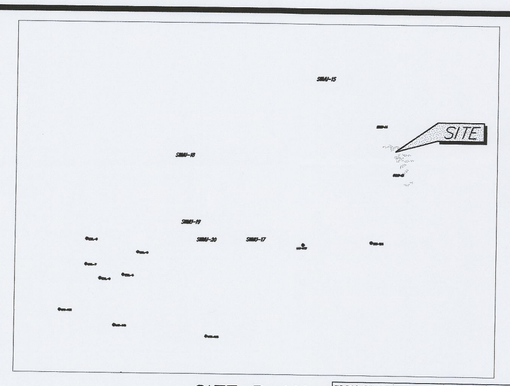
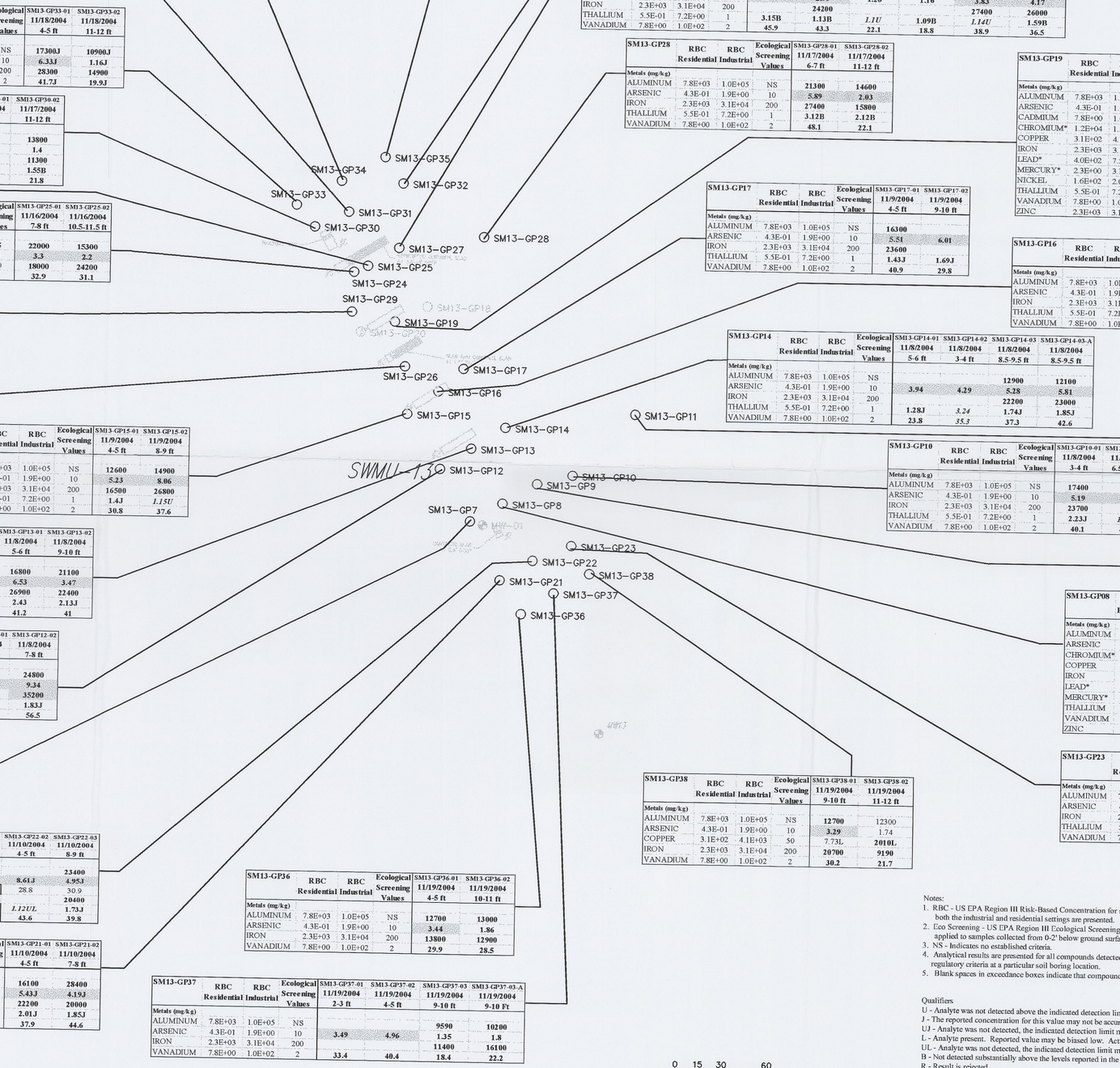


