MALCOLM PIRNIE

Soil/Fill Characterization Documentation

APPENDIX

E

MALCOLM PIRNIE

COVER SHEET

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.

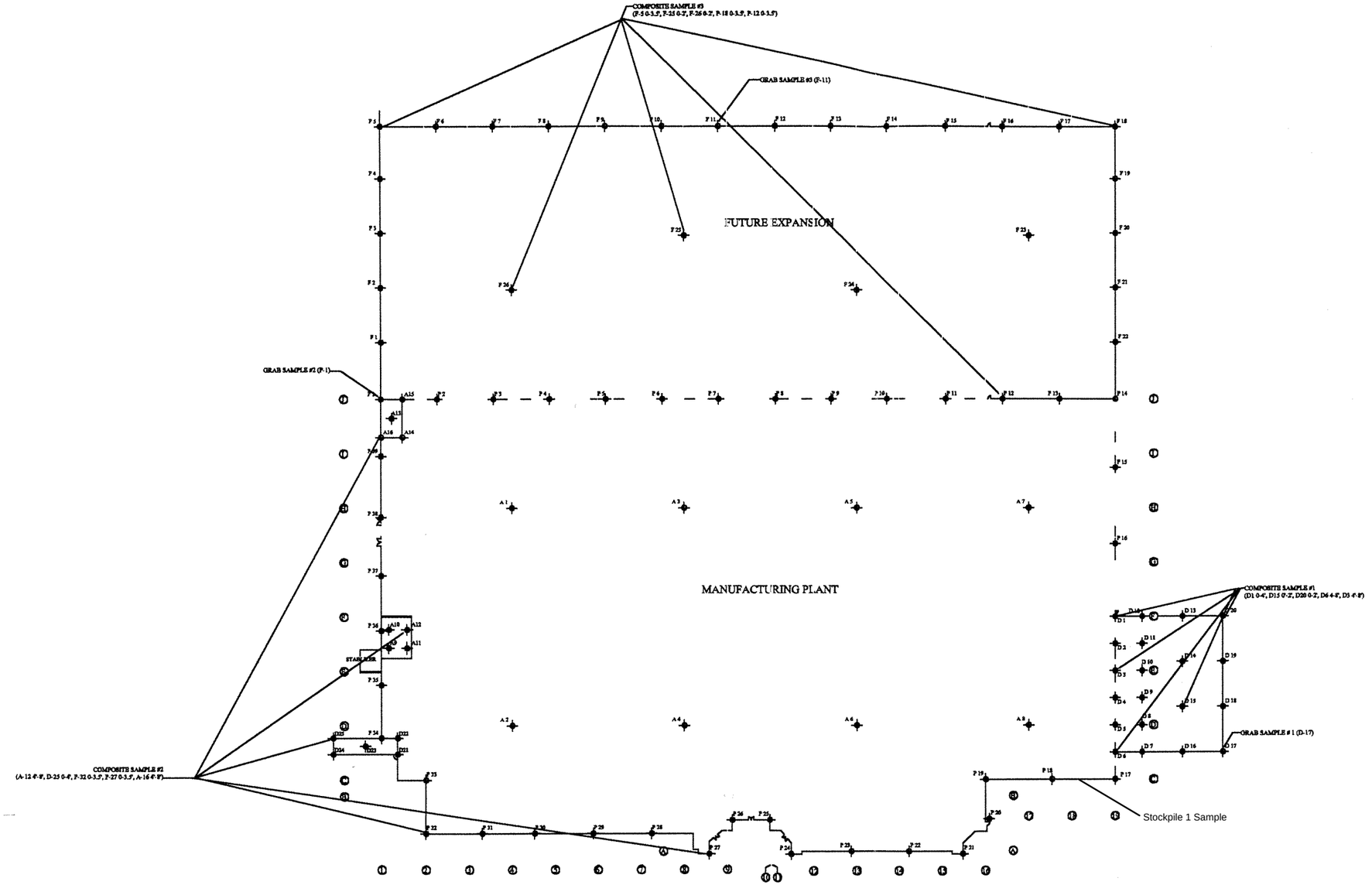
SVOCs: Several detections, with a maximum detection of 11,000 ug/kg for benzo(a)pyrene. No detections above the SSALs.

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.



NOTES:

. EACH COMPOSITE AND GRAB SAMPLE WAS COLLECTED FOR A VOLUME OF ~2,000 CUBIC YARDS OF PROPOSED EXCAVATED MATERIAL

. PROPOSED EXCAVATED VOLUME: 5,300 CUBIC YARDS AS GIVEN BY EROG CORP.

. 3 COMPOSITE SAMPLES AND 3 GRAB SAMPLES REPRESENTING: 6,000 CUBIC YARDS

. COMPOSITE SAMPLES PRODUCED FROM 5 TEST BORING LOCATIONS REPRESENTATIVE OF SOIL/FILL MATERIAL ENCOUNTERED

. GRAB SAMPLES COLLECTED FROM INDIVIDUAL TEST BORING LOCATIONS REPRESENTATIVE OF SOIL/FILL MATERIAL ENCOUNTERED (FOR EVERY 2,000 CUBIC YARDS)

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

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

Date: 06/21/2004
Time: 13:58:06

Malcolm Pirnie - Soil Investigation
Soil Investigation
ASP 2000 - PESTICIDES/AROCLORS

Rept: AN0326

Client ID Job No Lab ID Sample Date		STOCKPILE 1 A04-5192 A4519201 06/02/2004		STOCKPILE 1FD A04-5192 A4519201FD 06/02/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
alpha-BHC	UG/KG	ND	10	ND	10	NA		NA	
beta-BHC	UG/KG	ND	10	ND	10	NA		NA	
delta-BHC	UG/KG	ND	10	ND	10	NA		NA	
gamma-BHC (Lindane)	UG/KG	ND	10	ND	10	NA		NA	
Heptachlor	UG/KG	ND	10	ND	10	NA		NA	
Aldrin	UG/KG	ND	10	ND	10	NA		NA	
Heptachlor epoxide	UG/KG	ND	10	ND	10	NA		NA	
Endosulfan I	UG/KG	ND	10	ND	10	NA		NA	
Dieldrin	UG/KG	ND	20	ND	20	NA		NA	
4,4'-DDE	UG/KG	ND	20	ND	20	NA		NA	
Endrin	UG/KG	ND	20	ND	20	NA		NA	
Endosulfan II	UG/KG	ND	20	ND	20	NA		NA	
4,4'-DDD	UG/KG	ND	20	ND	20	NA		NA	
Endosulfan Sulfate	UG/KG	ND	20	ND	20	NA		NA	
4,4'-DDT	UG/KG	8.9 JP	20	6.1 JP	20	NA		NA	
Methoxychlor	UG/KG	ND	100	ND	100	NA		NA	
Endrin ketone	UG/KG	9.3 JP	20	24 P	20	NA		NA	
Endrin aldehyde	UG/KG	8.0 J	20	3.9 JP	20	NA		NA	
alpha-Chlordane	UG/KG	ND	10	ND	10	NA		NA	
gamma-Chlordane	UG/KG	ND	10	ND	10	NA		NA	
Toxaphene	UG/KG	ND	1000	ND	1000	NA		NA	
Aroclor 1016	UG/KG	ND	200	ND	200	NA		NA	
Aroclor 1221	UG/KG	ND	410	ND	410	NA		NA	
Aroclor 1232	UG/KG	ND	200	ND	200	NA		NA	
Aroclor 1242	UG/KG	ND	200	ND	200	NA		NA	
Aroclor 1248	UG/KG	ND	200	ND	200	NA		NA	
Aroclor 1254	UG/KG	ND	200	ND	200	NA		NA	
Aroclor 1260	UG/KG	ND	200	ND	200	NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Date: 06/21/2004
Time: 10:52:02

Malcolm Pirnie - Soil Investigation
Soil Investigation
ASP 2000- SEMIVOLATILES

Rept: AN0326

Client ID / Job No / Sample Date	Lab ID	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**
Benzaldehyde	UG/KG	ND	8100	ND	8100	NA		NA	
Phenol	UG/KG	150 BJ	4100	ND	4000	NA		NA	
Bis(2-chloroethyl) ether	UG/KG	ND	4100	ND	4000	NA		NA	
2-Chlorophenol	UG/KG	ND	4100	ND	4000	NA		NA	
2-Methylphenol	UG/KG	ND	4100	ND	4000	NA		NA	
2,2'-Oxybis(1-Chloropropane)	UG/KG	ND	4100	ND	4000	NA		NA	
Acetophenone	UG/KG	ND	8100	ND	8100	NA		NA	
4-Methylphenol	UG/KG	ND	4100	ND	4000	NA		NA	
N-Nitroso-Di-n-propylamine	UG/KG	ND	4100	ND	4000	NA		NA	
Hexachloroethane	UG/KG	ND	4100	ND	4000	NA		NA	
Nitrobenzene	UG/KG	ND	4100	ND	4000	NA		NA	
Isophorone	UG/KG	ND	4100	ND	4000	NA		NA	
2-Nitrophenol	UG/KG	ND	4100	ND	4000	NA		NA	
2,4-Dimethylphenol	UG/KG	ND	4100	ND	4000	NA		NA	
Bis(2-chloroethoxy) methane	UG/KG	ND	4100	ND	4000	NA		NA	
2,4-Dichlorophenol	UG/KG	ND	4100	ND	4000	NA		NA	
Naphthalene	UG/KG	760 J	4100	390 J	4000	NA		NA	
4-Chloroaniline	UG/KG	ND	4100	ND	4000	NA		NA	
Hexachlorobutadiene	UG/KG	ND	4100	ND	4000	NA		NA	
Caprolactam	UG/KG	ND	8100	ND	8100	NA		NA	
4-Chloro-3-methylphenol	UG/KG	ND	4100	ND	4000	NA		NA	
2-Methylnaphthalene	UG/KG	260 J	4100	150 J	4000	NA		NA	
Hexachlorocyclopentadiene	UG/KG	ND	4100	ND	4000	NA		NA	
2,4,6-Trichlorophenol	UG/KG	ND	4100	ND	4000	NA		NA	
2,4,5-Trichlorophenol	UG/KG	ND	9800	ND	9800	NA		NA	
Biphenyl	UG/KG	ND	8100	ND	8100	NA		NA	
2-Chloronaphthalene	UG/KG	ND	4100	ND	4000	NA		NA	
2-Nitroaniline	UG/KG	ND	9800	ND	9800	NA		NA	
Dimethyl phthalate	UG/KG	ND	4100	ND	4000	NA		NA	
2,6-Dinitrotoluene	UG/KG	ND	4100	ND	4000	NA		NA	
Acenaphthylene	UG/KG	ND	4100	ND	4000	NA		NA	
3-Nitroaniline	UG/KG	ND	9800	ND	9800	NA		NA	
Acenaphthene	UG/KG	3000 J	4100	2100 J	4000	NA		NA	
2,4-Dinitrophenol	UG/KG	ND	9800	ND	9800	NA		NA	
4-Nitrophenol	UG/KG	ND	9800	ND	9800	NA		NA	
Dibenzofuran	UG/KG	480 J	4100	250 J	4000	NA		NA	
2,4-Dinitrotoluene	UG/KG	ND	4100	ND	4000	NA		NA	
Diethyl phthalate	UG/KG	ND	4100	ND	4000	NA		NA	
Fluorene	UG/KG	830 J	4100	410 J	4000	NA		NA	
4-Chlorophenyl phenyl ether	UG/KG	ND	4100	ND	4000	NA		NA	
4-Nitroaniline	UG/KG	ND	9800	ND	9800	NA		NA	
4,6-Dinitro-2-methylphenol	UG/KG	ND	9800	ND	9800	NA		NA	
N-nitrosodiphenylamine	UG/KG	ND	4100	ND	4000	NA		NA	

