031	11	NS	-	NS	-
Aroclor-1268	0.049	. **	NS	-	NS	4
Total PCB	0.059		1.1	140	0.83	100
Surrogate Recoveries		%			<b>.</b>	
4,4'-Dibromooctaflourobipl	henyl		107	107	87	87
Decachlorobiphenyl			126	126	100	100

Pesticide analysis by 8081B PCB Analysis by 8082A

VOC Analysis by 8260B			Method	Blank	%	G-3 (F-11	G-3 (F-11
•	Client ID:		Blank	Spike	Recovery	Grab Samp)	•
	Lab No.:		078303 03	078303 03	078303 03	078305 03	Grab Samp)
n	ate Sampled:		30-Dec-2003	30-Dec-2003	30-Dec-2003		078305 03
Component	MDL	Units	30-Dcc-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003
	MDS	Cincs					Duplicate
Acetone	0.020	mg/kg	<	0.049	78	<	<
Acrolein	0.010	#	<	0.057	92	<	<
Acrylonitrile	0.010	11	<	0.051	82	<	<
Benzene	0.001	**	<	0.057	91	<	<
Bromoform	100.0	н	<	0.053	85	< 0.002	
Bromomethane	0.006	**	<	0.048	76	<0.002	<0.002
2-Butanone	0.005	H	<	0.056	89	<	< <
Carbon Disulfide	0.001	н	<	0.049	78	0.004	
Carbon Tetrachloride	0.001	n	<	0.058	93		0.005
Chlorobenzene	0.001	17	<	0.054	93 87	<	<
Chlorodibromomethane	0.001	17	<	0.054		<	<
Chloroethane	0.001		<	0.053	85	<	<
Chloroform	0.001	**	<	0.056	110	<	<
Chloromethane	0.001	11	<		89	<	<
1,2-Dichlorobenzene	0.001	**	<	0.066	110	<	<
1,3-Dichlorobenzene	0.001	79		0.050	79	< 0.002	< 0.002
1,4-Dichlorobenzene	0.001	**	<	0.052	84	< 0.002	< 0.002
Dichlorobromomethane		**	<	0.051	82	0.002	< 0.002
	0.001	H	<	0.056	89	< .	<
1,1-Dichloroethane	0.001	**	<	0.056	90	<	. <b>&lt;</b>
1,2-Dichloroethane	0.001	.,	<	0.054	86	<	<
1,1-Dichloroethene	0.001	**	<	0.057	91	<	<
Dichloromethane	0.020		<	0.058	93	<	<
Methyl-t-butylether	0.001		<	NS	-	<	<
Ethylene Dibromide	0.001	**	<	0.051	82	<	<
1,2-Dibromo-3-Chloropropane		H	<	0.047	76	< 0.010	< 0.010
cis-1,2-Dichloroethene	0.001	н	<	0.058	93	<	<
trans-1,2-Dichloroethene	0.001	"	<	0.056	90	<	<
1,2-Dichloropropane	0.001	17	<	0.055	88	<	<
cis-1,3-Dichloropropene	0.001	ŧi	<	0.056	89	<	<
trans-1,3-Dichloropropene	0.001	н	<	0.049	78	<	<
Ethylbenzene	0.001	**	<	0.055	88	<	<
2-Hexanone	0.005	17	<	0.052	83	<	<
4-Methyl-2-Pentanone	0.005	**	<	0.054	86	< .	<
Styrene	0.001	70	<	0.058	93	<	< .
1,1,1,2-Tetrachloroethane	0.001	**	<	0.054	86	<	<
1,1,2,2-Tetrachloroethane	0.001	17	<	0.049	79	< 0.002	< 0.002
Tetrachloroethene	0.001	n	<	0.055	88	<	<
Toluene	0.001	**	<	0.054	87	<	<
1,1,1-Trichloroethane	0.001	**	<	0.057	91	<	<
1,1,2-Trichloroethane	0.001	11	· <	0.052	83	<	<
Trichloroethene	0.001	н	<	0.057	92	<	<
Trichlorfluoromethane	0.001	20	<	0.057	91	<	<
Vinyl Chloride	0.001	**	<	0.072	120	<	
m&p-Xylene	0.001	**	<	0.11	90		<
o-Xylene	0.001	н	<	0.054		<	<
Isopropylbenzene	0.001	**	<	0.050	87 80	< <0.002	<0.002
			•		,00	~0.002	<0.002
Surrogate Recoveries		%					
d4-1,2-Dichloroethane			72	68	. 68	69	69
d8-Toluene			77	69	69	83	82
Bromofluorobenzene			81	74	74	65	67
d10-Ethylbenzene			91	90	90	73	88
•							

