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MEMORANDUM

Job No. **02685**

Date: November 10, 2004

Subject: Soil borings/samples along northern fence (adjacent to southern Durfee Street properties)

To: File

From: Barbara Markley

cc: Al Hanscom, PIP repository

Summary

In order to determine the horizontal and vertical extent of fill material (wastes), if present, in the vicinity of the northern property boundary of McCoy Field, soil borings were advanced along the fencing (referred to as Durfee Fence (DF)) that abuts properties located along the south side of Durfee Street.

On November 4, 2004, a total of ten (10) samples (DFA through DFJ) were collected, each located adjacent to the hay bales lining the existing fence. Samples were collected at approximately 20 foot intervals east to west, corresponding with the existing landscape sampling alpha grid. Personnel from Technical Drilling Services (TDS) of Sterling, MA used a Geoprobe rig to advance the soil borings to depths of up to 12 feet below grade. The materials comprising each soil boring were characterized and then samples were submitted to NET Lab, located in North Providence, RI, for analysis of polychlorinated biphenols (PCBs), RCRA 8 Metals and semivolatile organic compounds (SVOCs).

Note: All samples were submitted for standard 5 day turnaround time and 1 parts per million (ppm) method detection limit (MDL). Borings DFH, DFI, and DFJ were composited and submitted for analysis of RCRA 8 Metals and SVOCs. Borings DFC through DFG were composited as were borings DFA and DFB and submitted for analysis of RCRA 8 Metals and SVOCs.

Note: Even if the sample appeared to be "clean backfill" (Utility Backfill) material or a mixture of sand and gravel, it was submitted for laboratory analysis.

NE: Not encountered

From east to west:

DFA:

Soil/organics: NE

Utility Backfill: 0-2'

Fill: 2-7' (with traces of glass)

Organics: 7-9'

Till: 9-12'

Sample intervals: 0-1, 1-2, 2-3, 3-4, 4-5, 5-6, 6-7

DFB:

Soil/organics: NE

Utility Backfill: 0-2'

Fill: 2-7' (with traces of glass)

Organics: 7-9'

Till: 9-12'

Sample intervals: 0-1, 1-2, 2-3, 3-4, 4-5, 5-6, 6-7

DFC:

Soil/organics: NE

Fill: 0-5'

Organics: 5-7'

Till: 7-8

Sample intervals: 0-1, 1-2, 2-3, 3-4, 4-5

DFD:

Soil/organics: NE

Fill: 0-4'

Organics: 4-5' (mixture of organics and fine sand)

Till: 5-8'

Sample intervals: 0-1, 1-2, 2-3, 3-4

DFE:

Soil/organics: NE

Fill: 0-4' (mixture of fill and sand)

Organics: NE

Till: 4-8'

Sample intervals: 0-1, 1-2, 2-3, 3-4

DFF:

Soil/organics: 0-0.5'

Fill: 0.5-4.5' - no glass or metal

Organics: NE

Till: 4.5-8'

Sample intervals: 0-0.5, 0.5-1.5, 1.5-2.5, 2.5-3.5, 3.5-4.5

DFG:

Soil/organics: 0-1'

Sand & Silt: 1-1.5', 3-4'

Fill: 1.5-3', 4-6' (mix of sand and fill) - no glass or metal

Organics: NE

Till: 6-8'

Sample intervals: 0-1, 1-2, 2-3, 3-4, 4-5, 5-6

DFH:

Soil/organics: 0-1.5' (mottled)

Sand & Gravel: 1.5-4' (light brown)

Fill: NE

Organics: NE

Till: NE

Sample intervals: 0-1.5, 1.5-2.5, 2.5-3.5, 3.5-4

DFI:

Soil/organics: 0-0.5'

Sand & Gravel: 0.5-4 (light brown)

Fill: NE

Organics: NE

Till: NE

Sample intervals: 0-0.5, 0.5-1.5, 1.5-2.5, 2.5-3.5, 3.5-4

DFJ:

Soil/organics: 0-0.75'

Sand & Gravel: 0.75-4' (light brown)