NA = Not Applicable   ND = Not Detected

STL Buffalo

Client ID		STOCKPILE 1		STOCKPILE 1FD					
Job No / Lab ID		A04-5192	A4519201	A04-5192	A4519201FD				
Sample Date		06/02/2004		06/02/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
4-Bromophenyl phenyl ether	UG/KG	ND	4100	ND	4000	NA		NA	
Hexachlorobenzene	UG/KG	ND	4100	ND	4000	NA		NA	
Atrazine	UG/KG	ND	8100	ND	8100	NA		NA	
Pentachlorophenol	UG/KG	ND	9800	ND	9800	NA		NA	
Phenanthrene	UG/KG	6000	4100	3500 J	4000	NA		NA	
Anthracene	UG/KG	1500 J	4100	850 J	4000	NA		NA	
Carbazole	UG/KG	880 J	4100	520 J	4000	NA		NA	
Di-n-butyl phthalate	UG/KG	ND	4100	ND	4000	NA		NA	
Fluoranthene	UG/KG	8600	4100	6700	4000	NA		NA	
Pyrene	UG/KG	8100	4100	6200	4000	NA		NA	
Butyl benzyl phthalate	UG/KG	ND	4100	ND	4000	NA		NA	
3,3'-Dichlorobenzidine	UG/KG	ND	4100	ND	4000	NA		NA	
Benzo(a)anthracene	UG/KG	7100	4100	6100	4000	NA		NA	
Chrysene	UG/KG	6500	4100	5900	4000	NA		NA	
Bis(2-ethylhexyl) phthalate	UG/KG	ND	4100	ND	4000	NA		NA	
Di-n-octyl phthalate	UG/KG	ND	4100	ND	4000	NA		NA	
Benzo(b)fluoranthene	UG/KG	8900	4100	12000	4000	NA		NA	
Benzo(k)fluoranthene	UG/KG	7200	4100	4800	4000	NA		NA	
Benzo(a)pyrene	UG/KG	11000	4100	12000	4000	NA		NA	
Indeno(1,2,3-cd)pyrene	UG/KG	9200	4100	9700	4000	NA		NA	
Dibenzo(a,h)anthracene	UG/KG	4100	4100	4200	4000	NA		NA	
Benzo(ghi)perylene	UG/KG	5900	4100	6300	4000	NA		NA	
IS/SURROGATE(S)									
1,4-Dichlorobenzene-D4	%	85	50-200	94	50-200	NA		NA	
Naphthalene-D8	%	83	50-200	92	50-200	NA		NA	
Acenaphthene-D10	%	82	50-200	91	50-200	NA		NA	
Phenanthrene-D10	%	87	50-200	93	50-200	NA		NA	
Chrysene-D12	%	98	50-200	107	50-200	NA		NA	
Perylene-D12	%	130	50-200	141	50-200	NA		NA	
Nitrobenzene-D5	%	50	23-120	51	23-120	NA		NA	
2-Fluorobiphenyl	%	85	30-115	82	30-115	NA		NA	
p-Terphenyl-d14	%	89	18-137	90	18-137	NA		NA	
Phenol-D5	%	67	24-113	69	24-113	NA		NA	
2-Fluorophenol	%	64	25-121	66	25-121	NA		NA	
2,4,6-Tribromophenol	%	52	19-122	60	19-122	NA		NA	
2-Chlorophenol-d4	%	64	20-130	66	20-130	NA		NA	
1,2-Dichlorobenzene-d4	%	59	20-130	58	20-130	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID / Job No / Sample Date	Lab ID	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
Chloromethane	UG/KG	ND	12	ND	12	NA		NA	
Bromomethane	UG/KG	ND	12	ND	12	NA		NA	
Vinyl chloride	UG/KG	ND	12	ND	12	NA		NA	
Chloroethane	UG/KG	ND	12	ND	12	NA		NA	
Methylene chloride	UG/KG	23 B	12	18 B	12	NA		NA	
Acetone	UG/KG	ND	12	ND	12	NA		NA	
Carbon Disulfide	UG/KG	ND	12	ND	12	NA		NA	
1,1-Dichloroethene	UG/KG	ND	12	ND	12	NA		NA	
1,1-Dichloroethane	UG/KG	ND	12	ND	12	NA		NA	
Chloroform	UG/KG	ND	12	ND	12	NA		NA	
1,2-Dichloroethane	UG/KG	ND	12	ND	12	NA		NA	
2-Butanone	UG/KG	ND	12	ND	12	NA		NA	
1,1,1-Trichloroethane	UG/KG	ND	12	ND	12	NA		NA	
Carbon Tetrachloride	UG/KG	ND	12	ND	12	NA		NA	
Bromodichloromethane	UG/KG	ND	12	ND	12	NA		NA	
1,2-Dichloropropane	UG/KG	ND	12	ND	12	NA		NA	
cis-1,3-Dichloropropene	UG/KG	ND	12	ND	12	NA		NA	
Trichloroethene	UG/KG	ND	12	ND	12	NA		NA	
Dibromochloromethane	UG/KG	ND	12	ND	12	NA		NA	
1,1,2-Trichloroethane	UG/KG	ND	12	ND	12	NA		NA	
Benzene	UG/KG	ND	12	ND	12	NA		NA	
trans-1,3-Dichloropropene	UG/KG	ND	12	ND	12	NA		NA	
Bromoform	UG/KG	ND	12	ND	12	NA		NA	
4-Methyl-2-pentanone	UG/KG	ND	12	ND	12	NA		NA	
2-Hexanone	UG/KG	ND	12	ND	12	NA		NA	
Tetrachloroethene	UG/KG	ND	12	ND	12	NA		NA	
Toluene	UG/KG	ND	12	ND	12	NA		NA	
1,1,2,2-Tetrachloroethane	UG/KG	ND	12	ND	12	NA		NA	
Chlorobenzene	UG/KG	ND	12	ND	12	NA		NA	
Ethylbenzene	UG/KG	ND	12	ND	12	NA		NA	
Styrene	UG/KG	ND	12	ND	12	NA		NA	
Total Xylenes	UG/KG	ND	12	ND	12	NA		NA	
1,1,2-Trichloro-1,2,2-trifluor	UG/KG	ND	12	ND	12	NA		NA	
cis-1,2-Dichloroethene	UG/KG	ND	12	ND	12	NA		NA	
trans-1,2-Dichloroethene	UG/KG	ND	12	ND	12	NA		NA	
Dichlorodifluoromethane	UG/KG	3 J	12	2 J	12	NA		NA	
Trichlorofluoromethane	UG/KG	ND	12	ND	12	NA		NA	
Methyl acetate	UG/KG	ND	12	ND	12	NA		NA	
Methyl tert butyl ether	UG/KG	ND	12	ND	12	NA		NA	
Cyclohexane	UG/KG	ND	12	ND	12	NA		NA	
Methylcyclohexane	UG/KG	ND	12	ND	12	NA		NA	
1,2-Dibromoethane	UG/KG	ND	12	ND	12	NA		NA	
Isopropylbenzene	UG/KG	ND	12	ND	12	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		STOCKPILE 1		STOCKPILE 1FD					
Job No	Lab ID	A04-5192	A4519201	A04-5192	A4519201FD				
Sample Date		06/02/2004		06/02/2004					
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,3-Dichlorobenzene	UG/KG	ND	12	ND	12	NA		NA	
1,4-Dichlorobenzene	UG/KG	ND	12	ND	12	NA		NA	
1,2-Dichlorobenzene	UG/KG	ND	12	ND	12	NA		NA	
1,2-Dibromo-3-chloropropane	UG/KG	ND	12	ND	12	NA		NA	
1,2,4-Trichlorobenzene	UG/KG	ND	12	ND	12	NA		NA	
IS/SURROGATE(S)									
Bromochloromethane	%	109	50-200	109	50-200	NA		NA	
1,4-Difluorobenzene	%	115	50-200	114	50-200	NA		NA	
Chlorobenzene-D5	%	111	50-200	108	50-200	NA		NA	
p-Bromofluorobenzene	%	93	59-113	94	59-113	NA		NA	
1,2-Dichloroethane-D4	%	98	70-121	96	70-121	NA		NA	
Toluene-D8	%	95	84-138	98	84-138	NA		NA	

NA = Not Applicable ND = Not Detected

Client ID		TRIP BLANK							
Job No	Lab ID	A04-5192	A4519202						
Sample Date		06/02/2004							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
Chloromethane	UG/L	ND	10	NA		NA		NA	
Bromomethane	UG/L	ND	10	NA		NA		NA	
Vinyl chloride	UG/L	ND	10	NA		NA		NA	
Chloroethane	UG/L	ND	10	NA		NA		NA	
Methylene chloride	UG/L	4 J	10	NA		NA		NA	
Acetone	UG/L	ND	10	NA		NA		NA	
Carbon Disulfide	UG/L	ND	10	NA		NA		NA	
1,1-Dichloroethene	UG/L	ND	10	NA		NA		NA	
1,1-Dichloroethane	UG/L	ND	10	NA		NA		NA	
Chloroform	UG/L	ND	10	NA		NA		NA	
1,2-Dichloroethane	UG/L	ND	10	NA		NA		NA	
2-Butanone	UG/L	ND	10	NA		NA		NA	
1,1,1-Trichloroethane	UG/L	ND	10	NA		NA		NA	
Carbon Tetrachloride	UG/L	ND	10	NA		NA		NA	
Bromodichloromethane	UG/L	ND	10	NA		NA		NA	
1,2-Dichloropropane	UG/L	ND	10	NA		NA		NA	
cis-1,3-Dichloropropene	UG/L	ND	10	NA		NA		NA	
Trichloroethene	UG/L	ND	10	NA		NA		NA	
Dibromochloromethane	UG/L	ND	10	NA		NA		NA	
1,1,2-Trichloroethane	UG/L	ND	10	NA		NA		NA	
Benzene	UG/L	ND	10	NA		NA		NA	
trans-1,3-Dichloropropene	UG/L	ND	10	NA		NA		NA	
Bromoform	UG/L	ND	10	NA		NA		NA	
4-Methyl-2-pentanone	UG/L	ND	10	NA		NA		NA	
2-Hexanone	UG/L	ND	10	NA		NA		NA	
Tetrachloroethene	UG/L	ND	10	NA		NA		NA	
Toluene	UG/L	ND	10	NA		NA		NA	
1,1,2,2-Tetrachloroethane	UG/L	ND	10	NA		NA		NA	
Chlorobenzene	UG/L	ND	10	NA		NA		NA	
Ethylbenzene	UG/L	ND	10	NA		NA		NA	
Styrene	UG/L	ND	10	NA		NA		NA	
Total Xylenes	UG/L	ND	10	NA		NA		NA	
Dichlorodifluoromethane	UG/L	ND	10	NA		NA		NA	
Trichlorofluoromethane	UG/L	ND	10	NA		NA		NA	
1,1,2-Trichloro-1,2,2-trifluor	UG/L	ND	10	NA		NA		NA	
trans-1,2-Dichloroethene	UG/L	ND	10	NA		NA		NA	
Methyl tert butyl ether	UG/L	ND	10	NA		NA		NA	
cis-1,2-Dichloroethene	UG/L	ND	10	NA		NA		NA	
Cyclohexane	UG/L	ND	10	NA		NA		NA	
Methylcyclohexane	UG/L	ND	10	NA		NA		NA	
1,2-Dibromoethane	UG/L	ND	10	NA		NA		NA	
Isopropylbenzene	UG/L	ND	10	NA		NA		NA	
1,3-Dichlorobenzene	UG/L	ND	10	NA		NA		NA	

NA = Not Applicable ND = Not Detected

STL Buffalo

Client ID		TRIP BLANK							
Job No	Lab ID	A04-5192	A4519202						
Sample Date		06/02/2004							
Analyte	Units	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit	Sample Value	Reporting Limit
1,4-Dichlorobenzene	UG/L	ND	10	NA		NA		NA	
1,2-Dichlorobenzene	UG/L	ND	10	NA		NA		NA	
1,2-Dibromo-3-chloropropane	UG/L	ND	10	NA		NA		NA	
1,2,4-Trichlorobenzene	UG/L	ND	10	NA		NA		NA	
Methyl acetate	UG/L	ND	10	NA		NA		NA	
IS/SURROGATE(S)									
Bromochloromethane	%	97	50-200	NA		NA		NA	
1,4-Difluorobenzene	%	99	50-200	NA		NA		NA	
Chlorobenzene-D5	%	99	50-200	NA		NA		NA	
p-Bromofluorobenzene	%	99	86-115	NA		NA		NA	
1,2-Dichloroethane-D4	%	109	76-114	NA		NA		NA	
Toluene-D8	%	102	88-110	NA		NA		NA	

NA = Not Applicable ND = Not Detected

Client ID Job No Sample Date	Lab ID	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	MG/KG	20.0 N*	0.41	12.1 N*	0.41	NA		NA	
Barium - Total	MG/KG	151 E	0.01	159 E	0.01	NA		NA	
Cadmium - Total	MG/KG	2.7 E*	0.03	1.6 E*	0.03	NA		NA	
Chromium - Total	MG/KG	44.3 EN*	0.08	47.8 EN*	0.08	NA		NA	
Lead - Total	MG/KG	213 E*	0.22	154 E*	0.22	NA		NA	
Mercury - Total	MG/KG	0.423 N*	0.004	0.428 N*	0.004	NA		NA	
Selenium - Total	MG/KG	6.6	0.40	5.1	0.39	NA		NA	

NA = Not Applicable ND = Not Detected

Malcolm Pirnie - Soil Investigation
Soil Investigation
WET CHEMISTRY ANALYSIS

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

NA = Not Applicable ND = Not Detected

MALCOLM PIRNIE

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

Sample Location *Sampling Depth (feet bgs)* *Collection Date*	BCLP Parcels 1&2 SSALs	Grab Sample #1 0 to 2 12/24/2003	Grab Sample #2 4 to 8 12/27/2003	Grab Sample #3 3 to 6 12/31/2003	Grab Sample #4 2 to 3 4/14/2004	Grab Sample #5 4 to 5 4/15/2004	Grab Sample #6 3 to 4 4/16/2004	Composite Sample #1 Borings D1, D3, D6, D15, D20 12/24/2003	Composite Sample #2 Borings A12, A16, D25, P27, P32 12/29/2003	Composite Sample #3 Borings F5, F25, F26, P12, P18 12/31/2003	Composite Sample #4 Borings FP17, FP24, FP31 4/14/2004	Composite Sample #5 Borings FP36, FP46, ST1 4/15/2004	Composite Sample #6 Borings FP8, ST16, ST29 4/16/2004	Excavation #1 West End Truck Dock 2/20/2004
pH														
pH	9.0-12.5, >21.5	-	-	-	-	-	-	***10.19***	8.91	***9.3***	***10.69***	***9.89***	***11.41***	-
Volatile Organic Compounds (ug/kg)														
Acetone	NA	71			22	27		-	-	-	-	-	-	-
Benzene	NA					3		-	-	-	-	-	-	-
Carbon Disulfide	NA	8	2	4	5	4		-	-	-	-	-	-	-
Chloromethane	NA	2						-	-	-	-	-	-	-
1,4-Dichlorobenzene	NA			2				-	-	-	-	-	-	-
Toluene	NA	1			1	4		-	-	-	-	-	-	-
m&p-Xylene	NA					1		-	-	-	-	-	-	-
Total VOCs	10,000	82	2	6	28	39		-	-	-	-	-	-	-
Semivolatile Organic Compounds (ug/kg)														
Naphthalene	50,000	-	-	-	-	-	-	1,100			2,800	1,200	290	-
Acenaphthene	50,000	-	-	-	-	-	-	140						-
Fluorene	50,000	-	-	-	-	-	-	190						-
Phenanthrene	50,000	-	-	-	-	-	-	1,500	180	210	800	1,100	150	-
Anthracene	50,000	-	-	-	-	-	-	330						-
Fluoranthene	50,000	-	-	-	-	-	-	2,100	230	180	670	780	100	-
Pyrene	50,000	-	-	-	-	-	-	1,500	290	270	620	700		-
Benzo(a)anthracene	50,000	-	-	-	-	-	-	1,000	240	200	390	450		-
Crysene	50,000	-	-	-	-	-	-	1,100	300	280	460	800	150	-
Benzo(b)fluoranthene	50,000	-	-	-	-	-	-	1,200	350	290	380	580	100	-
Benzo(k)fluoranthene	50,000	-	-	-	-	-	-	580	290	230	350	430		-
Benzo(a)pyrene	50,000	-	-	-	-	-	-	880	330	240	370	340		-
Bis (2-ethylhexyl)phthalate	50,000	-	-	-	-	-	-				4,700	27,000	2,300	-
Indeno(1,2,3-cd)pyrene	50,000	-	-	-	-	-	-	770	370	210	340	370		-
Dibenzo(a,h)anthracene	50,000	-	-	-	-	-	-	140						-
2-Methylnapthalene	50,000	-	-	-	-	-	-				3,200	1,400		-
Benzo(ghi)perylene	50,000	-	-	-	-	-	-	620	340	240	320	360		-
Total SVOCs	500,000	-	-	-	-	-	-	3,150	2,920	2,350	15,400	35,510	3,090	-
Metals (mg/kg)														
Cyanide (Total)	50	-	-	-	-	-	-	3.0	1.0	50.0	0.23	0.22		-
Mercury	1.0	-	-	-	-	-	-	0.25	0.09	0.2	0.34	0.14	0.11	
Arsenic	50	-	-	-	-	-	-	16	41	34	16	19	17	4.6
Barium	500	-	-	-	-	-	-	290	240	190	210	160	250	187
Cadmium	20	-	-	-	-	-	-	6.0	11	17	3.3	5.5	1.7	
Chromium	200	-	-	-	-	-	-	28	38	49	22	34	25	
Lead	1,000	-	-	-	-	-	-	120	160	130	82	160	49	
Selenium	50	-	-	-	-	-	-							
Silver	1,000	-	-	-	-	-	-			0.65				
Pesticides (ug/kg)														
a-BHC	NA	-	-	-	-	-	-		0.004					-
b-BHC	NA	-	-	-	-	-	-		0.008					-
Total Pesticides	10,000	-	-	-	-	-	-		0.012					-
PCBs (ug/kg)														
Aroclor-1260	NA	-	-	-	-	-	-		0.05	0.032				-
Aroclor-1262	NA	-	-	-	-	-	-	0.062			90	110		-
Aroclor-1268	NA	-	-	-	-	-	-	0.12						-
Total PCBs	1,000	-	-	-	-	-	-	0.182	0.05	0.032	90	110		-

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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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

TABLE OF CONTENTS

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 24th 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 wide-mouth 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);
- pH;
- 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.