Client:Empire Geo-Services Inc. Project:BEU-03-040

VOC Analysis by 8260B	Client ID:		G-3 (F-11 Grab Samp)	G-3 (F-11 Grab Samp)
	Lab No.:		078305 03	078305 03
Dat	e Sampled:		30-Dec-2003	30-Dec-2003
Component	MDL	Units	M. Spike	MS % Rec.
<b></b>	A 020	ma/ka	0.081	110
Acetone	0.020	mg/kg	0.010	14
Acrolein	0.010 0.010	17	0.010	70
Acrylonitrile	0.010	н	0.055	75
Benzene	0.001	17	0.064	86
Bromoform	0.001	н	0.058	78
Bromomethane	0.005	н	0.063	86
2-Butanone Carbon Disulfide	0.003	н	0.032	43
Carbon Disumde  Carbon Tetrachloride	0.001	**	0.066	88
	0.001	н	0.040	54
Chlorobenzene Chlorodibromomethane	0.001	**	0.055	74
Chloroethane	0.001	,11	0.081	110
Chloroform	0.001	**	0.060	81
Chloromethane	0.001	16	0.081	110
1,2-Dichlorobenzene	0.001	79	0.037	50
· · · · · · · · · · · · · · · · · · ·	0.001	**	0.033	45
1,3-Dichlorobenzene 1,4-Dichlorobenzene	0.001	19	0.030	41
Dichlorobromomethane	0.001	"	0.057	76
	100.0	4r	0.063	86
1,1-Dichloroethane	0.001	17	0.052	71
1,2-Dichloroethane	0.001	**	0.049	66
1,1-Dichloroethene Dichloromethane	0.001	**	0.056	76
	0.020	11	NS	-
Methyl-t-butylether Ethylene Dibromide	0.001	**	0.041	56
1,2-Dibromo-3-Chloropropane	0.001	**	0.050	67
cis-1,2-Dichloroethene	0.003	17	0.049	66
trans-1,2-Dichloroethene	0.001	18	0.038	51
1,2-Dichloropropane	0.001	H	0.062	83
cis-1,3-Dichloropropene	0.001	#F	0.038	52
trans-1,3-Dichloropropene	0.001	11	0.029	39
Ethylbenzene	0.001	#	0.047	63
2-Hexanone	0.005	**	0.048	64
4-Methyl-2-Pentanone	0.005	14	0.054	73
Styrene	0.001	19	0.035	48
1,1,1,2-Tetrachloroethane	0.001		0.066	89
1,1,2,2-Tetrachloroethane	0.001	**	0.049	66
Tetrachloroethene	0.001	21	0.046	62
Toluene	0.001	17	0.051	69
1,1,1-Trichloroethane	0.001	*	0.069	93
1,1,2-Trichloroethane	0.001	**	0.061	82
Trichloroethene	0.001	н	0.052	70
Trichlorfluoromethane	0.001	и	0.073	98
	0.001		0.078	100
Vinyl Chloride	0.001	17	0.091	62
m&p-Xylene	0.001	11	0.051	68
o-Xylene		**	0.061	83
Isopropylbenzene	0.001		0.001	03
Surrogate Recoveries		%		
d4-1,2-Dichloroethane		74	74	74
d8-Toluene			84	84
Bromofluorobenzene			72	72
			78	78
d10-Ethylbenzene			, 0	,,

Pheno    0.26   mg/kg   <0.52   9.9   9.9   9.5   9.5   9.5   1.5	SVOC Analysis by 8270C	Client ID: Lab No.: Date Sampled:		Method Blank 078303 03 30-Dec-2003	Blank Spike 078303 03 30-Dec-2003	% Recovery 078303 03 30-Dec-2003	Blank Spike Duplicate. 078303 03 30-Dec-2003	% Recovery 078303 03 30-Dec-2003
Bis(2-chloroethyl)ether	Component	MDL	Units					
2-Chlorophenol	Phenol	*	mg/kg			99		95
1,3-Dichforobenzene         0.20         < <0.40	Bis(2-chloroethyl)ether	0.18	н	< 0.36				
1,4-Dichlorobenzene	2-Chlorophenol	0.48	76	< 0.96		100		99
1,2-Dichlorobenzene	1,3-Dichlorobenzene	0.20	H	< 0.40				
Bis(2-chloroisopropyl)ether	I,4-Dichlorobenzene	0.20	**	< 0.40		76		79
Hexachloroethane	1,2-Dichlorobenzene	0.20	**	< 0.40		•		~
Nitroso-di-N-Propylamine	Bis(2-chloroisopropyl)ether	0.15				-		-
Nitrobenzene	Hexachloroethane	0.20	ti.					
Isophorone	N-Nitroso-di-N-Propylamine	0.21	19			85		89
2-Nitrophenol	Nitrobenzene	0.20	. "			-		-
2,4-Dimethylphenol         0.17         " <0.34	Isophorone	0.40	. 41			-		-
Bis(2-chloroethoxy)methane	2-Nitrophenol	0.14	er			-		-
2,4-Dichlorophenol         0.15         "         <0.30	2,4-Dimethylphenol	0.17	lf .			•		-
1,2,4-Trichlorobenzene         0.20         "         <0.40	Bis(2-chloroethoxy)methane	0.13	41			-		-
Naphthalene	2,4-Dichlorophenol	0.15	11			-		-
Hexachlorobutadiene	1,2,4-Trichlorobenzene	0.20				79		82
4-Chloro-3-Methylphenol         0.15         " < 0.30	Naphthalene	0.09	**			-		-
Hexachlorocyclopentadiene	Hexachlorobutadiene							
2,4,6-Trichlorophenol         0.12         " <0.24	4-Chloro-3-Methylphenol					97		89
2-Chloronaphthalene	Hexachlorocyclopentadiene	0.20	н			-		-
Acenaphthylene	2,4,6-Trichlorophenol	0.12				-		-
Dimethyl phthalate	2-Chloronaphthalene	0.34	**			*		-
Acenaphthene	Acenaphthylene	0.04				-		-
Acenaphthene         0.07         "         <0.14         4.5         90         4.4         88           2,4-Dinitrophenol         0.48         "         <0.96	Dimethyl phthalate	0.11	н			-		-
2,4-Dinitrophenol         0.48         " < 0.96	2,6-Dinitrotoluene					-		
2,4-Dinitrotoluene         0.22         " < 0.44	Acenaphthene	0.07				90		88
4-Nitrophenol 0.17 " <0.34 8.8 88 7.3 73 73 Fluorene 0.06 " <0.12 NS - NS - 4-Chlorophenylphenylether 0.09 " <0.18 NS - NS - NS - NS - OL12 NS - OL14 NS - OL14 NS - OL15 NS - O		0.48						
Fluorene 0.06 " <0.12 NS - NS - 4-Chlorophenylphenylether 0.09 " <0.18 NS - NS - NS - Oiethyl phthalate 0.11 " <0.22 NS - NS - NS - Oiethyl phthalate 0.11 " <0.22 NS - NS - Oiethyl phthalate 0.16 " <0.32 NS - NS - Oiethylphenylphylphenylphenylphenylphenylphenylphenylphenylphenylphenylphenylphe	2,4-Dinitrotoluene							
4-Chlorophenylphenylether         0.09         "         <0.18	4-Nîtrophenol					88		73
Diethyl phthalate         0.11         " <0.22         NS         - NS         -           4,6-Dinitro-2-methylphenol         0.16         " <0.32	Fluorene	0.06				-		-
4,6-Dinitro-2-methylphenol         0.16         "         <0.32	4-Chlorophenylphenylether	0.09	*			-		-
N-Nitrosodiphenylamine         0.19         "         <0.38         NS         -         NS         -           4-Bromophenylphenylether         0.04         "         <0.08	Diethyl phthalate		. 11			-		-
4-Bromophenylphenylether         0.04         "         <0.08	4,6-Dinitro-2-methylphenol		**			-		-
Hexachlorobenzene	N-Nitrosodiphenylamine					-		-
Pentachlorophenol         0.31         "         <0.62	4-Bromophenylphenylether					-		-
Phenanthrene         0.03         "         <0.06         NS         -         NS         -           Anthracene         0.06         "         <0.12	Hexachlorobenzene							-
Anthracene         0.06         "         <0.12         NS         -         NS         -           Di-n-butyl phthalate         0.11         "         <0.22	Pentachlorophenol					99		86
Di-n-butyl phthalate         0.11         "         <0.22         NS         -         NS         -           Fluoranthene         0.05         "         <0.10	Phenanthrene	0.03	n			-		-
Fluoranthene         0.05         "         <0.10         NS         -         NS         -           Pyrene         0.06         "         <0.12	Anthracene	0.06	98	< 0.12	NS	-		-
Pyrene         0.06         "         <0.12	Di-n-butyl phthalate	0.11	н	< 0.22	NS	-	NS	-
Benzyl butyl phthalate         0.10         "         <0.20	Fluoranthene	0.05	n	< 0.10	NS	~	NS	-
3,3-Dichlorobenzidine       0.34       " <0.68	Pyrene	0.06	Ħ	< 0.12	4.5	90	4.4	87
3,3-Dichlorobenzidine       0.34       " <0.68	Benzyl butyl phthalate	0.10	*	< 0.20	NS	-	NS	-
Benzo(a)anthracene       0.05       " <0.10		0.34	. 11	<0.68	NS	-	NS	-
Chrysene         0.06         "         <0.12         NS         -         NS         -           Bis(2-ethylhexyl)phthalate         0.75         "         <1.5		0.05	н	< 0.10	NS	-	NS	-
Bis(2-ethylhexyl)phthalate       0.75       " <1.5	* *		n		NS	-	NS .	-
Di-n-octyl phthalate         0.11         "         <0.22         NS         -         NS         -           Benzo(b)fluoranthene         0.04         "         <0.08			**			-		-
Benzo(b)fluoranthene 0.04 " <0.08 NS - NS -				and the second s		-		-
			14			-		-
	Benzo(k)fluoranthene	0.04	н	< 0.08	NS	_	NS	-