Fill: NE

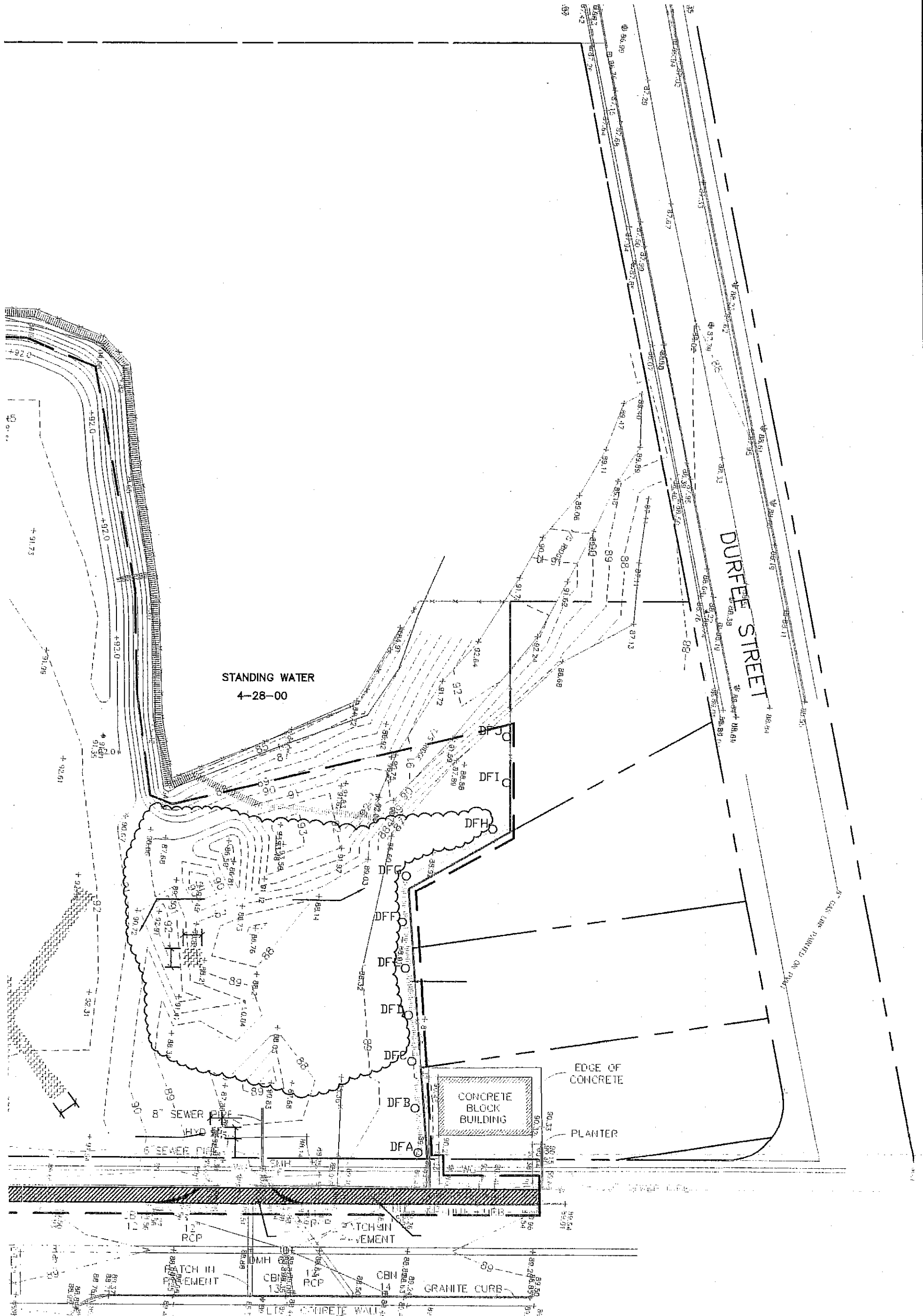
Organics: NE

Till: NE

Sample intervals: 0-0.75, 0.75-1.75, 1.75-2.75, 2.75-4

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SIGNED: _____



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McCoy Field
 New Bedford, Massachusetts
 Scale: 1" = 40'

