



Remediation and Liability Management Company, Inc.

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Alex Rothchild

Sep 10, 2003 10:21

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September 10, 2003

Mr. Kevin Holdwick
Michigan Department of Environmental Quality
Waste Management Division
P.O. Box 30241
Lansing, MI 48909-7741

Dear Mr. Holdwick:

Re: Delineation Soil Sample Results
Former Peregrine (US) Inc. Coldwater Road Facility, Genesee Township, Michigan
MIR 000 020 743

This letter presents the results of delineation soil samples collected at the Former Peregrine (US) Inc. Coldwater Road Facility (Facility) located in Genesee Township, Michigan. The sample results are included as Attachment A. The original samples exceeding generic criteria were identified during the RCRA Facility Investigation (RFI) and further delineated in June 2002.

Should you have any questions on the attached, please do not hesitate to contact me at (248) 680-5219.

Yours truly,

REMEDICATION AND LIABILITY MANAGEMENT COMPANY, INC.

for Cheryl Hiatt

Cheryl Hiatt
Project Manager
REALM, Inc.

SE/cb/12636/10
Encl.

c.c.: Joe Rogers - MDEQ
John McCabe - MDEQ
Marilyn Dedyne - REALM
Jean Caufield - REALM
Tony Finch - OBG
Steve Song - ENVIRON
Glenn Turchan - CRA
Sylvie Eastman - CRA

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ATTACHMENT A

DELINEATION SOIL SAMPLE RESULTS

This document presents the results of delineation soil samples collected in the vicinity of samples exceeding generic criteria for soil at the Former Peregrine (US) Inc. Coldwater Road Facility (Facility) located in Genesee Township, Michigan. Figure A.1 presents the sample locations.

Exceedances were determined by comparing validated analytical data to the generic risk-based industrial cleanup criteria. The applicable criteria include Background, Industrial Direct Contact Criteria (IDCC), Soil Volatilization to Indoor Air Criteria (SVIAC), Infinite Source Soil Inhalation Criteria (ISSIC), and Particulate Soil Inhalation Criteria (PSIC). The generic PSIC numbers were modified by a factor of 3.17 to account for the 400 ft² source area size(s), in accordance with "Part 201 Generic Soil Inhalation Criteria for Ambient Air: Technical Support Document" (MDEQ, August 31, 1998). Concentrations were considered to have exceeded IDCC, SVIAC, ISSIC, or PSIC only if background values were also exceeded. GM believes the shallow perched water below the Facility can be characterized as Groundwater Not In An Aquifer (GWNIAA) and, therefore, the Drinking Water Protection Criteria (DWPC) is not applicable. Sample results were not compared to Groundwater Surface Water Interface Criteria since the groundwater surface water interface pathway is incomplete.

Sample results for the Facility are presented on Tables A.1 and A.2. The list of parameters presented on Table A.1 includes all parameters detected in at least one sample. The list of parameters presented on Table A.2 includes all parameters with concentrations that exceed applicable criteria in at least one sample.

The tables flag detected results which exceed the background levels and the MDEQ criteria in addition to non-detect results where the detection limit exceeds the background and the criteria. All the detected result exceedances are identified on the figures (Figures A.1 through A.6). The non-detect result exceedances are due to elevated detection limits caused by 1) the elevated concentration of another parameter at that location; or 2) dilution of the sample by the laboratory to protect the sensitivity of the laboratory instruments.

A. AOI 2 – FORMER WASTE PILE PAD

The Former Waste Pile Pad (AOI 2) was located east of Building 44 and approximately 100 feet north-northeast of Building 63.

RFI samples identified the presence of arsenic above the IDCC. Delineation soil sampling was conducted in June 2002. None of the delineation soil sample results exceeded applicable criteria. Final validated soil sample results are presented on Figure A.2.

B. AOI 9 – FORMER PLATING AREAS

The Former Plating Areas (AOI 9) included the zinc barrel plating area toward the southeast end of the concrete slab, the chrome plating area located toward the north end of the concrete slab, and the plating solution recycling area which was located in the basement.

Historical sample K-35 identified the presence of lead above IDCC and total chromium above PSIC for hexavalent chromium (see Figure A.3). RFI sample BH-9-23-00 identified the presence of 1,1-dichloroethene (1,1-DCE) above SVIAC (see Figure A.4). RFI sample BH-9-26-00 identified the presence of lead above IDCC and nickel above PSIC (see Figure A.5). PSIC exceedances were not originally investigated for excavation and/or delineation purposes, in accordance with the RFI Report, Section 5.5 (CRA, November 2000). Due to MDEQ concerns, CRA stated in Response to Comments RFI Report (CRA, March 2002) that PSIC exceedances would be evaluated.

In the vicinity of K-35, delineation soil sampling for lead was conducted in June 2002, and none of the delineation soil sample results exceeded applicable criteria. A sample was collected for total and hexavalent chromium, immediately adjacent to K-35 in February 2003. In this sample, both the total and hexavalent chromium concentrations are below PSIC criteria, and hexavalent chromium accounts for approximately 8% of the total. Assuming the total chromium concentration in the historical sample is correct and the historical proportion of hexavalent was consistent with the resample results, the historical hexavalent chromium concentration would have been approximately 92,300 µg/kg, below the PSIC criteria.

In the vicinity of BH-9-23-00, delineation soil sampling for 1,1-dichloroethene was conducted in June 2002, and none of the delineation soil sample results exceeded applicable criteria.

At BH-9-26-00 the exceedances do not require further investigation because at this location in June 2001, 90 cubic yards were excavated, characterized as non-hazardous, and disposed as part of Facility demolition/restoration as stated in Response to Comments RFI Report, Appendix I (CRA, March 2002). In the RFI Report BH-9-24-00 was reported with a hexavalent chromium concentration of 611,000 µg/kg. Subsequent laboratory validation revealed that this result was for sample location BH-9-26-00 and the concentration for BH-9-24-00 was 2,337 µg/kg. The hexavalent chromium concentration at BH-9-26-00 does not exceed PSIC criteria when the modifier for source area size is used.

C. AOI 11 – FORMER COAL STORAGE AREA

The Former Coal Storage Area was comprised of a relatively large area located to the north of the powerhouse (Building 45).

RFI samples identified the presence of arsenic above the IDCC. Delineation soil sampling was conducted by CRA in June 2002. None of the delineation soil sample results exceeded applicable criteria. Final validated soil sample results are presented on Figure A.6.

D. OVERALL SITE ASSESSMENT

The 95% upper confidence limits for arsenic, lead, chromium (total, hexavalent, and trivalent), and 1,1-dichloroethene are below applicable criteria (see Attachment A.1). Note that the calculation of 95% upper confidence limits was done consistent with MDEQ's guidance dated 2002. The samples that exceed generic criteria do not meet the MDEQ definition of a hotspot because they consist of only one isolated sample. MDEQ guidance defines a hotspot as at least two elevated sample results within the same area.

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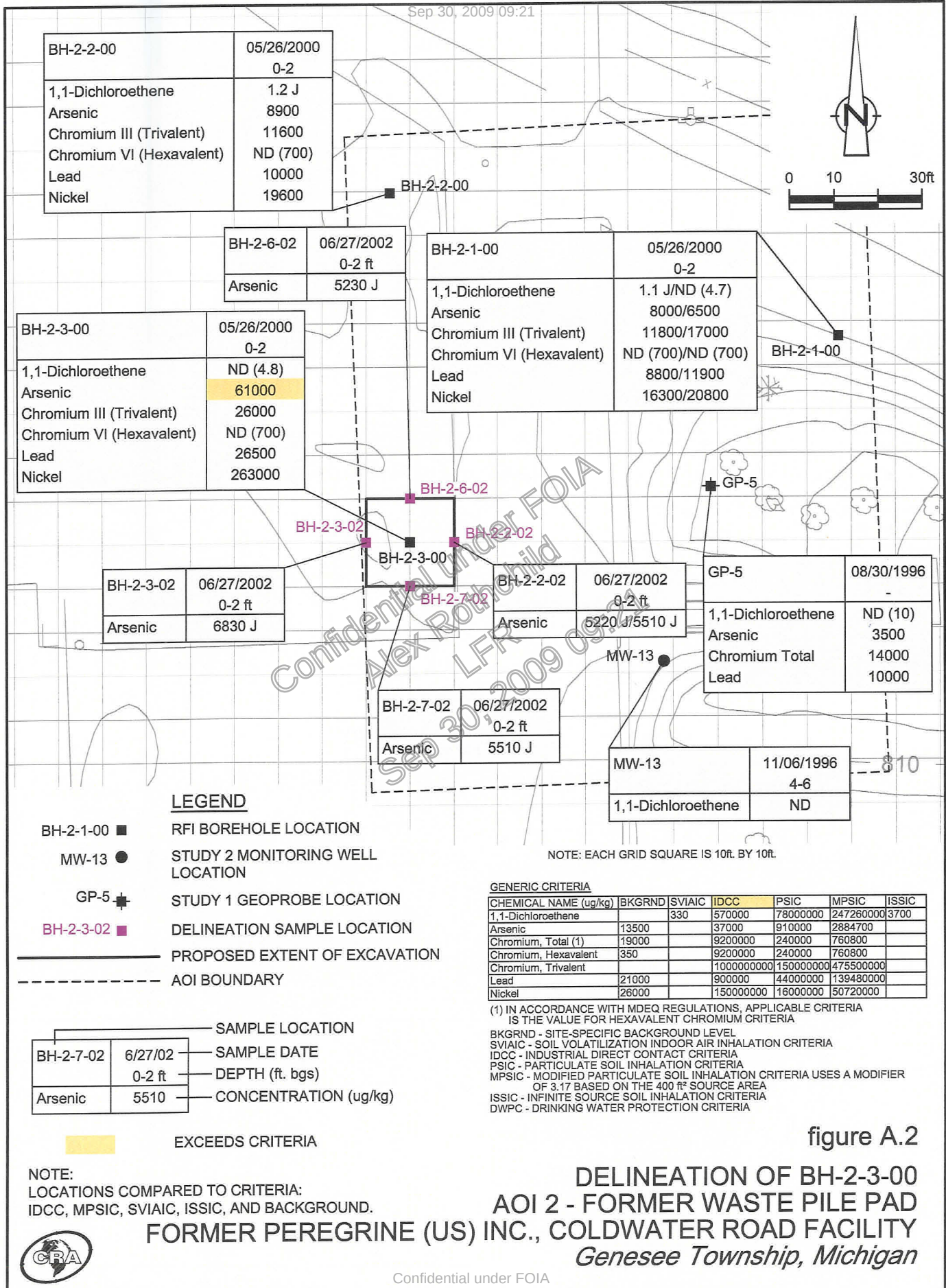
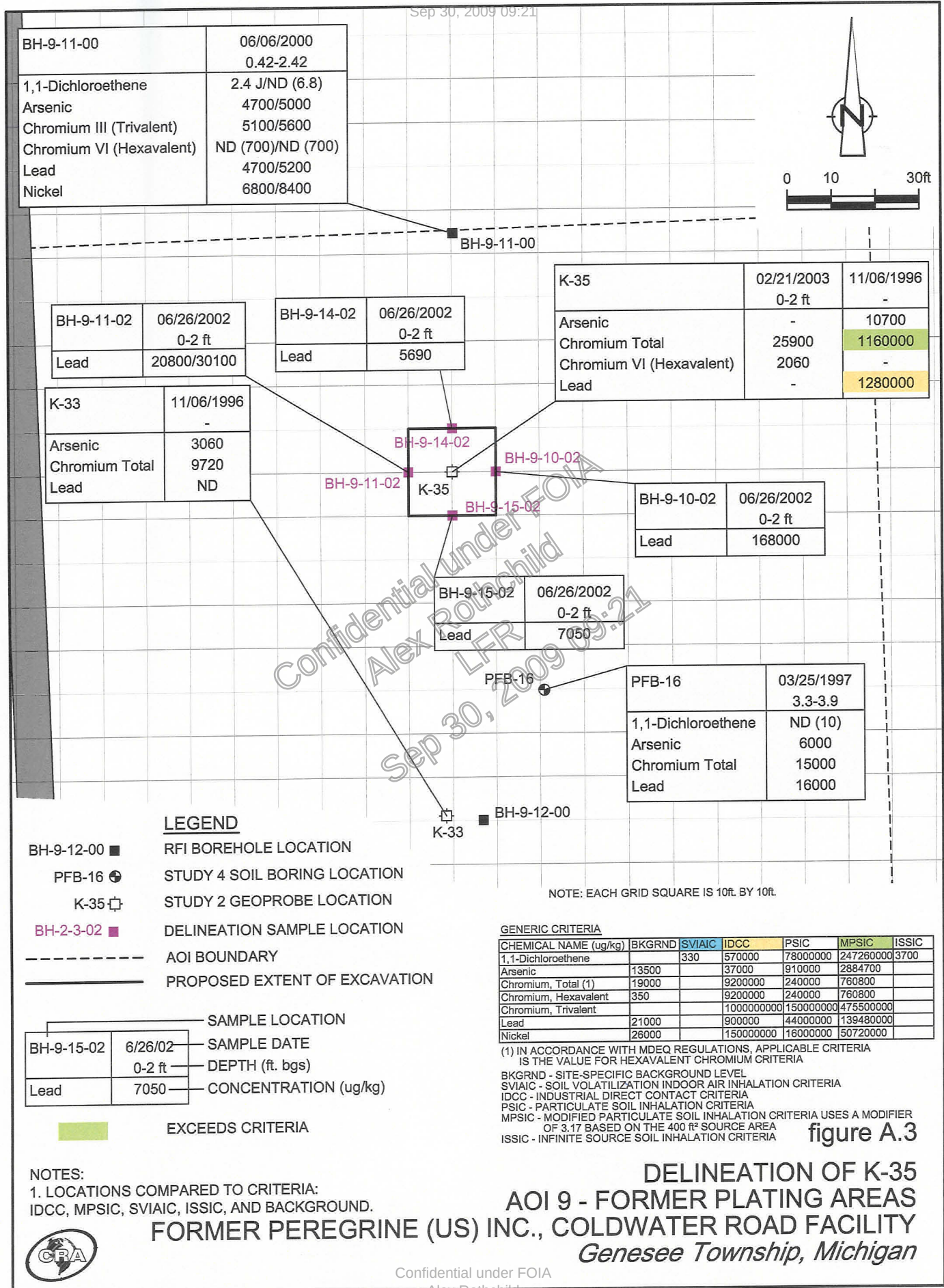


figure A.2

DELINEATION OF BH-2-3-00
AOI 2 - FORMER WASTE PILE PAD
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
Genesee Township, Michigan

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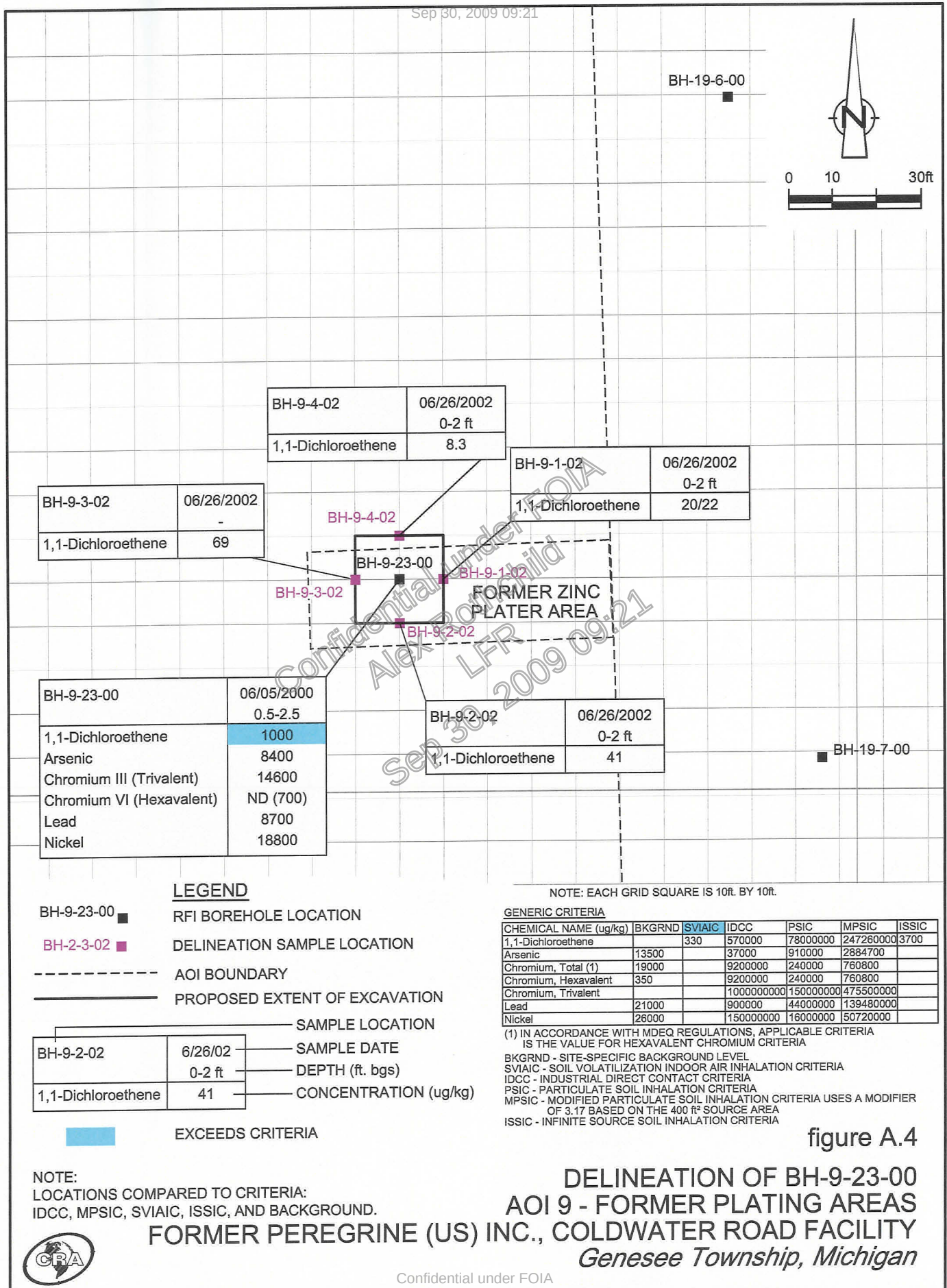


figure A.4

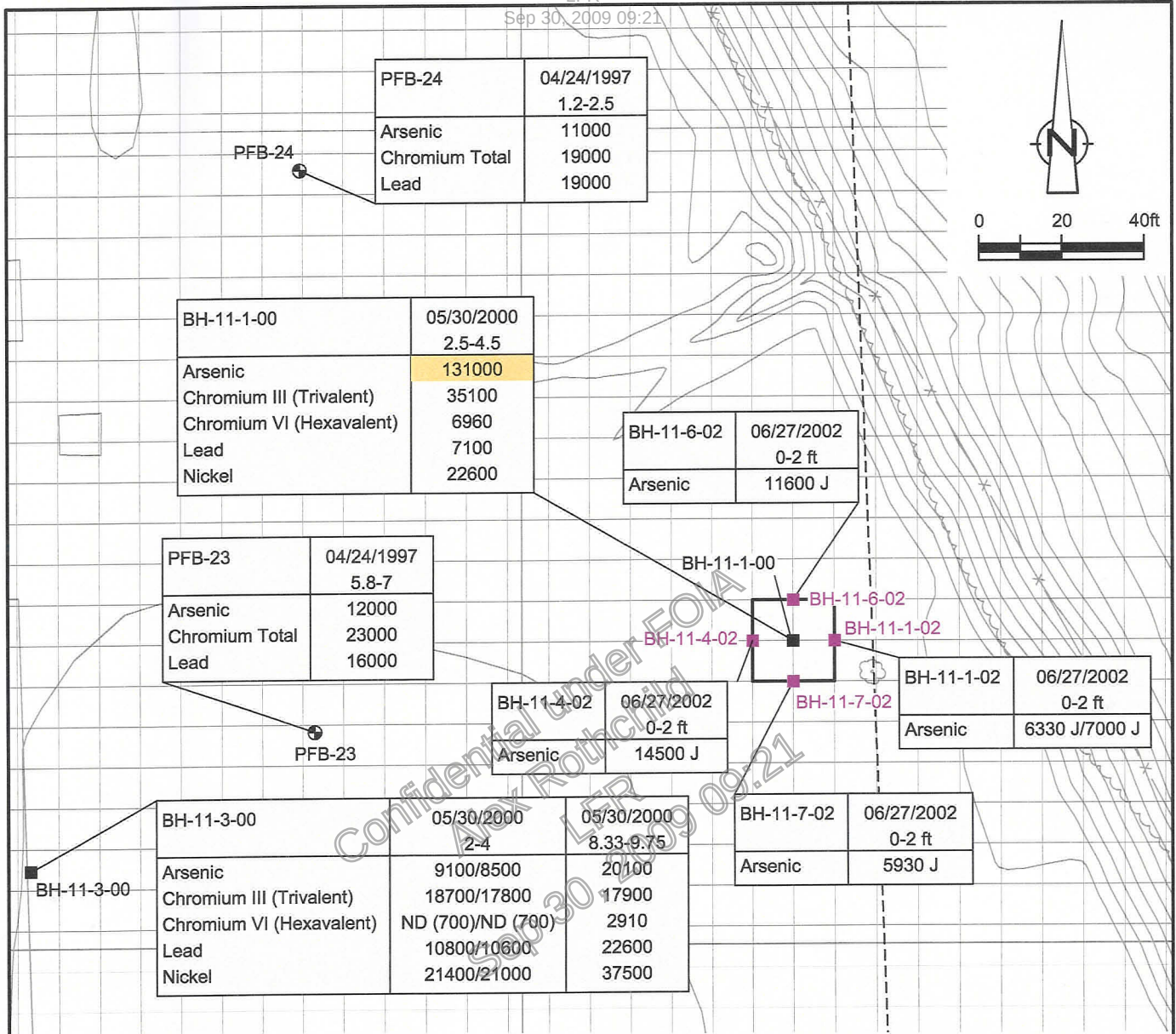
DELINEATION OF BH-9-23-00
AOI 9 - FORMER PLATING AREAS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
Genesee Township, Michigan



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NOTE: EACH GRID SQUARE IS 10ft. BY 10ft.