SVOC Analysis by 8270C	Client ID: Lab No.: Date Sampled:		Method Blank 078303 03 30-Dec-2003	Blank Spike 078303 03 30-Dec-2003	% Recovery 078303 03 30-Dec-2003	Blank Spike Duplicate 078303 03 30-Dec-2003	% Recovery 078303 03 30-Dec-2003
Component	MDL	Units					
Benzo(a)pyrene	0.05	"	< 0.10	NS	-	NS	-
Indeno(1,2,3-cd)pyrene	0.06	**	< 0.12	NS	-	NS	<b>-</b> ,
Dibenzo(a,h)anthracene	0.06	19	< 0.12	NS	-	NS	-
Benzo(ghi)perylene	0.05	u,	< 0.10	NS	-	NS	-
Surrogate Recoveries		%					
2-Fluorophenol			73	80	80	67	67
d5-Phenol			92	90	90	82	82
d5-Nitrobenzene			79	78	. 78	71	71
2-Fluorobiphenyl			92	89	89	82	82
2,4,6-Tribromophenol			92	92	92	87	87
d14-p-Terphenyl			106	93	93	89	89
N-Nitrosodimethylamine	1.0	mg/kg	<2.0	NS	*	NS	-
Aniline	0.50	71	<1.0	NS	-	NS	-
Benzyl alcohol	0.50	17	<1.0	NS	-	NS	•
Carbazole	0.50	17	<1.0	NS	-	NS	-
2-Methylphenol	0.50	**	<1.0	NS	-	NS	-
3&4-Methylphenol	0.50	н	<1.0	NS	-	NS	. <b>-</b>
Benzoic acid	0.50	11	<1.0	NS	-	NS	-
4-Chloroaniline	0.50	17	<1.0	NS	-	NS	-
2-Methylnaphthalene	0.34	47	< 0.68	NS	-	NS	-
2,4,5-Trichlorophenol	0.10	ir	< 0.20	NS	•	NS	-
2-Nitroaniline	0.50	н	<1.0	NS	-	NS	-
3-Nitroaniline	0.50	79	<1.0	NS	-	NS	-
Dibenzofuran	0.50	**	<1.0	NS	-	NS	•
Benzidine	0.50	12	<1.0	NS	•	NS	-
4-Nitroaniline	0.50	**	<1.0	NS	-	NS	-