Peripheral Areas
 North of McCoy Field

Durfee Fence
Polychlorinated Biphenyls

Sample ID	Depth	Date	RCS-1 Turnkey Acceptance Limit UCL								
			Total PCBs	PCB-1221	PCB-1232	PCB-1016/ 1242	PCB-1248	PCB-1254	PCB-1260	PCB-1262	PCB-1268
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
			2,000	~	~	~	~	~	~	~	~
50,000	~	~	~	~	~	~	~	~			
100,000	~	~	~	~	~	~	~	~			
DFA-0-1'	0-1	11/4/04	ND	ND	ND	ND	ND	ND (1020)	ND	ND	ND
DFA-1-2'	1-2	11/4/04	ND	ND	ND	ND	ND	ND (1030)	ND	ND	ND
DFA-2-3'	2-3	11/4/04	ND	ND	ND	ND	ND	ND (1000)	ND	ND	ND
DFA-3-4'	3-4	11/4/04	2,070	ND	ND	ND	ND	2,070	ND	ND	ND
DFA-4-5'	4-5	11/4/04	2,260	ND	ND	ND	ND	2,260	ND	ND	ND
DFA-5-6'	5-6	11/4/04	ND	ND	ND	ND	ND	ND (1270)	ND	ND	ND
DFA-6-7'	6-7	11/4/04	ND	ND	ND	ND	ND	ND (2550)	ND	ND	ND
DFB-0-1'	0-1	11/4/04	1,340	ND	ND	ND	ND	1,340	ND	ND	ND
DFB-1-2'	1-2	11/4/04	ND	ND	ND	ND	ND	ND (1050)	ND	ND	ND
DFB-2-3'	2-3	11/4/04	2,690	ND	ND	ND	ND	2,690	ND	ND	ND
DFB-3-4'	3-4	11/4/04	12,000	ND	ND	ND	ND	12,000	ND	ND	ND
DFB-4-5'	4-5	11/4/04	1,730	ND	ND	ND	ND	1,730	ND	ND	ND
DFB-5-6'	5-6	11/4/04	19,710	ND	ND	ND	ND	2,610	ND	ND	17,100
DFB-6-7'	6-7	11/4/04	ND	ND	ND	ND	ND	ND (3590)	ND	ND	ND
DFC-0-1'	0-1	11/4/04	ND	ND	ND	ND	ND	ND (1060)	ND	ND	ND
DFC-1-2'	1-2	11/4/04	1,880	ND	ND	ND	ND	1,880	ND	ND	ND
DFC-2-3'	2-3	11/4/04	10,400	ND	ND	ND	ND	10,400	ND	ND	ND
DFC-3-4'	3-4	11/4/04	2,030	ND	ND	ND	ND	2,030	ND	ND	ND
DFC-4-5'	4-5	11/4/04	14,210	ND	ND	ND	ND	14,210	ND	ND	ND
DFD-0-1'	0-1	11/4/04	2,340	ND	ND	ND	ND	2,340	ND	ND	ND
DFD-1-2'	1-2	11/4/04	ND	ND	ND	ND	ND	ND (1130)	ND	ND	ND
DFD-2-3'	2-3	11/4/04	ND	ND	ND	ND	ND	ND (1180)	ND	ND	ND
DFD-3-4'	3-4	11/4/04	ND	ND	ND	ND	ND	ND (1330)	ND	ND	ND
DFF-0-1'	0-1	11/4/04	2,950	ND	ND	ND	ND	2,950	ND	ND	ND
DFF-1-2'	1-2	11/4/04	ND	ND	ND	ND	ND	ND (1120)	ND	ND	ND
DFF-2-3'	2-3	11/4/04	ND	ND	ND	ND	ND	ND (1150)	ND	ND	ND
DFF-3-4'	3-4	11/4/04	ND	ND	ND	ND	ND	ND (1310)	ND	ND	ND
DFF-0-0.5'	0-0.5	11/4/04	ND	ND	ND	ND	ND	ND (1230)	ND	ND	ND
DFF-0.5-1.5'	0.5-1.5	11/4/04	2,050	ND	ND	ND	ND	2,050	ND	ND	ND
DFF-1.5-2.5'	1.5-2.5	11/4/04	3,490	ND	ND	ND	ND	3,490	ND	ND	ND
DFF-2.5-3.5'	2.5-3.5	11/4/04	4,410	ND	ND	ND	ND	4,410	ND	ND	ND
DFF-3.5-4.5'	3.5-4.5	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND
DFG-0-1'	0-1	11/4/04	2,060	ND	ND	ND	ND	2,060	ND	ND	ND
DFG-1-2'	1-2	11/4/04	ND	ND	ND	ND	ND	ND (1170)	ND	ND	ND
DFG-2-3'	2-3	11/4/04	ND	ND	ND	ND	ND	ND (1140)	ND	ND	ND
DFG-3-4'	3-4	11/4/04	ND	ND	ND	ND	ND	ND (1150)	ND	ND	ND
DFG-4-5'	4-5	11/4/04	ND	ND	ND	ND	ND	ND (1100)	ND	ND	ND
DFG-5-6'	5-6	11/4/04	ND	ND	ND	ND	ND	ND (1040)	ND	ND	ND
DFH-0-1.5'	0-1.5	11/4/04	1,580	ND	ND	ND	ND	1,580	ND	ND	ND
DFI-0-0.5'	0-0.5	11/4/04	ND	ND	ND	ND	ND	ND (1130)	ND	ND	ND
DFJ-0-0.75'	0-0.75	11/4/04	ND	ND	ND	ND	ND	ND (1280)	ND	ND	ND
Duplicate 185		11/4/04	1,590	ND	ND	ND	ND	1,590	ND	ND	ND
Duplicate 186		11/4/04	ND	ND	ND	ND	ND	ND (1290)	ND	ND	ND