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

PARAMETER	CONCENTRATION DETECTED (PPB)	SITE SPECIFIC ACTION LEVEL (PPB)
COMPOSITE SAMPLE #1 (PRODUCED FROM DIRECT PUSH SAMPLES 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 FROM DIRECT PUSH SAMPLES A12, A16, D25, P27, P32)		
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 FROM DIRECT PUSH SAMPLES F5, F25, F26, P12, P18)		
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
Benzo (a) pyrene	240	50,000
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 PUSH 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 (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

PARAMETER	CONCENTRATION DETECTED (PPB)	SITE SPECIFIC ACTION LEVEL (PPB)
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 (PRODUCED FROM DIRECT PUSH SAMPLES A12, A16, D25, P27, P32)		
TOTAL PCBS	**0.05**	**1,000 (0'-1') / 10,000 (below 1')**
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')**

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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 (PRODUCED FROM DIRECT PUSH SAMPLES D1, D3, D6, 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 (PRODUCED FROM DIRECT PUSH SAMPLES A12, A16, D25, P27, P32)			
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 (PRODUCED FROM DIRECT PUSH SAMPLES F5, F25, F26, P12, P18)			
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**

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TABLE NO. 6
LABORATORY ANALYTICAL SUMMARY-pH

PARAMETER	CONCENTRATION DETECTED (PPM)	SITE SPECIFIC ACTION LEVEL
COMPOSITE SAMPLE # 1 (PRODUCED FROM DIRECT PUSH SAMPLES D1, D3, D6, D15, D20)		
pH	**10.19**	**9.0-12.5*, >12.5****
COMPOSITE SAMPLE # 2 (PRODUCED FROM DIRECT PUSH SAMPLES A12, A16, D25, P27, P32)		
pH	**8.1**	**9.0-12.5*, >12.5****
COMPOSITE SAMPLE # 3 (PRODUCED FROM DIRECT PUSH SAMPLES F5, F25, F26, P12, P18)		
pH	**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 24th and December 30th, 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

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

SITE LOCATION MAP

SOURCE
UNITED STATES GEOLOGIC SURVEY (USGS)
TOPOGRAPHIC MAP
BUFFALO, SE, NY QUADRANGLE

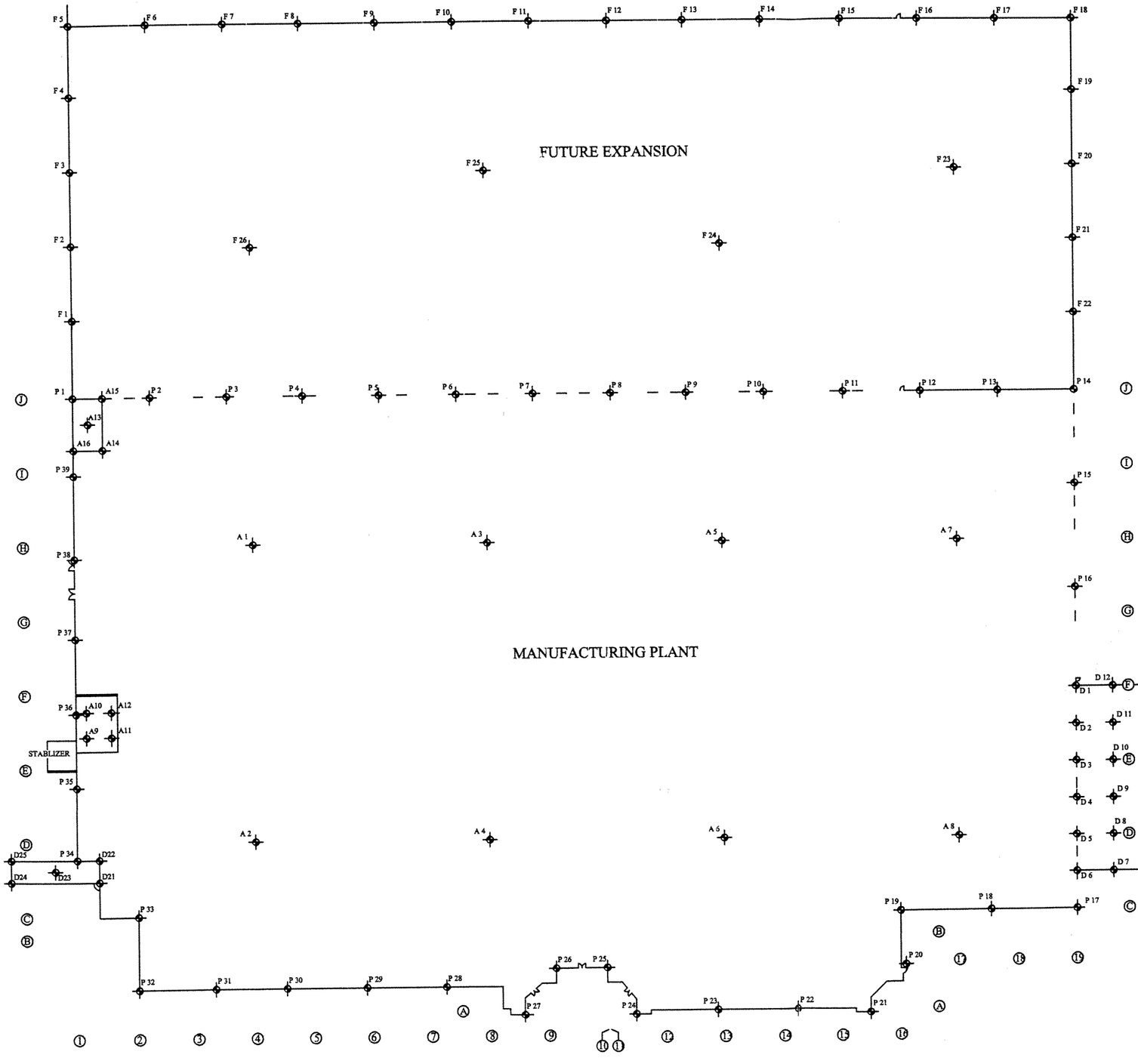
SOIL/FILL SAMPLING & ANALYSIS PROGRAM
PROPOSED MANUFACTURING PLANT & OFFICES
HANNA FURNACE SITE-UNION SHIP CANAL
CITY OF BUFFALO, NEW YORK

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

TRUE NORTH

JOBSITE NORTH

SITE



EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

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

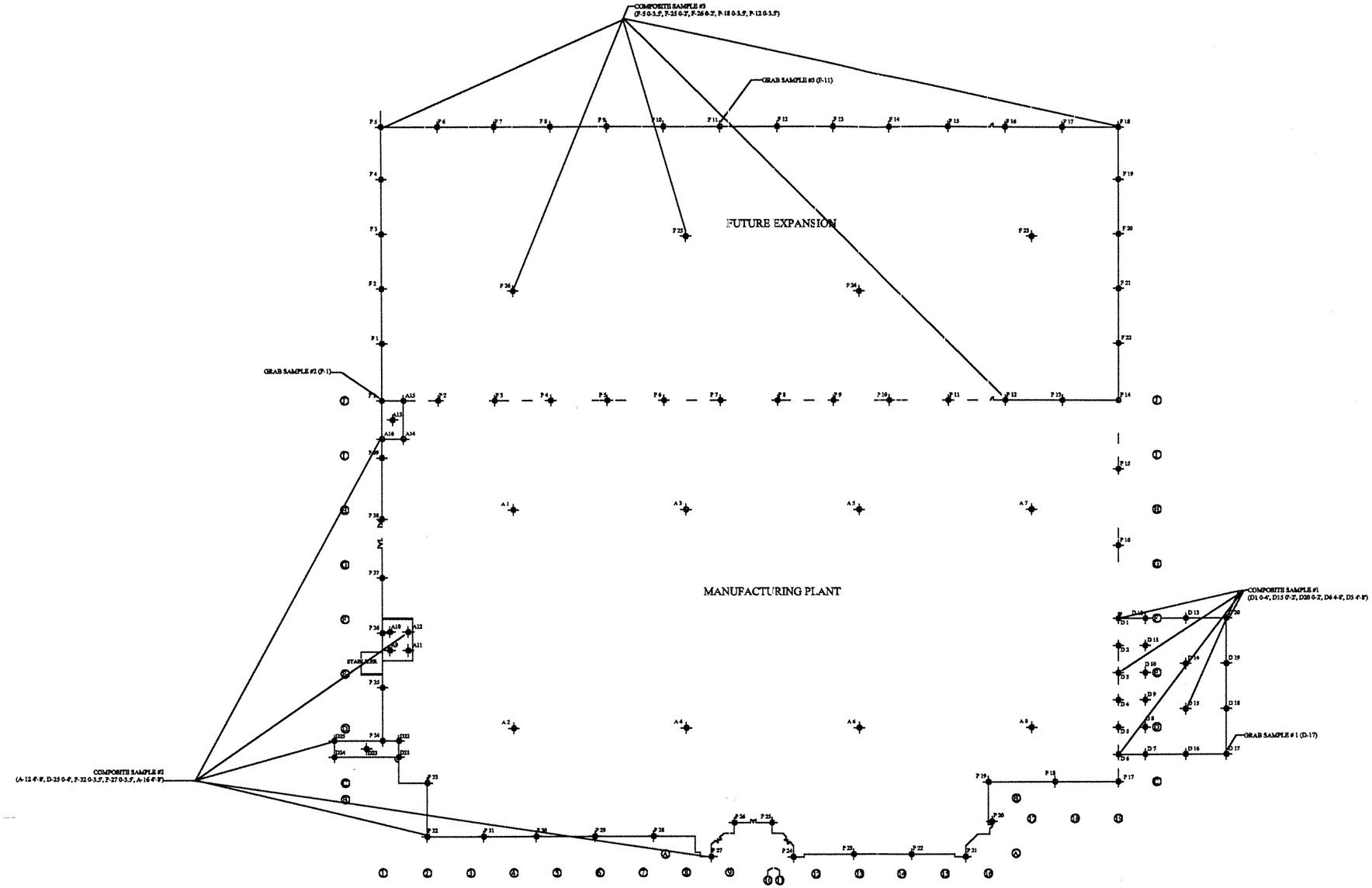
(P) INDICATES PERIMETER TEST BORINGS

(D) INDICATES DOCK TEST BORINGS

(F) INDICATES FUTURE EXPANSION TEST BORINGS

TRUE NORTH

JOBSITE NORTH



NOTES:

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

EMPIRE GEO SERVICES INC
a subsidiary of SJB Services, Inc.

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:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-1
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Gray SLAG Fragments, tr. cinders, tr. brick	MSA PID used
2		Brown f-c SAND and Cinders, tr. slag (moist, FILL)	expressed in ppm
		Contains numerous Slag Fragments, tr. brick	BKG= Background
4			
		Boring Complete at 3.5'	No Free Standing Water
6			Encountered at
			Boring Completion
8			
10			
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-2
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND and Cinders, tr. slag (moist, FILL)	
		Contains numerous Slag Fragments, tr. brick	
4			
		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			
			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
14			
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-3
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND, little f-c Gravel, tr. cinders (moist, FILL)	
		Contains tr. coal, Contains numerous Slag Fragments	
4			
		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-4
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND, little f-c Gravel, tr. cinders (moist, FILL)	
		Contains tr. coal, Contains numerous Slag Fragments	
4			
		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-5
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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, tr. sand, tr. slag (moist, FILL)	
4		Gray-Brown f-c SAND, numerous Slag Fragments (wet, FILL)	
6		Boring Complete at 3.5'	Free Standing Water Recorded at 3.0' at Boring Completion
8			
10			
12			
14			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-6
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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		Boring Complete at 3.5'	Free Standing Water Recorded at 2.5' at Boring Completion
6			
8			
10			BKG= Background
12			
14			MSA Passport Photoionization Detector (PID) used expressed in
16			
18			parts-per-million (PPM) BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-7
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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		Boring Complete at 3.5'	Free Standing Water Recorded at ground surface at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-8
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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		Boring Complete at 3.5'	Free Standing Water Recorded at ground surface at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-9
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown f-c SAND and Slag Fragments (moist fill)	
2		Gray SLAG Fragments and Cinders (wet fill)	
		Tan-Brown f-c SAND, tr. Slag (moist fill)	
4			
		Boring Complete at 3.5'	Free Standing Water Recorded at 1.0' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-10
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Red-Brown CINDERS, tr. sand, tr. slag, tr. brick (moist-wet, FILL)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 0.5' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

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

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Red-Brown f-c SAND and Silt, tr. cinders, tr. roots, tr. slag (moist-wet, FILL)	
		White LIME (f-c Sand Sized Fragments) tr. sand, tr. slag (wet fill)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 0.5' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-12
SURF. ELEV 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
PROJ. NO.: BEV-03-040
City of Buffalo, Erie County, New York

DEPTH FT.	PID READING	SOIL OR ROCK CLASSIFICATION	NOTES
	BKG	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			
		Boring Complete at 3.5'	Free Standing Water Recorded at 1.5' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-13
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	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)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-14
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown SILT, little f-c Sand, tr. sand, tr. roots (moist, FILL)	
2		Gray SLAG Fragments (moist, FILL)	
4		Tan-Brown and Gray f-c SAND and Slag (moist, FILL)	
		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-15
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Topsoil Red-Brown CINDERS & Slag Fragments (moist, FILL)	
2		Gray SLAG Fragments (wet, FILL)	
4		Tan-Brown f-c SAND, tr. slag (wet, FILL)	
6		Boring Complete at 3.5'	Free Standing Water Recorded at 1.0' at Boring Completetion
8			
10			
12			
14			
16			
18			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
20			
22			
24			BKG= Background
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-16
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	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 Recorded at Ground Surface at Boring Completetion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-17
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		White-Brown f-c SAND, tr. slag (wet, FILL)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 1.5' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-18
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown-gray SLAG, little f-c Sand, tr. organics (moist, FILL)	
		White-Gray f-c SAND, tr. slag (wet, FILL)	
4			
		Boring Complete at 3.5'	Free Standing Water Recorded at 2.0' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-19
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND, tr. brick, tr. slag (moist, FILL)	
		Becomes Blue-Gray	
4		Becomes Tan-Brown	
		Boring Complete at 3.5'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
6			
8			
10			BKG= Background
12			
14			Free Standing Water Recorded at 2.5' at Boring Completion
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-20
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown-Gray f-c SAND, tr. slag (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-21
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Orange-Brown f-c SAND, tr. slag (moist, FILL)	
		Brown - Gray SLAG Fragments, tr. sand (wet, FILL)	
4		White-Brown f-c SAND and Slag Fragments, tr. lime (moist, FiLL)	
		Boring Complete at 3.5'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
6			
8			
10			BKG= Background
12			
14			Free Standing Water Recorded at 2.5' at Boring Completion
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-22
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown-Gray f-c SAND, tr. slag (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Recorded at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-23
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Black-Brown CINDERS, tr. slag (moist, FILL)	
		Gray SLAG Fragments (moist-wet, FILL)	
4		Gray-Brown f-c SAND, tr. slag (moist, FILL)	
		Boring Complete at 3.5'	No Free Standing Water Recorded at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-24
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL Black-Brown CINDERS, some f-c Sand, many Slag Fragments, tr. brick (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Recorded at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-25
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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 Recorded at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-26
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Black-Brown CINDERS and Slag Fragments (moist, FILL)	
		Blue-Green f-c SAND, tr. slag (moist, FILL)	
4			
		Boring Complete at 3.5'	No Free Standing Water Recorded at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-27
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Black CINDERS, tr. slag (moist, FILL)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 2.0' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-37
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Gray-Brown SLAG Fragments (wet, FILL)	
2		Black-Brown CINDERS, little f-c Slag Fragments, tr. sand (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			BKG= Background
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-38
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Moist Brown SAND (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			BKG= Background
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-39
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	SLAG (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			BKG= Background
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
14			
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-1
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown f-m SAND, little f-c Gravel, tr. slag (moist, FILL)	
2		Boring Complete at 2.0'	No Free Standing Water Encountered at Boring Completion
4			
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-2
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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, numerous Slag Fragments, tr. brick, tr. roots, tr. paper (moist, FILL)	
		Boring Complete at 2.0'	Free Standing Water Recorded at 1.0' at Boring Completion
4			
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-3
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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, fine Gravel (moist, FILL)	
4		Boring Complete at 2.0'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-5
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown fine SAND at Topsoil (wet, FILL)	
2		Gray-Brown course SAND (wet, FILL)	
		Boring Complete at 2.0'	Free Standng Water Recorded at Ground Surface at Boring Completion
4			
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-6
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND, tr. brick, tr. slag (moist-wet, FILL)	
4		Boring Complete at 2.0'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-7
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown f-c SAND and Cinders, tr. organics (wet, FILL)	
2		Black-White LIME, f-c Sand, tr. cinders (wet, FILL)	
		Boring Complete at 2.0'	Free Standng Water Recorded at Ground Surface at Boring Completion
4			
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-8
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
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)	
4		Boring Complete at 2.0'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-9
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Black-Brown CINDERS, tr. slag, tr. brick (moist, FILL)	
		Gray SLAG Fragments (wet, FILL)	
4			
	BKG	Gray Silty CLAY, little f-c Gravel, tr. sand (moist)	
6			
8		Contains tr. organics	
		Boring Complete at 8.0'	No Free Standing Water Encountered at Boring Completion
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-10
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Gray SLAG and Brown Sand (wet, FILL)	
4			
6	BKG	Gray and Brown Silty CLAY (moist-wet, slack water sediment)	
8			
10		Boring Complete at 8.0'	No Free Standing Water Encountered at Boring Completion
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
14			
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