SVOC Analysis by 8270C	<i>C</i>		C-3 (Composite					
	Client ID:		Samp) 078304 03					
	Lab No.:							
	Date Sampled:		30-Dec-2003					
Component	MDL	Units						
Phenol	0, 26	mg/kg	<0.52					
Bis(2-chloroethyl)ether	0.18	",	< 0.36					
2-Chlorophenol	0.48		< 0.96					
1,3-Dichlorobenzene	0.20	tr	< 0.40					
	0.20	**	< 0.40					
1,4-Dichlorobenzene	0.20	**	< 0.40					
1,2-Dichlorobenzene	0.15	**	< 0.30					
Bis(2-chloroisopropyl)ether	0.20	**	< 0.40					
Hexachloroethane		**	<0.42					
N-Nitroso-di-N-Propylamine	0.21	11	< 0.42					
Nitrobenzene			<0.80					
Isophorone	0.40	11						
2-Nitrophenol	0.14		<0.28					
2,4-Dimethylphenol	0.17	"	<0.34					
Bis(2-chloroethoxy)methane	0.13	"	< 0.26					
2,4-Dichlorophenol	0.15	);  t	<0.30					
1,2,4-Trichlorobenzene	0.20		<0.40					
Naphthalene	0.09	н	< 0.18					
Hexachlorobutadiene	0.20	н	<0.40					
4-Chloro-3-Methylphenol	0.15	**	< 0.30					
Hexachlorocyclopentadiene	0.20	**	< 0.40					
2,4,6-Trichlorophenol	0.12	11	<0.24					
2-Chloronaphthalene	0.34	74	< 0.68					
Acenaphthylene	0.04	79	<0.08					
Dimethyl phthalate	0.11	11	< 0.22					
2,6-Dinitrotoluene	0.06	**	< 0.12					
Acenaphthene	0.07	19	< 0.14					
2,4-Dinitrophenol	0.48	. 12	< 0.96					
2,4-Dinitrotoluene	0.22	47	< 0.44					
4-Nitrophenol	0.17	17	< 0.34					
Fluorene	0.06	17	< 0.12					
4-Chlorophenylphenylether	0.09	17	< 0.18					
Diethyl phthalate	0.11	Ħ	< 0.22					
4,6-Dinitro-2-methylphenol	0.16	н	< 0.32					
N-Nitrosodiphenylamine	0.19	м	< 0.38					
4-Bromophenylphenylether	0.04	н	< 0.08					
Hexachlorobenzene	0.20	14	<0.40					
Pentachlorophenol	0.31	н	< 0.62					
Phenanthrene	0.03		0.21					
Anthracene	0.06	#	<0.12					
Di-n-butyl phthalate	0.11	**	<0.22					
Fluoranthene	0.05	н	0.18					
	0.03	**	0.18					
Pyrene		н	<0.20					
Benzyl butyl phthalate	0.10	*						
3,3-Dichlorobenzidine	0.34	n	<0.68					
Benzo(a)anthracene	0.05		0.20					
Chrysene	0.06		0.28					
Bis(2-ethylhexyl)phthalate	0.75	**	<1.5					
Di-n-octyl phthalate	0.11	75	<0.22					
Benzo(b)fluoranthene	0.04	#	0.29					
Benzo(k)fluoranthene	0.04	н	0.23					

SVOC Analysis by 8270C	Client ID: Lab No.: Date Sampled:	C-3 (Composite Samp) 078304 03 30-Dec-2003			
Component	MDL	Units			
Benzo(a)pyrene	0.05	**	0.24		
Indeno(1,2,3-cd)pyrene	0.06	**	0.21		
Dibenzo(a,h)anthracene	0.06	47	< 0.12		
Benzo(ghi)perylene	0.05	et	0.24		
Surrogate Recoveries		%			
2-Fluorophenol			45		
d5-Phenol			74		
d5-Nitrobenzene			58		
2-Fluorobiphenyl			83		
2,4,6-Tribromophenol			83		
d14-p-Terphenyl			96		
N-Nitrosodimethylamine	1.0	mg/kg	<2.0		
Aniline	0.50	11	<1.0		
Benzyl alcohol	0.50	**	<1.0		
Carbazole	0.50	17	<1.0		
2-Methylphenol	0.50	11	<1.0		
3&4-Methylphenol	0.50	(1	<1.0		
Benzoic acid	0.50	**	<1.0		
4-Chloroaniline	0.50	**	<1.0		
2-Methylnaphthalene	0.34	11	<0.68		
2,4,5-Trichlorophenol	0.10	**	< 0.20		
2-Nitroaniline	0.50	lt .	<1.0		
3-Nitroaniline	0.50	**	<1.0		
Dibenzofuran	0.50	н	<1.0		
Benzidine	0.50	н	<1.0		
4-Nitroaniline	0.50	н	<1.0		

# CHAIN OF CUSTODY

	5555 North Service Road				Free: 1-800-668-0639 Tel: (905) 332-8788 Fax: (905) 332-9169 ANAL				LYSIS	Page of					
CLIENT Project Manager: C. GUZZETTA  INFORMATION Address: 5167 S. PARIX AUE    HAINBURG   A 14   146  Phone #: 116   649-810   Fax #: 471  Sampled by: C. GUZZETTA					TCL SEMI-LOLITICE OBCANIC COMPEUNOS	DESTIONES	YCHLUMANIES	20 65 1 1 1 1 1 2 2 2 2 4 6 6 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	H	L COMPENNDS			Level of contamination (low, high, unknown)		
Philip Use Only	C-3 6-3	Field Sample ID  SCOMPOSITE SAMPLE  CF-11 GRAB SAMP	# Bottles 2- Figure 61-55 1- Figure 1-Gi-55	Matrix So/L So/L	Date )2-3/-63 /2-3/-63	Time 3 <sup>30</sup> pm 3 <sup>25</sup> pm	X 761	X	159 X	X CA S	X	X 72			Lev
						^									
TAT (Turnaround Time)  RUSH TAT MUST HAVE PRIOR APPROVAL  *some exceptions apply please contact Lab  STD 10 Business Days RUSH 5 Business Days RUSH 2 Business Days  Philip Quote #:  Philip Project #:				MISA 🗆	SPECIAL DETECTION LIMITS  REMARKS  ASP  SPECIAL REQUIREMENTS / REGULATIONS  Data  Requirements / Regulations			REQUI Pock	in=0/	Gull					
RUSH 1 Business Other Business Da Client Signature: Affiliation:	lys	Philip Contact:	100-	Received B Affiliation: _ Date/Time:		75 C 21(03,		4,	) '2 A'		1	d By: e/Time			

WHITE - LAB / YELLOW - CLIENT

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

### Data Validation Services

120 Cobble Creek Road P.O. Box 208 North Creek, N. Y. 12853 Phone 518-251-4429 Facsimile 518-251-4428

February 20, 2004

Charles Guzzetta Empire Geo-Services, Inc. 5167 SouthPark Ave. Hamburg, NY 14075

RE:

Validation of Hanna Furnace site data packages

PSC Nos. 3L1032, 3L1059, and 3L1085

Dear Mr. Guzzetta:

Review has been completed for the data packages generated by PSC Analytical Services that pertain to three soil samples collected 12/24/03 through 12/30/03 at the Hanna Furnace site. The samples were analyzed for volatiles, TCL semivolatiles, TCL pesticides, PCBs, eight RCRA metals, and cyanide. Analysis methods used are those of the USEPA SW846 methods EPA8260B, EPA8270C, EPA8081, EPA8082, EPA6010B, EPA7471A, and EPA9012A.