SITE PLAN

1"=600'



SM13-GP31	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP31-01 11/18/2004 1-2 ft	SM13-GP31-02 11/18/2004 4-5 ft	SM13-GP31-03 11/18/2004 7-8 ft	SM13-GP31-04 11/18/2004 10-11 ft	SM13-GP31-04-A 11/18/2004 10-11 ft
Metals (mg/kg)								
ALUMINUM	7.8E+03	1.0E+05	NS		21900J		16900J	16000J
ARSENIC	4.3E-01	1.9E+00	10	35J	6.86J	1.2J	1.31J	1.08J
BARIUM	5.5E+02	7.2E+03	500	1120J	50.9J	76.6J	83.6J	86.8J
CHROMIUM*	1.2E+04	1.5E+05	0.4	24	43.5	22.1	23.9	22.4
COPPER	3.1E+02	4.1E+03	50	189	12.6	12.4	13.2	12
IRON	2.3E+03	3.1E+04	200		31400		14200	12900
LEAD*	4.0E+02	7.5E+02	50	659J	9.2J	12.4J	14.1J	12.5J
MERCURY*	2.3E+00	3.1E+01	0.1	0.774L	0.0399J	0.0043J	0.0037UL	0.0038UL
THALLIUM	5.5E-01	7.2E+00	1	1.72J	1.11U	1.06U	1.08U	1.05U
VANADIUM	7.8E+00	1.0E+02	2	34.5J	46.3J	27.5J	30.7J	27.2J

SM13-GP35	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP35-01 11/18/2004 4-5 ft	SM13-GP35-02 11/18/2004 7-8 ft	SM13-GP35-03 11/18/2004 12-13 ft	SM13-GP35-04 11/18/2004 9-10 ft
Metals (mg/kg)							
ALUMINUM	7.8E+03	1.0E+05	NS		22600J	16300J	
ARSENIC	4.3E-01	1.9E+00	10	6.76J	4.56J	4.14J	1.02J
IRON	2.3E+03	3.1E+04	200		21200	24600	
VANADIUM	7.8E+00	1.0E+02	2	42J	41.4J	27.4J	24.8J

SM13-GP32	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP32-01 11/18/2004 6-7 ft	SM13-GP32-02 11/18/2004 9-10 ft	SM13-GP32-03 11/18/2004 11-12 ft
Metals (mg/kg)						
ALUMINUM	7.8E+03	1.0E+05	NS	19400J		10700J
ARSENIC	4.3E-01	1.9E+00	10	3.94J	2.07J	1.36J
IRON	2.3E+03	3.1E+04	200	17000		11300
VANADIUM	7.8E+00	1.0E+02	2	35.6J	31.7J	18.7J

SM13-GP34	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP34-01 11/18/2004 7-8 ft	SM13-GP34-02 11/18/2004 11-12 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	34800J	18000J
ARSENIC	4.3E-01	1.9E+00	10	2.39J	1.89J
IRON	2.3E+03	3.1E+04	200	13200	11000
VANADIUM	7.8E+00	1.0E+02	2	36.6J	28.3J

SM13-GP27	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP27-01 11/17/2004 4-5 ft	SM13-GP27-02 11/17/2004 7-8 ft	SM13-GP27-03 11/17/2004 8.5-9.5 ft	SM13-GP27-03-A 11/17/2004 8.5-9.5 ft	SM13-GP27-04 11/17/2004 11-12 ft	SM13-GP27-04-A 11/17/2004 11-12 ft
Metals (mg/kg)									
ALUMINUM	7.8E+03	1.0E+05	NS		22000			16900	16000
ARSENIC	4.3E-01	1.9E+00	10	7.16	2.99	1.26	1.16	3.83	4.17
IRON	2.3E+03	3.1E+04	200		24200			27400	26000
THALLIUM	5.5E-01	7.2E+00	1	3.15B	1.13B	1.1U	1.09B	1.14U	1.59B
VANADIUM	7.8E+00	1.0E+02	2	45.9	43.3	22.1	18.8	38.9	36.5

