

Appendix C

Test pit logs



TEST PIT NO. TP-1

JOB NO.: 26408 004.400

GROUND ELEV.:

DATUM:

GROUND WATER DEPTH:

TIME STARTED: 1320

DATE STARTED: 10/15/2001

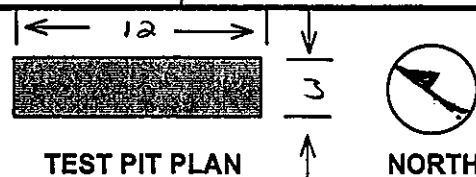
TIME FINISHED: 1520

DATE FINISHED: 10/15/2001

Depth Ft.	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
			Br \$C, smS, s ctmfG, andus, rbl	Beginning
			Fill - Hot	
1				Geofabric
			yl Br \$, lcy, lmfS, 2 ctmfG	
2	no sample		Fill ~ fairly clean	2 clear transition abrupt
			Br \$, lcy, lmfS, 2 ctmfG,	- shale gravel
			Native - clean	
			Gr SH	Shale Bedrock
4			Gr SH w/ 875°E 75°E	
5				
6				
7				

T PIT LOCATION AND NOTES:

East of Trailer
at.



PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

AGENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber tire backhoe

GROUND WATER DEPTH:

OPERATOR: Brad

TIME STARTED: 1545

DATE STARTED: 10/15/01

INSPECTOR: G. Sleeman

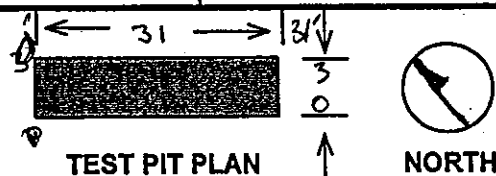
TIME FINISHED: 17 30

DATE FINISHED: 10/15/01

Depth Ft.	Sample #	Unified Classification	0' N	GEOLOGIC DESCRIPTION	31' S	REMARKS
	0.5			Gr br cmf (t) G, s \$	Fill - Hot	Gr Br cmf (t) G, s \$ 100% angular shale/grape Pine blm
1	1.5-1.6			dk Br cmf (t) F G, s \$, t S, t Cl, mdyr.	Fill - Hot	Firm, Dry. Sleg 1yr
	1.3-1.5 sample	SS-TP-2				
2	1.6			Hot towards top WB r \$, t F (t) S, t Cl, s cmf (t) P G, 2 cmf (t) col, bld. Native Till Clean		Oxidation around gravel - rounded to subrounded, Gravel cobbleles, boulder very firm, Dry Celite clasts
4						
5	5.0					
6						
7						

TEST PIT LOCATION AND NOTES:

On site. see
figure #2





O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-3*

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber tire backhoe

GROUND WATER DEPTH:

OPERATOR: Brad Palmer

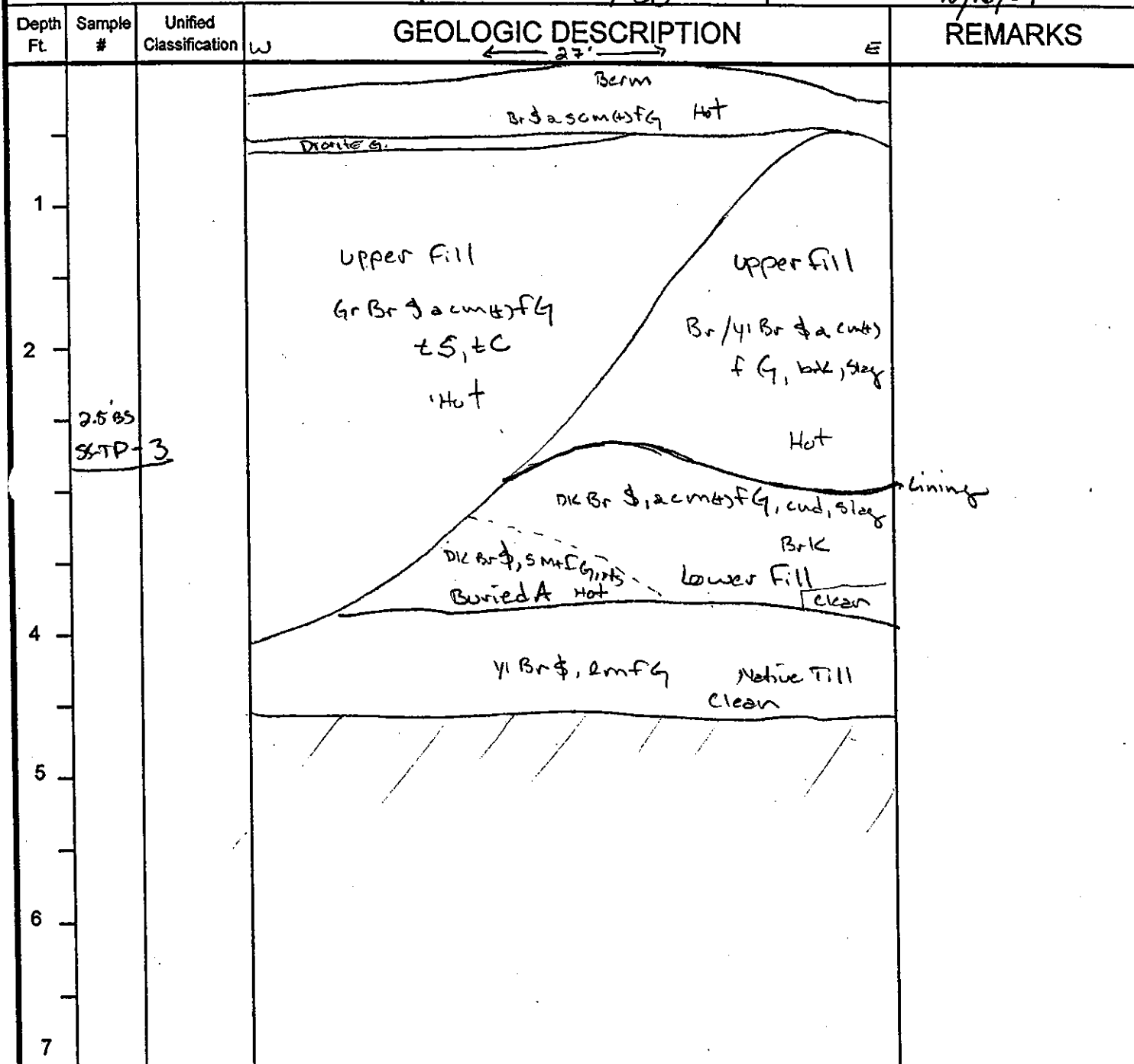
TIME STARTED: 740

DATE STARTED: 10/16/01

INSPECTOR: G. Sleeman

TIME FINISHED: 930

DATE FINISHED: 10/16/01



TEST PIT LOCATION AND NOTES:

on site

see figure #2

← 27' →



TEST PIT PLAN

↓
3
↑



NORTH



OBRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. **TP-4**

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber tire Backhoe

GROUND WATER DEPTH:

OPERATOR: Brad Palmer

TIME STARTED: 1045

DATE STARTED: 10/16/01

INSPECTOR: G. Sleeman

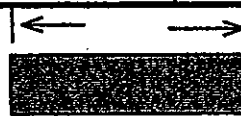
TIME FINISHED: 1215

DATE FINISHED: 11/16/01

Depth Ft.	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
		SW	NE	
			Gr #2 c(+) m f s g Fill	
			Gr #2 c(+) m f g Hot Fill	
1			1/1 Br Cy, t m f s, s m f g	
			reworked Till	
2				
			1/1 Br Cy, t m f s, l c m t	
			f g	
4			Native Till	
			clean	
5				
6				
7				

TEST PIT LOCATION AND NOTES:

On site - NE
Extent of fill.