This Data Usability Summary Report is primarily generated from review of the QC summary form information, with full review of sample raw data, and limited review of associated QC raw data. The validation has been performed in accordance with the 1997 NYSDEC DUSR Guidance document. The data have been reviewed for application of validation qualifiers, with guidance from the USEPA National Functional Guidelines for (In)Organic CLP Data Review, with consideration for the requirements of the specific analytical methodologies. The following items were reviewed:

- \* Data Completeness
- \* Case Narrative
- \* Custody Documentation
- \* Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries and Duplicate Correlations
- \* Preparation/Calibration Blanks
- Laboratory Control Samples (LCS)/Matrix Spike Blanks (MSB)
- Instrumental Tunes
- \* Calibration/CRI Standards
- \* ICP Serial Dilution
- \* ICP Interference Check Samples
- \* Method Compliance
- Sample Result Verification

Those items showing deficiencies are discussed in the following sections of this report. All others were found to be acceptable as outlined in the above-mentioned validation procedures, and as applicable for the methodology. Unless noted specifically in the following text, reported results are substantiated by the raw data, and generated in compliance with project requirements.

In summary, sample processing was conducted in compliance with protocol requirements. Organic reporting limits have been edited upward, with detected values below those adjusted levels (which are the majority of the organic detections) qualified as estimated. One low level volatile detection has been edited to nondetection, and one is qualified as tentative in identification. All other sample results are usable as reported, or usable with minor qualification as estimated in value.

Copies of the laboratory case narratives are attached to this text, and should be reviewed in conjunction with this report. Also included in this submission are copies of the laboratory sample results tables with recommended qualifiers and edits applied in red ink.

**Data Completeness** 

Due to incorrect project login, the data packages were not generated in accordance with the NYSDEC ASP Category B deliverables, and did not include numerous items necessary for the validatioan review. These items were resubmitted upon request, as noted in the attached communications. Raw data items have been appended to the data packages. Several items required of the NYSDEC ASP Cat. B deliverables were not available. These have been communicated to the laboratory for future submissions.

Sample C-2 Composite was referenced as C-Z Composite on the report form and in sections of the data package.

Solids content of the samples were not reported on the sample report forms, although the determinations were made and organic results were reported on a dry weight basis. Metals and cyanide results are determined from air-dried samples, rather than with the solids determination that is referenced for dry weight reporting in the metals preparation method.

General

Sample results were reported using MDLs as reporting limits. In accordance with the analytical methodologies for the organic analyses, the reporting limits on the attached sample results forms have been edited upward to reflect the concentration corresponding to response at the lowest point of the instrument linearity determinations. Detected results with concentrations below those adjusted limits have been qualified as estimated in value because they are below the established linear range of the instrument.

Volatile Analyses by EPA 8260B

The low level detection (just above MDL) of chloromethane in Composite Sample #1 is edited to nondetection ("<") at the reporting limit due to poor spectral quality. In addition, the associated method blank also showed a low level response of this analyte, above that of the sample at the instrument level, that should have been reported. The chloromethane detection is considered external contamination.

The low level detection of 1,4-dichorobenzene in G-3-F-11-Grab is qualified as tentative in identification and estimated in value ("NJ" qualifiers) due to poor spectral quality.

Holding times, instrument tunes, and sample surrogate and internal standard recoveries were acceptable.

Initial and continuing calibration standards show responses within protocol and validation guidelines.

Sample matrix spikes were processed on G-3-F-11-Grab, and show acceptable recoveries for all analytes except acrolein (14%). The result for that analyte in the parent sample is qualified as estimated, with a possible low bias.

The legibility of the spectra provided in the packages was very poor.

#### Semivolatile Analyses by EPA 8270C

Holding times, instrument tunes, and sample surrogate and internal standard recoveries were acceptable. Method blanks show no contamination.

Initial and continuing calibration standards show responses within protocol and validation guidelines.

No sample matrix spikes were evaluated. Spiked blanks show acceptable recoveries and duplicate correlations for the eleven analytes evaluated.

#### TCL Pesticides and PCBs by EPA 8081 and 8082

Holding times and surrogate recoveries are acceptable. Method blanks show no contamination.

The sample matrix spikes of Aroclors 1016 and 1260 on C-3 Composite show acceptable accuracy and precision. The pesticide spiked blank shows low recovery for endrin aldehyde (55%, below 70% limit). Results for that analyte in the samples are qualified as estimated, with a possible low bias.

Initial and continuing calibration determinations were performed on Aroclors 1016 and 1260. Although not reported in the data packages, chromatograms of the other Aroclor mixtures were provided on request for comparison to sample data.

The confirmation column value for Aroclor 1260 in C-2 Composite reported within the data package should be 0.0736 ppm, not 0.0589 ppm (incorrect averaging). The final reported result is not affected.

### Metals and Cyanide Analyses by EPA 6010B, 7471A, and 9012A

All detected metals and cyanide detected results are qualified as estimated, with a possible low bias, due to use of air dried sample (rather than a true solid determination). It is anticipated that the level of bias is unlikely to exceed about 20%.

Calibration and CRI standards show good recoveries. Blanks show no contamination.

The ICP serial dilution evaluations of C-2 Composite and C-3 Composite show acceptable correlations, with the exception of lead in both (15%D and 14%D) and chromium in the former (13%D). The detected results for lead and chromium are already qualified as estimated, and are considered additionally estimated.

The cyanide matrix spike of C-3 Composite and the mercury matrix spike of C-2 Composite show acceptable accuracy and precision. LCS recoveries were within acceptable ranges.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

## VALIDATION QUALIFIERS

#### APPENDIX C

DATA VALIDATION SERVICES
DATA USABILITY SUMMARY REPORT

# VALIDATION DATA QUALIFIER DEFINITIONS

ORGANIC

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the present of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit.

  However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

## VALIDATION DATA QUALIFIER DEFINITIONS

INORGANIC

The following definitions provide brief explanations of the national qualifiers assigned to results in the data review process. If the Regions choose to use additional qualifiers, a complete explanation of those qualifiers should accompany the data review.

U	-	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
J	-	The associated value is an estimated quantity.
R	-	The data are unusable. (Note: Analyte may or may not be present.)
UJ	-	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

# LABORATORY SAMPLE IDs AND CASE NARRATIVES

PSC Analytical Services Inc (Burlington ON)

PASCI Project: AN031731 PASCI Submission #:3L1032

Client:

Empire Geo-Services Inc.