SM13-GP33	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP33-01 11/18/2004 4-5 ft	SM13-GP33-02 11/18/2004 11-12 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	17300J	10900J
ARSENIC	4.3E-01	1.9E+00	10	6.33J	1.16J
IRON	2.3E+03	3.1E+04	200	28300	14900
VANADIUM	7.8E+00	1.0E+02	2	41.7J	19.9J

SM13-GP28	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP28-01 11/17/2004 6-7 ft	SM13-GP28-02 11/17/2004 11-12 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	21300	14600
ARSENIC	4.3E-01	1.9E+00	10	5.89	2.03
IRON	2.3E+03	3.1E+04	200	27400	15800
THALLIUM	5.5E-01	7.2E+00	1	3.12B	2.12B
VANADIUM	7.8E+00	1.0E+02	2	48.1	22.1

SM13-GP19	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP19-01 11/9/2004 3-4 ft	SM13-GP19-02 11/9/2004 1-2 ft	SM13-GP19-03 11/9/2004 9-10 ft
Metals (mg/kg)						
ALUMINUM	7.8E+03	1.0E+05	NS			11900
ARSENIC	4.3E-01	1.9E+00	10	18.7	12.5	10.7
CADMIUM	7.8E+00	1.0E+02	4	0.884	8.2	0.506J
CHROMIUM*	1.2E+04	1.5E+05	0.4	94.2	60.7	52.2
COPPER	3.1E+02	4.1E+03	50	118	103	115
IRON	2.3E+03	3.1E+04	200			25900
LEAD*	4.0E+02	7.5E+02	50	338	228	359
MERCURY*	2.3E+00	3.1E+01	0.1	0.343	0.344	0.328
NICKEL	1.6E+02	2.0E+03	30	25.1	195	17.7
THALLIUM	5.5E-01	7.2E+00	1	1.67J	1.63J	2.02J
VANADIUM	7.8E+00	1.0E+02	2	33.7	36.8	31.6
ZINC	2.3E+03	3.1E+04	50	126	158	149

SM13-GP30	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP30-01 11/17/2004 7-8 ft	SM13-GP30-02 11/17/2004 11-12 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	21800	13800
ARSENIC	4.3E-01	1.9E+00	10	1.1J	1.4
IRON	2.3E+03	3.1E+04	200	11200	11300
THALLIUM	5.5E-01	7.2E+00	1	1.06U	1.55B
VANADIUM	7.8E+00	1.0E+02	2	23.8	21.8

SM13-GP24	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP24-01 11/16/2004 3-4 ft	SM13-GP24-02 11/16/2004 10.5-11.5 ft
Metals (mg/kg)					
ARSENIC	4.3E-01	1.9E+00	10	5.06	0.827J
THALLIUM	5.5E-01	7.2E+00	1	1.19U	1.23B
VANADIUM	7.8E+00	1.0E+02	2	35.5	22.6

SM13-GP17	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP17-01 11/9/2004 4-5 ft	SM13-GP17-02 11/9/2004 9-10 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	16300	
ARSENIC	4.3E-01	1.9E+00	10	5.51	6.01
IRON	2.3E+03	3.1E+04	200	23600	
THALLIUM	5.5E-01	7.2E+00	1	1.43J	1.69J
VANADIUM	7.8E+00	1.0E+02	2	40.9	29.8

SM13-GP25	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP25-01 11/16/2004 7-8 ft	SM13-GP25-02 11/16/2004 10.5-11.5 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	22000	15300
ARSENIC	4.3E-01	1.9E+00	10	3.3	2.2
IRON	2.3E+03	3.1E+04	200	18000	24200
VANADIUM	7.8E+00	1.0E+02	2	32.9	31.1

SM13-GP16	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP16-01 11/9/2004 4-5 ft	SM13-GP16-02 11/9/2004 8.5-9.5 ft	SM13-GP16-02-A 11/9/2004 8.5-9.5 ft	SM13-GP16-03 11/9/2004 2-3 ft
Metals (mg/kg)							
ALUMINUM	7.8E+03	1.0E+05	NS	12200	11700	11300	
ARSENIC	4.3E-01	1.9E+00	10	8.99	7.69	6.15	5.3
IRON	2.3E+03	3.1E+04	200	41700	28800	24200	
THALLIUM	5.5E-01	7.2E+00	1	2.17J	1.79J	1.79J	1.35J
VANADIUM	7.8E+00	1.0E+02	2	39.6	35.5	32.3	34.3