GENERIC CRITERIA

CHEMICAL NAME (ug/kg)	BKGRND	SVAIC	IDCC	PSIC	MPSIC	ISSIC
1,1-Dichloroethene		330	570000	78000000	247260000	3700
Arsenic	13500		37000	910000	2884700	
Chromium, Total (1)	19000		9200000	240000	760800	
Chromium, Hexavalent	350		9200000	240000	760800	
Chromium, Trivalent			1000000000	1500000000	475500000	
Lead	21000		900000	44000000	139480000	
Nickel	26000		150000000	16000000	50720000	

(1) IN ACCORDANCE WITH MDEQ REGULATIONS, APPLICABLE CRITERIA IS THE VALUE FOR HEXAVALENT CHROMIUM CRITERIA

BKGRND - SITE-SPECIFIC BACKGROUND LEVEL
SVAIC - SOIL VOLATILIZATION INDOOR AIR INHALATION CRITERIA
IDCC - INDUSTRIAL DIRECT CONTACT CRITERIA
PSIC - PARTICULATE SOIL INHALATION CRITERIA
MPSIC - MODIFIED PARTICULATE SOIL INHALATION CRITERIA USES A MODIFIER OF 3.17 BASED ON THE 400 ft² SOURCE AREA
ISSIC - INFINITE SOURCE SOIL INHALATION CRITERIA

NOTE:
LOCATIONS COMPARED TO CRITERIA:
IDCC, MPSIC, SVAIC, ISSIC, AND BACKGROUND.



figure A.6
DELINEATION OF BH-11-1-00
AOI 11 - FORMER COAL STORAGE AREA
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
Genesee Township, Michigan

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TABLE A.1a

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCS
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

Notes:

- Soil Volatilization to Indoor Air Inhalation Criteria (SVIAIC)
- Industrial Direct Contact Criteria (IDCC)
- Particulate Soil Inhalation Criteria (PSIC)
- Modified Particulate Soil Inhalation Criteria (MPSIC)
- Infinite Source Soil Inhalation Criteria (ISSIC)

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
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Notes:

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- Industrial Direct Contact Criteria (IDCC)
- Particulate Soil Inhalation Criteria (PSIC)
- Modified Particulate Soil Inhalation Criteria (MPSIC)
- Infinite Source Soil Inhalation Criteria (ISSIC)
- The associated numerical value is an estimated quantity (1) (1 in brackets are deletion limits)

TABLE A.1a

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Parameters	Units	SVIAC a	IDCC b	PSIC c	MPSIC d	ISSIC e	AOI									
							AOI 03 BH-3-5-00 S-12636-081400-KMY-006 8/14/2000 8.5-9	AOI 03 BH-3-6-00 S-12636-081400-KMY-007 8/14/2000 8.5-9	AOI 03 BH-3-7-00 S-12636-081400-KMY-008 8/14/2000 8.5-9	AOI 03 BH-3-8-00 S-12636-081400-KMY-009 8/14/2000 8.5-9	PTW-11 PTW-11 0.5-1.5 3/20/1997 0.5-1.5	AOI 07 M-1 M-1 (6-8) 11/6/1996 6-8	AOI 07 M-1 M-1 (8-10) 11/6/1996 8-10	AOI 07 PTB-13 PTB-13 2.9-3.5 3/24/1997 2.9-3.5	AOI 07 PTB-14 PTB-14 4.7-5.4 3/25/1997 4.7-5.4	
VOCs																
1,1,1-Trichloroethane	ug/Kg	46000	46000	2900000000	9193000000	450000	ND (4.4)	ND (4.6)	460	ND (6.2)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
1,1,2-Trichloroethane	ug/Kg	24000	84000	2500000000	7925000000	57000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	-	ND (10)	ND (10)	ND (10)	
1,1-Dichloroethane	ug/Kg	43000	89000	1500000000	4755000000	2500000	ND (4.4)	4.9	4300	ND (6.2)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
1,1-Dichloroethane	ug/Kg	330	57000	78000000	247260000	3700	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
1,2-Dichloroethane	ug/Kg	11000	42000	150000000	475500000	21000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	-	ND (10)	ND (10)	ND (10)	
1,2-Dichlorobenzene	ug/Kg	-	17000	-	-	-	-	-	-	-	ND (10)	-	ND (10)	ND (10)	ND (10)	
1,4-Dichlorobenzene	ug/Kg	10000	190000	570000000	1869000000	260000	-	-	-	-	ND (10)	-	ND (10)	ND (10)	ND (10)	
2-Butanone (Methyl Ethyl Ketone)	ug/Kg	2700000	2700000	2900000000	9193000000	3500000	-	-	-	-	ND (100)	-	ND (100)	ND (10)	-	
2-Hexanone	ug/Kg	180000	250000	1200000000	3804000000	1300000	-	-	-	-	ND (100)	-	ND (100)	-	-	
4-Methyl-2-pentanone	ug/Kg	270000	270000	6000000000	19020000000	53000000	-	-	-	-	ND (100)	-	ND (100)	-	-	
Acetone	ug/Kg	11000000	7300000	17000000000	53890000000	160000000	-	-	-	-	ND (100)	-	ND (100)	-	-	
Benzene	ug/Kg	8400	40000	470000000	1489900000	45000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	-	ND (10)	ND (10)	ND (10)	
Carbon disulfide	ug/Kg	14000	28000	2100000000	6657000000	1600000	-	-	-	-	ND (10)	-	ND (10)	ND (10)	ND (10)	
Chloroethane	ug/Kg	95000	95000	2900000000	9193000000	3600000	ND (8.8)	ND (9.2)	460	ND (12)	ND (10)	-	ND (10)	ND (10)	ND (10)	
Chloroform (Trichloromethane)	ug/Kg	3800	150000	1600000000	5072000000	150000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
cis-1,2-Dichloromethane	ug/Kg	41000	64000	1000000000	3170000000	210000	ND (2.2)	ND (2.3)	ND (110)	ND (3.1)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
Ethylbenzene	ug/Kg	14000	14000	1300000000	41210000000	2400000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	1.3	ND (10)	ND (10)	ND (10)	
Isopropylbenzene	ug/Kg	39000	39000	2600000000	8242000000	2000000	-	-	-	-	ND (30)	-	ND (30)	ND (30)	ND (30)	
m,p-Xylene	ug/Kg	-	-	-	-	-	-	-	-	-	ND (10)	-	ND (10)	ND (10)	ND (10)	
Methylene chloride	ug/Kg	24000	23000	8300000000	26311000000	700000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	19.3	ND (10)	ND (10)	ND (10)	
Naphthalene	ug/Kg	47000	5200000	88000000	278960000	350000	-	-	-	-	ND (30)	-	ND (30)	ND (30)	ND (30)	
o-Xylene	ug/Kg	15000	15000	1300000000	41210000000	5400000	-	-	-	-	ND (30)	-	ND (30)	ND (30)	ND (30)	
Styrene	ug/Kg	52000	52000	6900000000	21873000000	3300000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	-	ND (10)	ND (10)	ND (10)	
Tetrachloroethene	ug/Kg	60000	88000	6800000000	21556000000	600000	ND (4.4)	ND (4.6)	310	ND (6.2)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
Toluene	ug/Kg	25000	25000	1200000000	38400000000	3300000	ND (4.4)	ND (4.6)	870	ND (6.2)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
trans-1,2-Dichloroethene	ug/Kg	43000	140000	2100000000	6657000000	330000	ND (2.2)	ND (2.3)	ND (110)	ND (3.1)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
Trichloroethene	ug/Kg	37000	50000	2300000000	7291000000	260000	ND (4.4)	ND (4.6)	ND (230)	ND (6.2)	ND (10)	ND	ND (10)	ND (10)	ND (10)	
Xylene (total)	ug/Kg	15000	15000	13000000000	412100000000	5400000	ND (8.8)	ND (9.2)	460	ND (12)	ND (10)	14.0	ND (30)	ND (30)	ND (30)	

- Notes:
- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
 - b - Industrial Direct Contact Criteria (IDCC)
 - c - Particulate Soil Inhalation Criteria (PSIC)
 - d - Modified Particulate Soil Inhalation Criteria (MPSIC)
 - e - Infinite Source Soil Inhalation Criteria (ISSIC)
 - f - The associated numerical value is an estimated quantity
 - g - The value in brackets are detection limits

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FORMER PERECRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

[illegible]

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FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

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d - Modified Particulate Soil Inhalation Criteria (MPSIC)
e - Infinite Source Soil Inhalation Criteria (ISSIC)
f - The associated numerical value is an estimated quantity (0. The value in brackets are detection limits)

TABLE A.1a

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	Sample Location; Sample ID:	Sample Date; Sample Depth:	Units	SVIAC	IDCC	PSIC	MPSIC	ISSIC	AOI 09 BH-9-1-02 S-12636-062402-DD-004 6/76/2002 0-2 ft Duplicate	AOI 09 BH-9-11-00 S-12636-060606-DRD-080 6/6/2000 0.42-2.42 Duplicate	AOI 09 BH-9-11-00 S-12636-060606-DRD-081 6/6/2000 0.42-2.42 Duplicate	AOI 09 BH-9-12-00 S-12636-060606-DRD-082 6/6/2000 0.5-2.5	AOI 09 BH-9-13C-00 S-12636-070800-DRD-151 7/8/2000	AOI 09 BH-9-14D-00 S-12636-061200-DRD-094 6/12/2000 0.83-2.83	AOI 09 BH-9-15-00 S-12636-060700-DRD-088 6/7/2000 0.66-2.66
Parameters															
VOCs															
1,1,1-Trichloroethane	ug/Kg	46000	46000	2900000000	9193000000	450000			ND (5.8)	ND (6.8)	ND (5.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
1,1,2-Trichloroethane	ug/Kg	24000	84000	2500000000	7925000000	57000			ND (5.8)	ND (6.8)	ND (5.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
1,1-Dichloroethane	ug/Kg	43000	89000	1500000000	4750000000	2500000			2.41	ND (6.8)	ND (5.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
1,2-Dichloroethane	ug/Kg	330	57000	78000000	24760000	3700				ND (6.8)	ND (5.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
1,2-Dichlorobenzene	ug/Kg	11000	42000	150000000	475500000	21000				ND (6.8)	ND (5.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
1,3-Dichlorobenzene	ug/Kg	17000	17000	570000000	1869000000	260000				ND (6.8)	ND (5.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
1,4-Dichlorobenzene	ug/Kg	10000	190000	2900000000	9193000000	3500000				ND (6.8)	ND (5.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
2-Butanone (Methyl Ethyl Ketone)	ug/Kg	2700000	2700000	2900000000	9193000000	1300000				ND (27)	ND (27)	ND (23)	ND (17)	ND (19)	ND (21)
2-Hexanone	ug/Kg	180000	250000	1200000000	3840000000	5300000				ND (27)	ND (27)	ND (23)	ND (17)	ND (19)	ND (21)
4-Methyl-2-pentanone	ug/Kg	270000	270000	6000000000	19020000000	3300000				ND (27)	ND (27)	ND (23)	ND (17)	ND (19)	ND (21)
Acetone	ug/Kg	11000000	7300000	17000000000	53990000000	16000000				ND (27)	ND (27)	ND (23)	ND (17)	ND (19)	ND (21)
Benzene	ug/Kg	8400	40000	4700000000	14899000000	45000				ND (6.8)	ND (6.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
Carbon disulfide	ug/Kg	14000	28000	21000000000	66570000000	1600000				ND (6.8)	ND (6.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
Chloroethane	ug/Kg	95000	95000	29000000000	91930000000	36000000				ND (14)	ND (14)	ND (12)	ND (8.7)	ND (9.5)	ND (10)
Chloroform (Trichloromethane)	ug/Kg	3800	150000	1600000000	5072000000	150000				ND (6.8)	ND (6.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
cis-1,2-Dichloroethene	ug/Kg	41000	64000	10000000000	31700000000	210000				ND (3.4)	ND (3.4)	ND (2.9)	ND (2.2)	ND (4.7)	ND (2.6)
Ethylbenzene	ug/Kg	14000	14000	13000000000	41210000000	2400000				ND (6.8)	ND (6.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
Isopropylbenzene	ug/Kg	39000	39000	2600000000	8242000000	2000000				ND (6.8)	ND (6.8)	ND (5.8)	ND (4.4)	ND (4.7)	ND (5.2)
m,p-Xylene	ug/Kg	24000	24000	8300000000	26311000000	700000			0.67	0.67	0.48	0.48	2.31	ND (4.7)	ND (5.2)
Methylene chloride	ug/Kg	47000	5200000	88000000	278960000	350000									
Naphthalene	ug/Kg	15000	15000	13000000000	41210000000	54000000									
o-Xylene	ug/Kg	52000	52000	6900000000	21873000000	3300000									
Styrene	ug/Kg	88000	88000	4800000000	21554000000	600000									
Tetrachloroethene	ug/Kg	6000	25000	12000000000	38400000000	3300000									
Toluene	ug/Kg	43000	140000	21000000000	66570000000	3300000									
trans-1,2-Dichloroethene	ug/Kg	37000	50000	2300000000	7291000000	260000									
Trichloroethene	ug/Kg	15000	15000	13000000000	41210000000	54000000									
Xylene (total)	ug/Kg	15000	15000	13000000000	41210000000	54000000									

- Notes:
- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
 - b - Industrial Direct Contact Criteria (IDCC)
 - c - Particulate Soil Inhalation Criteria (PSIC)
 - d - Modified Particulate Soil Inhalation Criteria (MPSIC)
 - e - Infinite Source Soil Inhalation Criteria (ISSIC)
 - f - The associated numerical value is an estimated quantity
 - g - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIaIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (SSIC)
- f - The associated numerical value is an estimated quantity (0 - 100). The values in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCS
FORMER PERERGINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

	AOI 09	BH-9-4-00	S-12636-060600-DRD-072	AOI 09	BH-9-4-00	S-12636-060600-DRD-073	AOI 09	BH-9-4-02	S-12636-062602-DD-010	AOI 09	BH-9-5C-00	S-12636-070800-DRD-150	AOI 09	BH-9-5E-00	S-12636-060700-DRD-089	AOI 09	BH-9-7-00	S-12636-060500-DRD-068
Sample Location:																		
Sample ID:																		
Sample Date:																		
Sample Depth:																		
Units	SVIAlC	IDCC	PSIC	MPFSC	ISSIC													
Parameters	a	b	c	d	e													
VOAs																		
1,1,1-Trichloroethane	ug/Kg	460000	29000000000	91930000000	4500000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
1,1,2-Trichloroethane	ug/Kg	24000	2500000000	7925000000	57000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
1,1-Dichloroethane	ug/Kg	430000	15000000000	47550000000	2500000	ND (4.3)	1.31	-	-	8.3	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
1,2-Dichloroethane	ug/Kg	330	570000	78000000	47260000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
1,2-Dichlorobenzene	ug/Kg	11000	420000	150000000	2475000000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
1,3-Dichlorobenzene	ug/Kg	-	170000	-	-	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
1,4-Dichlorobenzene	ug/Kg	10000	190000	57000000	1866900000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
2-Butanone (Methyl Ethyl Ketone)	ug/Kg	27000000	29000000000	91930000000	35000000	ND (17)	ND (18)	-	-	-	ND (19)	ND (17)	ND (19)	ND (19)	ND (17)	ND (19)	ND (19)	ND (19)
2-Hexanone	ug/Kg	180000	250000	1200000000	3904000000	ND (17)	ND (18)	-	-	-	ND (19)	ND (17)	ND (19)	ND (19)	ND (17)	ND (19)	ND (19)	ND (19)
4-Methyl-2-pentanone	ug/Kg	2700000	60000000000	190200000000	53000000	ND (17)	ND (18)	-	-	-	ND (19)	ND (17)	ND (19)	ND (19)	ND (17)	ND (19)	ND (19)	ND (19)
Acetone	ug/Kg	11000000	7300000	17000000000	53890000000	ND (17)	ND (18)	-	-	-	ND (19)	ND (17)	ND (19)	ND (19)	ND (17)	ND (19)	ND (19)	ND (19)
Benzene	ug/Kg	8400	40000	47000000	1489900000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Carbon disulfide	ug/Kg	28000	21000000000	66570000000	1600000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Chloroform	ug/Kg	95000	290000000000	919300000000	36000000	ND (8.6)	ND (9.2)	-	-	-	ND (9.6)	ND (8.4)	ND (9.6)	ND (9.6)	ND (8.4)	ND (9.2)	ND (9.2)	ND (9.2)
Chloroform (Trichloromethane)	ug/Kg	38000	1500000	1600000000	50720000000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
cis-1,2-Dichloroethane	ug/Kg	41000	64000	1000000000	317000000	ND (2.1)	ND (2.3)	-	-	-	ND (2.4)	ND (2.1)	ND (2.4)	ND (2.4)	ND (2.1)	ND (2.3)	ND (2.3)	ND (2.3)
Ethylbenzene	ug/Kg	14000	13000000000	41210000000	2400000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Isopropylbenzene	ug/Kg	39000	2600000000	8242000000	2000000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
m,p-Xylene	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m,p-Xylene	ug/Kg	24000	230000	830000000	26311000000	0.421	ND (4.6)	-	-	-	1.61	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Methylchloride	ug/Kg	47000	5200000	8800000	27896000	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	ug/Kg	15000	130000000000	412100000000	54000000	-	-	-	-	-	-	-	-	-	-	-	-	-
o-Xylene	ug/Kg	52000	6900000000	21872000000	3300000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Styrene	ug/Kg	6000	8800	6800000000	21556000000	ND (4.3)	ND (4.6)	-	-	-	0.261	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Tetrachloroethene	ug/Kg	25000	12000000000	38040000000	3300000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Toluene	ug/Kg	4300	140000	2100000000	6657000000	ND (2.1)	ND (2.3)	-	-	-	ND (2.4)	ND (2.1)	ND (2.4)	ND (2.4)	ND (2.1)	ND (2.3)	ND (2.3)	ND (2.3)
trans-1,2-Dichloroethene	ug/Kg	37000	500000	2200000000	7291000000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Trichloroethene	ug/Kg	37000	500000	2200000000	7291000000	ND (4.3)	ND (4.6)	-	-	-	ND (4.8)	ND (4.2)	ND (4.8)	ND (4.8)	ND (4.2)	ND (4.6)	ND (4.6)	ND (4.6)
Violene (total)	ug/Kg	15000	130000000000	412100000000	54000000	ND (8.6)	ND (9.2)	-	-	-	ND (9.6)	ND (8.4)	ND (9.6)	ND (9.6)	ND (8.4)	ND (9.2)	ND (9.2)	ND (9.2)

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - J - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

TABLE A.1a

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;	Units	SVIAC	IDCC	PSIC	MPSIC	ISSIC	AOI 09 BH-9-7-00 S-12636-060500-DRD-067 6/5/2000 0.5-2.5 Duplicate	AOI 09 BH-9-9-00 S-12636-060500-DRD-065 6/5/2000 0.5-2.5 Duplicate	AOI 09 BH-26A-01 S-12636-030501-DRD-009 5/3/2001 4-6 ft	AOI 09 BH-26B-01 S-12636-030501-DRD-007 5/3/2001 0-1 ft	AOI 09 BH-26C-01 S-12636-030501-DRD-008 5/3/2001 4-6 ft
Parameters											
VOCs											
1,1,1-Trichloroethane	ug/Kg	46000	46000	2900000000	9193000000	450000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
1,1,2-Trichloroethane	ug/Kg	24000	84000	2500000000	7925000000	57000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
1,1-Dichloroethane	ug/Kg	43000	89000	1500000000	4755000000	2500000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
1,1-Dichloroethene	ug/Kg	330	57000	78000000	247260000	3700	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
1,2-Dichloroethane	ug/Kg	11000	42000	150000000	475500000	21000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
1,2-Dichloroethene	ug/Kg	-	17000	-	-	-	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
1,4-Dichlorobenzene	ug/Kg	10000	190000	570000000	1806900000	250000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
2-Butanone (Methyl Ethyl Ketone)	ug/Kg	2700000	2700000	2900000000	9193000000	3500000	ND (17)	ND (21)	4.51	3.71	ND (19)
2-Hexanone	ug/Kg	180000	250000	1200000000	3804000000	5300000	ND (17)	ND (21)	ND (17)	ND (17)	ND (19)
4-Methyl-2-pentanone	ug/Kg	270000	270000	6000000000	19020000000	5300000	ND (17)	ND (21)	ND (17)	ND (17)	ND (19)
Acetone	ug/Kg	11000000	7300000	17000000000	53890000000	16000000	ND (17)	ND (21)	20	ND (22)	ND (19)
Benzene	ug/Kg	8400	40000	4700000000	1489900000	45000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
Carbon disulfide	ug/Kg	140000	28000	21000000000	66570000000	1600000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
Chloroethane	ug/Kg	95000	95000	29000000000	91930000000	36000000	ND (8.4)	ND (11)	ND (8.7)	ND (8.6)	ND (9.3)
Chloroform (Trichloromethane)	ug/Kg	3800	150000	1600000000	5072000000	15000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
cis-1,2-Dichloroethene	ug/Kg	41000	64000	1000000000	3170000000	210000	ND (2.1)	ND (2.7)	ND (2.2)	ND (2.8)	ND (2.3)
Ethylbenzene	ug/Kg	140000	140000	13000000000	41210000000	2400000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
Isopropylbenzene	ug/Kg	390000	390000	2600000000	8242000000	2000000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
m,p-Xylene	ug/Kg	-	-	-	-	-	-	-	-	-	-
Methylene chloride	ug/Kg	24000	220000	8300000000	26311000000	700000	ND (4.2)	ND (5.3)	0.581	ND (4.3)	ND (4.6)
Naphthalene	ug/Kg	47000	5200000	88000000	2789600000	350000	-	-	-	1.71	-
o-Xylene	ug/Kg	15000	15000	13000000000	41210000000	54000000	-	-	-	-	-
Styrene	ug/Kg	52000	52000	6900000000	21873000000	3300000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
Tetrachloroethene	ug/Kg	6000	8800	6800000000	21556000000	60000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
Toluene	ug/Kg	25000	25000	12000000000	39040000000	3300000	ND (2.1)	0.901	0.561	ND (2.2)	ND (2.8)
trans-1,2-Dichloroethene	ug/Kg	43000	140000	2100000000	6657000000	330000	ND (2.1)	ND (2.7)	ND (2.2)	ND (2.8)	ND (2.3)
Trichloroethene	ug/Kg	37000	50000	2300000000	7791000000	260000	ND (4.2)	ND (5.3)	ND (4.4)	ND (4.3)	ND (4.6)
Xylene (total)	ug/Kg	150000	150000	13000000000	41210000000	54000000	ND (8.4)	0.941	ND (8.7)	ND (8.6)	ND (9.3)