ND = Not detected
 ~ = Constituent not analyzed
 Gray shaded values indicate that the Turnkey Acceptance Limit has been exceeded.
 Black shaded values indicate that the Upper Concentration Limit (UCL) has been exceeded.

Durfee Fence
Total Petroleum Hydrocarbons (TPH) RCRA 8 Metals

RCS-1 Toxicity Characteristic (20 Times) Rule Regulatory Limit UCL	RCRA 8 Metals									TCLP					
	TPH	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver	Lead	Barium	Mercury	Chromium		
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/L)	(mg/L)	(mg/L)	(mg/L)		
	200	30	1,000	30	1,000	300	20	400	100	~	~	~	~		
	~	100	2,000	20	100	100	4	20	100	~	~	~	~		
	~	~	~	~	~	~	~	~	~	5.0	100.0	0.2	5.0		
	10,000	300	10,000	800	10,000	6,000	600	10,000	2,000	~	~	~	~		
Sample Identification	Depth	Date													
Durfee Comp A-B	--	11/4/04	~	2.12	355	1.53	35	128	0.304	0.85	ND	0.1	~	~	~
Durfee Comp A-B MS	--	11/4/04	~	88.3	421	79.4	112	277	0.445	77.1	76	~	~	~	~
Durfee Comp A-B MSD	--	11/4/04	~	85.1	414	77.4	129	199	0.424	77.4	76	~	~	~	~
Durfee Comp G,F,E,D,C	--	11/4/04	~	11	2,000	1.75	461	241	0.211	4.94	ND	0.4	4.22	~	<0.02
Durfee Comp J, I, H	--	11/4/04	~	2.92	14	1.34	8.77	24	ND	1.16	1.16	~	~	~	~

ND - Not detected

~ = Constituent not analyzed

Gray shading indicates concentration exceeding 20 Times Rule

Black shading indicates concentration exceeding Regulatory TCLP Limit or UCL.

**Durfee Fence
Semi Volatile Organic Compounds (SVOCs)**

Sample Identification	Depth	Date	n-Nitrosodimethylamine	Pyridine	Phenol	Aniline	bis(2-Chloroethyl)ether	2-Chlorophenol	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	2-Methylphenol	bis(2-chloroisopropyl)ether	4-Methylphenol	n-Nitroso-di-n-propylamine	Hexachloroethane	Nitrobenzene		
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
			50,000	500,000	60,000	1,000,000	700	700	100,000	2,000	100,000	500,000	700	50,000	50,000	6,000	50,000		
			~	~	10,000,000	~	7,000	10,000,000	5,000,000	2,000,000	5,000,000	~	90,000	~	~	500,000	~		
RCS-1 UCL 10*UTS			23,000	160,000	62,000	140,000	60,000	57,000	60,000	60,000	60,000	56,000	72,000	56,000	140,000	300,000	140,000		
Durfee Comp A-B	--	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Durfee Comp G,F,E,D,C	--	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
Durfee Comp J, I, H	--	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		

**Durfee Fence
Semi Volatile Organic Compounds (SVOCs)**

Sample Identification	Depth	Date	Isophorone	2-Nitrophenol	2,4-Dimethylphenol	Benzoic acid	bis(2-Chloroethoxy)methan	2,4-Dichlorophenol	1,2,4-Trichlorobenzene	Naphthalene	4-Chloroaniline	Hexachlorobutadiene	4-Chloro-3-methylphenol	2-Methylnaphthalene	Hexachlorocyclopentadiene	2,4,6-Trichlorophenol	2,4,5-Trichlorophenol	2-Chloronaphthalene
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
			100,000	100,000	700	1,000,000	500,000	10,000	100,000	4,000	1,000	3,000	1,000,000	4,000	50,000	3,000	2,000	1,000,000
			~	~	10,000,000	~	~	900,000	10,000,000	~	~	400,000	~	10,000,000	~	2,000,000	10,000,000	~
			NA	130,000	140,000	NA	72,000	140,000	190,000	56,000	160,000	56,000	140,000	NA	24,000	74,000	74,000	56,000
RCS-1 UCL 10*UTS																		
Durfee Comp A-B	--	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Durfee Comp G,F,E,D,C	--	11/4/04	ND	ND	ND (1200)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Durfee Comp J, I, H	--	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