SM13-GP29	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP29-01 11/17/2004 2-3 ft	SM13-GP29-02 11/17/2004 5-6 ft	SM13-GP29-03 11/17/2004 11-12 ft	SM13-GP29-03-A 11/17/2004 11-12 ft
Metals (mg/kg)							
ALUMINUM	7.8E+03	1.0E+05	NS	12200		15400	14100
ARSENIC	4.3E-01	1.9E+00	10	3.76	5.57	1.29	1.72
IRON	2.3E+03	3.1E+04	200	13200		18800	18600
THALLIUM	5.5E-01	7.2E+00	1	2.22B	1.45B	1.82B	1.1U
VANADIUM	7.8E+00	1.0E+02	2	24.2	41.9	25.3	26.8

SM13-GP14	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP14-01 11/8/2004 5-6 ft	SM13-GP14-02 11/8/2004 3-4 ft	SM13-GP14-03 11/8/2004 8.5-9.5 ft	SM13-GP14-03-A 11/8/2004 8.5-9.5 ft
Metals (mg/kg)							
ALUMINUM	7.8E+03	1.0E+05	NS			12900	12100
ARSENIC	4.3E-01	1.9E+00	10	3.94	4.29	5.28	5.81
IRON	2.3E+03	3.1E+04	200			22200	23000
THALLIUM	5.5E-01	7.2E+00	1	1.28J	3.24	1.74J	1.85J
VANADIUM	7.8E+00	1.0E+02	2	23.8	35.3	37.3	42.6

SM13-GP11	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP11-01 11/8/2004 3-4 ft	SM13-GP11-02 11/8/2004 8-9 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	18300	12300
ARSENIC	4.3E-01	1.9E+00	10	5.45	2.82
IRON	2.3E+03	3.1E+04	200	23400	23500
THALLIUM	5.5E-01	7.2E+00	1	1.94J	1.92J
VANADIUM	7.8E+00	1.0E+02	2	42.2	32.7

SM13-GP26	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP26-01 11/16/2004 6-7 ft	SM13-GP26-02-A 11/16/2004 9-10 ft	SM13-GP26-02 11/16/2004 9-10 ft
Metals (mg/kg)						
ARSENIC	4.3E-01	1.9E+00	10	5.64	4.92	8.49
THALLIUM	5.5E-01	7.2E+00	1	2.1B	2.39B	1.7B
VANADIUM	7.8E+00	1.0E+02	2	36.1	33.2	43.3

SM13-GP15	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP15-01 11/9/2004 4-5 ft	SM13-GP15-02 11/9/2004 8-9 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	12600	14900
ARSENIC	4.3E-01	1.9E+00	10	5.23	8.06
IRON	2.3E+03	3.1E+04	200	16500	26800
THALLIUM	5.5E-01	7.2E+00	1	1.4J	1.15U
VANADIUM	7.8E+00	1.0E+02	2	30.8	37.6

SM13-GP10	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP10-01 11/8/2004 3-4 ft	SM13-GP10-02 11/8/2004 6.5-7.5 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	17400	
ARSENIC	4.3E-01	1.9E+00	10	5.19	4.58
IRON	2.3E+03	3.1E+04	200	23700	
THALLIUM	5.5E-01	7.2E+00	1	2.23J	1.1U
VANADIUM	7.8E+00	1.0E+02	2	40.1	43.4

SM13-GP09	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP09-01 11/8/2004 3-4 ft	SM13-GP09-02 11/8/2004 8-9 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	16900	16700
ARSENIC	4.3E-01	1.9E+00	10	6.85	7.01
IRON	2.3E+03	3.1E+04	200	34000	31500
THALLIUM	5.5E-01	7.2E+00	1	1.73J	2.65
VANADIUM	7.8E+00	1.0E+02	2	41.1	41.4