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

TABLE A.1a

AOI:	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 12
Sample Location:	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-26D-01	BH-12-1-00
Sample ID:	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010	S-12636-00501-DRD-010
Sample Date:	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001	5/3/2001
Sample Depth:	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft	1.5-2.5
Parameters	Units	SVIAC	IDCC	PSIC	MPSIC	ISSIC						
VOAs												
1,1,1-Trichloroethane	ug/Kg	46000	46000	2900000000	9190000000	450000	ND (4.5) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (4.5)
1,1,2-Trichloroethane	ug/Kg	24000	84000	2500000000	7925000000	57000	ND (4.5) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (4.5)
1,1-Dichloroethane	ug/Kg	43000	89000	1500000000	4755000000	2500000	ND (4.5) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (4.5)
1,1-Dichloroethane	ug/Kg	330	57000	78000000	247260000	3700	ND (4.5) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (4.5)
1,2-Dichloroethane	ug/Kg	11000	42000	15000000	475500000	21000	ND (4.5) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (4.5)
1,2-Dichloroethane	ug/Kg	-	17000	-	-	-	ND (4.5) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (4.5)
1,4-Dichlorobenzene	ug/Kg	10000	190000	57000000	1806900000	260000	ND (4.5) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (4.5)
2-Butanone (Methyl Ethyl Ketone)	ug/Kg	2700000	2700000	2900000000	9190000000	3500000	ND (18) UJ	ND (17)	ND (17)	ND (17)	ND (17)	ND (18) U
2-Hexanone	ug/Kg	180000	250000	1200000000	3804000000	130000	ND (18) UJ	ND (17)	ND (17)	ND (17)	ND (17)	ND (18)
4-Methyl-2-pentanone	ug/Kg	270000	270000	6000000000	19020000000	5300000	ND (18) UJ	ND (17)	ND (17)	ND (17)	ND (17)	ND (18)
Acetone	ug/Kg	11000000	7300000	17000000000	53990000000	16000000	ND (18) UJ	ND (17)	ND (17)	ND (17)	ND (17)	ND (18) U
Benzene	ug/Kg	8400	40000	47000000	1489900000	45000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
Carbon disulfide	ug/Kg	14000	28000	2100000000	6657000000	160000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
Chloroethane	ug/Kg	95000	95000	2900000000	9190000000	3600000	ND (9.0) UJ	ND (10)	ND (10)	ND (10)	ND (10)	ND (9.0)
Chloroform (Trichloromethane)	ug/Kg	3800	150000	16000000	5072000000	15000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
cis-1,2-Dichloroethane	ug/Kg	41000	64000	100000000	3170000000	210000	ND (2.2) UJ	ND (2.1)	ND (2.1)	ND (2.1)	ND (2.1)	96
Ethylbenzene	ug/Kg	14000	14000	1300000000	4121000000	240000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
Isopropylbenzene	ug/Kg	39000	39000	26000000	824200000	200000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
m,p-Xylene	ug/Kg	-	-	-	-	-	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
Methylene chloride	ug/Kg	24000	230000	830000000	2631100000	70000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5) U
Naphthalene	ug/Kg	47000	5200000	8900000	278960000	35000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
o-Xylene	ug/Kg	15000	15000	1300000000	4121000000	5400000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
Styrene	ug/Kg	52000	52000	690000000	2187500000	330000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
Tetrachloroethene	ug/Kg	6000	8800	680000000	2155600000	60000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
Toluene	ug/Kg	25000	25000	1200000000	3904000000	330000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.5)
trans-1,2-Dichloroethane	ug/Kg	4300	140000	210000000	665700000	33000	ND (2.2) UJ	ND (2.1)	ND (2.1)	ND (2.1)	ND (2.1)	33
Trichloroethene	ug/Kg	37000	50000	230000000	7291000000	260000	ND (4.5) UJ	ND (4.2)	ND (4.2)	ND (4.2)	ND (4.2)	110
Xylene (total)	ug/Kg	15000	15000	1300000000	4121000000	5400000	ND (9.0) UJ	ND (8.4)	ND (8.4)	ND (8.4)	ND (8.4)	ND (9.0)

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

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Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIaIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ESSIC)
- f - J - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

[illegible]

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The brackets are detection limits

TABLE A.1a

[illegible]

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

	AOI 20	AOI 20	AOI 20	AOI 2022	AOI 2022	AOI 2022	AOI 2022	AOI 2022	AOI 2022	AOI 2022	AOI 2022	AOI 2022
Sample Location;	BH-20-2-00	BH-20-3-00	BH-20-4-00	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13
Sample ID:	S-1263E-060100-DKD-047	S-1263E-060100-DRD-044	S-1263E-060100-DRD-043	MW-5 (3-5)	MW-6 (3-5)	MW-7 (4-6)	MW-8 (4-6)	MW-9 (4-4)	MW-10 (8-10)	MW-11 (8-10)	MW-12 (8-10)	MW-13 (4-4)
Sample Date:	6/17/2000	6/17/2000	6/17/2000	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996
Sample Depth:	7-8	0.66-3	0.66-3	3-5	3-5	4-6	4-6	4-6	8-10	8-10	8-10	4-6
Parameters	Units	SVI/AIC a	IDCC b	PSIC c	MPSHC d	ISSIC e						
VOAs												
1,1,1-Trichloroethane	ug/Kg	460000		29000000000	91930000000	4590000						
1,1,2-Trichloroethane	ug/Kg	24000		250000000	792500000	57000						
1,1-Dichloroethane	ug/Kg	430000		15000000000	47550000000	2500000						
1,1-Dichloroethene	ug/Kg	330		780000000	247260000	3700						
1,2-Dichloroethane	ug/Kg	11000		420000	150000000	11000						
1,2-Dichlorobenzene	ug/Kg	-		-	4755000000	21000						
1,3-Dichlorobenzene	ug/Kg	10000		570000000	18049000000	265000						
1,4-Dichlorobenzene	ug/Kg	10000		570000000	18049000000	265000						
2-Buranone (Methyl Ethyl Ketone)	ug/Kg	27000000		29000000000	91930000000	35000000						
2-Hexanone	ug/Kg	180000		120000000	3804000000	130000						
4-Methyl-2-pentanone	ug/Kg	270000		6000000000	19020000000	53000000						
Acetone	ug/Kg	110000000		17000000000	53890000000	16000000						
Benzene	ug/Kg	8400		470000000	1489900000	45000						
Carbon disulfide	ug/Kg	14000		280000	6657000000	1600000						
Chloroethane	ug/Kg	95000		9500000000	91930000000	36000000						
Chloroform (Trichloromethane)	ug/Kg	3800		150000	5072000000	15000						
cis-1,2-Dichloroethene	ug/Kg	41000		100000000	3170000000	210000						
Ethylbenzene	ug/Kg	140000		13000000000	41210000000	2400000						
Isopropylbenzene	ug/Kg	390000		2600000000	8232000000	2000000						
m,p-Xylene	ug/Kg	-		-	-	-						
Methylene chloride	ug/Kg	240000		8300000000	26311000000	700000						
Naphthalene	ug/Kg	470000		88000000	278640000	350000						
o-Xylene	ug/Kg	150000		13000000000	41210000000	54000000						
Styrene	ug/Kg	520000		69000000000	218720000000	33000000						
Tetrachloroethene	ug/Kg	60000		8800	6800000000	600000						
Toluene	ug/Kg	250000		1200000000	3804000000	3300000						
trans-1,2-Dichloroethene	ug/Kg	43000		14000000	4657000000	330000						
Trichloroethene	ug/Kg	37000		2300000000	72910000000	260000						
Xylene (total)	ug/Kg	150000		13000000000	41210000000	54000000						

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIaIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite-Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

TABLE A.1a
ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - VOCs
FORMER PERECRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Sample Location; Sample ID; Sample Date; Sample Depth;	AOI;	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None
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Notes:
a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
b - Industrial Direct Contact Criteria (IDCC)
c - Particulate Soil Inhalation Criteria (PSIC)
d - Modified Particulate Soil Inhalation Criteria (MPSC)
e - Infinite Source Soil Inhalation Criteria (ISSIC)
f - The associated numerical value is an estimated quantity
0 - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT USA) FOR CONSTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

- Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- Industrial Direct Contact Criteria (IDCC)
- Particulate Soil Inhalation Criteria (PSIC)
- Modified Particulate Soil Inhalation Criteria (MPSIC)
- Infinite Source Soil Inhalation Criteria (ISSIC)

The associated numerical value is an estimated quantity (The value in brackets are detection limits)

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Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

TABLE A.1b
ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINGENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 11
Sample Location:	BH-9-14D-00	BH-9-24-00	PTB-12	PTB-16	PTB-17	PTB-18	PTB-19	PTB-20	PTB-21	PTB-22	BH-11-1-00
Sample ID:	S-12636-061000-DRD-094	S-12636-060200-DRD-052	PTW-12 6.2-6.7	PTB-16 3.3-3.9	PTB-17 5.2-6.0	PTB-18 1.4-2.0	PTB-19 1.0-1.6	PTB-20 1.6-2.3	PTB-21 0.8-1.3	PTB-22 0.8-1.3	S-12636-053000-DRD-013
Sample Date:	6/12/2000	6/12/2000	3/21/1997	3/25/1997	3/25/1997	3/26/1997	3/26/1997	3/26/1997	3/21/1997	3/21/1997	5/00/2000
Sample Depth:	0.83-2.83	0.66-2.66	5.2-6.7	3.3-3.9	5.2-6	1.4-2	1-1.6	1.6-2.3	0.8-1.3	0.8-1.3	2.5-4.5
Parameters	Units	SVIAC	IDCC	PSIC	MPSIC	ISSIC					
SVOCs											
2-Methylnaphthalene	ug/Kg	35000000	2600000	6200000000	1965400000	97000000	ND (380)	ND (330)	ND (330)	ND (330)	370 J
Acenaphthene	ug/Kg	1000000000	13000000	7300000000	919300000000	1600000000	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Anthracene	ug/Kg	8000	8000	1900000	602000	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Benzo(a)anthracene	ug/Kg	8000	8000	1900000	602000	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Benzo(a)pyrene	ug/Kg	8000	8000	1900000	602000	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Benzo(b)fluoranthene	ug/Kg	7000000	800000	350000000	1109500000	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Benzo(k)fluoranthene	ug/Kg	800000	800000	800000	-	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Biphenyl	ug/Kg	-	-	-	-	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
bis(2-Ethylhexyl)phthalate	ug/Kg	-	1000000	890000000	2821300000	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Carbazole	ug/Kg	-	2400000	-	-	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Chrysene	ug/Kg	-	8000000	-	-	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Dibenzofuran	ug/Kg	-	-	-	-	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Fluoranthene	ug/Kg	1000000000	130000000	4100000000	12997000000	8900000000	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Fluorene	ug/Kg	1000000000	87000000	4100000000	12997000000	1500000000	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Indene(1,2,3-cd)pyrene	ug/Kg	-	8000	-	-	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Naphthalene	ug/Kg	470000	52000000	88000000	2799600000	3500000	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
N-Nitrosodiphenylamine	ug/Kg	-	7800000	-	-	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Phenanthrene	ug/Kg	5100000	5200000	29000000	9193000	190000	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Picene	ug/Kg	-	12000000	18000000000	57060000000	-	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)
Pyrene	ug/Kg	1000000000	84000000	2900000000	9193000000	7800000000	ND (380)	ND (330)	ND (330)	ND (330)	ND (390)

Notes:
a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
b - Industrial Direct Contact Criteria (IDCC)
c - Particulate Soil Inhalation Criteria (PSIC)
d - Modified Particulate Soil Inhalation Criteria (MPSIC)
e - Infinite Source Soil Inhalation Criteria (ISSIC)
J - The associated numerical value is an estimated quantity
0 - The value in brackets are detection limits

AOI:
Sample Location;
Sample ID:
Sample Date:
Sample Depth:

[illegible]

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (SSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

TABLE A.1b

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINUENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	AOI 12	AOI 12	AOI 12	AOI 12	AOI 13	AOI 13	AOI 13	AOI 14	AOI 14
Sample ID:	BH-12-1-00	BH-12-2-00	BH-12-3-00	BH-12-4-00	BH-13-1-00	BH-13-2-00	BH-13-3-00	BH-14-1-00	BH-14-1-00
Sample Date:	5/30/2000	5/30/2000	5/30/2000	5/30/2000	5/30/2000	5/30/2000	5/30/2000	5/31/2000	5/31/2000
Sample Depth:	1.5-2.5	0.5-2.5	0.5-2.5	0.5-2.5	0-2	5-2.42	5-2.42	0.5-2.5	0.5-2.5
Parameters	SVIAC	IDCC	PSIC	MPSC	ISSC				
SVOCs	a	b	c	d	e				
2-Methylnaphthalene	ug/Kg	26000000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Acenaphthene	ug/Kg	130000000	6200000000	19654000000	97000000	ND (380)	ND (380)	ND (380)	ND (380)
Anthracene	ug/Kg	1000000000	29000000000	91930000000	1600000000	ND (380)	ND (380)	ND (380)	ND (380)
Benz(a)anthracene	ug/Kg	80000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Benz(a)pyrene	ug/Kg	8000	1900000	6023000	-	ND (380)	ND (380)	ND (380)	ND (380)
Benz(b)fluoranthene	ug/Kg	80000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Benz(g,h,i)perylene	ug/Kg	7000000	350000000	1109500000	-	ND (380)	ND (380)	ND (380)	ND (380)
Benz(k)fluoranthene	ug/Kg	800000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Biphenyl	ug/Kg	-	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
bin(2-Ethylhexyl)phthalate	ug/Kg	1000000	890000000	2821300000	-	ND (380)	ND (380)	ND (380)	ND (380)
Carbazole	ug/Kg	2400000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Chrysene	ug/Kg	8000000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Dibenz(a,h)anthracene	ug/Kg	-	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Fluoranthene	ug/Kg	130000000	4100000000	12997000000	890000000	ND (380)	ND (380)	ND (380)	ND (380)
Fluorene	ug/Kg	1000000000	4100000000	12997000000	1500000000	ND (380)	ND (380)	ND (380)	ND (380)
Indeno(1,2,3-cd)pyrene	ug/Kg	80000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Naphthalene	ug/Kg	5200000	8800000	27856000	350000	ND (380)	ND (380)	ND (380)	ND (380)
N-Nitrosodiphenylamine	ug/Kg	7800000	-	-	-	ND (380)	ND (380)	ND (380)	ND (380)
Phenanthrene	ug/Kg	5100000	2900000	9193000	190000	ND (380)	ND (380)	ND (380)	ND (380)
Phenol	ug/Kg	-	1800000000	5796000000	-	ND (380)	ND (380)	ND (380)	ND (380)
Pyrene	ug/Kg	1000000000	2900000000	9193000000	780000000	ND (380)	ND (380)	ND (380)	ND (380)

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSC)
- e - Infinite Source Soil Inhalation Criteria (ISSC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity (The value in brackets are detection limits)

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT USA) FOR CONSTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Parameters	Units	SWAIC	IDCC	PSIC	MPSIC	ISSIC	AOI 18 BH-18-2-00 S-12636-060100-DRD-041 6/1/2000 0.66-3	AOI 18 BH-18-3-00 S-12636-060100-DRD-042 6/1/2000 0.5-1.5	AOI 18 BH-18-4-00 S-12636-060100-DRD-036 6/1/2000 0.5-3	AOI 18 BH-18-4-00 S-12636-060100-DRD-039 6/1/2000 5-6	AOI 18 MW-3 11/6/1996 2-4	AOI 19 BH-19-1-00 S-12636-060500-DRD-059 6/5/2000 0.5-1.5
		a	b	c	d	e						
2-Methylnaphthalene	ug/Kg	-	26500000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Acenaphthene	ug/Kg	35000000	13000000	620000000	1965400000	9700000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Anthracene	ug/Kg	1000000000	730000000	2900000000	9193000000	1600000000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Benz(a)anthracene	ug/Kg	-	8000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	ND	ND (3700)
Benz(a)pyrene	ug/Kg	-	8000	1900000	6023000	-	ND (390)	ND (400)	ND (370)	ND (380)	ND	ND (3700)
Benz(b)fluoranthene	ug/Kg	-	8000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	ND	ND (3700)
Benz(g,h,i)perylene	ug/Kg	-	7000000	350000000	1109500000	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Benz(k)fluoranthene	ug/Kg	-	800000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	ND	ND (3700)
Biphenyl	ug/Kg	-	10000000	890000000	2821300000	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
bis(2-Ethylhexyl)phthalate	ug/Kg	-	2400000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Carbazole	ug/Kg	-	8000000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Chrysene	ug/Kg	-	-	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Dibenz(a,h)anthracene	ug/Kg	-	-	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Fluoranthene	ug/Kg	1000000000	87000000	4100000000	12997000000	890000000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Fluorene	ug/Kg	1000000000	87000000	4100000000	12997000000	150000000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Indeno(1,2,3-cd)pyrene	ug/Kg	-	80000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Naphthalene	ug/Kg	470000	52000000	88000000	278960000	350000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
N-Nitrosodiphenylamine	ug/Kg	-	7800000	-	-	-	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Phenanthrene	ug/Kg	5100000	5200000	2900000	9193000	190000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Phenol	ug/Kg	-	12000000	1800000000	5706400000	9193000000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)
Pyrene	ug/Kg	1000000000	84000000	2900000000	9193000000	780000000	ND (390)	ND (400)	ND (370)	ND (380)	-	ND (3700)

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSC)

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT USA) FOR CONSTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PERERINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI	Sample Location:	Sample ID:	Sample Date:	Sample Depth:			
AOI 19	BH-19-1-00	S-12636-060500-DRD-060	6/5/2000	0.5-2.5			
AOI 19	BH-19-2-00	S-12636-060200-DRD-055	6/27/2000	0.5-2.5			
AOI 19	BH-19-3-00	S-12636-060500-DRD-061	6/5/2000	0.42-2.42			
AOI 19	BH-19-4-00	S-12636-060500-DRD-057	6/5/2000	1-3			
AOI 19	BH-19-5-00	S-12636-060200-DRD-054	6/7/2000	0.58-3			
AOI 19	BH-19-6-00	S-12636-060500-DRD-062	6/5/2000	0.42-2.42			
Parameters	Units	SWAIC a	IDCC b	PSIC c	MPSIC d	ISSIC e	SVOCs
2-Methylnaphthalene	ug/Kg	-	26000000	-	-	-	ND (380)
Acenaphthene	ug/Kg	350000000	130000000	6200000000	14654000000	977000000	ND (380)
Anthracene	ug/Kg	10000000000	8000000	29000000000	91930000000	16000000000	ND (380)
Benz(a)anthracene	ug/Kg	-	80000	-	-	-	ND (3500)
Benz(a)pyrene	ug/Kg	-	8000	1900000	6023000	-	ND (3500)
Benz(b)fluoranthene	ug/Kg	-	80000	-	-	-	ND (3500)
Benz(k)fluoranthene	ug/Kg	-	7000000	350000000	1109500000	-	ND (3500)
Benz(g,h,i)perylene	ug/Kg	-	8000000	-	-	-	ND (3500)
Benz(c,k)fluoranthene	ug/Kg	-	-	-	-	-	ND (3500)
Biphenyl	ug/Kg	-	bis(2-Ethylhexyl)phthalate	-	-	-	ND (3500)
Carbazole	ug/Kg	-	2400000	-	2821300000	-	ND (3500)
Chrysene	ug/Kg	-	8000000	-	-	-	ND (3500)
Dibenzofuran	ug/Kg	-	-	-	-	-	ND (3500)
Fluoranthene	ug/Kg	10000000000	1300000000	41000000000	12997000000	8900000000	ND (3500)
Fluorene	ug/Kg	10000000000	8700000000	41000000000	12997000000	1550000000	ND (3500)
Indeno(1,2,3-cd)pyrene	ug/Kg	-	80000	-	-	-	ND (3500)
Naphthalene	ug/Kg	470000	52000000	88000000	278950000	350000	ND (3500)
N-Nitrosodiphenylamine	ug/Kg	-	7800000	-	-	-	ND (3500)
Phenanthrene	ug/Kg	5100000	5200000	2900000	9193000	190000	ND (380)
Phenol	ug/Kg	-	12000000	18000000000	57060000000	-	ND (3500)
Pyrene	ug/Kg	10000000000	8400000000	29000000000	91930000000	7800000000	ND (3500)

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity (value in brackets are detection limits)

TABLE A.1b

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	AOI 19	AOI 19	AOI 19	AOI 20	AOI 20	AOI 20	AOI 20
Sample Location:	BH-19-4-00	BH-19-7-00	BH-19-8-00	BH-20-1-00	BH-20-2-00	BH-20-3-00	BH-20-3-00
Sample ID:	S-12636-060500-DRD-043	S-12636-060200-DRD-056	S-12636-060200-DRD-083	S-12636-060100-DRD-045	S-12636-060100-DRD-046	S-12636-060100-DRD-047	S-12636-060100-DRD-044
Sample Date:	6/5/2000	6/7/2000	6/7/2000	6/7/2000	6/7/2000	6/7/2000	6/7/2000
Sample Depth:	5.5-6.5	0.5-2.5	0.58-3	0.33-2.33	0.42-3	7-8	0.66-3
Parameters	SVIAC	IDCC	PSIC	MPFIC	ISSIC		
SVOCs	a	b	c	d	e		
2-Methylnaphthalene	ug/Kg	26000000	-	-	-	ND (380)	ND (380)
Acenaphthene	ug/Kg	1300000000	6200000000	19654000000	97000000	ND (380)	ND (380)
Anthracene	ug/Kg	1000000000	29000000000	91930000000	1600000000	ND (380)	ND (380)
Benzofluoranthene	ug/Kg	8000	-	-	-	ND (380)	ND (380)
Benzofluoranthene	ug/Kg	8000	1900000	6020000	-	ND (380)	ND (380)
Benzofluoranthene	ug/Kg	8000	-	-	-	ND (380)	ND (380)
Benzofluoranthene	ug/Kg	7000000	3500000000	1109500000	-	ND (380)	ND (380)
Benzofluoranthene	ug/Kg	800000	-	-	-	ND (380)	ND (380)
Biphenyl	ug/Kg	-	-	-	-	ND (380)	ND (380)
bis(2-Ethylhexyl)phthalate	ug/Kg	10000000	890000000	2821300000	-	ND (380)	ND (380)
Carbazole	ug/Kg	2400000	-	-	-	ND (380)	ND (380)
Chrysene	ug/Kg	8000000	-	-	-	ND (380)	ND (380)
Dibenzofuran	ug/Kg	-	-	-	-	ND (380)	ND (380)
Fluoranthene	ug/Kg	1300000000	4100000000	12997000000	8900000000	ND (380)	ND (380)
Fluorene	ug/Kg	1000000000	870000000	12997000000	1500000000	ND (380)	ND (380)
Indeno(1,2,3-cd)pyrene	ug/Kg	8000	-	-	-	ND (380)	ND (380)
Naphthalene	ug/Kg	470000	52000000	278940000	350000	ND (380)	ND (380)
Nitrofluoranthene	ug/Kg	7800000	-	-	-	ND (380)	ND (380)
Phenanthrene	ug/Kg	5100000	2900000	9193000	190000	ND (380)	ND (380)
Phenol	ug/Kg	12000000	18000000000	57060000000	-	ND (380)	ND (380)
Pyrene	ug/Kg	1000000000	2900000000	9193000000	780000000	ND (380)	ND (380)