**Durfee Fence
Semi Volatile Organic Compounds (SVOCs)**

			2-Nitroaniline	Dimethyl phthalate	Acenaphthylene	2,6-Dinitrotoluene	3-Nitroaniline	Acenaphthene	2,4-Dinitrophenol	4-Nitrophenol	Dibenzofuran	2,4-Dinitrotoluene	Diethyl phthalate	Fluorene	4-Chlorophenyl phenyl ether	4-Nitroaniline	4,6-Dinitro-2-methylphenol	n-Nitrosodiphenylamine
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
			1,000,000	7,000	100,000	100,000	1,000,000	20,000	3,000	100,000	100,000	700	700	400,000	1,000,000	1,000,000	50,000	100,000
			~	10,000,000	10,000,000	~	~	10,000,000	900,000	~	~	70,000	10,000,000	10,000,000	~	~	~	~
			140,000	280,000	34,000	280,000	NA	34,000	1,600,000	290,000	NA	280,000	280,000	34,000	NA	280,000	1,600,000	130,000
Sample Identification	Depth	Date																
Durfee Comp A-B	--	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140	ND	ND	ND	ND
Durfee Comp G,F,E,D,C	--	11/4/04	ND	ND	ND	ND	ND	250	ND	ND	270	ND	ND	670	ND	ND	ND	ND
Durfee Comp J, I, H	--	11/4/04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

RCS-1
UCL
10*UTS

**Durfee Fence
Semi Volatile Organic Compounds (SVOCs)**

			4-Bromophenyl phenyl ethe	Hexachlorobenzene	Pentachlorophenol	Phenanthrene	Anthracene	Di-n-butylphthalate	Fluoranthene	Benzidine	Pyrene	Butyl benzyl phthalate	3,3'-Dichlorobenzidine	Benzo(a)anthracene	Chrysene	bis(2-Ethylhexyl)phthalate	Di-n-octyl phthalate
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
RCS-1			100,000	700	5,000	100,000	100,000	50,000	1,000,000	10,000	700,000	100,000	1,000	700	700	100,000	1,000,000
UCL			~	30,000	400,000	10,000,000	10,000,000	~	10,000,000	~	10,000,000	~	30,000	100,000	400,000	10,000,000	~
10*UTS			150,000	100,000	74,000	56,000	34,000	280,000	34,000	NA	82,000	280,000	NA	34,000	34,000	280,000	280,000
Sample Identification	Depth	Date															
Durfee Comp A-B	--	11/4/04	ND	ND	ND	1,400	270	ND	1,100	ND	1,800	ND	ND	770	680	ND	ND
Durfee Comp G,F,E,D,C	--	11/4/04	ND	ND	ND	8,100	2,600	ND	10,000	ND	8,900	ND	ND	6,000	4,100	ND	ND
Durfee Comp J, I, H	--	11/4/04	ND	ND	ND	ND	ND	83	ND	ND	ND	ND	ND	ND	ND	ND	ND

Durfee Fence
Semi Volatile Organic Compounds (SVOCs)

Sample Identification	Depth	Date	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenz(a,h)anthracene (Dibenzo(a,h)anthracene)	Benzo(g,h,i)perylene (Benzo(ghi)perylene)	Azobenzene	Acetophenone	
			(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
			700	7,000	700	700	700	1,000,000	none	1,000,000	
			100,000	400,000	100,000	100,000	100,000	10,000,000			
		RCS-1	68,000	68,000	34,000	34,000	82,000	18,000			
		UCL									
		10*UTS									
Durfee Comp A-B	--	11/4/04	720	240	600	210	ND	190	~	~	
Durfee Comp G,F,E,D,C	--	11/4/04	6,800	1,500	5,200	2,100	680	1,800	~	~	
Durfee Comp J, I, H	--	11/4/04	ND	ND	ND	ND	ND	ND	~	~	