SM13-GP13	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP13-01 11/8/2004 5-6 ft	SM13-GP13-02 11/8/2004 9-10 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	16800	21100
ARSENIC	4.3E-01	1.9E+00	10	6.53	3.47
IRON	2.3E+03	3.1E+04	200	26900	22400
THALLIUM	5.5E-01	7.2E+00	1	2.43	2.13J
VANADIUM	7.8E+00	1.0E+02	2	41.2	41

SM13-GP12	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP12-01 11/8/2004 4-5 ft	SM13-GP12-02 11/8/2004 7-8 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	13800	24800
ARSENIC	4.3E-01	1.9E+00	10	3.86	9.34
IRON	2.3E+03	3.1E+04	200	23000	35200
THALLIUM	5.5E-01	7.2E+00	1	1.82J	1.83J
VANADIUM	7.8E+00	1.0E+02	2	36.3	56.5

SM13-GP08	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP08-01 11/8/2004 3-4 ft	SM13-GP08-02 11/8/2004 0.5-1.5 ft	SM13-GP08-03 11/8/2004 9-10 ft
Metals (mg/kg)						
ALUMINUM	7.8E+03	1.0E+05	NS	17000		13700
ARSENIC	4.3E-01	1.9E+00	10	6.57	15.3	3.59
CHROMIUM*	1.2E+04	1.5E+05	0.4	28.7	38.7	26
COPPER	3.1E+02	4.1E+03	50	16.4J	126J	29.7J
IRON	2.3E+03	3.1E+04	200	23000		18600
LEAD*	4.0E+02	7.5E+02	50	70.3J	203J	26.8J
MERCURY*	2.3E+00	3.1E+01	0.1	0.0265J	0.28	0.0324J
THALLIUM	5.5E-01	7.2E+00	1	2.61	3.6	1.6J
VANADIUM	7.8E+00	1.0E+02	2	37.4	51.7	31.4
ZINC	2.3E+03	3.1E+04	50	97.2J	77.2J	37.2J

SM13-GP07	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP07-01 11/8/2004 3-4 ft	SM13-GP07-02 11/8/2004 8.5-9.5 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	19200	10600
ARSENIC	4.3E-01	1.9E+00	10	1.79	2.54
IRON	2.3E+03	3.1E+04	200	15900	11000
THALLIUM	5.5E-01	7.2E+00	1	1.93J	2.01J
VANADIUM	7.8E+00	1.0E+02	2	35.8	24.1

SM13-GP38	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP38-01 11/19/2004 9-10 ft	SM13-GP38-02 11/19/2004 11-12 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	12700	12300
ARSENIC	4.3E-01	1.9E+00	10	3.29	1.74
COPPER	3.1E+02	4.1E+03	50	7.73L	2010L
IRON	2.3E+03	3.1E+04	200	20700	9190
VANADIUM	7.8E+00	1.0E+02	2	30.2	21.7

SM13-GP23	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP23-01 11/10/2004 4-5 ft	SM13-GP23-02 11/10/2004 7-8 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	14800	26200
ARSENIC	4.3E-01	1.9E+00	10	5.48J	8.01J
IRON	2.3E+03	3.1E+04	200	21800	26000
THALLIUM	5.5E-01	7.2E+00	1	1.98J	3.13
VANADIUM	7.8E+00	1.0E+02	2	35.3	47.4

SM13-GP22	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP22-01 11/10/2004 0.5-1.5 ft	SM13-GP22-02 11/10/2004 4-5 ft	SM13-GP22-03 11/10/2004 8-9 ft
Metals (mg/kg)						
ALUMINUM	7.8E+03	1.0E+05	NS			23400
ARSENIC	4.3E-01	1.9E+00	10	6.06J	8.61J	4.95J
CHROMIUM*	1.2E+04	1.5E+05	0.4	28	28.8	30.9
IRON	2.3E+03	3.1E+04	200			20400
THALLIUM	5.5E-01	7.2E+00	1	1.38J	1.12UL	1.73J
VANADIUM	7.8E+00	1.0E+02	2	40.8	43.6	39.8

SM13-GP36	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP36-01 11/19/2004 4-5 ft	SM13-GP36-02 11/19/2004 10-11 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	12700	13000
ARSENIC	4.3E-01	1.9E+00	10	3.44	1.86
IRON	2.3E+03	3.1E+04	200	13800	12900
VANADIUM	7.8E+00	1.0E+02	2	29.9	28.5