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPFIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT USA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - SVOCs
FORMER PERERINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	Sample Location;	AOI 20	AOI 21	AOI 21	AOI 21	AOI 21	AOI 21	AOI 21	None	None
Sample ID;		BH-20-4-00	BH-21-1-00	BH-21-1-00	BH-21-1-00	BH-21-1-00	BH-21-1-00	BH-21-1-00	None	None
Sample Date;		S-12636-060100-DRD-043	S-12636-060100-DRD-043	S-12636-060100-DRD-043	S-12636-060100-DRD-043	S-12636-060100-DRD-043	S-12636-060100-DRD-043	S-12636-060100-DRD-043	WWVB (0.75-2.75)	WWVB (0.75-2.75)
Sample Depth;		6/1/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	5/31/2000	WWVB (0.75-2.75)	WWVB (0.75-2.75)
		0.66-3	0-2	0-2	18-19	0.58-3	0-2	0-2	11/5/1996	11/5/1996
Parameters	Units	SVTAC	IDCC	PSIC	MPSIC	ISSIC				
		a	b	c	d	e				
SVOCs										
2-Methylnaphthalene	ug/Kg	-	2600000	-	-	-	ND (350)	ND (380)	ND (370)	-
Acenaphthene	ug/Kg	350000000	130000000	6200000000	19654000000	97000000	ND (350)	ND (380)	ND (370)	-
Anthracene	ug/Kg	1000000000	730000000	29000000000	91930000000	1600000000	ND (350)	ND (380)	ND (370)	-
Benzofluoranthene	ug/Kg	-	80000	-	-	-	ND (350)	ND (380)	ND (370)	-
Benzofluoranthene	ug/Kg	-	8000	1900000	6022000	-	431	ND (380)	ND (370)	-
Benzofluoranthene	ug/Kg	-	8000	-	-	-	641	ND (380)	ND (370)	-
Benzofluoranthene	ug/Kg	-	7000000	350000000	1109500000	-	461	ND (380)	ND (370)	-
Benzofluoranthene	ug/Kg	-	8000000	-	-	-	ND (350)	ND (380)	ND (370)	-
Biphenyl	ug/Kg	-	10000000	-	-	-	ND (350)	ND (380)	ND (370)	-
bis(2-Ethylhexyl)phthalate	ug/Kg	-	2400000	890000000	2821300000	-	ND (350)	ND (380)	ND (370)	-
Carbazole	ug/Kg	-	8000000	-	-	-	ND (350)	ND (380)	ND (370)	-
Chrysene	ug/Kg	-	-	-	-	-	431	ND (380)	ND (370)	-
Dibenzofuran	ug/Kg	-	-	-	-	-	ND (350)	ND (380)	ND (370)	-
Fluoranthene	ug/Kg	1000000000	130000000	4100000000	12997000000	890000000	ND (350)	ND (380)	ND (370)	-
Fluorene	ug/Kg	1000000000	870000000	4100000000	12997000000	150000000	ND (350)	ND (380)	ND (370)	-
Indeno(1,2,3-cd)pyrene	ug/Kg	-	80000	-	-	-	ND (350)	ND (380)	ND (370)	-
Naphthalene	ug/Kg	470000	5200000	88000000	278560000	350000	ND (350)	ND (380)	ND (370)	-
N-Nitrosodiphenylamine	ug/Kg	-	7800000	-	-	-	ND (350)	ND (380)	ND (370)	-
Phenanthrene	ug/Kg	5100000	5200000	2900000	9193000	190000	ND (350)	ND (380)	ND (370)	-
Phenol	ug/Kg	-	12000000	18000000000	57060000000	-	ND (350)	ND (380)	ND (370)	-
Pyrene	ug/Kg	1000000000	84000000	2900000000	9193000000	780000000	ND (350)	ND (380)	ND (370)	-

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

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- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location: Sample ID: Sample Date: Sample Depth:														
Parameters	Units	BKGRND	SVI/AIC	IDCC	PSIC	MPSIC	ISSIC							
		a	b	c	d	e	f							
Metals														
Aluminum	ug/Kg	16500000	-	370000000	-	-	-	AOI 02 BH-2-7-02 S-12636-062702-DD-051 6/27/2002 0-2 ft	AOI 02 BH-2-1-00 S-12636-057600-DRD-011 5/16/2000 0-2	AOI 02 BH-2-1-00 S-12636-062600-DRD-012 5/16/2000 0-2	AOI 03 BH-3-1-00 S-12636-081400-KMY-001 8/14/2000 8-9.5	AOI 03 BH-3-2-00 S-12636-081400-KMY-002 8/14/2000 9-10	AOI 03 BH-3-3-00 S-12636-081400-KMY-003 8/14/2000 8-9	AOI 03 BH-3-3-00 S-12636-081400-KMY-004 8/14/2000 8-9
Antimony	ug/Kg	-	-	670000	5900000	18703000	-	-	7080000 ND (230) UJ	7900000 ND (240) UJ	-	-	-	-
Arsenic	ug/Kg	13500	-	37000	910000	2884700	-	5510 J	8000	6500	-	-	-	-
Barium	ug/Kg	118000	-	130000000	150000000	475500000	-	-	49100	55000	-	-	-	-
Beryllium	ug/Kg	800	-	1600000	590000	1870300	-	-	380	410	-	-	-	-
Cadmium	ug/Kg	1200	-	2100000	2200000	6974000	-	-	200	220	-	-	-	-
Calcium	ug/Kg	88000000	-	-	-	-	-	-	31000000	38000000	ND (220)	ND (220)	330	-
Chromium III (Trivalent)	ug/Kg	-	-	1000000000	1500000000	475500000	-	-	17000	-	-	-	-	-
Chromium Total	ug/Kg	19000	-	9200000	240000	760800	-	-	11800	-	-	-	-	-
Chromium VI (Hexavalent)	ug/Kg	350	-	9200000	240000	760800	-	-	ND (700)	ND (700)	5800	9600	6700	5500
Cobalt	ug/Kg	11500	-	9000000	5900000	18703000	-	-	6400	6400	-	-	-	-
Copper	ug/Kg	32000	-	73000000	59000000	187030000	-	-	10500	21400	-	-	-	-
Cyanide (total)	ug/Kg	-	-	250000	250000	792500	-	-	ND (586)	ND (586)	-	-	-	-
Iron	ug/Kg	29800000	-	580000000	-	-	-	-	16100000	17800000	-	-	-	-
Lead	ug/Kg	21000	-	900000	44000000	139480000	-	-	8800	11900	4200	8100	4800	8500
Magnesium	ug/Kg	35000000	-	1000000000	2900000000	9190000000	-	-	10400000	13100000	-	-	-	-
Manganese	ug/Kg	513000	-	900000000	1500000	4755000	-	-	474000	442000	-	-	-	-
Mercury	ug/Kg	130	-	80000	880000	27896000	62000	-	47 J	22 J	-	-	-	-
Nickel	ug/Kg	26000	-	150000000	16000000	50720000	-	-	16300	20800	-	-	-	-
Potassium	ug/Kg	2200000	-	-	-	-	-	-	1080000 J	1190000 J	-	-	-	-
Selenium	ug/Kg	440	-	9600000	59000000	187030000	-	-	220 J	220 J	-	-	-	-
Silver	ug/Kg	1000	-	9000000	2900000	9190000	-	-	76 J	76 J	-	-	-	-
Sodium	ug/Kg	660000	-	1000000000	-	-	-	-	272000 J	ND (589000)	-	-	-	-
Thallium	ug/Kg	190	-	130000	-	-	-	-	120	120	-	-	-	-
Tin	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/Kg	42000	-	5500000	-	-	-	-	20900 J	22700 J	-	-	-	-
Zinc	ug/Kg	70000	-	630000000	-	-	-	-	555000	155000	-	-	-	-

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/AIC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- 0 - The value in brackets are detection limits

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- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (SSSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

TABLE A.1c

[illegible]

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (SSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

AOI:
Sample Location;
Sample ID:
Sample Date:
Sample Depth:

Copper
Cyanide (total)
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (SSSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	Sample Location;	Sample ID;	Sample Date;	Sample Depth;	Units	BKGRND	SVI/IC	IDCC	PSIC	MFSC	ISSIC	AOI 09 BH-9-10-02 S-12636-062602-DD-023 6/26/2002 0-2 ft	AOI 09 BH-9-11-00 S-12636-060600-DRD-080 6/6/2000 0.42-2.42	AOI 09 BH-9-11-02 S-12636-062602-DD-081 6/26/2002 0-2 ft	AOI 09 BH-9-11-02 S-12636-060600-DRD-026 6/26/2002 0.5-2.5	AOI 09 BH-9-12-00 S-12636-070800-DRD-151 7/8/2000	AOI 09 BH-9-14-02 S-12636-062602-DD-032 6/26/2002 0-2 ft
Parameters																	
Metals																	
Aluminum	ug/Kg	1650000	-	37000000	-	-	-	-	-	-	-	-	220000 ND (1100) UJ	208000 ND (1100) UJ	-	234000 ND (1100) UJ	485000
Antimony	ug/Kg	-	-	67000	590000	18703000	-	-	-	-	-	-	4700	5000	-	4940	-
Arsenic	ug/Kg	13500	-	37000	910000	2884700	-	-	-	-	-	-	14700	13300	-	11700	-
Barium	ug/Kg	118000	-	13000000	15000000	47550000	-	-	-	-	-	-	160 J	190 J	-	218	-
Beryllium	ug/Kg	800	-	160000	590000	1870300	-	-	-	-	-	-	110 J	96 J	-	85.8 J	-
Cadmium	ug/Kg	1200	-	2100000	2200000	6974000	-	-	-	-	-	-	110 J	120 J	-	9330000 J	-
Calcium	ug/Kg	8800000	-	-	-	-	-	-	-	-	-	-	34900000 J	51900000 J	-	34000000	-
Chromium III (Trivalent)	ug/Kg	-	-	100000000	150000000	475500000	-	-	-	-	-	-	5100	5600	-	84500	-
Chromium Total	ug/Kg	19000	-	9200000	240000	760800	-	-	-	-	-	-	-	-	-	28600	-
Chromium VI (Hexavalent)	ug/Kg	350	-	9200000	240000	760800	-	-	-	-	-	-	ND (700)	ND (700)	-	ND (700)	-
Cobalt	ug/Kg	11500	-	9000000	5900000	18703000	-	-	-	-	-	-	3200	3800	-	3350	-
Copper	ug/Kg	32000	-	73000000	59000000	187030000	-	-	-	-	-	-	7600	7800	-	40100	-
Cyanide (total)	ug/Kg	-	-	250000	250000	792500	-	-	-	-	-	-	ND (529)	ND (531)	-	ND (533)	-
Iron	ug/Kg	2980000	-	58000000	-	-	-	-	-	-	-	-	7490000	7410000	-	6300000	-
Lead	ug/Kg	21000	-	900000	44000000	139480000	-	-	-	-	-	-	4700	5200	-	23700	-
Magnesium	ug/Kg	3500000	-	100000000	290000000	919300000	-	-	-	-	-	-	11700000	23000000	-	2490000	-
Manganese	ug/Kg	513000	-	90000000	1500000	4755000	-	-	-	-	-	-	180000	189000	-	124000	-
Mercury	ug/Kg	130	89000	580000	880000	27894000	62000	-	-	-	-	-	ND (35) U	35 J	-	ND (35) U	-
Nickel	ug/Kg	26000	-	150000000	16000000	50720000	-	-	-	-	-	-	6800	8400	-	70000	-
Potassium	ug/Kg	2300000	-	-	-	-	-	-	-	-	-	-	402000	397000	-	292000 J	-
Selenium	ug/Kg	440	-	9600000	59000000	187030000	-	-	-	-	-	-	ND (2600)	ND (2700)	-	ND (2700)	-
Silver	ug/Kg	1000	-	9000000	2900000	9193000	-	-	-	-	-	-	19 J	21 J	-	61 J	-
Sodium	ug/Kg	66000	-	100000000	-	-	-	-	-	-	-	-	ND (529000)	ND (531000)	-	260000 J	-
Thallium	ug/Kg	190	-	130000	-	-	-	-	-	-	-	-	61 J	63 J	-	31 J	-
Tin	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/Kg	42000	-	5500000	-	-	-	-	-	-	-	-	9700	10300	-	8600	-
Zinc	ug/Kg	70000	-	63000000	-	-	-	-	-	-	-	-	32800	32900	-	107000	-

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/IC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISIC)
- j - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

TABLE A.1c
ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINGENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PÉREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;	Parameters	Units	BKGRND SVIAC	IDCC	PSIC	MPSIC	ISSIC	f	AOI 09 BH-9-14D-00 S-12636-061200-DRD-094 6/12/2000 0.83-2.83	AOI 09 BH-9-15-00 S-12636-060700-DRD-088 6/7/2000 0.66-2.66	AOI 09 BH-9-15-02 S-12636-062802-DD-034 6/26/2002 0-2 ft	AOI 09 BH-9-16B-00 S-12636-061200-DRD-092 6/12/2000 0.66-2.66	AOI 09 BH-9-16B-00 S-12636-061200-DRD-093 6/12/2000 0.66-2.66 Duplicate	AOI 09 BH-9-17-00 S-12636-060600-DRD-083 6/6/2000 0.42-2.42	AOI 09 BH-9-18B-00 S-12636-060600-DRD-084 6/6/2000 2-4	AOI 09 BH-9-19-00 S-12636-060600-DRD-085 6/6/2000 0.5-2.5
Aluminum	ug/Kg	1650000	-	37000000	-	-	-	-	-	3140000	-	5830000	6200000	2580000	4420000	4370000
Antimony	ug/Kg	-	-	670000	5900000	18703000	-	-	ND (1200)	ND (1000)	-	ND (1100)	ND (1100)	ND (1100)	ND (1000)	ND (1000)
Arsenic	ug/Kg	13500	-	37000	910000	2884700	-	-	5800	4500	-	4500	5200	2700	31100	27000
Barium	ug/Kg	118000	-	130000000	150000000	475500000	-	-	36300	79400	-	79400	34200	14100	1900	1900
Beryllium	ug/Kg	800	-	1600000	590000	1870300	-	-	340 J	450 J	-	450 J	460 J	120 J	220 J	220 J
Cadmium	ug/Kg	1200	-	2100000	2200000	6974000	-	-	130 J	83 J	-	83 J	110 J	72 J	85 J	88 J
Calcium	ug/Kg	8800000	-	-	-	-	-	-	33200000	47900000	-	47900000	53900000	25200000	25200000	20800000
Chromium III (Trivalent)	ug/Kg	-	-	100000000	150000000	475500000	-	-	20200	14500	-	14500	14900	3600	7400	5500
Chromium Total	ug/Kg	19000	-	9200000	240000	760800	-	-	-	ND (700)	-	ND (700)	ND (700)	ND (700)	ND (700)	ND (700)
Chromium VI (Hexavalent)	ug/Kg	350	-	9200000	240000	760800	-	-	-	ND (700)	-	ND (700)	ND (700)	ND (700)	ND (700)	ND (700)
Cobalt	ug/Kg	11500	-	9000000	5900000	18703000	-	-	6900	9300	-	9300	9200	4500	8400	3700
Copper	ug/Kg	32000	-	73000000	59000000	187030000	-	-	83700	66400	-	66400	12500000	7360000	10300000	9760000
Cyanide (Total)	ug/Kg	-	-	2500000	250000	792500	-	-	ND (579)	291 J	-	ND (557)	12500000	7360000	10300000	9760000
Iron	ug/Kg	29800000	-	580000000	-	-	-	-	9520000	12300000	-	12300000	6800	3600	6800	4700
Lead	ug/Kg	21000	-	900000	4400000	139480000	-	-	6300	6000	-	6000	6800	3600	6800	4700
Magnesium	ug/Kg	3500000	-	1000000000	2900000000	9193000000	-	-	13200000	17900000	-	17900000	2890000	7220000	8640000	1300000
Manganese	ug/Kg	513000	-	90000000	1500000	4755000	-	-	205000	230000	-	230000	2890000	1550000	2790000	2650000
Mercury	ug/Kg	130	89000	580000	8800000	27864000	62000	-	10 J	ND (37) U	-	ND (37) U	1400000	ND (36) U	ND (34) U	ND (34) U
Nickel	ug/Kg	26000	-	150000000	16000000	50720000	-	-	16300	84000	-	84000	1300000	4200	11600	5300
Potassium	ug/Kg	2300000	-	-	-	-	-	-	621000	590000	-	590000	1300000	3710000	8480000	6150000
Selenium	ug/Kg	440	-	9600000	5900000	187030000	-	-	190 J	170 J	-	170 J	210 J	ND (2700)	110 J	170 J
Silver	ug/Kg	1000	-	9000000	2900000	9193000	-	-	32 J	57 J	-	57 J	44 J	ND (550)	20 J	13 J
Sodium	ug/Kg	660000	-	1000000000	-	-	-	-	ND (520000)	ND (557000)	-	ND (557000)	ND (558000)	ND (545000)	ND (510000)	ND (522000)
Thallium	ug/Kg	190	-	130000	-	-	-	-	80 J	130 J	-	130 J	130 J	38 J	89 J	51 J
Tin	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/Kg	42000	-	5500000	-	-	-	-	11800	16400	-	16400	17700	10300	14500	14100
Zinc	ug/Kg	70000	-	630000000	-	-	-	-	36900	27600	-	27600	36100	17400	27900	23500

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI	Sample Location; Sample ID:	Sample Date	Sample Depth:	Units	BKGRND	SWAIC	IDCC	PSIC	MPSIC	ISSIC	AOI 09 BH-9-198-00 S-12636-061200-DRD-090 6/12/2000 14:42-15:5	AOI 09 BH-9-1C-00 S-12636-061200-DRD-095 6/12/2000 1-3	AOI 09 BH-9-2-00 S-12636-060600-DRD-078 6/6/2000 0.5-2.5	AOI 09 BH-9-2-00 S-12636-060600-DRD-079 6/6/2000 0.5-2.5 Duplicate	AOI 09 BH-9-20-00 S-12636-060700-DRD-086 6/7/2000 0.42-2.42	AOI 09 BH-9-20-00 S-12636-060700-DRD-087 6/7/2000 15-16	AOI 09 BH-9-21B-00 S-12636-070800-DRD-152 7/8/2000	AOI 09 BH-9-22C S-12636-061200-DRD-091 6/12/2000 0.83-2.83
Parameters																		
Metals																		
Aluminum	ug/Kg	1650000	-	370000000	-	-	-	5900000	18703000	-	2890000	ND (1100)	5350000	ND (1000) UJ	4630000	2900000	5990000	7570000
Antimony	ug/Kg	-	-	670000	-	-	-	910000	2884700	-	ND (1100)	6500	3900	ND (1100) UJ	ND (1200)	ND (1100)	ND (224) UJ	ND (1100)
Arsenic	ug/Kg	13500	-	37000	-	-	-	910000	2884700	-	6500	3900	3900	3800	13500	5700	7130	9000
Barium	ug/Kg	118000	-	130000000	-	-	-	15000000	47550000	-	17200	27400	22700	12800	47500	17600	66500	53800
Beryllium	ug/Kg	800	-	1600000	-	-	-	590000	18703000	-	220 J	110 J	130 J	110 J	820	350 J	525	480 J
Cadmium	ug/Kg	1200	-	2100000	-	-	-	2200000	6974000	-	170 J	120 J	120 J	400 J	130 J	150 J	142	160 J
Calcium	ug/Kg	8800000	-	-	-	-	-	74500000	-	-	17900000	31600000 J	26300000 J	32500000	24500000	94500000	27100000	27100000
Chromium III (Trivalent)	ug/Kg	-	-	1000000000	-	-	-	150000000	475500000	-	8400	7200	6400	6400	8400	47100	17600	22700
Chromium Total	ug/Kg	19000	-	9200000	-	-	-	240000	760800	-	ND (700)	ND (700)	ND (700)	ND (700)	ND (700)	871	ND (700)	ND (700)
Chromium VI (Hexavalent)	ug/Kg	350	-	9200000	-	-	-	240000	760800	-	10800	3700	3700	8000	3600	5500	8100	7200
Cobalt	ug/Kg	11500	-	9000000	-	-	-	9900000	18703000	-	10200	11500	11500	7900	10600	10400	20400	11700
Copper	ug/Kg	32000	-	73000000	-	-	-	59000000	187030000	-	ND (552)	ND (523)	ND (523)	ND (529)	ND (596)	ND (551)	ND (560)	ND (563)
Cyanide (Total)	ug/Kg	-	-	250000	-	-	-	250000	792500	-	920000	1320000	1320000	7690000	16400000	8540000	12900000	16300000
Iron	ug/Kg	29800000	-	580000000	-	-	-	58000000	139480000	-	10500	7600	4800	4800	7700	7100	8520	8700
Lead	ug/Kg	21000	-	900000	-	-	-	4400000	139480000	-	10500	7600	4800	4800	7700	7100	8520	8700
Magnesium	ug/Kg	35000000	-	1000000000	-	-	-	2900000000	9193000000	-	5510000	285000	285000	6910000	10700000	8940000	5480000	11100000
Manganese	ug/Kg	513000	-	900000000	-	-	-	1500000	4755000	-	226000	255000	175000	175000	234000	205000	241000	283000
Mercury	ug/Kg	130	-	58000	-	-	-	880000	27896000	-	ND (56) U	ND (56) U	24 J	25 J	33 J	27 J	12.2 J	ND (47) U
Nickel	ug/Kg	26000	-	150000000	-	-	-	16000000	50720000	-	11200	11300	11300	6900	9900	15300	48900	17100
Potassium	ug/Kg	2300000	-	-	-	-	-	733000	2300000	-	180 J	220 J	220 J	112000	1030000	4710000	1230000	1230000
Selenium	ug/Kg	440	-	9600000	-	-	-	5900000	187030000	-	38 J	45 J	45 J	22 J	43 J	64 J	60.3 J	57 J
Silver	ug/Kg	1000	-	9000000	-	-	-	2900000	9193000	-	ND (52000)	ND (52000)	ND (52000)	ND (52000)	ND (596000) U	ND (51000) U	ND (563000)	ND (563000)
Sodium	ug/Kg	660000	-	1000000000	-	-	-	-	-	-	86 J	22 J	22 J	46 J	810	140 J	163	150 J
Thallium	ug/Kg	190	-	130000	-	-	-	-	-	-	11000	10300	10300	10300	17500	11000	18100	21200
Tin	ug/Kg	-	-	-	-	-	-	-	-	-	485000	399000	399000	39800	43100	60800	44300	44300
Vanadium	ug/Kg	42000	-	5500000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	ug/Kg	70000	-	630000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SWAIC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- j - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