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

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Black-Brown CINDERS, tr. slag, tr. brick, tr. coal (moist, FILL)	
4		Gray Clayey SILT and f-c Sand (moist)	
	BKG	Gray Silty CLAY, tr. sand, tr. gravel (moist)	
6		Gray SILT and Peat (moist)	
8		Gray Silty CLAY, tr. sand (moist)	
		Boring Complete at 8.0'	No Free Standing Water Encountered at Boring Completion
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-12
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 SLAG and Brown Sand (wet, FILL)	
4			
6	BKG	Gray and Brown Silty CLAY (moist-wet, slack water sediment)	
8			
10		Boring Complete at 8.0'	No Free Standing Water Encountered at Boring Completion
12			
14			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-13
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	SLAG and Brown Sand (moist, FILL)	
4	BKG	Brown SAND (wet, FILL, alluvial sediment)	
6		Gray Silty CLAY, tr. organics (moist, slack water sediment)	
8		Boring Complete at 8.0'	No Free Standing Water Encountered at Boring Completion
10			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
12			BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-14
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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			
		Boring Complete at 8.0'	Free Standing Water Recorded at 1.5' at Boring Completion
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-15
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black CINDERS and Slag Fragments (moist, FILL)	
4		Gray Clayey SILT, tr. sand, tr. wood	
6	BKG	(moist, FILL)	
8		VOID Gray SAND and Silty Clay (moist)	
10		Boring Complete at 8.0'	Free Standing Water Recorded at 1.0' at Boring Completion
12			
14			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. A-16
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 SAND with Slag Organics (moist, FILL)	
4			
6	BKG	SLAG	
8			
10		Boring Complete at 8.0'	No Free Standing Water Encountered at Boring Completion
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-1
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL Black-Brown CINDERS and f-c Sand, tr. slag, tr. brick, tr. organics (moist, FILL)	
4		Brown f-c SAND and Slag Fragments, tr. cinders, tr. brick (moist, FILL)	
6	BKG	Gray SLAG Fragments (wet, FILL)	
8			
10		Boring Complete at 8.0'	Free Standing Water Recorded at Ground surface at Boring Completion
12			
14			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-2
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL Brown f-m SAND, tr. - little Silt, tr. gravel, tr. slag, tr. cinders (moist, FILL)	
4		Brown-Gray and Black SLAG Fragments, tr. cinders, tr. coal, tr. brick (moist, FILL) Tan-Brown f-c SAND, numerous Slag Fragments (moist, FILL)	
6	BKG	Gray SLAG Fragments and Lime Deposits, tr. sand	
8		(wet, FILL)	
10		Boring Complete at 8.0'	Free Standing Water Recorded at 4.1' at Boring Completion
12			
14			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-3
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-m SAND and Silt, tr. slag, tr. cinders (moist, FILL)	
		Gray SLAG Fragments, tr. cinders, tr. coal, tr. brick (moist, FILL)	
4		Brown f-c SAND and Slag Fragments (moist, FILL)	
	BKG		
6		Gray SLAG and Lime Deposits, tr. sand (wet, FILL)	
8			
		Boring Complete at 8.0'	Free Standing Water Recorded at 3.5' at Boring Completion
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-4
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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 Recorded at 1.0' at Boring Completion
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-5
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND, little f-c gravel, tr. slag (moist, FILL)	
		White ASH, tr. cinders, tr. slag, tr. sand, tr. gravel (moist, FILL)	
4		White-Gray SLAG Fragments and Sand (wet, FILL)	
	BKG	White-Gray f-c SAND and Slag Fragments (moist, FILL)	
6			
		Becomes Blue-Green	
8		Brown-Black CINDERS, tr. coal, tr. slag, tr. sand (moist, FILL)	
		Boring Complete at 8.0'	Free Standing Water Recorded at Ground Surface at Boring Completion
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-6
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Black CINDERS and f-c Sand, tr. slag (moist, FILL)	
		Brown-Gray f-c SAND, tr. slag, tr. brick (moist, FILL)	
4		Contains tr. coal (wet)	
	BKG		
6		White-Blue and Bluish-Green SLAG and f-c Sand, tr. lime	
		(wet, FILL)	
8			
		Boring Complete at 8.0'	Free Standing Water Recorded at 3.5' at Boring Completion
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-7
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown-Black CINDERS and f-m Sand, tr. slag, tr. gravel (moist, FILL)	
4		Blue-Green SLAG and f-c Sand (moist, FILL)	
6		Boring Complete at 4.0'	Free Standing Water Recorded at 0.5' at Boring Completion
8			
10			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-8
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
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)	
6		Boring Complete at 4.0'	Free Standing Water Recorded at Ground Surface at Boring Completion
8			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			BKG= Background
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-28
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown-Black CINDERS and f-c Sand, Slag Fragments (wet, FILL)	
		Brown-Gray SLAG Fragments and f-c Sand (wet, FILL)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 0.5' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-29
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL Brown f-c SAND, some Cinders, come Brick Fragments, tr. slag (moist, FILL)	
4		Boring Complete with Sample Spoon Refusal at 1.0'	No Free Standing Water Encountered at Boring Completion
6			BKG= Background
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-29 A
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND, some Cinders, some Brick Fragments, tr. slag (moist, FILL)	
		Gray-Black and Blue-Gray SLAG, tr. lime (moist, FILL)	
4		Boring Complete with Refusal at 2.5'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-30
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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 Recorded at 1.0' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-31
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL Brown-Gray SLAG Fragments, little f-c Sand, tr. brick fragments, tr. organics (wet, FILL) Black-Gray Organic Clayey SILT, some f-c Sand (moist, FILL)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 0.5' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-32
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown Clayey SILT, tr. sand, tr. shale, tr. crushed limestone (moist, FILL)	
		Gray SLAG and Cinders (wet, FILL)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 0.5' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-33
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL Gray-Brown and Tan Clayey SILT, tr. sand, tr. roots (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Recorded at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-34
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL Brown Clayey SILT, tr. sand, tr. gravel, tr. wood, tr. slag, tr. brick (moist, FILL)	
4		Becomes Gray-Brown Gray-Brown Silty CLAY, little f-c Gravel, tr. slag, tr. sand, tr. wood (moist, FILL)	
6	BKG		
8			
10		Boring Complete at 8.0'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background Free Standing Water Recorded at 1.5' at Boring Completion
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-35
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black-Brown TOPSOIL and Slag Fragments (moist, FILL)	
		Brown-Black and Red-Brown CINDERS, tr. slag, tr. coal (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			BKG= Background
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/29/03
FINISHED 12/29/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. P-36
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 SAND with Gravel (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			BKG= Background
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
14			
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-9
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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 Encountered at Boring Completion
6			
8			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
10			
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/24/03
FINISHED 12/24/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-10
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	Possible Concrete Slab
2		Gray CONCRETE Slab Fragments (moist, FILL)	Encountered at 1.0'
		Brown CINDERS and Slag, little f-c Sand, tr. brick (moist, FILL)	
4			
		Boring Complete at 4.0'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
10			
12			
14			
16			"Hand" Sampling noted at 1.0'
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/ /03
FINISHED 12/ /03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

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

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Black-Brown CINDERS, tr. slag, tr. sand (moist, FILL)	
		Brown-Gray SLAG Fragments, tr. cinders, tr. sand, tr. coal (wet, FILL)	
4			
		Boring Complete at 4.0'	Free Standing Water Recorded at 1.0' at Boring Completion
6			
8			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
10			
12			
14			
16			"Hand" Sampling noted at 1.0'
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-12
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Gray-Brown SLAG Fragments and Cinders, tr. sand, tr. organics (moist, FILL)	
2			
		Brown Foundry SAND, tr. slag (moist-wet, FILL)	
4		Blue-Gray and White SAND and Slag, tr. lime (moist, FILL)	
		Boring Complete at 4.0'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
6			
8			
10			BKG= Background
12			
14			Free Standing Water Recorded at 0.5" at Boring Completion
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-13
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Red-Brown CINDERS, tr. slag (moist, FILL)	
		White-Gray Foundry Sand, tr. silt, tr. lime (moist, FILL)	
4		Boring Complete at 2.0'	Free Standing Water Recorded at 1.0' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
18			
20			
22			
24			
26			
28			
30			
32			

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

CLASSIFIED BY: C.Guzzetta
Environmental Specialist

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-14
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 and Gray f-c SAND, Slag Fragments and Cinders, tr. brick, tr. organics (moist, FILL)	
4		Boring Complete at 2.0'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
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22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-15
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 and Gray SLAG Fragments, some f-c Sand, tr. brick, tr. cinders (moist, FILL)	
4		Boring Complete at 2.0'	No Free Standing Water Encountered at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
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22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-16
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Gray-Brown and Blue-Black SLAG Fragments, tr. sand, tr. silt (moist, FILL)	MSA Passport II
4			
6	BKG	Contains tr. lime	Detector (PID) used expressed in parts-per-million (PPM) BKG=Background
8			
10		Boring Complete at 8.0'	No Free Standing Water Encountered at Boring Completion
12			
14			
16			
18			
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22			
24			
26			
28			
30			
32			

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

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-17
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Gray-Brown SLAG Fragments and foundry Sand, tr. silt, tr. cinders (wet, FILL)	Possible Petroleum in PID
4		Boring Complete at 2.0'	Free Standing Water Recorded at 1.0' at Boring Completion
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			
16			
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20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-18
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown-Gray SLAG Fragments, little f-c Sand, tr. silt, tr. brick, tr. cinders, tr. coal (moist, FILL)	
2		Boring Complete at 2.0'	No Free Standing Water Encountered at Boring Completion
4			
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			
16			
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22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-19
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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 Recorded at 1.0' at Boring Completion
4			
6			
8			MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-20
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Red-Brown and Gray CINDERS, tr. slag	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
4			
6	BKG		
8			No Free Standing Water Encountered at Boring Completion
10			
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-21
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL 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			
10		Boring Complete at 8.0'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background No Free Standing Water Recorded at Boring Completion
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-22
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown f-c SAND and Slag Fragments (moist, FILL)	
		Brown Clayey SILT, little f-c Sand (moist, FILL)	
4		Brown f-c Sand and Peat, Contains Coal and Cobble (moist, FILL)	
	BKG	Brown-Gray Silty CLAY, tr. - little f-c Gravel, tr. sand, tr. organics, occasional	
6		cobble (moist, FILL)	
8			
		Boring Complete at 8.0'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			BKG= Background
14			
16			No Free Standing Water Encountered at Boring Completion
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-23
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Gray Crushed STONE and Slag (moist, FILL)	
2		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 Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			BKG= Background
14			
16			No Free Standing Water Encountered at Boring Completion
18			
20			
22			
24			
26			
28			
30			
32			

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

CLASSIFIED BY: C.Guzzetta
Environmental Specialist

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-24
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	TOPSOIL	
2		Brown-Black CINDERS, tr. sand (moist, FILL)	
		Brown f-c Sand and Slag Fragments, some Cinders, tr. organics (wet, FILL)	
4		Boring Complete at 4.0'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM)
6			
8			BKG= Background
10			
12			Free Standing Water Recorded at 2.0' at Boring Completion
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. D-25
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 and Slag Fragments, tr. organics, tr. cinders (moist, FILL)	
4		Boring Complete at 4.0'	MSA Passport II Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background Free Standing Water Recorded at 2.0' at Boring Completion
6			
8			
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12			
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16			
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28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-1
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown CINDERS, tr. Sand, tr. Gravel (moist, FILL)	
2		Gray SLAG Fragments (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-2
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black CINDERS and Slag Fragments, tr. Brick (moist, fill)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
18			
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24			
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30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-3
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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 Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-4
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown-Gray SLAG Fragments and Cinders (moist, FILL)	
2		Gray Silty CLAY, tr. Sand (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-5
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black-Gray CINDERS and Slag Fragments (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-6
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	CINDERS and TOPSOIL FILL Gray SLAG, some Black Cinders, little f-c Sand (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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28			
30			
32			

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

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-7
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Gray SLAG, some Black Cinders, little f-c Sand (moist, fill)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-8
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Red-Brown CINDERS and f-c Sand, tr.slag (moist, FILL)	
	2-3.5'	Black-Gray SLAG Fragments (wet, FILL)	
4		Boring Complete at 3.5'	Free Standing Water Recorded at 1.0' at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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DRILLER: M.Matthies
DRILL RIG TYPE: SYMCO 2500
CLASSIFIED BY: C.Guzzetta
Environmental Specialist

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-9
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Red-Brown CINDERS and f-c Sand (moist, FILL)	
		Becomes Black, tr. brick (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			BKG= Background
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
14			
16			
18			BKG= Background
20			
22			
24			
26			
28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-10
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black-Brown CINDERS, tr. slag, tr. sand (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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DRILLER: M.Matthies
DRILL RIG TYPE: SYMCO 2500
CLASSIFIED BY: C.Guzzetta
Environmental Specialist
METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

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

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black-Brown CINDERS, tr. slag, tr. sand (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
14			
16			
18			BKG= Background
20			
22			
24			
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32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-12
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 CINDERS and Slag Fragments, tr. brick, tr. sand (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-13
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Red-Brown CINDERS, tr. slag, tr. sand, tr. organics (wet, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-14
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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 CINDERS, tr. slag, tr. brick, tr. sand	
		tr. sand (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-15
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black-Brown CINDERS, tr. sand, tr. brick, tr. coal, tr. slag (moist, FILL)	
		Gray SLAG Fragments (moist, FILL)	
4		Tan-Brown f-c SAND, tr. silt (moist, FILL)	
		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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26			
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30			
32			

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

CLASSIFIED BY: C.Guzzetta
Environmental Specialist

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-15
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Black-Brown CINDERS, tr. sand, tr. brick, tr. coal, tr. slag (moist, FILL)	
		Gray SLAG Fragments (moist, FILL)	
		Tan-Brown f-c SAND, tr. silt (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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30			
32			

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

CLASSIFIED BY: C.Guzzetta
Environmental Specialist

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-16
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Brown CINDERS, tr. slag (moist, FILL)	
2		Gray CONCRETE Slag Fragments (moist, FILL)	
		Boring Complete with Sampler Refusal at 2.01'	No Free Standing Water Encountered at Boring Completion
4			
6			
8			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM)
10			
12			
14			BKG= Background
16			
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28			
30			
32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-16A
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Red-Brown CINDERS, tr. slag, tr. brick (moist, FILL)	
		Gray CONCRETE Slag Fragments (moist, FILL)	
4		Red-Brown CINDERS, tr. slag (moist, FILL)	
6		Boring Complete at 3.5'	Free Standing Water Recorded at 3.0' at Boring Completion
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in
14			parts-per-million (PPM)
16			BKG= Background
18			
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32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-17
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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-Gray CINDERS and Slag Fragments, tr. coal (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-18
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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. crushed stone fragments (moist, FILL)	
		Gray SLAG Fragments, Contains numerous Brick Fragments (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
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32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-19
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Red-Brown and Gray-Brown Silt CLAY (moist, FILL)	
2		Red-Brown CINDERS and Gray Slag Fragments (moist, FILL)	
		Blue-Green SLAG Fragments, tr sand (moist, FILL)	
4		Red-Brown CINDERS (moist, FILL)	
		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-20
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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. silt, tr. clay, tr. granite, Contains many Slag Fragments, tr. coal, tr. cinders (moist, FILL)	
4		Boring Complete at 3.5'	No Free Standing Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-21
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	BKG	Red-Brown CINDERS, tr. sand (moist, FILL)	
2		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 Water Encountered at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
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32			