SM13-GP21	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP21-01 11/10/2004 4-5 ft	SM13-GP21-02 11/10/2004 7-8 ft
Metals (mg/kg)					
ALUMINUM	7.8E+03	1.0E+05	NS	16100	28400
ARSENIC	4.3E-01	1.9E+00	10	5.43J	4.19J
IRON	2.3E+03	3.1E+04	200	22200	20000
THALLIUM	5.5E-01	7.2E+00	1	2.01J	1.85J
VANADIUM	7.8E+00	1.0E+02	2	37.9	44.6

SM13-GP37	RBC Residential	RBC Industrial	Ecological Screening Values	SM13-GP37-01 11/19/2004 2-3 ft	SM13-GP37-02 11/19/2004 4-5 ft	SM13-GP37-03 11/19/2004 9-10 ft	SM13-GP37-03-A 11/19/2004 9-10 Ft
Metals (mg/kg)							
ALUMINUM	7.8E+03	1.0E+05	NS			9590	10200
ARSENIC	4.3E-01	1.9E+00	10	3.49	4.96	1.35	1.8
IRON	2.3E+03	3.1E+04	200			11400	16100
VANADIUM	7.8E+00	1.0E+02	2	33.4	40.4	18.4	22.2

LEGEND

- APPROXIMATE EXTENT OF SOLID WASTE MANAGEMENT UNIT (SWMU)
- EXISTING MONITORING WELL LOCATION
- SURVEYED GEOPROBE LOCATION INSTALLED IN 2004
- GEOPROBE LOCATION – REFUSAL ENCOUNTERED
- **5.51** BOLD VALUE INDICATES RESULT EXCEEDS RESIDENTIAL RBC
- **5.51** BOLD AND SHADED VALUE INDICATES RESULT EXCEEDS RESIDENTIAL & INDUSTRIAL RBC
- 5.51 BOXED VALUE INDICATES RESULT EXCEEDS ECO-SCREENING CRITERIA
- **5.51** INDICATES RESULT EXCEEDS RESIDENTIAL, INDUSTRIAL RBC & ECO-SCREENING CRITERIA
- PHASE I TEST PIT LOCATION
- OBJECT ENCOUNTERED IN PHASE 1 TEST PIT

Notes:
1. RBC - US EPA Region III Risk-Based Concentration for soil (October 2004). The criteria for both the industrial and residential settings are presented.
2. Eco Screening - US EPA Region III Ecological Screening Values as provided by R. Fish, applied to samples collected from 0-2' below ground surface.
3. NS - Indicates no established criteria.
4. Analytical results are presented for all compounds detected at concentrations in exceedance of regulatory criteria at a particular soil boring location.
5. Blank spaces in exceedance boxes indicate that compound was not analyzed.

Qualifiers
U - Analyte was not detected above the indicated detection limit.
J - The reported concentration for this value may not be accurate or precise.
UJ - Analyte was not detected, the indicated detection limit may not be accurate or precise.
L - Analyte present. Reported value may be biased low. Actual value is expected to be higher.
UL - Analyte was not detected, the indicated detection limit may be biased low.
B - Not detected substantially above the levels reported in the field or laboratory blanks.
R - Result is rejected.
D - Compound quantitated on a diluted sample.
E - Concentration exceeds the calibration range of the instrument.
K - Analyte present. Reported value may be biased high.

0 15 30 60
SCALE: FEET
1"=60'

Prepared/Date: MS 11/2005
Checked/Date: DJN 11/2005

SOURCE:

COMPILED BY PRO MAPS OF MORRISTOWN, NJ FROM AERIAL PHOTOGRAPHY FLOWN BY KEYSTONE AERIAL PHOTOGRAPHS OF PHILADELPHIA, PA. FLOWN AT 1"=400' USING DATUM OF NAD 83 SOUTH ZONE – PA AND NAVD 88. SURVEY SUPPORT BY JAMES M. STEWART OF PHILADELPHIA, PA.

north

Honeywell

DELAWARE VALLEY WORKS FACILITY
Route 13 (Delaware County)
Claymont, DE

MACTEC

SOIL SAMPLE ANALYTICAL FOR METALS EXCEEDANCES FOR SWMU 13

Project 3485-05-0043

Figure 5