Client Project: BEU-03-041

## I. SAMPLE RECEIPT/ANALYSIS

#### a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date	Initial Calibration
Pesticides via	s SW846 Method 8081 Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/07	04/01/07
PCB via SW 078092 00	846 Method 8082 Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/07	04/01/05
078092 03	es via SW846 Method 8270 Composite Sample #1	03/12/24	03/12/26	04/01/02	04/01/06	04/01/06
Volatiles via 078093 03	SW846 Method 8260 Grab Sample #1, D-17	03/12/24	03/12/26	04/01/05	04/01/05	04/01/02

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

- b) Shipping Problems: none encountered
- c) Documentation Problems: none encountered

### II. SAMPLE PREP:

No problems encountered

## III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

- a) Hold Times: all within recommended hold times
- b) Instrument Calibration: all within control limits
- c) Surrogate/Internal Recoveries: except where noted otherwise, all within control limits

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. Release of the data contained in this data package has been authorized by the cognizant laboratory official or his/her designee, as verified by this signature.

TAIL CL. Nie Project Manager

JAN 2 0 2004

PSC Analytical Services Inc (Burlington ON)

PASCI Project: AN031794 PASCI Submission #:3L1059

Client:

Empire Geo-Services Inc.

Client Project: BEU-03-040

### I. SAMPLE RECEIPT/ANALYSIS

#### a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date	Initial Calibration
	a SW846 Method 8081 C-Z (Composite)	03/12/29	03/12/30	04/01/05	04/01/07	04/01/07
PCB via SW 078171 03	846 Method 8082 C-Z (Composite)	03/12/29	03/12/30	04/01/05	04/01/07	04/01/05
Semi-volatile	es via SW846 Method 827 C-Z (Composite)	0 03/12/29	03/12/30	04/01/02	04/01/06	04/01/06
	SW846 Method 8260 C-Z (Composite)	03/12/29	03/12/30	04/01/02	04/01/05	04/01/02

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

- b) Shipping Problems: none encountered
- c) Documentation Problems: none encountered

#### II. SAMPLE PREP:

No problems encountered

## III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

- a) Hold Times: all within recommended hold times
- b) Instrument Calibration: all within control limits
- c) Surrogate/Internal Recoveries: except where noted otherwise, all within control limits

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Mike Challis, Project Manager

JAN 2 0 2004

PSC Analytical Services Inc (Burlington ON)

PASCI Project: AN031794 PASCI Submission #:3L1085

Client: Empire Geo-Services Inc.

Client Project: BEU-03-040

## I. SAMPLE RECEIPT/ANALYSIS

#### a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date	Initial Calibration
	a SW846 Method 8081 C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/07	04/01/07
078304 03	846 Method 8082 C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/05	04/01/05
078304 03	cs via SW846 Method 8270 C-3 (Composite Samp)	03/12/30	03/12/31	04/01/02	04/01/06	04/01/06
<i>Volatiles via</i> 078305 03	SW846 Method 8260 G-3 (F-11 Grab Samp)	03/12/30	03/12/31	04/01/05	04/01/05	04/01/02

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

- b) Shipping Problems: none encountered
- c) Documentation Problems: none encountered

#### II. SAMPLE PREP:

No problems encountered

## III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

- a) Hold Times: all within recommended hold times
- b) Instrument Calibration: all within control limits
- c) Surrogate/Internal Recoveries: except where noted otherwise, all within control limits

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JAN 2 0 2004

Mike Challis, Project Manager

Date

PSC Analytical Services Inc (Burlington ON)

PASCI Project: AN031731 PASCI Submission #:3L1032

Client:

Empire Geo-Services Inc.

Client Project: BEU-03-041

# I. SAMPLE RECEIPT/ANALYSIS

#### a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date
078092 03	SW846 Method 9010 Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/07
pH in Solid . 078092 03	EPA Method 9045  Composite Sample #1	03/12/24	03/12/26	04/01/02	04/01/06
078092 03	SW846 Method 7471 Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/06
Metals by A: 078092 03	xial ICP-AES  Composite Sample #1	03/12/24	03/12/26	04/01/06	04/01/06

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

- b) Shipping Problems: none encountered
- c) Documentation Problems: none encountered

## II. SAMPLE PREP:

No problems encountered

## III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

- a) Hold Times: all within recommended hold times
- b) Instrument Calibration: all within control limits
- c) Surrogate/Internal Recoveries: except where noted otherwise, all within control limits

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Mike Challis, Project Manager

JAN 1 9 2004

Date

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PSC Analytical Services Inc (Burlington ON)

PASCI Project: AN031794 PASCI Submission #:3L1059

Client:

Empire Geo-Services Inc.

Client Project: BEU-03-040

## I. SAMPLE RECEIPT/ANALYSIS

#### a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date
Cyanide via	SW846 Method 9010			0.4/01/05	04/01/05
078172 03	P-1 (Grab Sample #2)	03/12/29	03/12/30	04/01/05	04/01/03
	EPA Method 9045		00/10/100	04/01/05	04/01/07
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/05	04/01/07
	SW846 Method 7471			04/01/02	04/01/06
	C-Z (Composite)	03/12/29	03/12/30	04/01/02	04/01/00
	xial ICP-AES		00/10/00	0.4/01/05	04/01/06
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/05	04/01/00

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

- b) Shipping Problems: none encountered
- c) Documentation Problems: none encountered

#### II. SAMPLE PREP:

No problems encountered

### III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

- a) Hold Times: all within recommended hold times
- b) Instrument Calibration: all within control limits
- c) Surrogate/Internal Recoveries: except where noted otherwise, all within control limits

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Mike Challis, Project Manager

JAN 2 0 2004

PSC Analytical Services Inc (Burlington ON)

PASCI Project: AN031794 PASCI Submission #:3L1085

Client:

Empire Geo-Services Inc.