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ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS

FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY

GENESEE TOWNSHIP, MICHIGAN

AOI:
Sample Location;
Sample ID:
Sample Date:
Sample Depth:

Parameters	Units	BKGDND	SWAIC	IDCC	PSIC	MPSPIC	ISSIC
		a	b	c	d	e	f
Metals							
Aluminum	ug/Kg	1650000	-	37000000	-	-	-
Antimony	ug/Kg	-	-	67000	590000	18703000	-
Arsenic	ug/Kg	1350	-	3700	91000	2884700	-
Barium	ug/Kg	118000	-	130000000	150000000	-	-
Beryllium	ug/Kg	800	-	160000	59000	1871300	-
Cadmium	ug/Kg	1200	-	2100000	2200000	6974000	-
Calcium	ug/Kg	8800000	-	-	-	-	-
Chromium III (Trivalent)	ug/Kg	-	-	1000000000	15000000	47550000	-
Chromium Total	ug/Kg	1900	-	920000	24000	76680	-
Chromium VI (Hexavalent)	ug/Kg	350	-	920000	24000	76680	-
Cobalt	ug/Kg	11500	-	900000	590000	18703000	-
Copper	ug/Kg	32000	-	73000000	59000000	187030000	-
Cyanide (total)	ug/Kg	-	-	25000	25000	79250	-
Iron	ug/Kg	2980000	-	580000000	-	-	-
Lead	ug/Kg	21000	-	90000	4400000	13948000	-
Magnesium	ug/Kg	3500000	-	1000000000	290000000	919200000	-
Manganese	ug/Kg	513000	-	90000000	1500000	475500	-
Mercury	ug/Kg	130	89000	58000	880000	27896000	6200
Nickel	ug/Kg	26000	-	150000000	1600000	5072000	-
Potassium	ug/Kg	2200000	-	-	-	-	-
Selenium	ug/Kg	440	-	960000	590000	18703000	-
Silver	ug/Kg	1000	-	900000	290000	9193000	-
Sodium	ug/Kg	66000	-	100000000	-	-	-
Thallium	ug/Kg	190	-	13000	-	-	-
Tin	ug/Kg	-	-	-	-	-	-
Vanadium	ug/Kg	42000	-	550000	-	-	-
Zinc	ug/Kg	70000	-	63000000	-	-	-

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINGENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

[illegible]

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/AC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

Table VI. Total A-Protein in

AOI:
Sample Location;
Sample ID:
Sample Date:
Sample Depth:

Copper
Cyanide (not
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
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ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINGENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN[illegible]

- 9 - Site-Specific Background Criteria
- 0 - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- 1 - Industrial Direct Contact Criteria (IDCC)
- 2 - Particulate Soil Inhalation Criteria (PSIC)
- 3 - Modified Particulate Soil Inhalation Criteria (MPSIC)
- 4 - Infinite Source Soil Inhalation Criteria (ISSIC)
- 5 - The associated numerical value is an estimated quantity
- 6 - The value in brackets are detection limits

TABLE A.1c

Units	BKGRND	SWAIC	IDCC	PSIC	MPSIC	ISSIC	f
	a	b	c	d	e		
Parameters							
Metals							
Aluminum	ug/Kg, 1650000	-	37000000	-	-	-	-
Antimony	ug/Kg, -	-	670000	5900000	18703000	-	-
Arsenic	ug/Kg, 13500	-	37000	910000	2884700	-	-
Barium	ug/Kg, 118000	-	130000000	150000000	475500000	-	-
Beryllium	ug/Kg, 800	-	16000000	590000	1870300	-	-
Cadmium	ug/Kg, 1200	-	21000000	2200000	6974000	-	-
Calcium	ug/Kg, 88000000	-	-	-	1111	-	-
Chromium III (Trivalent)	ug/Kg, -	-	1000000000	150000000	475500000	-	-
Chromium Total	ug/Kg, 19000	-	9200000	240000	760800	-	-
Chromium VI (Hexavalent)	ug/Kg, 350	-	9200000	240000	760800	-	-
Cobalt	ug/Kg, 11500	-	9000000	5900000	18703000	-	-
Copper	ug/Kg, 32000	-	73000000	59000000	187030000	-	-
Cyanide (total)	ug/Kg, -	-	250000	250000	792500	-	-
Iron	ug/Kg, 29800000	-	58000000	-	-	-	-
Lead	ug/Kg, 21000	-	900000	4400000	139480000	-	-
Magnesium	ug/Kg, 35000000	-	1000000000	290000000	9193000000	-	-
Manganese	ug/Kg, 513000	-	90000000	1500000	4755000	-	-
Mercury	ug/Kg, 130	89000	580000	8800000	27896000	62000	-
Nickel	ug/Kg, 26000	-	150000000	16000000	50720000	-	-
Potassium	ug/Kg, 2300000	-	-	-	-	-	-
Selenium	ug/Kg, 440	-	9600000	59000000	187030000	-	-
Silver	ug/Kg, 1000	-	9000000	2900000	9193000	-	-
Sodium	ug/Kg, 660000	-	1000000000	-	-	-	-
Thallium	ug/Kg, 190	-	130000	-	-	-	-
Tin	ug/Kg, -	-	-	-	-	-	-
Vanadium	ug/Kg, 42000	-	5500000	-	-	-	-
Zinc	ug/Kg, 70000	-	630000000	-	-	-	-

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/AC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (SSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

0) - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINGENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC, COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

[illegible]

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/IC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	Sample Location:	Sample ID:	Sample Date:	Sample Depth:	Units	BKGRND SVIAC	IDCC	PSIC	MPSIC	ISSIC	
						a	b	c	d	e	f
Parameters											
Metals											
	Aluminum	ug/Kg	1650000	-	37000000	-	-	-	-	-	-
	Antimony	ug/Kg	-	-	670000	-	-	-	-	-	-
	Arsenic	ug/Kg	13500	-	37000	910000	-	-	-	-	-
	Barium	ug/Kg	118000	-	130000000	-	-	-	-	-	-
	Beryllium	ug/Kg	800	-	1600000	590000	-	-	-	-	-
	Cadmium	ug/Kg	1200	-	2100000	2200000	-	-	-	-	-
	Calcium	ug/Kg	8800000	-	-	-	-	-	-	-	-
	Chromium III (Trivalent)	ug/Kg	-	-	1000000000	-	-	-	-	-	-
	Chromium Total	ug/Kg	19000	-	9200000	240000	-	-	-	-	-
	Chromium VI (Hexavalent)	ug/Kg	350	-	9200000	240000	-	-	-	-	-
	Cobalt	ug/Kg	11500	-	9000000	5900000	-	-	-	-	-
	Copper	ug/Kg	32000	-	70000000	187030000	-	-	-	-	-
	Cyanide (total)	ug/Kg	-	-	250000	792500	-	-	-	-	-
	Iron	ug/Kg	29800000	-	580000000	-	-	-	-	-	-
	Lead	ug/Kg	21000	-	900000	44000000	-	-	-	-	-
	Magnesium	ug/Kg	35000000	-	10000000000	9193480000	-	-	-	-	-
	Manganese	ug/Kg	513000	-	90000000	1500000	-	-	-	-	-
	Mercury	ug/Kg	130	89000	580000	8800000	-	-	-	62000	-
	Nickel	ug/Kg	26000	-	150000000	278946000	-	-	-	-	-
	Potassium	ug/Kg	2200000	-	160000000	50720000	-	-	-	-	-
	Selenium	ug/Kg	440	-	9600000	187030000	-	-	-	-	-
	Silver	ug/Kg	1000	-	9000000	2900000	-	-	-	-	-
	Sodium	ug/Kg	660000	-	10000000000	-	-	-	-	-	-
	Thallium	ug/Kg	190	-	130000	-	-	-	-	-	-
	Tin	ug/Kg	-	-	-	-	-	-	-	-	-
	Vanadium	ug/Kg	42000	-	5500000	-	-	-	-	-	-
	Zinc	ug/Kg	70000	-	630000000	-	-	-	-	-	-

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- g - The associated numerical value is an estimated quantity
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 Alex Rothchild
 LFR
 Sep 30, 2009 09:21

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
 FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
 GENESEE TOWNSHIP, MICHIGAN

AOI	Sample Location:	Sample ID:	Sample Date:	Sample Depth:	Units	BKGRND	SVIAC	IDCC	PSIC	MPSIC	ISSIC	AOI18	AOI18	AOI18	AOI18	AOI18	AOI18	AOI18	AOI18
						a	b	c	d	e	f								
					ug/Kg	16500000	-	370000000	-	-	-								
	Aluminum	ug/Kg	-	-	ug/Kg	67000	-	67000	5900000	18703000	-								
	Antimony	ug/Kg	13500	-	ug/Kg	910000	-	37000	910000	2884700	-								
	Arsenic	ug/Kg	118000	-	ug/Kg	130000000	-	130000000	150000000	475500000	-								
	Barium	ug/Kg	800	-	ug/Kg	1600000	-	1600000	590000	18703000	-								
	Beryllium	ug/Kg	1200	-	ug/Kg	2100000	-	2100000	2200000	6974000	-								
	Cadmium	ug/Kg	8800000	-	ug/Kg	1000000000	-	1000000000	1500000000	475500000	-								
	Calcium	ug/Kg	19000	-	ug/Kg	9200000	-	9200000	240000	760800	-								
	Chromium III (Trivalent)	ug/Kg	350	-	ug/Kg	11500	-	9000000	5900000	18703000	-								
	Chromium Total	ug/Kg	32000	-	ug/Kg	73000000	-	73000000	59000000	187030000	-								
	Chromium VI (Hexavalent)	ug/Kg	29800000	-	ug/Kg	580000000	-	580000000	250000	792500	-								
	Cobalt	ug/Kg	21000	-	ug/Kg	90000	-	90000	44000000	139480000	-								
	Copper	ug/Kg	3500000	-	ug/Kg	1000000000	-	1000000000	2900000000	9193000000	-								
	Cyanide (Total)	ug/Kg	513000	-	ug/Kg	130	-	89000	580000	27950000	62000								
	Iron	ug/Kg	20000	-	ug/Kg	20000	-	20000	8800000	27950000	-								
	Lead	ug/Kg	21000	-	ug/Kg	90000	-	90000	16000000	50720000	-								
	Magnesium	ug/Kg	3500000	-	ug/Kg	1000000000	-	1000000000	2900000000	9193000000	-								
	Manganese	ug/Kg	513000	-	ug/Kg	130	-	89000	580000	27950000	62000								
	Mercury	ug/Kg	130	-	ug/Kg	26000	-	26000	16000000	50720000	-								
	Nickel	ug/Kg	2300000	-	ug/Kg	440	-	9600000	59000000	187030000	-								
	Potassium	ug/Kg	440	-	ug/Kg	1000	-	9000000	29000000	91930000	-								
	Selenium	ug/Kg	660000	-	ug/Kg	1000000000	-	1000000000	1500000000	4755000000	-								
	Silver	ug/Kg	190	-	ug/Kg	130000	-	130000	420000	82100	-								
	Sodium	ug/Kg	42000	-	ug/Kg	5500000	-	5500000	63000000	19600000	-								
	Thallium	ug/Kg	70000	-	ug/Kg	70000	-	70000	63000000	19600000	-								
	Tin	ug/Kg	42000	-	ug/Kg	5500000	-	5500000	63000000	19600000	-								
	Vanadium	ug/Kg	70000	-	ug/Kg	70000	-	70000	63000000	19600000	-								
	Zinc	ug/Kg	70000	-	ug/Kg	70000	-	70000	63000000	19600000	-								

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- j - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;																				
Parameters	Units	BKGRND	SVIAC	IDCC	PSIC	MPSIC	ISSIC													
Metals		a	b	c	d	e	f													
Aluminum	ug/Kg	1650000	-	37000000	-	18703000	-	-	-	2170000	ND (1100) UJ	7510000	ND (1100) UJ	5590000	ND (1100) UJ	2050000	310 J	2010000	8290000	ND (1100) UJ
Antimony	ug/Kg	-	-	670000	5900000	-	-	-	-	ND (1100) UJ	9600	5900	9600	6500	ND (1100) UJ	390 J	310 J	310 J	8100	ND (1100) UJ
Arsenic	ug/Kg	13500	-	37000	9100000	2884700	-	8000	-	6800	38900 J	58700	38900 J	39000	38900 J	3300	102000	102000	63800 J	63800 J
Barium	ug/Kg	118000	-	13000000	150000000	475500000	-	51000	-	67000	450 J	390 J	450 J	310 J	310 J	130 J	140 J	140 J	600	600
Beryllium	ug/Kg	800	-	1600000	590000	1870300	-	-	-	480 J	180 J	180 J	180 J	170 J	170 J	370 J	150 J	150 J	160 J	160 J
Cadmium	ug/Kg	1200	-	2100000	2200000	6974000	-	670	-	180 J	45300000 J	45300000 J	45300000 J	38200000 J	38200000 J	4100	29300000 J	29300000 J	51500000	51500000
Calcium	ug/Kg	8800000	-	-	-	-	-	-	-	14200	ND (700)	12100	ND (700)	9700	9700	4100	3900	3900	14000	14000
Chromium III (Trivalent)	ug/Kg	-	-	1000000000	1500000000	475500000	-	-	-	ND (700)	ND (700)	ND (700)	ND (700)	989	989	992	ND (700)	ND (700)	ND (700)	ND (700)
Chromium Total	ug/Kg	19000	-	9200000	240000	760800	-	17000	-	24600	10000	8100	10000	5300	5300	2100	2100	2100	10000	10000
Chromium VI (Hexavalent)	ug/Kg	350	-	9200000	240000	760800	-	-	-	13600	13600	11700	13600	11800	11800	26400	8700	8700	14300	14300
Cobalt	ug/Kg	11500	-	9000000	5900000	18703000	-	-	-	ND (554) UJ	ND (568)	ND (550) UJ	ND (568)	ND (566) UJ	ND (566) UJ	ND (539) UJ	ND (539) UJ	ND (539) UJ	ND (557)	ND (557)
Copper	ug/Kg	32000	-	73000000	59000000	187030000	-	13000	-	14400000	15900000	15900000	15900000	13300000	13300000	6300000	6300000	6300000	18700000	18700000
Cyanide (total)	ug/Kg	-	-	580000000	-	792500	-	-	-	8100	11900	7500	11900	6100	6100	6100	4900	4900	9000	9000
Iron	ug/Kg	29800000	-	900000	44000000	139480000	-	17000	-	15300000	16200000	16200000	16200000	294000	294000	155000	117000	117000	19900000	19900000
Lead	ug/Kg	21000	-	900000	44000000	139480000	-	-	-	283000	316000	316000	316000	11 J	11 J	15 J	ND (36)	ND (36)	336000	336000
Magnesium	ug/Kg	3500000	-	1000000000	2900000000	9193000000	-	-	-	14 J	12 J	12 J	12 J	89	89	4200	4800	4800	10 J	10 J
Manganese	ug/Kg	513000	-	900000000	15000000	47550000	-	-	-	1510000	1510000	1510000	1510000	150 J	150 J	430000	349000	349000	1260000 J	1260000 J
Mercury	ug/Kg	130	89000	580000	8800000	27896000	62000	-	-	130 J	130 J	130 J	130 J	55 J	55 J	110 J	240 J	240 J	250 J	250 J
Nickel	ug/Kg	26000	-	150000000	16000000	50720000	-	ND (100)	-	17300	17300	12100	17300	37 J	37 J	100 J	51 J	51 J	41 J	41 J
Polysulfur	ug/Kg	2300000	-	-	-	-	-	-	-	1510000	1510000	1510000	1510000	240000 J	240000 J	145000 J	204000 J	204000 J	ND (557000)	ND (557000)
Selenium	ug/Kg	440	-	9600000	59000000	187030000	-	ND (500)	-	130 J	130 J	130 J	130 J	55 J	55 J	110 J	240 J	240 J	250 J	250 J
Silver	ug/Kg	1000	-	9000000	2900000	9193000	-	ND (500)	-	50 J	50 J	50 J	50 J	55 J	55 J	100 J	51 J	51 J	41 J	41 J
Sodium	ug/Kg	660000	-	1000000000	-	-	-	-	-	ND (554000)	153000 J	153000 J	153000 J	240000 J	240000 J	ND (530)	ND (540)	ND (540)	ND (557000)	ND (557000)
Thallium	ug/Kg	190	-	130000	-	-	-	-	-	61 J	61 J	61 J	61 J	20 J	20 J	-	-	-	160 J	160 J
Tin	ug/Kg	-	-	-	-	-	-	-	-	-	ND (5700)	-	ND (5700)	18400	18400	8900	9200	9200	23600	23600
Vanadium	ug/Kg	42000	-	5500000	-	-	-	-	-	21600	18500	22500	18500	55200	55200	313000	64500	64500	51800	51800
Zinc	ug/Kg	70000	-	630000000	-	-	-	38000	-	52600	41200	41200	41200	55200	55200	-	-	-	-	-

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	AOI 19	AOI 19	AOI 19	AOI 19	AOI 20	AOI 20	AOI 20	AOI 20
Sample Location:	BH-19-4-00	BH-19-6-00	BH-19-7-00	BH-19-8-00	BH-20-1-00	BH-20-2-00	BH-20-3-00	BH-20-3-00
Sample ID:	S-12636-060500-DRD-062	S-12636-060500-DRD-063	S-12636-060200-DRD-056	S-12636-060200-DRD-053	S-12636-060100-DRD-045	S-12636-060100-DRD-046	S-12636-060100-DRD-047	S-12636-060100-DRD-044
Sample Date:	6/5/2000	6/5/2000	6/7/2000	6/7/2000	6/7/2000	6/7/2000	6/7/2000	6/7/2000
Sample Depth:	0.42-2.42	5.5-6.5	0.5-2.5	0.58-3	0.33-2.33	0.42-3	7-8	0.66-3
Parameters	Units	BKGRND SVIAC	IDCC	PSIC	MPSC	ISSIC		
Metals	a	b	c	d	e	f		
Aluminum	ug/Kg	1650000	-	370000000	-	-	872000	ND (1100) UJ
Antimony	ug/Kg	-	-	670000	-	-	5300	4300
Arsenic	ug/Kg	13500	-	37000	-	-	5600	4300
Barium	ug/Kg	118000	-	13000000	-	-	46300	21400
Beryllium	ug/Kg	800	-	1600000	-	-	4900	1800
Cadmium	ug/Kg	1200	-	2100000	-	-	1700	1500
Calcium	ug/Kg	88000000	-	511000000	-	-	15500	6500
Chromium III (Trivalent)	ug/Kg	-	-	150000000	-	-	13300	-
Chromium Total	ug/Kg	19000	-	240000	-	-	6960	ND (700)
Chromium VI (Hexavalent)	ug/Kg	350	-	240000	-	-	8600	3600
Cobalt	ug/Kg	11500	-	9000000	-	-	14500	7300
Copper	ug/Kg	32000	-	79000000	-	-	11200	14300
Cyanide (Total)	ug/Kg	-	-	250000	-	-	ND (569)	ND (574)
Iron	ug/Kg	29800000	-	580000000	-	-	7200	19000000
Lead	ug/Kg	21000	-	900000	-	-	22000000	15000000
Magnesium	ug/Kg	3500000	-	1000000000	-	-	24300000	160000
Manganese	ug/Kg	513000	-	90000000	-	-	320000	160000
Mercury	ug/Kg	130	-	89000	-	-	1200	1700
Nickel	ug/Kg	26000	-	150000000	-	-	21700	8400
Potassium	ug/Kg	2300000	-	160000000	-	-	1950000	390000
Selenium	ug/Kg	440	-	9600000	-	-	2600	1200
Silver	ug/Kg	1000	-	90000000	-	-	8600	3900
Sodium	ug/Kg	660000	-	1000000000	-	-	ND (574000)	ND (574000)
Thallium	ug/Kg	190	-	130000	-	-	1800	1200
Tin	ug/Kg	-	-	-	-	-	1600	700
Vanadium	ug/Kg	42000	-	5500000	-	-	270000	126000
Zinc	ug/Kg	70000	-	630000000	-	-	56200	32100