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

METHOD OF INVESTIGATION: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-22
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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		Boring Complete at 3.5'	Free Standing Water Encountered at 3.0' at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-23
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	Gray SLAG Fragments and f-c Sand, tr. brick, tr. cinders, tr. ash, tr. lime (moist, FILL) 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 Boring Completion BKG= Background MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
6			
8			
10			
12			
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-24
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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-Gray SLAG and Foundry Sand (moist-wet, FILL) Contains tr. coal, tr. lime (wet, FILL)	
4		Boring Complete at 4.0'	Free Standing Water Encountered at 3.0' at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-25
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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
	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)	
		Boring Complete at 4.0'	Free Standing Water Encountered at 3.5 at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

DATE:
STARTED 12/31/03
FINISHED 12/31/03
SHEET 1 OF 1

SJB SERVICES, INC.
DIRECT PUSH LOG

HOLE NO. F-26
SURF. ELEV N/A
G.W. DEPTH See Notes

PROJECT: Certain Teed Corporation-New Manufacturing Plant & Offices
PROJ. NO.: 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	TOPSOIL and SLAG 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 Encountered at 1.5 at Boring Completion
6			
8			
10			
12			MSA Passport Photoionization Detector (PID) used expressed in parts-per-million (PPM) BKG= Background
14			
16			
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: DIRECT PUSH SAMPLING

APPENDIX B

PSC ANALYTICAL SERVICES
LABORATORY ANALYTICAL REPORT

Certificate of Analysis

CLIENT INFORMATION

Attention: Chuck Guzzetta
Client Name: Empire Geo-Services Inc.
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

LABORATORY INFORMATION

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: M. C

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA L7L 5H7 T 905 332 8788 F 905 332 9169 W www.pscanalytical.com

	Client ID:		Method Blank	Blank Spike	% Recovery	Composite Sample #1	Composite Sample #1
	Lab No.:		078091 03	078091 03	078091 03	078092 03	078092 03
	Date Sampled:		24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003
Component	**MDL**	**Units**					Duplicate
Soil pH measured in water			-	-	-	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	"	<	50	100	28	-
Lead	1.0	"	<	49	99	120	-
Selenium	1.0	"	<	25	99	<	-
Silver	0.50	"	<	24	97	<	-

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

			Method	Blank	%	Composite
	Client ID:		Blank	Spike	Recovery	Sample #1
	Lab No.:		078091 03	078091 03	078091 03	078092 03
	Date Sampled:		24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003
Component	**MDL**	**Units**				
Aldrin	0.004	ug/gm	<	0.049	82	<
a-BHC	0.003	"	<	0.044	73	<
b-BHC	0.005	"	<	0.048	80	<
g-BHC (Lindane)	0.002	"	<	0.046	77	<
d-BHC	0.004	"	<	0.051	85	<
a-Chlordane	0.005	"	<	0.058	96	<
g-Chlordane	0.006	"	<	0.052	87	<
Isodrin	0.004	"	<	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	<
Dieldrin	0.006	"	<	0.049	81	<
a-Endosulfan	0.003	"	<	0.052	87	<
b-Endosulfan	0.008	"	<	0.054	91	<
Endosulfan Sulfate	0.005	"	<	0.053	88	<
Endrin	0.003	"	<	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	"	<	0.27	110	<
Mirex	0.007	"	<	0.11	89	<
Toxaphene	0.100	"	<	NS	-	<
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	"	<	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	"	<	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

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

VOC Analysis by 8260B

			Method	Blank	%	Grab Sample
	Client ID:		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
Component	**MDL**	**Units**				
Acetone	0.020	mg/kg	<	0.049	78	0.071
Acrolein	0.010	"	<	0.057	92	<0.015
Acrylonitrile	0.010	"	<	0.051	82	<0.015
Benzene	0.001	"	<	0.057	91	<0.002
Bromoform	0.001	"	<	0.053	85	<0.002
Bromomethane	0.006	"	<	0.048	76	<0.009
2-Butanone	0.005	"	<	0.056	89	<0.008
Carbon Disulfide	0.001	"	<	0.049	78	0.008
Carbon Tetrachloride	0.001	"	<	0.058	93	<0.002
Chlorobenzene	0.001	"	<	0.054	87	<0.002
Chlorodibromomethane	0.001	"	<	0.053	85	<0.002
Chloroethane	0.001	"	<	0.068	110	<0.002
Chloroform	0.001	"	<	0.056	89	<0.002
Chloromethane	0.001	"	<	0.066	110	0.002
1,2-Dichlorobenzene	0.001	"	<	0.050	79	<0.002
1,3-Dichlorobenzene	0.001	"	<	0.052	84	<0.002
1,4-Dichlorobenzene	0.001	"	<	0.051	82	<0.002
Dichlorobromomethane	0.001	"	<	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	"	<	0.057	91	<0.002
Dichloromethane	0.020	"	<	0.058	93	<0.030
Methyl-t-butylether	0.001	"	<	NS	-	<0.002
Ethylene Dibromide	0.001	"	<	0.051	82	<0.002
1,2-Dibromo-3-Chloropropane	0.005	"	<	0.047	76	<0.008
cis-1,2-Dichloroethene	0.001	"	<	0.058	93	<0.002
trans-1,2-Dichloroethene	0.001	"	<	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	"	<	0.049	78	<0.002
Ethylbenzene	0.001	"	<	0.055	88	<0.002
2-Hexanone	0.005	"	<	0.052	83	<0.008
4-Methyl-2-Pentanone	0.005	"	<	0.054	86	<0.008
Styrene	0.001	"	<	0.058	93	<0.002
1,1,1,2-Tetrachloroethane	0.001	"	<	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	"	<	0.054	87	0.001
1,1,1-Trichloroethane	0.001	"	<	0.057	91	<0.002
1,1,2-Trichloroethane	0.001	"	<	0.052	83	<0.002
Trichloroethene	0.001	"	<	0.057	92	<0.002
Trichlorfluoromethane	0.001	"	<	0.057	91	<0.002
Vinyl Chloride	0.001	"	<	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
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

SVOC Analysis by 8270C

			Method	Blank	%	Blank Spike	%
	Client ID:		Blank	Spike	Recovery	Recovery	Recovery
	Lab No.:		078091 03	078091 03	078091 03	078091 03	078091 03
	Date Sampled:		24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003
Component	**MDL**	**Units**					
Phenol	0. 26	mg/kg	<0.52	9.9	99	9.5	95
Bis(2-chloroethyl)ether	0.18	"	<0.36	NS	-	NS	-
2-Chlorophenol	0.48	"	<0.96	10	100	9.9	99
1,3-Dichlorobenzene	0.20	"	<0.40	NS	-	NS	-
1,4-Dichlorobenzene	0.20	"	<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	"	<0.40	NS	-	NS	-
N-Nitroso-di-N-Propylamine	0.21	"	<0.42	4.3	85	4.4	89
Nitrobenzene	0.20	"	<0.40	NS	-	NS	-
Isophorone	0.40	"	<0.80	NS	-	NS	-
2-Nitrophenol	0.14	"	<0.28	NS	-	NS	-
2,4-Dimethylphenol	0.17	"	<0.34	NS	-	NS	-
Bis(2-chloroethoxy)methane	0.13	"	<0.26	NS	-	NS	-
2,4-Dichlorophenol	0.15	"	<0.30	NS	-	NS	-
1,2,4-Trichlorobenzene	0.20	"	<0.40	3.9	79	4.1	82
Naphthalene	0.09	"	<0.18	NS	-	NS	-
Hexachlorobutadiene	0.20	"	<0.40	NS	-	NS	-
4-Chloro-3-Methylphenol	0.15	"	<0.30	9.7	97	8.9	89
Hexachlorocyclopentadiene	0.20	"	<0.40	NS	-	NS	-
2,4,6-Trichlorophenol	0.12	"	<0.24	NS	-	NS	-
2-Chloronaphthalene	0.34	"	<0.68	NS	-	NS	-
Acenaphthylene	0.04	"	<0.08	NS	-	NS	-
Dimethyl phthalate	0.11	"	<0.22	NS	-	NS	-
2,6-Dinitrotoluene	0.06	"	<0.12	NS	-	NS	-
Acenaphthene	0.07	"	<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	"	<0.34	8.8	88	7.3	73
Fluorene	0.06	"	<0.12	NS	-	NS	-
4-Chlorophenylphenylether	0.09	"	<0.18	NS	-	NS	-
Diethyl phthalate	0.11	"	<0.22	NS	-	NS	-
4,6-Dinitro-2-methylphenol	0.16	"	<0.32	NS	-	NS	-
N-Nitrosodiphenylamine	0.19	"	<0.38	NS	-	NS	-
4-Bromophenylphenylether	0.04	"	<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	"	<0.06	NS	-	NS	-
Anthracene	0.06	"	<0.12	NS	-	NS	-
Di-n-butyl phthalate	0.11	"	<0.22	NS	-	NS	-
Fluoranthene	0.05	"	<0.10	NA	<	NA	<
Pyrene	0.06	"	<0.12	4.5	90	4.4	87
Benzyl butyl phthalate	0.10	"	<0.20	NS	-	NS	-
3,3-Dichlorobenzidine	0.34	"	<0.68	NS	-	NS	-
Benzo(a)anthracene	0.05	"	<0.10	NS	-	NS	-
Chrysene	0.06	"	<0.12	NS	-	NS	-
Bis(2-ethylhexyl)phthalate	0.75	"	<1.5	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	"	<0.08	NS	-	NS	-

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

SVOC Analysis by 8270C

			Method	Blank	%	Blank Spike	%
	Client ID:		Blank	Spike	Recovery	Recovery	Recovery
	Lab No.:		078091 03	078091 03	078091 03	078091 03	078091 03
	Date Sampled:		24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003	24-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	-	NS	-
Aniline	0.50	"	<1.0	NS	-	NS	-
Benzyl alcohol	0.50	"	<1.0	NS	-	NS	-
Carbazole	0.50	"	<1.0	NS	-	NS	-
2-Methylphenol	0.50	"	<1.0	NS	-	NS	-
3&4-Methylphenol	0.50	"	<1.0	NS	-	NS	-
Benzoic acid	0.50	"	<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	"	<1.0	NS	-	NS	-
3-Nitroaniline	0.50	"	<1.0	NS	-	NS	-
Dibenzofuran	0.50	"	<1.0	NS	-	NS	-
Benzidine	0.50	"	<1.0	NS	-	NS	-
4-Nitroaniline	0.50	"	<1.0	NS	-	NS	-

SVOC Analysis by 8270C

			Composite
	Client ID:		Sample #1
	Lab No.:		078092 03
	Date Sampled:		24-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	"	<0.40
1,4-Dichlorobenzene	0.20	"	<0.40
1,2-Dichlorobenzene	0.20	"	<0.40
Bis(2-chloroisopropyl)ether	0.15	"	<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	"	<0.28
2,4-Dimethylphenol	0.17	"	<0.34
Bis(2-chloroethoxy)methane	0.13	"	<0.26
2,4-Dichlorophenol	0.15	"	<0.30
1,2,4-Trichlorobenzene	0.20	"	<0.40
Naphthalene	0.09	"	1.1
Hexachlorobutadiene	0.20	"	<0.40
4-Chloro-3-Methylphenol	0.15	"	<0.30
Hexachlorocyclopentadiene	0.20	"	<0.40
2,4,6-Trichlorophenol	0.12	"	<0.24
2-Chloronaphthalene	0.34	"	<0.68
Acenaphthylene	0.04	"	<0.08
Dimethyl phthalate	0.11	"	<0.22
2,6-Dinitrotoluene	0.06	"	<0.12
Acenaphthene	0.07	"	0.14
2,4-Dinitrophenol	0.48	"	<0.96
2,4-Dinitrotoluene	0.22	"	<0.44
4-Nitrophenol	0.17	"	<0.34
Fluorene	0.06	"	0.19
4-Chlorophenylphenylether	0.09	"	<0.18
Diethyl phthalate	0.11	"	<0.22
4,6-Dinitro-2-methylphenol	0.16	"	<0.32
N-Nitrosodiphenylamine	0.19	"	<0.38
4-Bromophenylphenylether	0.04	"	<0.08
Hexachlorobenzene	0.20	"	<0.40
Pentachlorophenol	0.31	"	<0.62
Phenanthrene	0.03	"	1.5
Anthracene	0.06	"	0.33
Di-n-butyl phthalate	0.11	"	<0.22
Fluoranthene	0.05	"	2.1
Pyrene	0.06	"	1.5
Benzyl butyl phthalate	0.10	"	<0.20
3,3-Dichlorobenzidine	0.34	"	<0.68
Benzo(a)anthracene	0.05	"	1.0
Chrysene	0.06	"	1.1
Bis(2-ethylhexyl)phthalate	0.75	"	<1.5
Di-n-octyl phthalate	0.11	"	<0.22
Benzo(b)fluoranthene	0.04	"	1.2
Benzo(k)fluoranthene	0.04	"	0.58

SVOC Analysis by 8270C

			Composite
	Client ID:		Sample #1
	Lab No.:		078092 03
	Date Sampled:		24-Dec-2003
Component	**MDL**	**Units**	
Benzo(a)pyrene	0.05	mg/kg	0.88
Indeno(1,2,3-cd)pyrene	0.06	"	0.77
Dibenzo(a,h)anthracene	0.06	"	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	"	<1.0
2-Methylphenol	0.50	"	<1.0
3&4-Methylphenol	0.50	"	<1.0
Benzoic acid	0.50	"	<1.0
4-Chloroaniline	0.50	"	<1.0
2-Methylnaphthalene	0.34	"	1.3
2,4,5-Trichlorophenol	0.10	"	<0.20
2-Nitroaniline	0.50	"	<1.0
3-Nitroaniline	0.50	"	<1.0
Dibenzofuran	0.50	"	<1.0
Benzidine	0.50	"	<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
Batch Code:	**0105VPC1**
Cyanide total	078091 03
	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
Batch Code:	**0105MG01**
Aldrin	078091 03
	078092 03
Date Analysed:	04/01/07
Date Prepared:	04/01/05
Batch Code:	**0105MG01**
Aroclor-1016	078091 03
	078092 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
Batch Code:	**0105SM01**
Acetone	078091 03
	078093 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
Batch Code:	**0105SM01**
cis-1,2-Dichloroethene	078091 03
	078093 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
Batch Code:	**0102SPX1**
Phenol	078091 03
	078092 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
	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

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

Page _____ of _____

CLIENT INFORMATION

Company Name: EMPIRE GEO-SERVICES, INC.
Project Manager: CHARLES B. GUZZETTA
Address: 5167 SOUTH PARK AVENUE
HAMBURG, NEW YORK 14075
Phone #: _____ Fax #: _____
Sampled by: C. GUZZETTA

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	TCL SVOCs	Pesticides	PCBs	Metals: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Cyanide	pH	TCL Volatiles Organic Compounds	Level of contamination (low, high, unknown)
	COMPOSITE SAMPLE #1	2-8oz	SOIL	12-24-03	3:30 PM	X	X	X	X	X	X	L
	GRAB SAMPLE #1 (D-17)	1-8oz	SOIL	12-24-03	9:30 AM							L