Client Project: BEU-03-040

## I. SAMPLE RECEIPT/ANALYSIS

## a) Sample Listing

Philip ID	Client Sample ID	Date Sampled	Date Received	Date Prepped	Run Date
Cyanide via	SW846 Method 9010		02/12/21	04/01/05	04/01/07
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/03	04/01/07
	EPA Method 9045	00/40/20	02/12/21	04/01/02	04/01/06
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/02	04/01/00
	SW846 Method 7471		00/10/01	04/01/05	04/01/06
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/03	04/01/00
	cial ICP-AES		00/10/71	04/01/05	04/01/05
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/03

Run Date is defined as the date of injection of the last calibration standard (12 hour or less) prior to the samples analyzed within that run sequence. Therefore the time of calibration injection that defines the run date is always within 12 hours of the time of sample injection.

- b) Shipping Problems: none encountered
- c) Documentation Problems: none encountered

#### II. SAMPLE PREP:

No problems encountered

## III. SAMPLE ANALYSIS:

See also comments within the appropriate Certificate of Analysis.

- a) Hold Times: all within recommended hold times
- b) Instrument Calibration: all within control limits
- c) Surrogate/Internal Recoveries: except where noted otherwise, all within control limits

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Mike Challis, Project Manager

JAN 2 0 2004

# QUALIFIED REPORT FORMS

Component	Client ID: Lab No.: Date Sampled: MDL	Units	Method Blank 078091 03 24-Dec-2003	Blank Spike 078091 03 24-Dec-2003	% Recovery 078091 03 24-Dec-2003	Composite Sample #1 078092 03 24-Dec-2003	Composite Sample #1 078092 03 24-Dec-2003 Duplicate
Soil pH measured in water			, <del>-</del>	~	-	10.19	10.16
Cyanide total	0.100	mg/kg	<	2.6	100	3.0 J	-
Mercury	0.04	mg/kg	<	1.0	100	0.25 J	-
Arsenic Barium Cadmium Chromium Lead Selenium	1.0 0.50 0.50 0.50 1.0	mg/kg	< < < <	25 51 25 50 49 25	99 100 99 100 99 99	16 J 290 J 6.0 J 28 J 120 J <	- - - - -
Silver	0.50	H	<	24	21		

pH Analysis by 9045C Cyanide Analysis by 9012A Mercury Analysis by 7471A Metals Analysis by 6010B

	Client ID: Lab No.: Date Sampled:		Method Blank 078091 03 24-Dec-2003	Blank Spike 078091 03 24-Dec-2003	% Recovery 078091 03 24-Dec-2003	Composite Sample #1 078092 03 24-Dec-2003	
Component	MDL	Units					
Aldrin	0.004	ug/gm	<	0.049	82	<0.018	
a-BHC	0.003	17	<	0.044	73	<	
b-BHC	0.005	"	<	0.048	80	<	
g-BHC (Lindane)	0.002	17	<	0.046	77	<	
d-BHC	0.004	17	<	0.051	85	<	
a-Chlordane	0.005	11	<	0.058	96	<	
g-Chlordane	0.006	<b>3</b> †	<	0.052	87	< <	
Isodrin	0.004	H	<	0.048	80 83	<i>'</i>	
p,p'-DDD	0.006	H	<	0.050	83	<	
p,p'-DDE	0.004	,,	<	0.050	100	<	
p,p'-DDT	0.009	h	<	0.061	81	<	
Dieldrin	0.006	**	<	0.049	87	<	
a-Endosulfan	0.003	11	<	0.052	91	<	
b-Endosulfan	0.008	**	<	0.054	88	. <	
Endosulfan Sulfate	0.005	••	<	0.053	89	<	
Endrin	0.003	.,	<	0.053	96	<	
Endrin Ketone	0.005	"	<	0.057	55	· ·	T
Endrin Aldehyde	0.004	,,	<	0.033 0.049	82	<	
Heptachlor	0.004	,,	<		82	< 1	
Heptachlor Epoxide	0.003	"	<	0.049 0.27	110	<	
Methoxychlor	0.025	"	<		89	< .018	
Mirex	0.007	17	<	0.11 NS	0.7	<	
Toxaphene	0.100	"	<	1/2	-	•	
Surrogate Recoveries		%		<b>"</b> "	53	50	
4,4'-Dibromooctaflourobipheny	·l		51	53	33 86	74	
Decachlorobiphenyl			79	86	80		
Aroclor-1016	0.038	ug/gm	<	0.44	110	< 0.18	
Aroclor-1221	0.041	н	<	NS	-	<	
Aroclor-1232	0.038	**	<	NS	-	<	
Aroclor-1242	0.050	n	<	NS	-	<	
Aroclor-1248	0.031	19	<	NS	•	<	
Aroclor-1254	0.059	17	<	NS	-	<	
Aroclor-1260	0.031	tt.	<	0.47	120	< 🗳	
Aroclor-1262	0.031	**	<	NS	-	0.062 🛴	
Aroclor-1268	0.049	"	<	NS	-	0.12 5	
Total PCB	0.059	"	<	0.90	110	0.18 ∫	
Surrogate Recoveries		%				92	
4,4'-Dibromooctaflourobipheny	ıl		94	105	105	82 105	
Decachlorobiphenyl			104	111	111	105	