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- j - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINGENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:	Sample Location;	Sample ID;	Sample Date;	Sample Depth;	TABLE A.1c																		
					AOI 20	AOI 20/22	AOI 20/22	AOI 20/22	AOI 20/22	AOI 20/22	AOI 20/22	AOI 20/22	AOI 20/22	AOI 20/22	AOI 20/22	AOI 21	AOI 21	AOI 21	AOI 21				
					BH-20-4-00	MW-5	MW-5	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	BH-21-1-00	BH-21-1-00	BH-21-1-00	BH-21-1-00				
					S-12636-060100-DRD-043	MW-5 (3-5)	MW-5 (8-10)	MW-6 (3-5)	MW-6 (8-10)	MW-6 (8-10)	MW-6 (8-10)	MW-6 (8-10)	MW-6 (8-10)	MW-6 (8-10)	MW-6 (8-10)	S-12636-053100-DRD-032	S-12636-053100-DRD-032	S-12636-053100-DRD-032	S-12636-053100-DRD-032				
					6/1/2000	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	11/6/1996	5/31/2000	5/31/2000	5/31/2000	5/31/2000				
					0.66-3	3-5	8-10	3-5	8-10	8-10	4-6	4-6	8-10	4-6	4-6	18-19	18-19	0.58-3	0.58-3				
Parameters	Units	BKGRND	SVIAC	IDCC	PSIC	MFPSIC	ISSIC																
		a	b	c	d	e	f																
Metals																							
Aluminum	ug/Kg	1650000	-	370000000	-	-	-	993000	-	-	-	-	-	-	-	2910000	11000000	-	-				
Antimony	ug/Kg	-	-	670000	5900000	18703000	-	ND (1100) UJ	-	-	-	-	-	-	-	ND (210)	ND (200)	-	-				
Arsenic	ug/Kg	1350	-	37000	910000	2884700	-	7200	5340	5370	4650	4190	6330	8270	3900	18900	7000	-	-				
Barium	ug/Kg	118000	-	130000000	150000000	475500000	-	55800	384000	49500	41000	68000	41700	54200	18900	66100	-	-	-				
Beryllium	ug/Kg	800	-	16000000	590000	18703000	-	540 J	-	-	-	-	-	-	-	600	-	-	-				
Cadmium	ug/Kg	1200	-	21000000	2200000	6974000	-	150 J	ND	ND	ND	ND	ND	ND	98 J	140	-	-	-				
Calcium	ug/Kg	88000000	-	-	-	-	-	54700000	-	-	-	-	-	-	-	16700000	67500000	-	-				
Chromium III (Trivalent)	ug/Kg	-	-	1000000000	150000000	475500000	-	16200	-	-	-	-	-	-	-	4800	-	-	-				
Chromium Total	ug/Kg	19000	-	92000000	240000	760800	-	ND (700)	11700	12900	12600	11800	12000	12000	-	-	-	-	-				
Chromium VI (Hexavalent)	ug/Kg	350	-	92000000	240000	760800	-	-	-	-	-	-	-	-	-	ND (700)	ND (700)	-	-				
Cobalt	ug/Kg	11500	-	9000000	5900000	18703000	-	8000	-	-	-	-	-	-	-	2500	9600	-	-				
Copper	ug/Kg	32000	-	73000000	59000000	187030000	-	13600	ND	ND	ND	ND	ND	ND	-	6000	15800	-	-				
Cyanide (total)	ug/Kg	-	-	-	-	792500	-	440 J	-	-	-	-	-	-	-	ND (527)	ND (580)	-	-				
Iron	ug/Kg	29800000	-	580000000	-	-	-	21200000	-	-	-	-	-	-	-	-	8000	4500	-				
Lead	ug/Kg	21000	-	900000	44000000	139480000	-	7700	-	-	-	-	-	-	-	4170000	28900000	-	-				
Magnesium	ug/Kg	3500000	-	1000000000	2900000000	9190000000	-	22300000 J	3720	6920	3800	5610	103000	8890	-	236000	2940000	-	-				
Manganese	ug/Kg	513000	-	900000000	1500000	4755000	-	265000	-	-	-	-	-	-	-	-	-	-	-				
Mercury	ug/Kg	130	89000	580000	8800000	27896000	62000	12 J	ND	ND	ND	ND	ND	ND	-	2360000 J	2300000	-	-				
Nickel	ug/Kg	26000	-	1500000000	16000000	50720000	-	22500	-	-	-	-	-	-	-	5900	25000	-	-				
Potassium	ug/Kg	2300000	-	-	-	-	-	23600000	-	-	-	-	-	-	-	-	-	-	-				
Selenium	ug/Kg	440	-	9600000	59000000	187030000	-	280 J	260	ND	ND	ND	370	ND	-	2600000 J	2300000	-	-				
Silver	ug/Kg	1000	-	900000000	2900000	9193000	-	91 J	ND	ND	ND	ND	ND	ND	-	79 J	580 J	-	-				
Sodium	ug/Kg	660000	-	10000000000	-	-	-	ND (5650000) U	-	-	-	-	-	-	-	26 J	86 J	-	-				
Thallium	ug/Kg	190	-	130000	-	-	-	180 J	-	-	-	-	-	-	-	-	542000 J	-	-				
Tin	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36 J	160	-	-				
Vanadium	ug/Kg	42000	-	55000000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Zinc	ug/Kg	70000	-	630000000	-	-	-	46800	ND	ND	ND	ND	ND	ND	-	23500	30200	-	-				

Notes:

- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MFPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- 0 - The value in brackets are detection limits

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

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- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

AOI:
Sample Location;
Sample ID:
Sample Date:
Sample Depth:

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- a - Site-Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/IC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (SSIC)
- g - The associated numerical value is an estimated quantity
- h - The value in brackets are detection limits

0 - The value in brackets are detection limits

TABLE A.1c

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTINGENTS WHICH DETECTED ANYWHERE ON FACILITY - METALS
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI:
Sample Location:
Sample ID:
Sample Date:
Sample Depth:

Parameters	Units	BKGRND	SVI/IC	IDCC	PSIC	MPSIC	ISSIC	None	None	None	None
		a	b	c	d	e	f	SPL	WWT-1	WWT-2	WWT-3
								11/6/1996	11/6/1996	11/6/1996	11/6/1996
Metals											
Aluminum	ug/Kg	1650000	-	37000000	-	-	-	-	-	-	-
Antimony	ug/Kg	-	-	67000	-	18703000	-	-	-	-	-
Arsenic	ug/Kg	1350	-	37000	910000	2884700	-	6030	5370	6160	6530
Barium	ug/Kg	118000	-	130000000	150000000	475500000	-	66600	45200	54000	44400
Beryllium	ug/Kg	800	-	1600000	590000	18703000	-	-	-	-	-
Cadmium	ug/Kg	1200	-	21000000	2200000	6974000	-	ND	ND	ND	ND
Calcium	ug/Kg	8800000	-	-	-	-	-	-	-	-	-
Chromium III (Trivalent)	ug/Kg	-	-	1000000000	150000000	475500000	-	-	-	-	-
Chromium Total	ug/Kg	19000	-	9200000	240000	760800	-	13900	19800	20900	14500
Chromium VI (Hexavalent)	ug/Kg	350	-	9200000	240000	760800	-	-	-	-	-
Cobalt	ug/Kg	11500	-	9000000	5900000	18703000	-	-	-	-	-
Copper	ug/Kg	32000	-	73000000	59000000	187030000	-	ND	ND	ND	ND
Cyanide (total)	ug/Kg	-	-	250000	250000	792500	-	-	ND	ND	ND
Iron	ug/Kg	29800000	-	580000000	-	-	-	-	-	-	-
Lead	ug/Kg	21000	-	900000	44000000	139480000	-	6400	6400	ND	ND
Magnesium	ug/Kg	3500000	-	1000000000	2900000000	9193000000	-	-	-	-	-
Manganese	ug/Kg	513000	-	90000000	1500000	4755000	-	-	-	-	-
Mercury	ug/Kg	130	89000	8800000	8800000	27896000	62000	ND	ND	ND	ND
Nickel	ug/Kg	26000	-	150000000	16000000	50720000	-	-	-	-	-
Potassium	ug/Kg	200000	-	-	-	-	-	-	-	-	-
Selenium	ug/Kg	440	-	9600000	59000000	187030000	-	-	ND	ND	ND
Silver	ug/Kg	1000	-	90000000	2900000	9193000	-	ND	ND	ND	ND
Sodium	ug/Kg	66000	-	1000000000	-	-	-	-	-	-	-
Thallium	ug/Kg	190	-	130000	-	-	-	-	-	-	-
Tin	ug/Kg	-	-	-	-	-	-	-	-	-	-
Vanadium	ug/Kg	42000	-	5500000	-	-	-	-	-	-	-
Zinc	ug/Kg	70000	-	630000000	-	-	-	ND	ND	ND	ND

Notes:
a - Site-Specific Background Criteria
b - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/IC)
c - Industrial Direct Contact Criteria (IDCC)
d - Particulate Soil Inhalation Criteria (PSIC)
e - Modified Particulate Soil Inhalation Criteria (MPSIC)
f - Infinite Source Soil Inhalation Criteria (ISSIC)
J - The associated numerical value is an estimated quantity
() - The value in brackets are detection limits

[illegible]

- Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- Industrial Direct Contact Criteria (IDCC)
- Particulate Soil Inhalation Criteria (PSIC)
- Modified Particulate Soil Inhalation Criteria (MPSIC)
- Infinite Source Soil Inhalation Criteria (ISSIC)
- The associated numerical value is an estimated quantity
- The value in brackets are detection limits

TABLE A.1d

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;	AOI 02 BH-2-7-02 S-12636-062702-DD-051 6/27/2002 0-2 ft	AOI 02 BH-2-1-00 S-12636-057600-DRD-011 5/26/2000 0-2	AOI 02 BH-2-1-00 S-12636-052600-DRD-012 5/26/2000 0-2	AOI 03 BH-3-1-00 S-12636-081400-KMIV-001 8/14/2000 8-9.5	AOI 03 BH-3-2-00 S-12636-081400-KMIV-002 8/14/2000 9-10	AOI 03 BH-3-3-00 S-12636-081400-KMIV-003 8/14/2000 8-9	AOI 03 BH-3-3-00 S-12636-081400-KMIV-004 8/14/2000 8-9.5	AOI 03 BH-3-4-00 S-12636-081400-KMIV-005 8/14/2000 8-9.5
PCBs								
Aroclor-1248 (PCB-1248)	-	ND (39)	ND (39)	ND (37)	ND (38)	ND (37)	ND (36)	ND (36)
Aroclor-1254 (PCB-1254)	-	ND (39)	ND (39)	ND (37)	ND (38)	ND (37)	ND (36)	ND (36)
Aroclor-1260 (PCB-1260)	-	ND (39)	ND (39)	ND (37)	ND (38)	ND (37)	ND (36)	ND (36)
Total PCBs (1248)	ug/Kg	-	-	-	-	-	-	-
Petrol Prod								
Diesel Fuel	mg/Kg	-	-	-	-	-	-	-
Petroleum hydrocarbons	ug/Kg	-	-	-	-	-	-	-
Wet								
Percent Moisture	%	-	-	-	-	-	-	-
pH (solid)	s.u.	-	-	-	-	-	-	-
Sulfides (Acid Insoluble)	ug/Kg	-	-	-	-	-	-	-
Total Solids	%	-	-	-	-	-	-	-
		85.3	84.9	89.5	86.2	89.1	89.6	90.7

Duplicate

Duplicate

Duplicate

Duplicate

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIATC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- 0 - The value in brackets are detection limits

TABLE A.1d

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;	Parameters									
	Units	SVI/IC	IDCC	PSIC	MPSIC	ISSIC				
PCBs										
Aroclor-1248 (PCB-1248)	ug/Kg	16000000	16000	6500000	29605000	810000				
Aroclor-1254 (PCB-1254)	ug/Kg	16000000	16000	6500000	29605000	810000				
Aroclor-1260 (PCB-1260)	ug/Kg	16000000	16000	6500000	29605000	810000				
Total PCBs (1248)	ug/Kg	-	-	-	-	-				
Petrol Prod										
Diesel Fuel	mg/Kg	-	-	-	-	-				
Petroleum hydrocarbons	ug/Kg	-	-	-	-	-				
Wet										
Percent Moisture	%	-	-	-	-	-				
pH (solid)	s.u.	-	-	-	-	-				
Sulfide (Acid Insoluble)	ug/Kg	-	-	-	-	-				
Total Solids	%	-	-	-	-	-				

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/IC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

	-	-	-	-	91.3
ND (6)	-	-	-	-	
120	-	-	-	-	83.6
87	-	-	-	-	86.1
ND (8)	-	-	-	-	

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- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity (The value in brackets are detection limits)

0) - The value in brackets are detection limits

TABLE A.1d

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;	AOI 08 PTB-15 3/24/1997 11-11.5	AOI 08 PTW-3 3/17/1997 0.8-1.5	AOI 09 BASE1 6/14/2001	AOI 09 BASE2 6/14/2001	AOI 09 BH-6E-01 5/2/2001 0-2 ft	AOI 09 BH-9-10-00 6/9/2000 0.5-2.5	AOI 09 BH-9-10-02 6/26/2002 0-2 ft	AOI 09 BH-9-1-02 6/26/2002 0-2 ft	AOI 09 BH-9-1-02 6/26/2002 0-2 ft	Duplicate

Parameters	Units	SVAIC	IDCC	PSIC	MPSIC	ISSIC
		a	b	c	d	e

PCBs						
Aroclor-1248 (PCB-1248)	ug/Kg	16000000	16000	6500000	20605000	810000
Aroclor-1254 (PCB-1254)	ug/Kg	16000000	16000	6500000	20605000	810000
Aroclor-1260 (PCB-1260)	ug/Kg	16000000	16000	6500000	20605000	810000
Total PCBs (1248)	ug/Kg	-	-	-	-	-

Petrol Prod

Diesel Fuel	mg/Kg	-	-	-	-	-
Petroleum hydrocarbons	ug/Kg	-	-	-	-	-

Wet

Percent Moisture	%	-	-	-	-	-
pH (solid)	s.u.	-	-	-	-	-
Sulfide (Acid Insoluble)	ug/Kg	-	-	-	-	-
Total Solids	%	-	-	-	-	-

87.24

88.15

83.5

85.9

83.0

93.8

17.0

-

-

-

-

87.9

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

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TABLE A.1d

**ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN**

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;	AOI 09 BH-9-11-00 S-12636-060600-DRD-080 6/6/2000 0.42-2.42	AOI 09 BH-9-11-00 S-12636-060600-DRD-081 6/6/2000 0.42-2.42	AOI 09 BH-9-11-02 S-12636-062602-DD-025 6/16/2002 0-2 ft	AOI 09 BH-9-11-02 S-12636-062602-DD-026 6/16/2002 0-2 ft	AOI 09 BH-9-12-00 S-12636-060600-DRD-082 6/6/2000 0.5-2.5	AOI 09 BH-9-13C-00 S-12636-070800-DRD-151 7/18/2000	AOI 09 BH-9-14-02 S-12636-062602-DD-032 6/16/2002 0-3 ft	AOI 09 BH-9-14D-00 S-12636-062600-DRD-094 6/12/2000 0.83-2.83
Parameters	Units	SVIAC	IDCC	PSIC	MPSC	ISSIC		
PCBs		a	b	c	d	e		
Aroclor-1248 (PCB-1248)	ug/Kg	16000000	16000	6500000	20605000	810000		ND (38)
Aroclor-1254 (PCB-1254)	ug/Kg	16000000	16000	6500000	20605000	810000		ND (38)
Aroclor-1260 (PCB-1260)	ug/Kg	16000000	16000	6500000	20605000	810000		ND (38)
Total PCBs (1248)	ug/Kg	-	-	-	-	-		-
Petri Prod								
Diesel Fuel	mg/Kg	-	-	-	-	-		-
Petroleum hydrocarbons	ug/Kg	-	-	-	-	-		-
Wet								
Percent Moisture	%	-	-	-	-	-	16.1	-
pH (solid)	s.u.	-	-	-	-	-	-	-
Sulfide (Acid Insoluble)	ug/Kg	-	-	-	-	-	-	-
Total Solids	%	-	-	-	-	-	-	-
		94.5				87.4		ND (120000)
								86.4

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- 0 - The value in brackets are detection limits

TABLE A.1d

**ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN**

AOI:	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09	AOI 09
Sample Location:	BH-9-15-00	BH-9-15-02	BH-9-16B-00	BH-9-16B-00	BH-9-17-00	BH-9-18B-00	BH-9-19-00	BH-9-19B-00	BH-9-19B-00	BH-9-19B-00
Sample ID:	S-12636-060700-DRD-088	S-12636-062802-DD-034	S-12636-061200-DRD-092	S-12636-061200-DRD-093	S-12636-060600-DRD-083	S-12636-060600-DRD-084	S-12636-060600-DRD-085	S-12636-061200-DRD-090	S-12636-061200-DRD-090	S-12636-061200-DRD-090
Sample Date:	6/7/2000	6/26/2002	6/12/2000	6/12/2000	6/6/2000	6/6/2000	6/6/2000	6/12/2000	6/12/2000	6/12/2000
Sample Depth:	0.66-2.66	6-2 ft	0.66-2.66	0.66-2.66	0.42-1.42	2-4	0.5-2.5	14.42-15.5	14.42-15.5	14.42-15.5

Parameters Units SVI/AJC IDCC PSIC MPSIC ISSIC

PCBs a b c d e

Aroclor-1248 (PCB-1248) ug/Kg 1600000 1600 6500000 20605000 810000
Aroclor-1254 (PCB-1254) ug/Kg 16000000 16000 65000000 20605000 810000
Aroclor-1260 (PCB-1260) ug/Kg 16000000 16000 65000000 20605000 810000
Total PCBs (1248) ug/Kg - - - - -

Petri Prod

Diesel Fuel mg/Kg - - - - -
Petroleum hydrocarbons ug/Kg - - - - -

Wet

Percent Moisture % - - - - -
pH (solid) s.u. 17.6 - - - - -
Sulfide (acid insoluble) ug/Kg - - - - -
Total Solids % 96.2 - - - - -

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Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/AJC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- I - The associated numerical value is an estimated quantity
- 0 - The value in brackets are detection limits

TABLE A.1d

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI Sample Location; Sample ID; Sample Date; Sample Depth;	AOI 09 BH-9-1C-00 S-12636-061200-DRD-095 6/12/2000 1-3	AOI 09 BH-9-2-00 S-12636-060600-DRD-078 6/6/2000 0.5-2.5	AOI 09 BH-9-2-00 S-12636-060600-DRD-079 6/6/2000 0.5-2.5	AOI 09 BH-9-20-00 S-12636-060700-DRD-086 6/7/2000 0.42-2.42	AOI 09 BH-9-20-00 S-12636-060700-DRD-087 6/7/2000 15-16	AOI 09 BH-9-2-02 S-12636-062602-DD-006 6/26/2002 0-2 ft	AOI 09 BH-9-21B-00 S-12636-070800-DRD-152 7/8/2000	AOI 09 BH-9-22C S-12636-061200-DRD-091 6/12/2000 0.83-2.83

Parameters Units SVI/IC IDCC PSIC MPSIC ISSIC

PCBs a b c d e

Aroclor-1248 (PCB-1248) ug/Kg 16000000 16000 6500000 20605000 810000

Aroclor-1254 (PCB-1254) ug/Kg 16000000 16000 6500000 20605000 810000

Aroclor-1260 (PCB-1260) ug/Kg 16000000 16000 6500000 20605000 810000

Total PCBs (1248) ug/Kg - - - - -

Petri Prod

Diesel Fuel mg/Kg - - - - -

Petroleum hydrocarbons ug/Kg - - - - -

Wet

Percent Moisture % - - - - -

pH (solid) s.u. - - - - -

Sulfide (Acid Insoluble) ug/Kg - - - - -

Total Solids % - - - - -

ND (5200) 95.7

ND (53000) 94.5

83.9

78.8

90.8

89.3

88.9

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVI/IC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

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- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity (The value in brackets are detection limits)

[illegible]

Parameters	Units	SVZAC	JDCC	PSIC	MFPSIC	ISSIC
		a	b	c	d	e
PCBs						
Aroclor-1248 (PCB-1248)	ug/Kg	16000000	16000	6500000	20605000	810000
Aroclor-1254 (PCB-1254)	ug/Kg	16000000	16000	6500000	20605000	810000
Aroclor-1260 (PCB-1260)	ug/Kg	16000000	16000	6500000	20605000	810000
Total PCBs (1248)	ug/Kg	-	-	-	-	-
Petri Prod						
Diesel Fuel	mg/Kg	-	-	-	-	-
Petroleum hydrocarbons	ug/Kg	-	-	-	-	-
Wet						
Percent Moisture	%	-	-	-	-	-
pH (solid)	S.U.	-	-	-	-	-
Sulfide (Acid Insoluble)	ug/Kg	-	-	-	-	-
Total Solids	%	-	-	-	-	-

Percent Moisture
pH (solid)
Sulfide (Acid Soluble)
Total Solids

Notes:

- Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- Industrial Direct Contact Criteria (IDCC)
- Particulate Soil Inhalation Criteria (PSC)
- Modified Particulate Soil Inhalation Criteria (MPSIC)
- Infinite Source Soil Inhalation Criteria (SSIC)
- The associated numerical value is an estimated quantity
- The value in brackets are detection limits

TABLE A.1d

**ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN**

AOI: Sample Location; Sample ID; Sample Date; Sample Depth;	AOI 09 BH-9-7-00 S-12636-060500-DRD-067 6/5/2000 0.5-2.5 Duplicate	AOI 09 BH-9-7-02 S-12636-062602-DD-017 6/26/2002 0-2 ft	AOI 09 BH-9-8-00 S-12636-060500-DRD-065 6/5/2000 4-6	AOI 09 BH-9-8-02 S-12636-062602-DD-019 6/26/2002 0-2 ft	AOI 09 BH-9-9-00 S-12636-060600-DRD-074 6/6/2000 0.5-2.5 Duplicate	AOI 09 BH-26A-01 S-12636-000501-DRD-009 5/3/2001 4-6 ft	AOI 09 BH-26B-01 S-12636-000501-DRD-007 5/3/2001 0-1 ft
Parameters	Units	SVIAC	IDCC	PSIC	MFSIC	ISSIC	
PCBs		a	b	c	d	e	
Aroclor-1248 (PCB-1248)	ug/Kg	16000000	16000	6500000	20605000	810000	-
Aroclor-1254 (PCB-1254)	ug/Kg	16000000	16000	6500000	20605000	810000	-
Aroclor-1260 (PCB-1260)	ug/Kg	16000000	16000	6500000	20605000	810000	-
Total PCBs (1248)	ug/Kg	-	-	-	-	-	-
Petri Prod							
Diesel Fuel	mg/Kg	-	-	-	-	-	-
Petroleum hydrocarbons	ug/Kg	-	-	-	-	-	-
Wet							
Percent Moisture	%	-	-	-	-	-	-
pH (solid)	s.u.	-	-	-	-	-	-
Sulfide/Acid Insoluble	ug/Kg	-	-	-	-	-	-
Total Solids	%	-	-	-	-	-	-
		88.0		24.1		88.1	86.4