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 ☐
- RUSH 1 Business Days ☐
- Other Business Days _____

PROJECT INFORMATION

Project #: BEU-03-040
Site: HANNA FURNACE SITE
PO#: _____
Philip Quote #: _____
Philip Project #: _____
Philip Contact: _____

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

REMARKS

ASP Project

Client Signature: _____
Affiliation: EMPIRE GEO-SERVICES INC.
Date/Time: 12-24-03 / 5:30 PM

Received By: _____
Affiliation: PSC
Date/Time: 12/24/03 9:30 AM

Rec'd By: _____
Date/Time _____

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

WHITE - LAB / YELLOW - CLIENT

Certificate of Analysis

CLIENT 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

LABORATORY INFORMATION

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: MC

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA L7L 5H7 T 905 332 8788 F 905 332 9169 W www.pscanalytical.com

PASC - Certificate of Analysis

	Client ID:		Method Blank	Blank Spike	% Recovery	C-Z (Composite)	C-Z (Composite)	C-Z (Composite)	C-Z (Composite)
	Lab No.:		078170 03	078170 03	078170 03	078171 03	078171 03	078171 03	078171 03
	Date Sampled:		29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003
Component	**MDL**	**Units**					Duplicate	M. Spike	MS % Rec.
Soil pH measured in water			-	-	-	8.91	-	-	-
Cyanide total	0.100	mg/kg	<	2.6	100	1.0	-	-	-
Mercury	0.04	mg/kg	<	1.0	100	0.090	0.090	1.1	100
						(2)			
Arsenic	1.0	mg/kg	<	25	100	41	-	-	-
Barium	0.50	"	<	52	100	240	-	-	-
Cadmium	0.50	"	<	26	100	11	-	-	-
Chromium	0.50	"	<	51	100	38	-	-	-
Lead	1.0	"	<	51	100	160	-	-	-
Selenium	1.0	"	<	26	100	<5.0	-	-	-
Silver	0.50	"	<	25	100	<	-	-	-

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

	Client ID:		Method Blank	Blank Spike	% Recovery	C-Z (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
Component	**MDL**	**Units**				
			(1)			(3)
Aldrin	0.004	ug/gm	<	0.049	82	<
a-BHC	0.003	"	<	0.044	73	0.004
b-BHC	0.005	"	<	0.048	80	0.008
g-BHC (Lindane)	0.002	"	<	0.046	77	<
d-BHC	0.004	"	<	0.051	85	<
a-Chlordane	0.005	"	<	0.058	96	<
g-Chlordane	0.006	"	<	0.052	87	<
Isodrin	0.004	"	<	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	<
Dieldrin	0.006	"	<	0.049	81	<
a-Endosulfan	0.003	"	<	0.052	87	<
b-Endosulfan	0.008	"	<	0.054	91	<
Endosulfan Sulfate	0.005	"	<	0.053	88	<
Endrin	0.003	"	<	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	"	<	0.27	110	<
Mirex	0.007	"	<	0.11	89	<
Toxaphene	0.100	"	<	NS	-	<
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			51	53	53	48
Decachlorobiphenyl			79	86	86	71
Aroclor-1016	0.038	ug/gm	<	0.44	110	<
Aroclor-1221	0.041	"	<	NS	-	<
Aroclor-1232	0.038	"	<	NS	-	<
Aroclor-1242	0.050	"	<	NS	-	<
Aroclor-1248	0.031	"	<	NS	-	<
Aroclor-1254	0.059	"	<	NS	-	<
Aroclor-1260	0.031	"	<	0.47	120	0.050
Aroclor-1262	0.031	"	<	NS	-	<
Aroclor-1268	0.049	"	<	NS	-	<
Total PCB	0.059	"	<	0.90	110	<
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			94	105	105	70
Decachlorobiphenyl			104	111	111	87

Pesticide analysis by 8081B
PCB Analysis by 8082A

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

PASC - Certificate of Analysis

VOC Analysis by 8260B

			Method	Blank	%	P-1 (Grab
	Client ID:		Blank	Spike	Recovery	Sample #2)
	Lab No.:		078170 03	078170 03	078170 03	078172 03
	Date Sampled:		29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003
Component	**MDL**	**Units**				
Acetone	0.020	mg/kg	<	0.049	78	<
Acrolein	0.010	"	<	0.057	92	<
Acrylonitrile	0.010	"	<	0.051	82	<
Benzene	0.001	"	<	0.057	91	<
Bromoform	0.001	"	<	0.053	85	<
Bromomethane	0.006	"	<	0.048	76	<
2-Butanone	0.005	"	<	0.056	89	<
Carbon Disulfide	0.001	"	<	0.049	78	0.002
Carbon Tetrachloride	0.001	"	<	0.058	93	<
Chlorobenzene	0.001	"	<	0.054	87	<
Chlorodibromomethane	0.001	"	<	0.053	85	<
Chloroethane	0.001	"	<	0.068	110	<
Chloroform	0.001	"	<	0.056	89	<
Chloromethane	0.001	"	<	0.066	110	<
1,2-Dichlorobenzene	0.001	"	<	0.050	79	<
1,3-Dichlorobenzene	0.001	"	<	0.052	84	<
1,4-Dichlorobenzene	0.001	"	<	0.051	82	<
Dichlorobromomethane	0.001	"	<	0.056	89	<
1,1-Dichloroethane	0.001	"	<	0.056	90	<
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	0.005	"	<	0.047	76	<
cis-1,2-Dichloroethene	0.001	"	<	0.058	93	<
trans-1,2-Dichloroethene	0.001	"	<	0.056	90	<
1,2-Dichloropropane	0.001	"	<	0.055	88	<
cis-1,3-Dichloropropene	0.001	"	<	0.056	89	<
trans-1,3-Dichloropropene	0.001	"	<	0.049	78	<
Ethylbenzene	0.001	"	<	0.055	88	<
2-Hexanone	0.005	"	<	0.052	83	<
4-Methyl-2-Pentanone	0.005	"	<	0.054	86	<
Styrene	0.001	"	<	0.058	93	<
1,1,1,2-Tetrachloroethane	0.001	"	<	0.054	86	<
1,1,2,2-Tetrachloroethane	0.001	"	<	0.049	79	<
Tetrachloroethene	0.001	"	<	0.055	88	<
Toluene	0.001	"	<	0.054	87	<
1,1,1-Trichloroethane	0.001	"	<	0.057	91	<
1,1,2-Trichloroethane	0.001	"	<	0.052	83	<
Trichloroethene	0.001	"	<	0.057	92	<
Trichlorfluoromethane	0.001	"	<	0.057	91	<
Vinyl Chloride	0.001	"	<	0.072	120	<
m&p-Xylene	0.001	"	<	0.11	90	<
o-Xylene	0.001	"	<	0.054	87	<
Isopropylbenzene	0.001	"	<	0.050	80	<
Surrogate Recoveries		%				
d4-1,2-Dichloroethane			72	68	68	67
d8-Toluene			77	69	69	79
Bromofluorobenzene			81	74	74	73
d10-Ethylbenzene			91	90	90	84

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

SVOC Analysis by 8270C

	Client ID:		Method Blank	Method Blank	Method Blank	Method Blank	Method Blank
	Lab No.:		078170 03	078170 03	078170 03	078170 03	078170 03
	Date Sampled:		29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003
Component	**MDL**	**Units**					
Phenol	0. 26	mg/kg	<0.52	9.9	99	9.5	95
Bis(2-chloroethyl)ether	0.18	"	<0.36	NS	-	NS	-
2-Chlorophenol	0.48	"	<0.96	10	100	9.9	99
1,3-Dichlorobenzene	0.20	"	<0.40	NS	-	NS	-
1,4-Dichlorobenzene	0.20	"	<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	"	<0.40	NS	-	NS	-
N-Nitroso-di-N-Propylamine	0.21	"	<0.42	4.3	85	4.4	89
Nitrobenzene	0.20	"	<0.40	NS	-	NS	-
Isophorone	0.40	"	<0.80	NS	-	NS	-
2-Nitrophenol	0.14	"	<0.28	NS	-	NS	-
2,4-Dimethylphenol	0.17	"	<0.34	NS	-	NS	-
Bis(2-chloroethoxy)methane	0.13	"	<0.26	NS	-	NS	-
2,4-Dichlorophenol	0.15	"	<0.30	NS	-	NS	-
1,2,4-Trichlorobenzene	0.20	"	<0.40	3.9	79	4.1	82
Naphthalene	0.09	"	<0.18	NS	-	NS	-
Hexachlorobutadiene	0.20	"	<0.40	NS	-	NS	-
4-Chloro-3-Methylphenol	0.15	"	<0.30	9.7	97	8.9	89
Hexachlorocyclopentadiene	0.20	"	<0.40	NS	-	NS	-
2,4,6-Trichlorophenol	0.12	"	<0.24	NS	-	NS	-
2-Chloronaphthalene	0.34	"	<0.68	NS	-	NS	-
Acenaphthylene	0.04	"	<0.08	NS	-	NS	-
Dimethyl phthalate	0.11	"	<0.22	NS	-	NS	-
2,6-Dinitrotoluene	0.06	"	<0.12	NS	-	NS	-
Acenaphthene	0.07	"	<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	"	<0.34	8.8	88	7.3	73
Fluorene	0.06	"	<0.12	NS	-	NS	-
4-Chlorophenylphenylether	0.09	"	<0.18	NS	-	NS	-
Diethyl phthalate	0.11	"	<0.22	NS	-	NS	-
4,6-Dinitro-2-methylphenol	0.16	"	<0.32	NS	-	NS	-
N-Nitrosodiphenylamine	0.19	"	<0.38	NS	-	NS	-
4-Bromophenylphenylether	0.04	"	<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	"	<0.06	NS	-	NS	-
Anthracene	0.06	"	<0.12	NS	-	NS	-
Di-n-butyl phthalate	0.11	"	<0.22	NS	-	NS	-
Fluoranthene	0.05	"	<0.10	NS	-	NS	-
Pyrene	0.06	"	<0.12	4.5	90	4.4	87
Benzyl butyl phthalate	0.10	"	<0.20	NS	-	NS	-
3,3-Dichlorobenzidine	0.34	"	<0.68	NS	-	NS	-
Benzo(a)anthracene	0.05	"	<0.10	NS	-	NS	-
Chrysene	0.06	"	<0.12	NS	-	NS	-
Bis(2-ethylhexyl)phthalate	0.75	"	<1.5	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	"	<0.08	NS	-	NS	-

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

SVOC Analysis by 8270C			Method Blank	Method Blank	Method Blank	Method Blank	Method Blank
	Client ID:		Method Blank	Method Blank	Method Blank	Method Blank	Method Blank
	Lab No.:		078170 03	078170 03	078170 03	078170 03	078170 03
	Date Sampled:		29-Dec-2003	29-Dec-2003	29-Dec-2003	29-Dec-2003	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	-	NS	-
Aniline	0.50	"	<1.0	NS	-	NS	-
Benzyl alcohol	0.50	"	<1.0	NS	-	NS	-
Carbazole	0.50	"	<1.0	NS	-	NS	-
2-Methylphenol	0.50	"	<1.0	NS	-	NS	-
3&4-Methylphenol	0.50	"	<1.0	NS	-	NS	-
Benzoic acid	0.50	"	<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	"	<1.0	NS	-	NS	-
3-Nitroaniline	0.50	"	<1.0	NS	-	NS	-
Dibenzofuran	0.50	"	<1.0	NS	-	NS	-
Benzidine	0.50	"	<1.0	NS	-	NS	-
4-Nitroaniline	0.50	"	<1.0	NS	-	NS	-

SVOC Analysis by 8270C

			C-Z
	Client ID:		(Composite)
	Lab No.:		078171 03
	Date Sampled:		29-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	"	<0.40
1,4-Dichlorobenzene	0.20	"	<0.40
1,2-Dichlorobenzene	0.20	"	<0.40
Bis(2-chloroisopropyl)ether	0.15	"	<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	"	<0.28
2,4-Dimethylphenol	0.17	"	<0.34
Bis(2-chloroethoxy)methane	0.13	"	<0.26
2,4-Dichlorophenol	0.15	"	<0.30
1,2,4-Trichlorobenzene	0.20	"	<0.40
Naphthalene	0.09	"	<0.18
Hexachlorobutadiene	0.20	"	<0.40
4-Chloro-3-Methylphenol	0.15	"	<0.30
Hexachlorocyclopentadiene	0.20	"	<0.40
2,4,6-Trichlorophenol	0.12	"	<0.24
2-Chloronaphthalene	0.34	"	<0.68
Acenaphthylene	0.04	"	<0.08
Dimethyl phthalate	0.11	"	<0.22
2,6-Dinitrotoluene	0.06	"	<0.12
Acenaphthene	0.07	"	<0.14
2,4-Dinitrophenol	0.48	"	<0.96
2,4-Dinitrotoluene	0.22	"	<0.44
4-Nitrophenol	0.17	"	<0.34
Fluorene	0.06	"	<0.12
4-Chlorophenylphenylether	0.09	"	<0.18
Diethyl phthalate	0.11	"	<0.22
4,6-Dinitro-2-methylphenol	0.16	"	<0.32
N-Nitrosodiphenylamine	0.19	"	<0.38
4-Bromophenylphenylether	0.04	"	<0.08
Hexachlorobenzene	0.20	"	<0.40
Pentachlorophenol	0.31	"	<0.62
Phenanthrene	0.03	"	0.18
Anthracene	0.06	"	<0.12
Di-n-butyl phthalate	0.11	"	<0.22
Fluoranthene	0.05	"	0.23
Pyrene	0.06	"	0.29
Benzyl butyl phthalate	0.10	"	<0.20
3,3-Dichlorobenzidine	0.34	"	<0.68
Benzo(a)anthracene	0.05	"	0.24
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

			C-Z
	Client ID:		(Composite)
	Lab No.:		078171 03
	Date Sampled:		29-Dec-2003
Component	**MDL**	**Units**	
Benzo(a)pyrene	0.05	mg/kg	0.33
Indeno(1,2,3-cd)pyrene	0.06	"	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	"	<1.0
Benzyl alcohol	0.50	"	<1.0
Carbazole	0.50	"	<1.0
2-Methylphenol	0.50	"	<1.0
3&4-Methylphenol	0.50	"	<1.0
Benzoic acid	0.50	"	<1.0
4-Chloroaniline	0.50	"	<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	"	<1.0
Dibenzofuran	0.50	"	<1.0
Benzidine	0.50	"	<1.0
4-Nitroaniline	0.50	"	<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
	078171 03
Date Analysed:	04/01/07
Date Prepared:	04/01/05
Batch Code:	**0105MBS1**
Mercury	078170 03
	078171 03
Date Analysed:	04/01/06
Date Prepared:	04/01/05
Batch Code:	**0102VPX3**
Arsenic	078170 03
	078171 03
Date Analysed:	04/01/05
Date Prepared:	04/01/02
Batch Code:	**0105MG01**
Aldrin	078170 03
	078171 03
Date Analysed:	04/01/07
Date Prepared:	04/01/05
Batch Code:	**0105MG01**
Aroclor-1016	078170 03
	078171 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
Batch Code:	**0105SM01**
Acetone	078170 03
	078172 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
Batch Code:	**0105SM01**
cis-1,2-Dichloroethene	078170 03
	078172 03
Date Analysed:	04/01/05
Date Prepared:	04/01/05
Batch Code:	**0102SPX1**
Phenol	078170 03
	078171 03

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
	078171 03
Date Analysed:	04/01/06
Date Prepared:	04/01/02

CHAIN OF CUSTODY

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

Page 1 of 1

CLIENT INFORMATION

Company Name: EMPIRE GEO-SERVICES, INC.
Project Manager: C. GUZZETTA
Address: 5767 S. PARK AVE
HAMBURG, N.Y. 14075
Phone #: 716 649-8110 Fax #: 716 649-8051
Sampled by: C. GUZZETTA