Pesticide analysis by 8081B PCB Analysis by 8082A

			Mashad	Blank	%	Grab Sample
VOC Analysis by 8260B	Client ID:		Method Blank	Spike	Recovery	#1, D-17
	Lab No.:		078091 03	078091 03	078091 03	078093 03
	Date Sampled:		24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003
Commonant	MDL	Units				
Component	17222	0.22				
Acetone	0.020	mg/kg	<	0.049	78	0.071
Acrolein	0.010	**	<	0.057	92	<0.015
Acrylonitrile	0.010	+3	<	0.051	82	<0.015 <del>&lt;0.00</del> 2
Benzene	0.001	н	<	0.057	91 85	
Bromoform	0.001	н	<	0.053	83 76	< <del>0.002</del> < .004 <0.009
Bromomethane	0.006	34	<	0.048	76 89	<0.009
2-Butanone	0.005	ii	<	0.056	78	0.008
Carbon Disulfide	0.001	31	<	0.049	93	<0.00\$ <.004
Carbon Tetrachloride	0.001	tr	<	0.058	93 87	<0.002
Chlorobenzene	0.001	12	<	0.054	87 85	<0.002
Chlorodibromomethane	0.001	. 11	<	0.053 0.068	110	<0.002
Chloroethane	0.001	"	<	0.056	89	<0.002
Chloroform	0.001	n	<		110	< 0.002
Chloromethane	0.001		<	0.066	79	<0.002
1,2-Dichlorobenzene	0.001	**	<	0.050	79 84	<0.002
1,3-Dichlorobenzene	0.001	В	<	0.052	84 82	<0.002
1,4-Dichlorobenzene	0.001	,,	<	0.051	82 89	<0/002
Dichlorobromomethane	0.001	19	<	0.056	90	<0.002
1,1-Dichloroethane	0.001		<	0.056	90 86	<0.002
1,2-Dichloroethane	0.001	17	<	0.054	91	<0.002
1,1-Dichloroethene	0.001	17	<	0.057 0.058	93	< 0.030
Dichloromethane	0.020	71	<	0.038 NS	, ,,,	<0.003 <.004
Methyl-t-butylether	0.001	,, B	< <	0.051	82	<0.002 < 0.04
Ethylene Dibromide	0.001	,,	<	0.047	76	<0.008
1,2-Dibromo-3-Chloropropa		,,	<	0.058	93	< <del>0.007</del> < .004
cis-1,2-Dichloroethene	0.001		<	0.056	90	<0.002
trans-1,2-Dichloroethene	0.001	и	<	0.055	88	<0.002
1,2-Dichloropropane	0.001		<	0.056	89	<0.002
cis-1,3-Dichloropropene	0.001	Nr.	<	0.049	78	<0.002
trans-1,3-Dichloropropene	0.001	12	<	0.055	88	<0.002 √
Ethylbenzene	0.001	11	<	0.052	83	< 0.008
2-Hexanone	0.005	n	<	0.054	86	< 0.008
4-Methyl-2-Pentanone	0.005	п	<	0.058	93	<0.002 4,004
Styrene	0.001	14	<	0.054	86	<0.002
1,1,1,2-Tetrachloroethane	0.001	н	<	0.049	79	<0,002
1,1,2,2-Tetrachloroethane	0.001	н	<	0.055	88	≤0.002 V
Tetrachloroethene	0.001	19	<	0.054	87	0.001 J
Toluene	0.001	It	<	0.057	91	<0.007 <.004
1,1,1-Trichloroethane	0.001	18	<	0.052	83	< 0.002
1,1,2-Trichloroethane	0.001	11	< .	0.057	92	<0.002
Trichloroethene	0.001	11	<	0.057	91	<0.002
Trichlorfluoromethane	0.001	ır	<	0.072	120	<0.002
Vinyl Chloride	100.0	,,	<	0.11	90	<0.002
m&p-Xylene	0.001	n	<	0.054	87	<0.002
o-Xylene	0.001	н	<	0.050	80	< <del>0.00</del> 2
Isopropylbenzene	0.001		` .	0.050		
Surrogate Recoveries		%				λ.
d4-1,2-Dichloroethane			72	68	68	68-
d8-Toluene			77	69	69	76
Bromofluorobenzene			81	74	74	77
d10-Ethylbenzene			91	90	90	68
d10-Emylochzene						

Client:Empire Geo-Services Inc. Project:BEU-03-041

SVOC Analysis by 8270C	Client ID: Lab No.: Date Sampled:		Composite Sample #1 078092 03 24-Dec-2003
Component	MDL	Units	
Phenol	0. 26	mg/kg	<0.57 F1.8
Bis(2-chloroethyl)ether	0.18	"	<0.36
2-Chlorophenol	0.48	#	<0.96
1,3-Dichlorobenzene	0.20	,,	<0.40
1,4-Dichlorobenzene	0.20	н	<0.40
1,2-Dichlorobenzene	0.20	31	<0.40
Bis(2-chloroisopropyl)ether	0.15	**	<0.30
Hexachloroethane	0.20	**	<0.40
N-Nitroso-di-N-Propylamine	0.21	n	<0.42
Nitrobenzene	0.20	17	<0 40
Isophorone	0.40	19	<0.80
2-Nitrophenol	0.14	**	<0.28
2,4-Dimethylphenol	0.17	+1	< 0.34
Bis(2-chloroethoxy)methane	0.13	**	<0.26
2,4-Dichlorophenol	0.15	H	<0.30
1,2,4-Trichlorobenzene	0.20	и	<0.40 V
Naphthalene	0.09	,1	1.1 J
Hexachlorobutadiene	0.20	н	<0.40 41.8
4-Chloro-3-Methylphenol	0.15	71	<0.30
Hexachlorocyclopentadiene	0.20	78	< 0.40
2,4,6-Trichlorophenol	0.12	H	<0.24
2-Chloronaphthalene	0.34	11	<0.68
Acenaphthylene	0.04	17	<0.08
Dimethyl phthalate	0.11	17	<0/22
2,6-Dinitrotoluene	0.06	17	<0.12
Acenaphthene	0.07	57	0.14
2,4-Dinitrophenol	0.48	19	<0.96< 1.8
2,4-Dinitrotoluene	0.22	#1	<0.44
4-Nitrophenol	0.17	11	<0.34
Fluorene	0.06	h	0.19 J
4-Chlorophenylphenylether	0.09	19	<0.18 ∠1.8
Diethyl phthalate	0.11	19	<0.22
4,6-Dinitro-2-methylpheno	0.16	"	<0.32
N-Nitrosodiphenylamine	0.19	17	<0.38
4-Bromophenylphenylether	0.04	37	<0/08
Hexachlorobenzene	0.20	17	<0.40
Pentachlorophenol	0.31	**	<0.62 V
Phenanthrene	0.03	**	1.5
Anthracene	0.06	" n	0.33
Di-n-butyl phthalate	0.11	,,	< <del>0.22</del> 21.8
Fluoranthene	0.05		2.1
Pyrene	0.06		1.5 J
Benzyl butyl phthalate	0.10		< <u>0.20</u> 21.8 < <u>0.68</u> 41.8
3,3-Dichlorobenzidine	0.34		
Benzo(a)anthracene	0.05	"	
Chrysene	0.06		1.1 J
Bis(2-ethylhexyl)phthalate	0.75	"	4.5 <1.6
Di-n-octyl phthalate	0.11	19	<0.22
Benzo(b)fluoranthene	0.04	"	1.2
Benzo(k)fluoranthene	0.04	t?	0.58