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MFSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- 0 - The value in brackets are detection limits

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TABLE A.1d

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Parameters	Units	SVIATC		IDCC	PSIC	MPSC	ISSIC	PCBs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Anchor-1248 (PCB-1248)	ug/Kg	1600000	16000	6500000	20605000	810000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TABLE A.1d

**ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN**

AOI:	AOI 11	AOI 11	AOI 11	AOI 11	AOI 11	AOI 11	AOI 11	AOI 11	AOI 11	AOI 12	AOI 12	AOI 12
Sample Location:	BH-11-4-02	BH-11-5-00	BH-11-6-02	BH-11-7-02	PTB-23	PTB-24	PTB-24	PTB-24	PTB-24	BH-12-2-00	BH-12-2-00	BH-12-2-00
Sample ID:	S-12636-062702-DD-062	S-12636-053000-DRD-020	S-12636-062702-DD-066	S-12636-062702-DD-068	PTB-23 5.8-7	PTB-24 1.2-2.5	PTB-24 1.2-2.5	PTB-24 1.2-2.5	PTB-24 1.2-2.5	S-12636-053000-DRD-023	S-12636-053000-DRD-024	S-12636-053000-DRD-024
Sample Date:	6/27/2002	5/30/2000	6/27/2002	6/27/2002	4/24/1997	4/24/1997	4/24/1997	4/24/1997	4/24/1997	5/30/2000	5/30/2000	5/30/2000
Sample Depth:	0-2 ft	1-3	0-2 ft	0-2 ft	5.8-7	1.2-2.5	1.2-2.5	1.2-2.5	1.2-2.5	0.5-2.5	0.5-2.5	0.5-2.5

Parameters Units SVAIC IDCC PSIC MPSIC ISSIC

PCBs

Aroclor-1248 (PCB-1248) ug/Kg 1600000 16000 6500000 20605000 810000

Aroclor-1254 (PCB-1254) ug/Kg 16000000 16000 65000000 20605000 810000

Aroclor-1260 (PCB-1260) ug/Kg 16000000 16000 65000000 20605000 810000

Total PCBs (1248) ug/Kg - - - - -

Petrol Prod

Diesel Fuel

Petroleum hydrocarbons

mg/Kg

ug/Kg

Wet

Percent Moisture

pH (solid)

Sulfide (Acid Insoluble)

Total Solids

%

%

%

%

%

%

%

%

%

%

%

%

%

%

%

%

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Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- j - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

TABLE A.1d

**ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN**

AOI:	AOI 13	AOI 13	AOI 14	AOI 14	AOI 14	AOI 14	AOI 14	AOI 15	AOI 17	AOI 17
Sample Location:	BH-13-1-00	BH-13-2-00	BH-14-1-00	BH-14-1-00	BH-14-2-00	MW-1	PTW-2	PTW-5	BH-17-1-00	BH-17-1-00
Sample ID:	S-12636-053000-DRD-021	S-12636-053000-DRD-022	S-12636-053100-DRD-027	S-12636-053100-DRD-028	S-12636-053100-DRD-026	MW-1 (2-4)	PTW-2 0-1.5	PTW-5 0-1.7	S-12636-053100-DRD-029	S-12636-053100-DRD-030
Sample Date:	5/30/2000	5/30/2000	5/31/2000	5/31/2000	5/31/2000	11/6/1996	3/14/1997	3/18/1997	5/31/2000	5/31/2000
Sample Depth:	0-2	5-2.42	0.5-2.5	0.5-2.5	0.5-2.5	2-4	0-1.5	0-1.7	2-3	8-9

Parameters Units SVIAC IDCC PSIC MPSIC ISSIC

PCBs

Anchor-1248 (PCB-1248) ug/Kg 1600000 16000 6500000 20605000 810000

Anchor-1254 (PCB-1254) ug/Kg 16000000 16000 6500000 20605000 810000

Anchor-1260 (PCB-1260) ug/Kg 16000000 16000 6500000 20605000 810000

Total PCBs (1248) ug/Kg - - - - -

Peril Prod

Diesel Fuel mg/Kg - - - - -

Petroleum hydrocarbons ug/Kg - - - - -

Wet

Percent Moisture % - - - - -

pH (solid) s.u. - - - - -

Sulfide/Acid Insoluble ug/Kg - - - - -

Total Solids % - - - - -

87.8

86.2

86.6

89.3

88.91

91.8

87.8

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- j - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

AOI:
Sample Location;
Sample ID:
Sample Date:
Sample Depth:

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- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity (The value in brackets are detection limits)

1) - The value in brackets are detection limits

[illegible]

Percent Moisture
pH (solid)
Sulfide (Acid)
Total Solids

- Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- Industrial Direct Contact Criteria (IDCC)
- Particulate Soil Inhalation Criteria (PSIC)
- Modified Particulate Soil Inhalation Criteria (MPSIC)
- Infinite Source Soil Inhalation Criteria (ISSIC)

The associated numerical value is an estimated quantity (i.e., the value in brackets are detection limits).

AOI:
Sample Location;
Sample ID:
Sample Date:
Sample Depth:

88.6

87.14

88.1

- Soil Volatilization to Indoor Air Inhalation Criteria (SVAIC)
- Industrial Direct Contact Criteria (IDCC)
- Particulate Soil Inhalation Criteria (PSIC)
- Modified Particulate Soil Inhalation Criteria (MPSIC)
- Infinite Source Soil Inhalation Criteria (ISSIC)
- The associated numerical value is an estimated quantity
- The values in brackets are detection limits

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919

[illegible]

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIaIC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- f - The associated numerical value is an estimated quantity
- g - The value in brackets are detection limits

TABLE A.1d

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONTITUENTS WHICH DETECTED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

AOI: Sample Location: Sample ID: Sample Date: Sample Depth:	Parameters	Units	SVIAC					IDCC					PSIC					MPSIC					ISSIC				
			a	b	c	d	e	a	b	c	d	e	a	b	c	d	e	a	b	c	d	e	a	b	c	d	e
PCBs	Aroclor-1248 (PCB-1248)	ug/Kg	16000000	16000	6500000	20605000	810000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor-1254 (PCB-1254)	ug/Kg	16000000	16000	6500000	20605000	810000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Aroclor-1260 (PCB-1260)	ug/Kg	16000000	16000	6500000	20605000	810000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total PCBs (1248)	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Petr Prod	Diesel Fuel	mg/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Petroleum hydrocarbons	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wet	Percent Moisture	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	pH (acid)	s.u.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Sulfide (Acid Insoluble)	ug/Kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total Solids	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

- a - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- b - Industrial Direct Contact Criteria (IDCC)
- c - Particulate Soil Inhalation Criteria (PSIC)
- d - Modified Particulate Soil Inhalation Criteria (MPSIC)
- e - Infinite Source Soil Inhalation Criteria (ISSIC)
- J - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

TABLE A.2

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONSTITUENTS WHICH EXCEEDED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Sample Location	Sample ID	Sample Date	Sample Depth	1,1-Dichloroethene ug/Kg	Arsenic ug/Kg	Chromium III (Trivalent) ug/Kg	Chromium VI (Hexavalent) ug/Kg	Chromium Total ug/Kg	Lead ug/Kg	Nickel ug/Kg
AOI 02										
BH-2-2-00	S-12636-052600-DRD-009	5/26/2000	0-2	1.2 J	8900	11600	ND (700)	-	10000	19600
BH-2-2-02	S-12636-062702-DD-040	6/27/2002	0-2 ft	-	5220 J	-	-	-	-	-
BH-2-2-02	S-12636-062702-DD-041	6/27/2002	0-2 ft	-	5510 J	-	-	-	-	-
BH-2-3-00	S-12636-052600-DRD-010	5/26/2000	0-2	ND (4.8)	61000 ^{RF}	26000	ND (700)	-	26500	263000
BH-2-3-02	S-12636-062702-DD-043	6/27/2002	0-2 ft	-	6830 J	-	-	-	-	-
BH-2-6-02	S-12636-062702-DD-049	6/27/2002	0-2 ft	-	5230 J	-	-	-	-	-
BH-2-7-02	S-12636-062702-DD-051	6/27/2002	0-2 ft	-	5510 J	-	-	-	-	-
BH-2-1-00	S-12636-052600-DRD-011	5/26/2000	0-2	1.1 J	8900	11800	ND (700)	-	8800	16300
BH-2-1-00	S-12636-052600-DRD-012	5/26/2000	0-2	ND (4.7)	6500	17000	ND (700)	-	11900	20800
MW-13	MW-13 (4-6)	11/6/1996	4-6	ND	-	-	-	-	-	-
AOI 03										
BH-3-1-00	S-12636-081400-KMV-001	8/14/2000	8-9.5	ND (4.8)	-	-	-	5800	4200	-
BH-3-2-00	S-12636-081400-KMV-002	8/14/2000	9-10	ND (260)	-	-	-	9600	8100	-
BH-3-3-00	S-12636-081400-KMV-003	8/14/2000	8-9	ND (4.4)	-	-	-	6700	4800	-
BH-3-3-00	S-12636-081400-KMV-004	8/14/2000	8-9	ND (4.5)	-	-	-	5500	8500	-
BH-3-4-00	S-12636-081400-KMV-005	8/14/2000	8-8.5	ND (4.9)	-	-	-	7200	4700	-
BH-3-5-00	S-12636-081400-KMV-006	8/14/2000	8.5-9	ND (4.4)	-	-	-	7100	4900	-
BH-3-6-00	S-12636-081400-KMV-007	8/14/2000	8.5-9	ND (4.6)	-	-	-	6800	3300	-
BH-3-7-00	S-12636-081400-KMV-008	8/14/2000	8.5-9	ND (230)	-	-	-	10300	4300	-
BH-3-8-00	S-12636-081400-KMV-009	8/14/2000	8.5-9	ND (6.2)	-	-	-	14000	34500	-
PFW-11	PFW-11 0.5-1.5	3/20/1997	0.5-1.5	ND (10)	10000	-	-	20000	18000	-
AOI 07										
M-1	M-1 (6-8)	11/6/1996	6-8	ND	6810	-	-	13700	8070	-
M-1	M-1 (8-10)	11/6/1996	8-10	ND (10)	6800	-	-	9300	11000	-
M-1	M-1 (8-10)-GALA	11/6/1996	8-10	ND	4300	-	-	12800	8980	-
PFB-13	PFB-13 2.9-3.5	3/24/1997	2.9-3.5	ND (10)	10000	-	-	24000	17000	-
PFB-14	PFB-14 4.7-5.4	3/25/1997	4.7-5.4	ND (10)	10000	-	-	17000	18000	-
PFW-10	PFW-10 2.1-2.7	3/20/1997	2.1-2.7	ND (10)	4400	-	-	11000	11000	-
AOI 08										
BH-8-1A-00	S-12636-060200-DRD-049	6/2/2000	0.66-2.66	ND (5.3)	4200	9900	ND (700)	-	5700	10000 J
BH-8-1A-00	S-12636-060200-DRD-050	6/2/2000	5-7	ND (4.4)	5900	16200	ND (700)	-	10300	22800 J
BH-8-2-00	S-12636-060500-DRD-069	6/5/2000	0.42-2.42	ND (4.6)	7800	11500	1754	-	7200	14300
BH-8-2-00	S-12636-060500-DRD-070	6/5/2000	0.42-2.42	ND (4.8) UJ	6100	12800	1784	-	14100	17100
BH-8-3A-00	S-12636-060200-DRD-051	6/2/2000	0.66-2.66	ND (5.5)	4600	7000	ND (700)	-	6600	8700 J

TABLE A.2

**ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONSTITUENTS WHICH EXCEEDED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN**

Sample Location	Sample ID	Sample Date	Sample Depth	1,1-Dichloroethene ug/Kg	Arsenic ug/Kg	Chromium III (Trivalent) ug/Kg	Chromium VI (Hexavalent) ug/Kg	Chromium Total ug/Kg	Lead ug/Kg	Nickel ug/Kg
BH-8-4-00	S-12636-060600-KMV-108	6/6/2000	0.5-2	ND (5.4)	2500 J	17300	2142	-	7700	10000
BH-8-5-00	S-12636-060200-DRD-048	6/2/2000	0-2	ND (4.8)	13200	27700	ND (700)	-	11500	37100 J
BLD 63-24	BLD 63-24	11/6/1996		ND	5150	-	-	10800	5480	-
BLD 63-25	BLD 63-25	11/6/1996		ND	5280	-	-	9300	4500	-
PFB-7	PFB-7 8-10	3/18/1997	8-10	ND (10)	32000	-	-	14000	15000	-
PFB-15	PFB-15 11-11.5	3/24/1997	11-11.5	ND (10)	9000	-	-	20000	18000	-
PFW-3	PFW-3 0.8-1.5	3/17/1997	0.8-1.5	ND (10)	10000	-	-	17000	13000	-
AOI 09										
BASE1	S-12636-061401-NB-002	6/14/2001		ND (6.0)	4760 J	-	-	96400	13800 J	158000
BASE2	S-12636-061401-NB-003	6/14/2001		ND (5.9) UJ	6060 J	-	-	38300	10200 J	59600
BH-6E-01	S-12636-020501-DRD-001	5/2/2001	0-2 ft	ND (4.6) UJ	4520	-	-	11900 J	7960	10600 J
BH-9-10-00	S-12636-060500-DRD-071	6/5/2000	0.5-2.5	0.41 J	6600	7200	ND (700)	-	6300	8600
BH-9-10-02	S-12636-062602-DD-023	6/26/2002	0-2 ft	-	-	-	-	-	168000	-
BH-9-1-02	S-12636-062602-DD-003	6/26/2002	0-2 ft	20	-	-	-	-	-	-
BH-9-1-02	S-12636-062602-DD-004	6/26/2002	0-2 ft	22	-	-	-	-	-	-
BH-9-11-00	S-12636-060600-DRD-080	6/6/2000	0.42-2.42	2.4 J	4700	5100	ND (700)	-	4700	6800
BH-9-11-00	S-12636-060600-DRD-081	6/6/2000	0.42-2.42	ND (6.8)	5000	5600	ND (700)	-	5200	8400
BH-9-11-02	S-12636-062602-DD-025	6/26/2002	0-2 ft	-	-	-	-	-	20800	-
BH-9-11-02	S-12636-062602-DD-026	6/26/2002	0-2 ft	-	-	-	-	-	30100	-
BH-9-12-00	S-12636-060600-DRD-082	6/6/2000	0.5-2.5	ND (5.8)	2300 J	84500	1175	-	23700	70000
BH-9-13C-00	S-12636-070800-DRD-151	7/8/2000		ND (4.4)	4960	-	ND (700)	28600	13900	26000
BH-9-14-02	S-12636-062602-DD-032	6/26/2002	0-2 ft	-	-	-	-	-	5690	-
BH-9-14D-00	S-12636-061200-DRD-094	6/12/2000	0.83-2.83	ND (4.7)	5800	10700	ND (700)	-	7000	15900
BH-9-15-00	S-12636-060700-DRD-088	6/7/2000	0.66-2.66	ND (5.2)	5400	20200	1358	-	6300	16300
BH-9-15-02	S-12636-062602-DD-034	6/26/2002	0-2 ft	-	-	-	-	-	7050	-
BH-9-16B-00	S-12636-061200-DRD-092	6/12/2000	0.66-2.66	ND (4.5)	4500	14500	ND (700)	-	6000	84000
BH-9-16B-00	S-12636-061200-DRD-093	6/12/2000	0.66-2.66	ND (4.5) UJ	5200	14900	ND (700)	-	6800	140000
BH-9-17-00	S-12636-060600-DRD-083	6/6/2000	0.42-2.42	ND (5.5)	2700	3600	ND (700)	-	3600	4200
BH-9-18B-00	S-12636-060600-DRD-084	6/6/2000	2-4	ND (5.7)	4600	7400	ND (700)	-	6800	11600
BH-9-19-00	S-12636-060600-DRD-085	6/6/2000	0.5-2.5	0.53 J	2900	5500	ND (700)	-	4700	5300
BH-9-19B-00	S-12636-061200-DRD-090	6/12/2000	14.42-15.5	0.82 J	11900	13900	ND (700)	-	10200	19900
BH-9-1C-00	S-12636-061200-DRD-095	6/12/2000	1-3	ND (5.2)	6500	8400	ND (700)	-	10500	11200
BH-9-2-00	S-12636-060600-DRD-078	6/6/2000	0.5-2.5	ND (5.4)	3900	7200	ND (700)	-	7600	11300
BH-9-2-00	S-12636-060600-DRD-079	6/6/2000	0.5-2.5	ND (5.1)	3800	6400	ND (700)	-	4800	6900
BH-9-20-00	S-12636-060700-DRD-086	6/7/2000	0.42-2.42	ND (6.3)	13500	8400	ND (700)	-	7700	9900
BH-9-20-00	S-12636-060700-DRD-087	6/7/2000	15-16	ND (4.1)	5700	47100	871	-	7100	15300
BH-9-2-02	S-12636-062602-DD-006	6/26/2002	0-2 ft	41	-	-	-	-	-	-
BH-9-21B-00	S-12636-070800-DRD-152	7/8/2000		ND (5.1)	7130	-	ND (700)	17600	8520	48900
BH-9-22C	S-12636-061200-DRD-091	6/12/2000	0.83-2.83	0.57 J	9000	22700	ND (700)	-	8700	17100
BH-9-23-00	S-12636-060500-DRD-064	6/5/2000	0.5-2.5	1000 *	8400	14600	ND (700)	-	8700	18800

TABLE A.2

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FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN**

Sample Location	Sample ID	Sample Date	Sample Depth	1,1-Dichloroethene ug/Kg	Arsenic ug/Kg	Chromium III (Trivalent) ug/Kg	Chromium VI (Hexavalent) ug/Kg	Chromium Total ug/Kg	Lead ug/Kg	Nickel ug/Kg
BH-9-24-00	S-12636-060200-DRD-052	6/2/2000	0.66-2.66	ND (230)	3700	9700	2337	-	4100	11800 J
BH-9-25-00	S-12636-060600-KMV-109	6/6/2000	0.8-1.8	ND (4.8)	3000	916000	ND (700)	-	4400	249000
BH-9-25-00	S-12636-060600-KMV-110	6/6/2000	6-	0.91 J	6500	25400	ND (700)	-	7100	20900
BH-9-26-00	S-12636-060500-KMV-101	6/5/2000	1-2	ND (440) UJ	13500 J	49700000	611280	-	28100000 ⁴⁵	89600000 ⁴⁶
BH-9-26A-00	S-12636-060500-KMV-102	6/5/2000	1-2	ND (4.3)	6900	14900	-	-	7700	60700
BH-9-27-00	S-12636-060500-KMV-107	6/5/2000	1-2	ND (4.5)	4900	5800	-	-	5800	9000
BH-9-28-00	S-12636-060500-KMV-105	6/5/2000	1.5-2	ND (4.2)	8000	14300	ND (700)	-	10500	21900
BH-9-29-00	S-12636-060500-KMV-103	6/5/2000	1-2	ND (4.5)	6700	14200	-	-	8700	22300
BH-9-29-00	S-12636-060500-KMV-104	6/5/2000	10-	ND (4.6) UJ	6600	14000	-	-	7500	21600
BH-9-3-00	S-12636-060600-DRD-076	6/6/2000	1.5-3.5	0.70 J	3900	6900	ND (700)	-	10200	8700
BH-9-3-00	S-12636-060600-DRD-077	6/6/2000	1.5-3.5	0.80 J	5300	10900	ND (700)	-	11000	16900
BH-9-30-00	S-12636-060500-KMV-106	6/5/2000	1-2	ND (5.8)	5100	5200	ND (700)	-	4900	7100
BH-9-3-02	S-12636-062602-DD-008	6/26/2002		69	-	-	-	-	-	-
BH-9-4-00	S-12636-060600-DRD-072	6/6/2000	0.5-2.5	ND (4.3)	10200	16200	ND (700)	-	8800	19900
BH-9-4-00	S-12636-060600-DRD-073	6/6/2000	0.5-2.5	1.3 J	8300	15900	ND (700)	-	8700	28100
BH-9-4-02	S-12636-062602-DD-010	6/26/2002	0-2 ft	8.3	-	-	-	-	-	-
BH-9-5-02	S-12636-062602-DD-012	6/26/2002	0-2 ft	-	-	-	ND (1230)	-	-	-
BH-9-5C-00	S-12636-070800-DRD-150	7/8/2000		ND (4.8)	9970	-	ND (700)	13000	9050	22300
BH-9-5E-00	S-12636-060700-DRD-089	6/7/2000	0.75-2.75	ND (4.8)	2600 J	6200	ND (700)	-	4900	6100
BH-9-6-00	S-12636-060500-DRD-068	6/5/2000	0.33-2.33	ND (4.2)	6700	17000	ND (700)	-	8600	20000
BH-9-6-02	S-12636-062602-DD-014	6/26/2002	0-2 ft	-	-	-	ND (1300)	-	-	-
BH-9-6-02	S-12636-062602-DD-015	6/26/2002	0-2 ft	-	-	-	ND (1290)	-	-	-
BH-9-7-00	S-12636-060500-DRD-066	6/5/2000	0.5-2.5	ND (4.6)	7800	19700	ND (700)	-	9700	20500
BH-9-7-00	S-12636-060500-DRD-067	6/5/2000	0.5-2.5	ND (4.2)	7700	18800	ND (700)	-	9400	19100
BH-9-7-02	S-12636-062602-DD-017	6/26/2002	0-2 ft	-	-	-	ND (1240)	-	-	-
BH-9-8-00	S-12636-060500-DRD-065	6/5/2000	4-6	ND (5.3)	3800	3900	-	-	4100	5100
BH-9-8-02	S-12636-062602-DD-019	6/26/2002	0-2 ft	-	-	-	ND (1150)	-	-	-
BH-9-9-00	S-12636-060600-DRD-074	6/6/2000	0.5-2.5	ND (4.4)	7900	13400	ND (700)	-	7400	20300
BH-26A-01	S-12636-030501-DRD-009	5/3/2001	4-6 ft	ND (5.8) UJ	4220	12600	ND (700)	-	7100	17700
BH-26B-01	S-12636-030501-DRD-007	5/3/2001	0-1 ft	ND (5.6)	2900	-	-	119000	119000	222000
BH-26C-01	S-12636-030501-DRD-008	5/3/2001	4-6 ft	ND (4.6)	5970	-	-	6990	3410	4740
BH-26D-01	S-12636-030501-DRD-010	5/3/2001	0-2 ft	ND (4.5) UJ	6800	-	-	43800	8800	32100
BH-26D-01	S-12636-030501-DRD-011	5/3/2001	0-2 ft	ND (4.2)	5380	-	-	19000	9020	21400
F-30	F-30 (0-2)	11/6/1996	0-2	-	3250	-	-	13000	6480	15000
F-34	F-34	11/14/1996		-	4200	-	-	5470	ND	-
F-34	F-34-CAIA	11/14/1996		-	3360	-	-	11000	7200	-
K-2	K-2	11/6/1996		-	5190	-	-	11200	4990	-
K-32	K-32	11/6/1996		-	2950	-	-	12500	7000	-
K-33	K-33	11/6/1996		-	3060	-	-	42800	5030	-
K-35	K-35	11/6/1996		-	10700	-	-	9720	ND	-
K-35	S-12636-022103-DD-001	2/21/2003	0-2 ft	-	-	-	2060	1160000 ⁴⁵	1280000 ⁴⁶	25900