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	TCL SEMI-VOLATILE ORGANIC COMPOUNDS	PESTICIDES	POLYCHLORINATED BIPHENYLS (PCBs)	METALS (ARSENIC, BARIUM, CADMIUM, LEAD, MERCURY, SELENIUM, SILVER + CHROMIUM)	PH (ISW-846 METHOD 9045)	TCL VOLATILE ORGANIC COMPOUNDS	Level of contamination (low, high, unknown)
	C-2 (COMPOSITE)	2-16oz Gl. Soils	SOIL	12-29-03	3:00 PM	X	X	X	X	X		U
	P-1 (GRAB SAMPLE #2	2-4oz Gl. Soils	SOIL	12-27-03	12:00 PM						X	L

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 ☐
- RUSH 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: BEU-03-040
Site: HANNA FURNACE SITE
PO#:
Philip Quote #:
Philip Project #:
Philip Contact:

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

REMARKS

ASP REQUIRED/
Data package
Required

Client Signature:
Affiliation: EMPIRE GEO-SERVICES INC.
Date/Time: 12-30-03 / 8:00 AM

Received By:
Affiliation: PSC
Date/Time: 12/30/03 9:30 AM

Rec'd By:
Date/Time

SEE OVER FOR COMPLETION & SAMPLING INSTRUCTIONS

WHITE - LAB / YELLOW - CLIENT

Certificate of Analysis

CLIENT 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

LABORATORY INFORMATION

Contact:	Mike Challis, B.Sc, C.Chem.
Project:	AN031794
Date Received:	31-Dec-2003
Date Reported:	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: MC

5555 NORTH SERVICE ROAD, BURLINGTON, ONTARIO, CANADA L7L 5H7 T 905 332 8788 F 905 332 9169 W www.pscanalytical.com

PASC - Certificate of Analysis

Client ID:			Method Blank	Method Blank	Method Blank	C-3 (Composite Samp)	C-3 (Composite Samp)	C-3 (Composite Samp)	C-3 (Composite Samp)
Lab No.:			078303 03	078303 03	078303 03	078304 03	078304.03	078304 03	078304 03
Date Sampled:			30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003 Duplicate	30-Dec-2003 M. Spike	30-Dec-2003 MS % Rec.
Component	**MDL**	**Units**							
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	1.0	mg/kg	<	26	100	34	-	-	-
Barium	0.50	"	<	52	100	190	-	-	-
Cadmium	0.50	"	<	26	100	17	-	-	-
Chromium	0.50	"	<	51	100	49	-	-	-
Lead	1.0	"	<	51	100	130	-	-	-
Selenium	1.0	"	<	26	100	<5.0	-	-	-
Silver	0.50	"	<	26	100	0.65	-	-	-

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

	Client ID:		Method Blank	Blank Spike	% Recovery	C-3 (Composite Samp)
	Lab No.:		078303 03	078303 03	078303 03	078304 03
	Date Sampled:		30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003
Component	**MDL**	**Units**				
			(1)			
Aldrin	0.004	ug/gm	<	0.049	82	<
a-BHC	0.003	"	<	0.044	73	<
b-BHC	0.005	"	<	0.048	80	<
g-BHC (Lindane)	0.002	"	<	0.046	77	<
d-BHC	0.004	"	<	0.051	85	<
a-Chlordane	0.005	"	<	0.058	96	<
g-Chlordane	0.006	"	<	0.052	87	<
Isodrin	0.004	"	<	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	<
Dieldrin	0.006	"	<	0.049	81	<
a-Endosulfan	0.003	"	<	0.052	87	<
b-Endosulfan	0.008	"	<	0.054	91	<
Endosulfan Sulfate	0.005	"	<	0.053	88	<
Endrin	0.003	"	<	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	"	<	0.27	110	<
Mirex	0.007	"	<	0.11	89	<
Toxaphene	0.100	"	<	NS	-	<
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			51	53	53	47
Decachlorobiphenyl			79	86	86	65
Aroclor-1016	0.038	ug/gm	<	0.44	110	<
Aroclor-1221	0.041	"	<	NS	-	<
Aroclor-1232	0.038	"	<	NS	-	<
Aroclor-1242	0.050	"	<	NS	-	<
Aroclor-1248	0.031	"	<	NS	-	<
Aroclor-1254	0.059	"	<	NS	-	<
Aroclor-1260	0.031	"	<	0.47	120	0.032
Aroclor-1262	0.031	"	<	NS	-	<
Aroclor-1268	0.049	"	<	NS	-	<
Total PCB	0.059	"	<	0.90	110	<
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			94	105	105	81
Decachlorobiphenyl			104	111	111	97

Pesticide analysis by 8081B
PCB Analysis by 8082A

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

Pesticide analysis by 8081B
PCB Analysis by 8082A

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

VOC Analysis by 8260B

			Method	Blank	%	G-3 (F-11	G-3 (F-11
	Client ID:		Blank	Spike	Recovery	Grab Samp)	Grab Samp)
	Lab No.:		078303 03	078303 03	078303 03	078305 03	078305 03
	Date Sampled:		30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003
Component	**MDL**	**Units**					Duplicate
Acetone	0.020	mg/kg	<	0.049	78	<	<
Acrolein	0.010	"	<	0.057	92	<	<
Acrylonitrile	0.010	"	<	0.051	82	<	<
Benzene	0.001	"	<	0.057	91	<	<
Bromoform	0.001	"	<	0.053	85	<0.002	<0.002
Bromomethane	0.006	"	<	0.048	76	<	<
2-Butanone	0.005	"	<	0.056	89	<	<
Carbon Disulfide	0.001	"	<	0.049	78	0.004	0.005
Carbon Tetrachloride	0.001	"	<	0.058	93	<	<
Chlorobenzene	0.001	"	<	0.054	87	<	<
Chlorodibromomethane	0.001	"	<	0.053	85	<	<
Chloroethane	0.001	"	<	0.068	110	<	<
Chloroform	0.001	"	<	0.056	89	<	<
Chloromethane	0.001	"	<	0.066	110	<	<
1,2-Dichlorobenzene	0.001	"	<	0.050	79	<0.002	<0.002
1,3-Dichlorobenzene	0.001	"	<	0.052	84	<0.002	<0.002
1,4-Dichlorobenzene	0.001	"	<	0.051	82	0.002	<0.002
Dichlorobromomethane	0.001	"	<	0.056	89	<	<
1,1-Dichloroethane	0.001	"	<	0.056	90	<	<
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	0.005	"	<	0.047	76	<0.010	<0.010
cis-1,2-Dichloroethene	0.001	"	<	0.058	93	<	<
trans-1,2-Dichloroethene	0.001	"	<	0.056	90	<	<
1,2-Dichloropropane	0.001	"	<	0.055	88	<	<
cis-1,3-Dichloropropene	0.001	"	<	0.056	89	<	<
trans-1,3-Dichloropropene	0.001	"	<	0.049	78	<	<
Ethylbenzene	0.001	"	<	0.055	88	<	<
2-Hexanone	0.005	"	<	0.052	83	<	<
4-Methyl-2-Pentanone	0.005	"	<	0.054	86	<	<
Styrene	0.001	"	<	0.058	93	<	<
1,1,1,2-Tetrachloroethane	0.001	"	<	0.054	86	<	<
1,1,2,2-Tetrachloroethane	0.001	"	<	0.049	79	<0.002	<0.002
Tetrachloroethene	0.001	"	<	0.055	88	<	<
Toluene	0.001	"	<	0.054	87	<	<
1,1,1-Trichloroethane	0.001	"	<	0.057	91	<	<
1,1,2-Trichloroethane	0.001	"	<	0.052	83	<	<
Trichloroethene	0.001	"	<	0.057	92	<	<
Trichlorfluoromethane	0.001	"	<	0.057	91	<	<
Vinyl Chloride	0.001	"	<	0.072	120	<	<
m&p-Xylene	0.001	"	<	0.11	90	<	<
o-Xylene	0.001	"	<	0.054	87	<	<
Isopropylbenzene	0.001	"	<	0.050	80	<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

			G-3 (F-11	G-3 (F-11
	Client ID:		Grab Samp)	Grab Samp)
	Lab No.:		078305 03	078305 03
	Date Sampled:		30-Dec-2003	30-Dec-2003
Component	**MDL**	**Units**	M. Spike	MS % Rec.
Acetone	0.020	mg/kg	0.081	110
Acrolein	0.010	"	0.010	14
Acrylonitrile	0.010	"	0.052	70
Benzene	0.001	"	0.055	75
Bromoform	0.001	"	0.064	86
Bromomethane	0.006	"	0.058	78
2-Butanone	0.005	"	0.063	86
Carbon Disulfide	0.001	"	0.032	43
Carbon Tetrachloride	0.001	"	0.066	88
Chlorobenzene	0.001	"	0.040	54
Chlorodibromomethane	0.001	"	0.055	74
Chloroethane	0.001	"	0.081	110
Chloroform	0.001	"	0.060	81
Chloromethane	0.001	"	0.081	110
1,2-Dichlorobenzene	0.001	"	0.037	50
1,3-Dichlorobenzene	0.001	"	0.033	45
1,4-Dichlorobenzene	0.001	"	0.030	41
Dichlorobromomethane	0.001	"	0.057	76
1,1-Dichloroethane	0.001	"	0.063	86
1,2-Dichloroethane	0.001	"	0.052	71
1,1-Dichloroethene	0.001	"	0.049	66
Dichloromethane	0.020	"	0.056	76
Methyl-t-butylether	0.001	"	NS	-
Ethylene Dibromide	0.001	"	0.041	56
1,2-Dibromo-3-Chloropropane	0.005	"	0.050	67
cis-1,2-Dichloroethene	0.001	"	0.049	66
trans-1,2-Dichloroethene	0.001	"	0.038	51
1,2-Dichloropropane	0.001	"	0.062	83
cis-1,3-Dichloropropene	0.001	"	0.038	52
trans-1,3-Dichloropropene	0.001	"	0.029	39
Ethylbenzene	0.001	"	0.047	63
2-Hexanone	0.005	"	0.048	64
4-Methyl-2-Pentanone	0.005	"	0.054	73
Styrene	0.001	"	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	"	0.046	62
Toluene	0.001	"	0.051	69
1,1,1-Trichloroethane	0.001	"	0.069	93
1,1,2-Trichloroethane	0.001	"	0.061	82
Trichloroethene	0.001	"	0.052	70
Trichlorfluoromethane	0.001	"	0.073	98
Vinyl Chloride	0.001	"	0.078	100
m&p-Xylene	0.001	"	0.091	62
o-Xylene	0.001	"	0.051	68
Isopropylbenzene	0.001	"	0.061	83
Surrogate Recoveries		%		
d4-1,2-Dichloroethane			74	74
d8-Toluene			84	84
Bromofluorobenzene			72	72
d10-Ethylbenzene			78	78

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

SVOC Analysis by 8270C

			Method	Blank	%	Blank Spike	%
	Client ID:		Blank	Spike	Recovery	Duplicate	Recovery
	Lab No.:		078303 03	078303 03	078303 03	078303 03	078303 03
	Date Sampled:		30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003
Component	**MDL**	**Units**					
Phenol	0. 26	mg/kg	<0.52	9.9	99	9.5	95
Bis(2-chloroethyl)ether	0.18	"	<0.36	NS	-	NS	-
2-Chlorophenol	0.48	"	<0.96	10	100	9.9	99
1,3-Dichlorobenzene	0.20	"	<0.40	NS	-	NS	-
1,4-Dichlorobenzene	0.20	"	<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	"	<0.40	NS	-	NS	-
N-Nitroso-di-N-Propylamine	0.21	"	<0.42	4.3	85	4.4	89
Nitrobenzene	0.20	"	<0.40	NS	-	NS	-
Isophorone	0.40	"	<0.80	NS	-	NS	-
2-Nitrophenol	0.14	"	<0.28	NS	-	NS	-
2,4-Dimethylphenol	0.17	"	<0.34	NS	-	NS	-
Bis(2-chloroethoxy)methane	0.13	"	<0.26	NS	-	NS	-
2,4-Dichlorophenol	0.15	"	<0.30	NS	-	NS	-
1,2,4-Trichlorobenzene	0.20	"	<0.40	3.9	79	4.1	82
Naphthalene	0.09	"	<0.18	NS	-	NS	-
Hexachlorobutadiene	0.20	"	<0.40	NS	-	NS	-
4-Chloro-3-Methylphenol	0.15	"	<0.30	9.7	97	8.9	89
Hexachlorocyclopentadiene	0.20	"	<0.40	NS	-	NS	-
2,4,6-Trichlorophenol	0.12	"	<0.24	NS	-	NS	-
2-Chloronaphthalene	0.34	"	<0.68	NS	-	NS	-
Acenaphthylene	0.04	"	<0.08	NS	-	NS	-
Dimethyl phthalate	0.11	"	<0.22	NS	-	NS	-
2,6-Dinitrotoluene	0.06	"	<0.12	NS	-	NS	-
Acenaphthene	0.07	"	<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	"	<0.34	8.8	88	7.3	73
Fluorene	0.06	"	<0.12	NS	-	NS	-
4-Chlorophenylphenylether	0.09	"	<0.18	NS	-	NS	-
Diethyl phthalate	0.11	"	<0.22	NS	-	NS	-
4,6-Dinitro-2-methylphenol	0.16	"	<0.32	NS	-	NS	-
N-Nitrosodiphenylamine	0.19	"	<0.38	NS	-	NS	-
4-Bromophenylphenylether	0.04	"	<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	"	<0.06	NS	-	NS	-
Anthracene	0.06	"	<0.12	NS	-	NS	-
Di-n-butyl phthalate	0.11	"	<0.22	NS	-	NS	-
Fluoranthene	0.05	"	<0.10	NS	-	NS	-
Pyrene	0.06	"	<0.12	4.5	90	4.4	87
Benzyl butyl phthalate	0.10	"	<0.20	NS	-	NS	-
3,3-Dichlorobenzidine	0.34	"	<0.68	NS	-	NS	-
Benzo(a)anthracene	0.05	"	<0.10	NS	-	NS	-
Chrysene	0.06	"	<0.12	NS	-	NS	-
Bis(2-ethylhexyl)phthalate	0.75	"	<1.5	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	"	<0.08	NS	-	NS	-

SVOC Analysis by 8270C			Method	Blank	%	Blank Spike	%
	Client ID:		Blank	Spike	Recovery	Duplicate	Recovery
	Lab No.:		078303 03	078303 03	078303 03	078303 03	078303 03
	Date Sampled:		30-Dec-2003	30-Dec-2003	30-Dec-2003	30-Dec-2003	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	-
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	-	NS	-
Aniline	0.50	"	<1.0	NS	-	NS	-
Benzyl alcohol	0.50	"	<1.0	NS	-	NS	-
Carbazole	0.50	"	<1.0	NS	-	NS	-
2-Methylphenol	0.50	"	<1.0	NS	-	NS	-
3&4-Methylphenol	0.50	"	<1.0	NS	-	NS	-
Benzoic acid	0.50	"	<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	"	<1.0	NS	-	NS	-
3-Nitroaniline	0.50	"	<1.0	NS	-	NS	-
Dibenzofuran	0.50	"	<1.0	NS	-	NS	-
Benzidine	0.50	"	<1.0	NS	-	NS	-
4-Nitroaniline	0.50	"	<1.0	NS	-	NS	-

SVOC Analysis by 8270C

	Client ID:		C-3 (Composite Samp)
	Lab No.:		078304 03
	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	"	<0.40
1,4-Dichlorobenzene	0.20	"	<0.40
1,2-Dichlorobenzene	0.20	"	<0.40
Bis(2-chloroisopropyl)ether	0.15	"	<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	"	<0.28
2,4-Dimethylphenol	0.17	"	<0.34
Bis(2-chloroethoxy)methane	0.13	"	<0.26
2,4-Dichlorophenol	0.15	"	<0.30
1,2,4-Trichlorobenzene	0.20	"	<0.40
Naphthalene	0.09	"	<0.18
Hexachlorobutadiene	0.20	"	<0.40
4-Chloro-3-Methylphenol	0.15	"	<0.30
Hexachlorocyclopentadiene	0.20	"	<0.40
2,4,6-Trichlorophenol	0.12	"	<0.24
2-Chloronaphthalene	0.34	"	<0.68
Acenaphthylene	0.04	"	<0.08
Dimethyl phthalate	0.11	"	<0.22
2,6-Dinitrotoluene	0.06	"	<0.12
Acenaphthene	0.07	"	<0.14
2,4-Dinitrophenol	0.48	"	<0.96
2,4-Dinitrotoluene	0.22	"	<0.44
4-Nitrophenol	0.17	"	<0.34
Fluorene	0.06	"	<0.12
4-Chlorophenylphenylether	0.09	"	<0.18
Diethyl phthalate	0.11	"	<0.22
4,6-Dinitro-2-methylphenol	0.16	"	<0.32
N-Nitrosodiphenylamine	0.19	"	<0.38
4-Bromophenylphenylether	0.04	"	<0.08
Hexachlorobenzene	0.20	"	<0.40
Pentachlorophenol	0.31	"	<0.62
Phenanthrene	0.03	"	0.21
Anthracene	0.06	"	<0.12
Di-n-butyl phthalate	0.11	"	<0.22
Fluoranthene	0.05	"	0.18
Pyrene	0.06	"	0.27
Benzyl butyl phthalate	0.10	"	<0.20
3,3-Dichlorobenzidine	0.34	"	<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	"	<0.22
Benzo(b)fluoranthene	0.04	"	0.29
Benzo(k)fluoranthene	0.04	"	0.23

SVOC Analysis by 8270C

	Client ID:		C-3 (Composite Samp)
	Lab No.:		078304 03
	Date Sampled:		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	"	<0.12
Benzo(ghi)perylene	0.05	"	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	"	<1.0
Benzyl alcohol	0.50	"	<1.0
Carbazole	0.50	"	<1.0
2-Methylphenol	0.50	"	<1.0
3&4-Methylphenol	0.50	"	<1.0
Benzoic acid	0.50	"	<1.0
4-Chloroaniline	0.50	"	<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	"	<1.0
Dibenzofuran	0.50	"	<1.0
Benzidine	0.50	"	<1.0
4-Nitroaniline	0.50	"	<1.0

CHAIN OF CUSTODY

ANALYTICAL SERVICES
5555 North Service Road
Burlington, Ontario L7L 5H7

Toll Free: 1-800-668-0639
Tel: (905) 332-8788
Fax: (905) 332-9169

CLIENT INFORMATION

Company Name: EMPIRE GEO-SERVICES, INC.
Project Manager: C. GUZZETTA
Address: 5167 S. PARK AVE
HAMBURG, NY 14075
Phone #: (716) 649-8110 Fax #: (716) 649-8051
Sampled by: C. GUZZETTA

ANALYSIS REQUESTED

Philip Use Only	Field Sample ID	# Bottles	Matrix	Date	Time	TCL Semi-Volatile Organic Compounds	Pesticides	Polychlorinated Biphenols (PCBs)	TCL Metals (Aluminum, Lead, Magnesium, Selenium, Silver, Copper + Cyanide)	pH	TCL Volatile Organic Compounds	Level of contamination (low, high, unknown)
	C-3 (COMPOSITE SAMPLE)	2-8oml Glass	SOIL	12-31-03	3:30 PM	X	X	X	X	X		
	G-3 (F-11 GRAB SAMP)	1-8oml Glass	SOIL	12-31-03	3:25 PM						X	

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 ☐
- *RUSH* 1 Business Days ☐
- Other Business Days ____

PROJECT INFORMATION

Project #: BCU-03-040
Site: HANNA FURNACE SITE
PO#:
Philip Quote #:
Philip Project #:
Philip Contact:

SPECIAL DETECTION LIMITS

MISA ☐

SPECIAL REQUIREMENTS / REGULATIONS

REMARKS

ASP REQUIRED / Full Data Package Required

Client Signature: C. Guzzetta
Affiliation: EMPIRE GEO-SERVICES, INC.
Date/Time: 12-31-03 / 8:30 PM

Received By: PSC Ken
Affiliation: PSC
Date/Time: 12/31/03 4:40 PM

Rec'd By:
Date/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

PROJECT NARRATIVE

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 SW846 Method 8081						
078092 00	Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/07	04/01/07
PCB via SW846 Method 8082						
078092 00	Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/07	04/01/05
Semi-volatiles via SW846 Method 8270						
078092 03	Composite Sample #1	03/12/24	03/12/26	04/01/02	04/01/06	04/01/06
Volatiles via SW846 Method 8260						
078093 03	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.

Mike Challis, Project Manager

JAN 2 0 2004
Date

PROJECT NARRATIVE

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
Pesticides via SW846 Method 8081						
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/05	04/01/07	04/01/07
PCB via SW846 Method 8082						
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/05	04/01/07	04/01/05
Semi-volatiles via SW846 Method 8270						
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/02	04/01/06	04/01/06
Volatiles via SW846 Method 8260						
078171 03	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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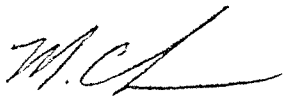

Mike Challis, Project Manager

JAN 2 0 2004

Date

PROJECT NARRATIVE

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
Pesticides via SW846 Method 8081						
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/07	04/01/07
PCB via SW846 Method 8082						
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/05	04/01/05
Semi-volatiles via SW846 Method 8270						
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/02	04/01/06	04/01/06
Volatiles via SW846 Method 8260						
078305 03	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

PROJECT NARRATIVE

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
Cyanide via SW846 Method 9010					
078092 03	Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/07
pH in Solid EPA Method 9045					
078092 03	Composite Sample #1	03/12/24	03/12/26	04/01/02	04/01/06
Mercury via SW846 Method 7471					
078092 03	Composite Sample #1	03/12/24	03/12/26	04/01/05	04/01/06
Metals by Axial ICP-AES					
078092 03	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

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.

M. C

Mike Challis, Project Manager

JAN 19 2004

Date

PROJECT NARRATIVE

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					
078172 03	P-1 (Grab Sample #2)	03/12/29	03/12/30	04/01/05	04/01/05
pH in Solid EPA Method 9045					
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/05	04/01/07
Mercury via SW846 Method 7471					
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/02	04/01/06
Metals by Axial ICP-AES					
078171 03	C-Z (Composite)	03/12/29	03/12/30	04/01/05	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 2 0 2004
Date

PROJECT NARRATIVE

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					
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/07
pH in Solid EPA Method 9045					
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/02	04/01/06
Mercury via SW846 Method 7471					
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/06
Metals by Axial ICP-AES					
078304 03	C-3 (Composite Samp)	03/12/30	03/12/31	04/01/05	04/01/05

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

Date

QUALIFIED REPORT FORMS

PASC - Certificate of Analysis

	Client ID:		Method Blank	Blank Spike	% Recovery	Composite Sample #1	Composite Sample #1 Duplicate
	Lab No.:		078091 03	078091 03	078091 03	078092 03	078092 03
	Date Sampled:		24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003
Component	**MDL**	**Units**					Duplicate
Soil pH measured in water			-	-	-	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	1.0	mg/kg	<	25	99	16 J	-
Barium	0.50	"	<	51	100	290 J	-
Cadmium	0.50	"	<	25	99	6.0 J	-
Chromium	0.50	"	<	50	100	28 J	-
Lead	1.0	"	<	49	99	120 J	-
Selenium	1.0	"	<	25	99	<	-
Silver	0.50	"	<	24	97	<	-

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

	Client ID:		Method Blank	Blank Spike	% Recovery	Composite Sample #1
	Lab No.:		078091 03	078091 03	078091 03	078092 03
	Date Sampled:		24-Dec-2003	24-Dec-2003	24-Dec-2003	24-Dec-2003
Component	**MDL**	**Units**				
Aldrin	0.004	ug/gm	<	0.049	82	<0.018
a-BHC	0.003	"	<	0.044	73	<
b-BHC	0.005	"	<	0.048	80	<
g-BHC (Lindane)	0.002	"	<	0.046	77	<
d-BHC	0.004	"	<	0.051	85	<
a-Chlordane	0.005	"	<	0.058	96	<
g-Chlordane	0.006	"	<	0.052	87	<
Isodrin	0.004	"	<	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	<
Dieldrin	0.006	"	<	0.049	81	<
a-Endosulfan	0.003	"	<	0.052	87	<
b-Endosulfan	0.008	"	<	0.054	91	<
Endosulfan Sulfate	0.005	"	<	0.053	88	<
Endrin	0.003	"	<	0.053	89	<
Endrin Ketone	0.005	"	<	0.057	96	<
Endrin Aldehyde	0.004	"	<	0.033	55	< J
Heptachlor	0.004	"	<	0.049	82	<
Heptachlor Epoxide	0.003	"	<	0.049	82	<
Methoxychlor	0.025	"	<	0.27	110	<
Mirex	0.007	"	<	0.11	89	< .018
Toxaphene	0.100	"	<	NS	-	<
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			51	53	53	50
Decachlorobiphenyl			79	86	86	74
Aroclor-1016	0.038	ug/gm	<	0.44	110	< 0.18
Aroclor-1221	0.041	"	<	NS	-	<
Aroclor-1232	0.038	"	<	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 J
Aroclor-1268	0.049	"	<	NS	-	0.12 J
Total PCB	0.059	"	<	0.90	110	0.18 J
Surrogate Recoveries		%				
4,4'-Dibromooctaflourobiphenyl			94	105	105	82
Decachlorobiphenyl			104	111	111	105

Pesticide analysis by 8081B
PCB Analysis by 8082A

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

PASC - Certificate of Analysis

VOC Analysis by 8260B

	Client ID:		Method Blank	Blank Spike	% Recovery	Grab Sample #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	
Component	**MDL**	**Units**					
Acetone	0.020	mg/kg	<	0.049	78	0.071	
Acrolein	0.010	"	<	0.057	92	<0.015	
Acrylonitrile	0.010	"	<	0.051	82	<0.015	
Benzene	0.001	"	<	0.057	91	~~<0.002~~	< .004
Bromoform	0.001	"	<	0.053	85	~~<0.002~~	< .004
Bromomethane	0.006	"	<	0.048	76	<0.009	
2-Butanone	0.005	"	<	0.056	89	<0.008	
Carbon Disulfide	0.001	"	<	0.049	78	0.008	
Carbon Tetrachloride	0.001	"	<	0.058	93	~~<0.002~~	< .004
Chlorobenzene	0.001	"	<	0.054	87	<0.002	
Chlorodibromomethane	0.001	"	<	0.053	85	<0.002	
Chloroethane	0.001	"	<	0.068	110	<0.002	
Chloroform	0.001	"	<	0.056	89	~~<0.002~~	
Chloromethane	0.001	"	<	0.066	110	< 0.002	
1,2-Dichlorobenzene	0.001	"	<	0.050	79	<0.002	
1,3-Dichlorobenzene	0.001	"	<	0.052	84	<0.002	
1,4-Dichlorobenzene	0.001	"	<	0.051	82	<0.002	
Dichlorobromomethane	0.001	"	<	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	"	<	0.057	91	~~<0.002~~	
Dichloromethane	0.020	"	<	0.058	93	<0.030	
Methyl-t-butylether	0.001	"	<	NS	-	~~<0.002~~	< .004
Ethylene Dibromide	0.001	"	<	0.051	82	<0.002	< .004
1,2-Dibromo-3-Chloropropane	0.005	"	<	0.047	76	<0.008	
cis-1,2-Dichloroethene	0.001	"	<	0.058	93	~~<0.002~~	< .004
trans-1,2-Dichloroethene	0.001	"	<	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	"	<	0.049	78	<0.002	
Ethylbenzene	0.001	"	<	0.055	88	~~<0.002~~	
2-Hexanone	0.005	"	<	0.052	83	<0.008	
4-Methyl-2-Pentanone	0.005	"	<	0.054	86	<0.008	
Styrene	0.001	"	<	0.058	93	~~<0.002~~	< .004
1,1,1,2-Tetrachloroethane	0.001	"	<	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	"	<	0.054	87	0.001	J
1,1,1-Trichloroethane	0.001	"	<	0.057	91	~~<0.002~~	< .004
1,1,2-Trichloroethane	0.001	"	<	0.052	83	<0.002	
Trichloroethene	0.001	"	<	0.057	92	<0.002	
Trichlorfluoromethane	0.001	"	<	0.057	91	<0.002	
Vinyl Chloride	0.001	"	<	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~~	
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

			Composite
	Client ID:		Sample #1
	Lab No.:		078092 03
	Date Sampled:		24-Dec-2003
Component	**MDL**	**Units**	
Phenol	0. 26	mg/kg	~~<0.52~~ <1.8
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	"	<0.40
1,2-Dichlorobenzene	0.20	"	<0.40
Bis(2-chloroisopropyl)ether	0.15	"	<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	"	<0.28
2,4-Dimethylphenol	0.17	"	<0.34
Bis(2-chloroethoxy)methane	0.13	"	<0.26
2,4-Dichlorophenol	0.15	"	<0.30
1,2,4-Trichlorobenzene	0.20	"	~~<0.40~~
Naphthalene	0.09	"	1.1 J
Hexachlorobutadiene	0.20	"	~~<0.40~~ <1.8
4-Chloro-3-Methylphenol	0.15	"	<0.30
Hexachlorocyclopentadiene	0.20	"	<0.40
2,4,6-Trichlorophenol	0.12	"	<0.24
2-Chloronaphthalene	0.34	"	<0.68
Acenaphthylene	0.04	"	<0.08
Dimethyl phthalate	0.11	"	<0.22
2,6-Dinitrotoluene	0.06	"	~~<0.12~~
Acenaphthene	0.07	"	0.14 J
2,4-Dinitrophenol	0.48	"	~~<0.96~~ <1.8
2,4-Dinitrotoluene	0.22	"	<0.44
4-Nitrophenol	0.17	"	<0.34
Fluorene	0.06	"	0.19 J
4-Chlorophenylphenylether	0.09	"	~~<0.18~~ <1.8
Diethyl phthalate	0.11	"	<0.22
4,6-Dinitro-2-methylphenol	0.16	"	<0.32
N-Nitrosodiphenylamine	0.19	"	<0.38
4-Bromophenylphenylether	0.04	"	<0.08
Hexachlorobenzene	0.20	"	<0.40
Pentachlorophenol	0.31	"	~~<0.62~~
Phenanthrene	0.03	"	1.5 J
Anthracene	0.06	"	0.33 J
Di-n-butyl phthalate	0.11	"	~~<0.22~~ <1.8
Fluoranthene	0.05	"	2.1
Pyrene	0.06	"	1.5 J
Benzyl butyl phthalate	0.10	"	~~<0.20~~ <1.8
3,3-Dichlorobenzidine	0.34	"	~~<0.68~~ <1.8
Benzo(a)anthracene	0.05	"	1.0 J
Chrysene	0.06	"	1.1 J
Bis(2-ethylhexyl)phthalate	0.75	"	~~<1.5~~ <1.8
Di-n-octyl phthalate	0.11	"	~~<0.22~~ <1.8
Benzo(b)fluoranthene	0.04	"	1.2 J
Benzo(k)fluoranthene	0.04	"	0.58 J

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