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GENESEE TOWNSHIP, MICHIGAN**

Sample Location	Sample ID	Sample Date	Sample Depth	1,1-Dichloroethene ug/Kg	Arsenic ug/Kg	Chromium III (Trivalent) ug/Kg	Chromium VI (Hexavalent) ug/Kg	Chromium Total ug/Kg	Lead ug/Kg	Nickel ug/Kg
PFB-12	PFW-12 6.2-6.7	3/21/1997	5.2-6.7	ND (10)	12000	-	-	20000	19000	-
PFB-16	PFB-16 3.3-3.9	3/25/1997	3.3-3.9	ND (10)	6000	-	-	15000	16000	-
PFB-17	PFB-17 5.2-6.0	3/25/1997	5.2-6	ND (10)	6000	-	-	10000	17000	-
PFB-18	PFB-18 1.4-2.0	3/26/1997	1.4-2	ND (10)	8000	-	-	18000	17000	-
PFB-19	PFB-19 1.0-1.6	3/26/1997	1-1.6	ND (10)	7000	-	-	20000	19000	-
PFB-20	PFB-20 1.6-2.3	3/26/1997	1.6-2.3	ND (10)	9000	-	-	18000	17000	-
PFW-12	PFW-12 0.8-1.3	3/21/1997	0.8-1.3	11	9000	-	-	25000	18000	-
AOI 11										
BH-11-1-00	S-12636-053000-DRD-013	5/30/2000	2.5-4.5	-	137000	35100	6960	-	7100	22600
BH-11-1-02	S-12636-062702-DD-055	6/27/2002	0-2 ft	-	6300	-	-	-	-	-
BH-11-1-02	S-12636-062702-DD-056	6/27/2002	0-2 ft	Duplicate	7000	-	-	-	-	-
BH-11-2-00	S-12636-053000-DRD-014	5/30/2000	1-3	-	10200	16900	ND (700)	-	10600	23300
BH-11-3-00	S-12636-053000-DRD-015	5/30/2000	2-4	-	9100	18700	ND (700)	-	10800	21400
BH-11-3-00	S-12636-053000-DRD-016	5/30/2000	2-4	Duplicate	8500	17800	ND (700)	-	10600	21000
BH-11-3-00	S-12636-053000-DRD-017	5/30/2000	8.33-9.75	-	20100	17900	2910	-	22600	37500
BH-11-4-00	S-12636-053000-DRD-018	5/30/2000	1.5-2.5	-	8800	15600	ND (700)	-	11200	27800
BH-11-4-02	S-12636-062702-DD-062	6/27/2002	0-2 ft	-	14500	15700	ND (700)	-	8300	21100
BH-11-5-00	S-12636-053000-DRD-020	5/30/2000	1-3	-	9300	-	-	-	-	-
BH-11-6-02	S-12636-062702-DD-066	6/27/2002	0-2 ft	-	11600	-	-	-	-	-
BH-11-7-02	S-12636-062702-DD-068	6/27/2002	0-2 ft	-	5930	-	-	-	-	-
PFB-23	PFB-23 5.8-7	4/24/1997	5.8-7	-	12000	-	-	23000	16000	-
PFB-24	PFB-24 1.2-2.5	4/24/1997	1.2-2.5	-	11000	-	-	19000	19000	-
AOI 12										
BH-12-1-00	S-12636-053000-DRD-025	5/30/2000	1.5-2.5	ND (4.5)	-	-	ND (700)	-	-	-
BH-12-2-00	S-12636-053000-DRD-023	5/30/2000	0.5-2.5	ND (4.5)	-	-	ND (700)	-	-	-
BH-12-2-00	S-12636-053000-DRD-024	5/30/2000	0.5-2.5	Duplicate	-	-	ND (700)	-	-	-
AOI 13										
BH-13-1-00	S-12636-053000-DRD-021	5/30/2000	0-2	ND (4.4)	-	-	-	-	-	-
BH-13-2-00	S-12636-053000-DRD-022	5/30/2000	5-2.42	7.4	-	-	-	-	-	-
GP-6	GP-6	8/30/1996		ND (10)	-	-	-	-	-	-
AOI 14										
BH-14-1-00	S-12636-053100-DRD-027	5/31/2000	0.5-2.5	-	8300	15400	ND (700)	-	9000	21800
BH-14-1-00	S-12636-053100-DRD-028	5/31/2000	0.5-2.5	Duplicate	13000	15400	ND (700)	-	10400	32000
BH-14-2-00	S-12636-053100-DRD-026	5/31/2000	0.5-2.5	-	8000	12000	ND (700)	-	9700	17800

TABLE A.2

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONSTITUENTS WHICH EXCEEDED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Sample Location	Sample ID	Sample Date	Sample Depth	1,1-Dichloroethene ug/Kg	Arsenic ug/Kg	Chromium III (Trivalent) ug/Kg	Chromium VI (Hexavalent) ug/Kg	Chromium Total ug/Kg	Lead ug/Kg	Nickel ug/Kg
MW-1	MW-1 (2-4)	11/6/1996	2-4	ND	-	-	-	-	-	-
MW-2	MW-2 (8-10)	11/6/1996	8-10	ND	-	-	-	-	-	-
PFW-2	PFW-2 0-1.5	3/14/1997	0-1.5	ND (10)	18000	-	-	15000	14000	-
AOI 15										
PFW-5	PFW-5 0-1.7	3/18/1997	0-1.7	ND (10)	5000	-	-	9100	11000	-
SB-9	SB-9 (3-5)	11/6/1996	3-5	ND	-	-	-	-	-	-
AOI 17										
BH-17-2-00	S-12636-053100-DRD-036	5/31/2000	0.5-1.5	-	-	-	ND (700)	-	-	-
AOI 18										
BH-18-1-00	S-12636-053100-DRD-037	5/31/2000	2-3	ND (4.9)	9800	23200	ND (700)	-	8800	27800
BH-18-1-00	S-12636-060100-DRD-038	6/1/2000	0.5-3	-	-	-	ND (700)	-	-	-
BH-18-2-00	S-12636-060100-DRD-040	6/1/2000	0.66-3	1.2 J	11100	24000	720	-	12100	27800
BH-18-2-00	S-12636-060100-DRD-041	6/1/2000	0.66-3	ND (5.2)	13100	23200	ND (700)	-	13600	25600
BH-18-2-00	S-12636-060100-DRD-042	6/1/2000	20-21	ND (4.4)	7500	19300	ND (700)	-	9000	26900
BH-18-3-00	S-12636-053100-DRD-036	5/31/2000	0.5-1.5	ND (4.8)	10500	19900	-	-	10700	30700
BH-18-4-00	S-12636-060100-DRD-038	6/1/2000	0.5-3	1.0 J	9900	15600	-	-	8500	20600
BH-18-4-00	S-12636-060100-DRD-039	6/1/2000	5-6	ND (4.8)	9700	12700	ND (700)	-	6500	17100
GP-3	GP-3	8/30/1996	-	ND (10)	8500	-	-	4500	4100	-
GP-4	GP-4	8/30/1996	-	ND (10)	7000	-	-	13000	10000	-
PFW-4	PFW-4 1.5-3	3/17/1997	1.5-3	ND (10)	8000	-	-	17000	17000	-
AOI 19										
BH-19-1-00	S-12636-060500-DRD-059	6/5/2000	0.5-2.5	ND (210)	6800	14200	ND (700)	-	8100	17300
BH-19-1-00	S-12636-060500-DRD-060	6/5/2000	0.5-2.5	ND (220)	5900	12100	ND (700)	-	7500	14700
BH-19-2-00	S-12636-060200-DRD-055	6/2/2000	0.5-2.5	ND (4.5)	9600	19000	ND (700)	-	11200	24400 J
BH-19-3-00	S-12636-060500-DRD-061	6/5/2000	0.42-2.42	1.3 J	6500	9700	989	-	6100	11200
BH-19-4-00	S-12636-060500-DRD-057	6/5/2000	1-3	ND (250)	3300	4100	992	-	6100	4200
BH-19-4-00	S-12636-060500-DRD-058	6/5/2000	9-10	ND (290)	3800	3900	ND (700)	-	4900	4800
BH-19-5-00	S-12636-060200-DRD-054	6/2/2000	0.58-3	ND (220)	8100	14000	ND (700)	-	9000	19800 J
BH-19-6-00	S-12636-060500-DRD-062	6/5/2000	0.42-2.42	ND (4.7)	7500	13500	1173	-	9700	17000
BH-19-6-00	S-12636-060500-DRD-063	6/5/2000	5.5-6.5	ND (5.9)	7400	12300	ND (700)	-	8800	16900
BH-19-7-00	S-12636-060200-DRD-056	6/2/2000	0.5-2.5	ND (4.6)	7600	13300	ND (700)	-	10400	23200 J
BH-19-8-00	S-12636-060200-DRD-053	6/2/2000	0.58-3	ND (5.6)	5600	8500	ND (700)	-	6600	10200 J

TABLE A.2

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONSTITUENTS WHICH EXCEEDED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Sample Location	Sample ID	Sample Date	Sample Depth	1,1-Dichloroethene ug/Kg	Arsenic ug/Kg	Chromium III (Trivalent) ug/Kg	Chromium VI (Hexavalent) ug/Kg	Chromium Total ug/Kg	Lead ug/Kg	Nickel ug/Kg
AOI 20										
BH-20-1-00	S-12636-060100-DRD-045	6/1/2000	0.33-2.33	ND (4.6)	5300	13300	ND (700)	-	7200	17400
BH-20-2-00	S-12636-060100-DRD-046	6/1/2000	0.42-3	ND (4.4)	5600	15900	6960	-	14000	22900
BH-20-2-00	S-12636-060100-DRD-047	6/1/2000	7-8	0.88 J	6100	15500	ND (700)	-	8200	21700
BH-20-3-00	S-12636-060100-DRD-044	6/1/2000	0.66-3	ND (5.7)	4300	6500	ND (700)	-	5500	8400
BH-20-4-00	S-12636-060100-DRD-043	6/1/2000	0.66-3	ND (4.9)	7200	16200	ND (700)	-	7700	22500
AOI 20/22										
MW-5	MW-5 (3-5)	11/6/1996	3-5	ND	7120	-	-	11700	3720	-
MW-5	MW-5 (8-10)	11/6/1996	8-10	ND	5340	-	-	12900	6920	-
MW-6	MW-6 (3-5)	11/6/1996	3-5	ND	5370	-	-	11200	ND	-
MW-6	MW-6 (8-10)	11/6/1996	8-10	ND	4650	-	-	12600	3800	-
MW-7	MW-7 (4-6)	11/6/1996	4-6	ND	6400	-	-	12900	5610	-
MW-8	MW-8 (4-6)	11/6/1996	4-6	ND	4190	-	-	11800	103000	-
MW-8	MW-8 (8-10)	11/6/1996	8-10	ND	6330	-	-	12000	7450	-
MW-9	MW-9 (4-6)	11/6/1996	4-6	ND	8270	-	-	12000	8890	-
AOI 21										
BH-21-1-00	S-12636-053100-DRD-032	5/31/2000	0-2	ND (5.4)	3900	4800	ND (700)	-	4500	5900
BH-21-1-00	S-12636-053100-DRD-033	5/31/2000	18-19	ND (4.5)	7000	18000	ND (700)	-	8000	25000
BH-21-1-00	S-12636-053100-DRD-034	5/31/2000	0.58-3	-	-	-	ND (700)	-	-	-
BH-21-2-00	S-12636-053100-DRD-034	5/31/2000	0.58-3	ND (5.7)	6700	8300	-	-	10900	10200
PFB-21	PFB-21 0-0.9	4/24/1997	0-0.9	ND (10)	-	-	-	-	-	-
Background										
BK-1-00	S-12636-052400-DRD-003	5/24/2000	3-	-	9900	15700	ND (700)	-	9600	22500
BK-1-00	S-12636-052400-DRD-004	5/24/2000	7-	-	8000	13700	ND (700)	-	8100	20600
BK-2-00	S-12636-052400-KMV-001	5/24/2000	4-	-	8800	14600	ND (700)	-	9700	18700
BK-2-00	S-12636-052400-KMV-002	5/24/2000	10-	-	7900	12300	ND (700)	-	10300	16500
BK-3-00	S-12636-052500-DRD-005	5/25/2000	5-	-	8400	14100	ND (700)	-	7500	20500
BK-3-00	S-12636-052500-DRD-006	5/25/2000	11-	-	5500	13300	ND (700)	-	7800	19200
BK-4-00	S-12636-052500-DRD-007	5/25/2000	5-	-	11000	16400	ND (700)	-	9000	20300
BK-4-00	S-12636-052500-DRD-008	5/25/2000	10-	-	6400	11400	ND (700)	-	6600	16000
None										
GP-1	GP-1	8/30/1996		-	8500	-	-	14000	8800	-
GP-2	GP-2	8/30/1996		-	6600	-	-	11000	8100	-
GP-5	GP-5	8/30/1996		ND (10)	3500	-	-	14000	10000	-

TABLE A.2

ANALYTICAL DATA FOR ALL LOCATIONS (EXCEPT DSA) FOR CONSTITUENTS WHICH EXCEEDED ANYWHERE ON FACILITY
FORMER PEREGRINE (US) INC., COLDWATER ROAD FACILITY
GENESEE TOWNSHIP, MICHIGAN

Sample Location	Sample ID	Sample Date	Sample Depth	1,1-Dichloroethene ug/Kg	Arsenic ug/Kg	Chromium III (Trivalent) ug/Kg	Chromium VI (Hexavalent) ug/Kg	Chromium Total ug/Kg	Lead ug/Kg	Nickel ug/Kg
GP-7	GP-7	8/30/1996		-	7800	-	-	9500	7500	-
HD-1	HD-1	11/6/1996		-	3630	-	-	25200	175000	-
MW-4	MW-4 (6-8)	11/6/1996	6-8	ND	-	-	-	-	-	-
MW-10	MW-10 (4-6)	11/5/1996	4-6	ND (10)	16000	-	-	7200	12000	-
MW-10	MW-10 (4-6)	11/15/1996	4-6	ND	4520	-	-	12900	6640	-
MW-12	MW-12 (10-12)	11/6/1996	10-12	-	5700	-	-	8300	13000	-
MW-12	MW-12 (10-12)-GAIA	11/6/1996	10-12	ND (10)	-	-	-	-	-	-
MW-12	MW-12 (10-12)-GAIA-RE	11/6/1996	10-12	ND	6880	-	-	11300	6380	-
PEW-8	PEW-8 0-2	3/19/1997	0-2	-	6000	-	-	15000	15000	-
PEW-8	PEW-8 6-7.8	3/19/1997	6-7.8	ND (10)	-	-	-	-	-	-
PEW-9	PEW-9 0-2	3/19/1997	0-2	ND (10)	9000	-	-	16000	16000	-
Q-12	Q-12	11/6/1996		ND	5980	-	-	11600	7200	-
SPL	SPL	11/6/1996		ND	6030	-	-	13900	6040	-
WWT-1	WWT-1	11/6/1996		ND	5370	-	-	19800	6400	-
WWT-2	WWT-2	11/6/1996		ND	6160	-	-	20900	ND	-
WWT-3	WWT-3	11/6/1996		ND	6530	-	-	14500	4100	-
WWT-4	WWT-4	11/6/1996		0.97	6950	-	-	13400	ND	-

Notes:

- a - Site Specific Background Criteria
- b - Soil Volatilization to Indoor Air Inhalation Criteria (SVIAC)
- c - Industrial Direct Contact Criteria (IDCC)
- d - Particulate Soil Inhalation Criteria (PSIC)
- e - Modified Particulate Soil Inhalation Criteria (MPSIC)
- f - Infinite Source Soil Inhalation Criteria (ISSIC)
- j - The associated numerical value is an estimated quantity
- () - The value in brackets are detection limits

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ATTACHMENT A.1

TO: Sylvie Eastman REF. NO.: 12636-40/Holdwick-10-AttA-1

FROM: Wesley Dyck DATE: May 12, 2003

RE: **Calculation of 95-Percent Upper Confidence Limits for Mean Parameter Concentrations
Former Peregrine (US) Inc. Coldwater Road Facility
Genesee Township, Michigan**

1.0 INTRODUCTION

Chemical analysis of soil samples collected at the GM Peregrine site in Genesee Township, Michigan (Site) has indicated the presence of six parameters (1,1-dichloroethene, arsenic, chromium^{VI} (hexavalent), chromium (total), lead and nickel) above generic Michigan screening criteria for either the industrial soil volatilization to indoor air inhalation criteria (SVIAIC), particulate soil inhalation criteria (PSIC) or industrial direct contact criteria (IDCC) exposure pathways at one or more soil sampling locations. These detections above generic criteria form a small minority of the entire data set. Under Michigan guidance (Michigan, 2002), hazards due to ambient air inhalation and direct soil contact are suitable for statistical analysis. This analysis is the comparison of the 95-percent upper confidence limit of the mean concentration (UCL) to the applicable generic criterion. Therefore, the parameters found above PSIC and IDCC at the site were statistically analyzed by calculating 95-percent UCLs. One additional related parameter (chromium^{III}) was also of interest, and was included in the statistical evaluation.

According to Michigan (2002), indoor air inhalation hazards are generally not practical ("GNP") for statistical analysis. However, due to the very large number of soil samples collected at the site, the single parameter (1,1-dichloroethene) found above the SVIAIC criterion was also subjected to a statistical analysis by calculating a 95-percent UCL.

This memo details the methods and findings of the statistical analysis of parameter concentrations in soil from the Site.

2.0 STATISTICAL METHODS

Methods for calculating 95-percent UCLs are presented in Chapter 3 of Tab 7 (Statistical Methods) in Michigan, 2002. Specific recommendations are as follows:

CRA MEMORANDUM

Data Characteristics

Normally distributed, ≤50% non-detects
 Lognormally distributed, ≤50% non-detects
 Non-normal data, ≤50% non-detects, ≥50 samples
 Non-normal data, ≤50% non-detects, <50 samples
 ≥50% non-detects

95-percent UCL Method

Student's *t* UCL
 Land's *H* UCL
 Central limit theorem (CLT) UCL
 Collect additional data
 Nonparametric (NP) UCL of a percentile

In order to appropriately analyze a dataset, it is therefore necessary to first determine the data distribution (normal, lognormal, neither) and severity of censoring (percentage of non-detects present). Michigan 2002 presents a number of methods for testing data distributions. For the purpose of the present evaluation, probability plotting and the Shapiro-Francia *W'*-test were used to establish the data distributions. The percentages of non-detects present were determined by simple arithmetic. UCLs were calculated following the methods presented in Michigan, 2002.

3.0 SCOPE OF DATA

The 95-percent UCLs were calculated using data across the entire Site, which was collected over the period of 1996-2003. Two sample locations (BH9-26 and BH9-26A) were excluded from the calculations, since soil from the area surrounding these samples has been excavated and removed from the Site. For the purposes of the statistical evaluation, field duplicates were averaged prior to the calculations, and non-detects were substituted with a value of one-half the reported detection limit. The resulting data sets contained between 73 and 152 samples, depending on the analyte of interest.

4.0 RESULTS

The results of the 95-percent UCL calculations are as follows

	<u>1,1-Dichloroethene</u>	<u>Arsenic</u>	<u>Lead</u>	<u>Nickel</u>
<i>Number of samples:</i>	118	152	151	90
<i>Number of detects:</i>	22	152	151	90
<i>% Non-detect:</i>	81.4%	0%	0%	0%
<i>Distribution:</i>	Not normal	Not normal	Not normal	Not normal
<i>UCL method:</i>	NP UCL (82) [†]	CLT UCL	CLT UCL	CLT UCL
<i>95-% UCL:</i>	7.4 µg/Kg	10 600 µg/Kg	44 100 µg/Kg	39 000 µg/Kg
<i>Cleanup Criterion:</i>	330 µg/Kg (SVIIC)	37 000 µg/Kg (IDCC)	900 000 µg/Kg (IDCC)	16E+6 µg/Kg (PSIC)
	<u>Chromium^{III} (trivalent)</u>	<u>Chromium^{VI} (hexavalent)</u>	<u>Chromium (total)</u>	
<i>Number of samples:</i>	80	86	73	
<i>Number of detects:</i>	80	14	73	
<i>% Non-detect:</i>	0%	83.7%	0%	
<i>Distribution:</i>	Not normal	Not normal	Not normal	
<i>UCL method:</i>	CLT UCL	NP UCL (84) [‡]	CLT UCL	
<i>95-% UCL:</i>	56 300 µg/Kg	1358 µg/Kg	75 100 µg/Kg	
<i>Cleanup Criterion:</i>	150E+6 µg/Kg (PSIC)	240 000 µg/Kg (PSIC)	240 000 µg/Kg (PSIC)	

Notes: [†] Non-parametric UCL of 82nd percentile

[‡] Non-parametric UCL of 84th percentile.

CRA MEMORANDUM

In all cases, the resulting 95-percent UCL was below the appropriate cleanup criterion. Therefore, it is concluded that concentrations of chemical parameters across the Site meet the applicable generic Michigan criteria.

5.0 REFERENCE

Michigan, 2002. Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria.
Michigan Department of Environmental Quality, Environmental Response Division.

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