TEST PIT PLAN



NORTH



OBRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. TP-5

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.: 504.39 ✓

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber tired Backhoe

GROUND WATER DEPTH:

OPERATOR: Brad Palmer

TIME STARTED: 1330

DATE STARTED: 10/16/01

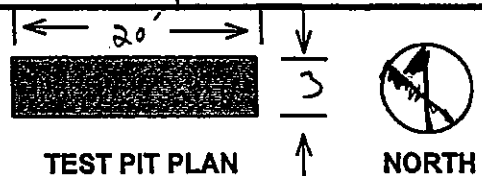
INSPECTOR: G. Sleeman

TIME FINISHED: 1515

DATE FINISHED: 10/16/01

Depth Ft.	Sample #	Unified Classification	W	GEOLOGIC DESCRIPTION	E	REMARKS
				Berm ← 18' →		
1	1-2' BS 15-18' BS	Geo. Cloth		Br cmt Sa cm G Fill Hot		
2				Fill Gr \$a (G) m f (G) G Hot		
				Fill c m (G) f S, S\$ Hot		
				Native/Fill Buried A Hot		
4				1/1 Br \$, S G, S m a f G, LS Native		
5						
6						
7						

TEST PIT LOCATION AND NOTES:





OBRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-6*

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT:

GROUND WATER DEPTH:

OPERATOR:

TIME STARTED: *1546*

DATE STARTED: *10/16/01*

INSPECTOR: G. Sleeman

TIME FINISHED: *1840*

DATE FINISHED: *10/16/01*

Depth Ft.	Sample #	Unified Classification	E	GEOLOGIC DESCRIPTION	REMARKS
				<i>Berm</i>	
1				<i>Fill</i> <i>DK Br & Cy, 2mfg Hot</i>	
1.5' BS <i>30-TP-6</i>					
2				<i>Gr Cy, 2% Fill - Hot</i>	
4				<i>Hot - At TOP</i>	
5				<i>Native</i>	
6					
7					

TEST PIT LOCATION AND NOTES:

*Just North of
Pond - on site*

← 30' →



TEST PIT PLAN

↓
3
↑



NORTH



OBRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-7*

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: *Robber Line Backhoe*

GROUND WATER DEPTH:

OPERATOR: *Brad Palmer*

TIME STARTED: *7:15*

DATE STARTED: *10/17/01*

INSPECTOR: G. Sleeman

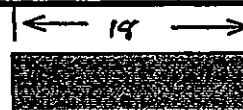
TIME FINISHED: *9:10*

DATE FINISHED: *10/17/01*

Depth Ft.	Sample #	Unified Classification	E	GEOLOGIC DESCRIPTION	W	REMARKS
				<i>BERM</i>		
1				<i>Br & sly. 2 cm to FG</i> <i>Fill Hot</i>		
2	<i>2.265</i> <i>SS-TP-7</i>			<i>Fill</i> <i>1/1 Br & sly 2 cm to FG</i> <i>occ. Bldr</i>		
4				<i>Not on top</i> <i>Gr & sly. 2 cm to FG</i> <i>L.S. Bldr</i>	<i>Br G & sly</i> <i>Native</i> <i>clean</i>	
5						
6						
7						

TEST PIT LOCATION AND NOTES:

South East of
Pond.



TEST PIT PLAN

14'
3'



NORTH



O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. **TP-8**

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber tired Backhoe

GROUND WATER DEPTH:

OPERATOR: Brad Palmer

TIME STARTED: 9:45

DATE STARTED: 10/17/01

INSPECTOR: G. Sleeman

TIME FINISHED: 11:10

DATE FINISHED: 10/17/01

Depth Ft.	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
			SE Berm NW	
1			1/1 Br Cyd, 2 cm S, 2 cm FG. occ vol Fill - Hot.	
2			Fill - Hot Gr (G) m Fe-G, 2 S, 2 cy Gr (G) S.	
3	3' BS SS TP-8 SS-X-1		1/1 Br, Gr, Bl Cyd, 2-5 cm S + FG Fill - Hot	
4			1/1 Br Cyd, 2 cm S, 2 cm FG occ Bl Native Clean Till	
5				
6				
7				

TEST PIT LOCATION AND NOTES:

In fill

← 23' →



TEST PIT PLAN

↓
3
↑



NORTH



O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-9*

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: rubber lined backhoe

GROUND WATER DEPTH:

OPERATOR: *Bred Palmer*

TIME STARTED: *1250 1245*

DATE STARTED: *10/12/01*

INSPECTOR: G. Sleeman

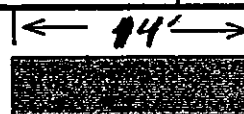
TIME FINISHED: *1355*

DATE FINISHED: *10/17/01*

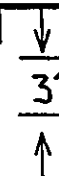
Depth Ft.	Sample #	Unified Classification	E	GEOLOGIC DESCRIPTION ← 14' →	W	REMARKS
				<i>Gr & s cm to fG</i>	<i>Fill</i>	<i>Hot</i>
1				<i>Br m to fS, s &</i>	<i>Fill</i>	<i>Hot</i>
2	<i>14' BS SS-TPA ms/mo</i>			<i>Gr & cy, s cm to fG, occ cbs</i>	<i>Fill</i>	<i>Hot</i>
4				<i>1/1 Br & cy, 2 m to fS, 2 cm to fG</i>		
				<i>Fill</i>	<i>Clean</i>	
5						
6						
7						

TEST PIT LOCATION AND NOTES:

In Fill.



TEST PIT PLAN



NORTH



O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-10*

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: *Rubber tined Backhoe*

GROUND WATER DEPTH:

OPERATOR: *Bred Palmer*

TIME STARTED: *1150*

DATE STARTED: *10/17/01*

INSPECTOR: G. Sleeman

TIME FINISHED: *1515*

DATE FINISHED: *10/17/01*

Depth Ft	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1			<i>Gr & s, 2 mfs, 2 mfs</i> <i>Hot on top</i> <i>Hot fill</i>	
2	<i>NO Sample</i>		<i>Brk 1. s, 1 mfs, 2 mfs</i> <i>Native</i> <i>Clean</i>	
4			<i>Decomposing BR or Dislodged/ Weathered SH BR.</i>	
5				
6				
7				

TEST PIT LOCATION AND NOTES:

In fill / Bedrock

← 44 →



TEST PIT PLAN

↓
3
↑



NORTH



O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. TP-11

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.: 515.80

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber tire Backhoe

GROUND WATER DEPTH:

OPERATOR: Brad Palmer

TIME STARTED: 13:15

DATE STARTED: 10/18/01

INSPECTOR: G. Sleeman

TIME FINISHED: 14:20

DATE FINISHED: 10/18/01

Depth Ft.	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
			Gr cm G, 2%	Parking lot Gravel
1			yl Br cy, 2 mtf S, 2 cm FG.	
2			Fill Hot	
			Blder	
4			DK Gr G, 2 mtf S 2 mtf FG, o, rbl	
5			Fill Hot	
6	G.O.B. SS-TP-11		Native yl Br cy, 2 mtf S 2 mtf FG Clean	
7				

TEST PIT LOCATION AND NOTES:

In Parking lot just
East of facility

← 22 →



TEST PIT PLAN

↓
3
↑



NORTH



OBRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-1a*

PROJECT: *Revere Smelting and Refining*

JOB NO.: *26408 004.400*

CLIENT: *NYSDEC*

GROUND ELEV.:

CONTRACTOR: *Parratt Wolff, Inc.*

DATUM:

EQUIPMENT: *Rubber-tired Backhoe*

GROUND WATER DEPTH:

OPERATOR: *B. Palmer*

TIME STARTED: *900*

DATE STARTED: *10/18/01*

INSPECTOR: *G. Sleeman*

TIME FINISHED: *1035*

DATE FINISHED: *10/18/01*

Depth Ft.	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
			SW	NE
1			Br Gy, ss, 2 cm flg	remediated
			Fill	Fill seems
			Clean	clean
2			Surface Hot	
			debris gas	
			1/1 Br clst	
			2 m (10 ft)	
			6 cm flg	
			Clean	
			Native	
4				
5				
6				
7				

TEST PIT LOCATION AND NOTES:

*South West of
facility in "Clean" fill: Native*

← 13 →



TEST PIT PLAN

↓
3
↑



NORTH



O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-13*

PROJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber tired Backhoe

GROUND WATER DEPTH:

OPERATOR: Brad Pelmar

TIME STARTED: 7:15

DATE STARTED: 10/18/01

INSPECTOR: G. Sleeman

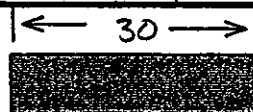
TIME FINISHED: 8:15

DATE FINISHED: 10/19/01

Depth Ft.	Sample #	Unified Classification	SW	GEOLOGIC DESCRIPTION -30-	NE	REMARKS
1				DE BR & G smfg Fill Hot	Hot at top	
2				YI Br & G smfg reworked.	Clean SH - poorly Consolidated	
3				YI Br & G Native Clean	Stale BR.	
4						
5						
6						
7						

TEST PIT LOCATION AND NOTES:

West of Trailer



TEST PIT PLAN



N
NORTH



O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. *TP-14*

SUBJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rubber-tired Backhoe

GROUND WATER DEPTH:

OPERATOR: *Brad Belmer*

TIME STARTED: *1530*

DATE STARTED: *10/17/01*

INSPECTOR: G. Sleeman

TIME FINISHED: *1705*

DATE FINISHED: *10/17/01*

Depth Ft.	Sample #	Unified Classification	E	GEOLOGIC DESCRIPTION	W	REMARKS
1	<i>0.4' B3</i> <i>SS-TP-14</i>			<i>Br s, clay, limst, w.o. r+s</i> <i>Hot</i> <i>Notices</i> <i>Clean</i> <i>1/1 Br s, clay, limst, limst+lg</i> <i>occ cbl</i>		
2						
4						
5						
6						
7						

TEST PIT LOCATION AND NOTES:

East of TP-5
Eastern most TP

← 14 →



TEST PIT PLAN

↓

3

↑



NORTH



O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. TP-15

SUBJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.:

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Rever's fired Back Hoe

GROUND WATER DEPTH:

OPERATOR: Brad Palmer

TIME STARTED: 1055

DATE STARTED: 10/18/01

INSPECTOR: G. Sleeman

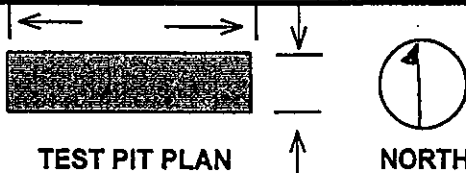
TIME FINISHED: 1148

DATE FINISHED: 10/18/01

Depth Ft.	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
			<u>Br & tcy, sm FG, w, o, rts Hot Fill</u>	
1				
2			<u>1/1 Br - Gr Br & tcy, tcy, run S</u> <u>sm F+G, occ Cbl, rbl,</u>	<u>Battery terminals</u> <u>Toiling</u> <u>Significant</u> <u>Pb</u>
4				
5				
6				
7				

TEST PIT LOCATION AND NOTES:

20' north of
North East Edge of Excavated
Sediment Pond.



TEST PIT PLAN


NORTH



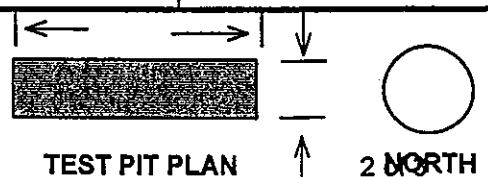
O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. TP-15

Depth	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
8			 Fill Not	
9				
10				
11				
12				
13				no intact soils (native) found.
14				
15				

TEST PIT LOCATION AND NOTES:





O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. TP-16

SUBJECT: Revere Smelting and Refining

JOB NO.: 26408 004.400

CLIENT: NYSDEC

GROUND ELEV.: 513.31

CONTRACTOR: Parratt Wolff, Inc.

DATUM:

EQUIPMENT: Robertson Backhoe

GROUND WATER DEPTH:

OPERATOR: Brad Palmer

TIME STARTED: 1205

DATE STARTED: 10/18/01

INSPECTOR: G. Sleeman

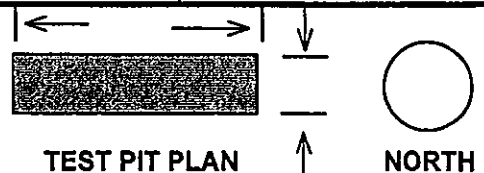
TIME FINISHED: 1250

DATE FINISHED: 10/18/01

Depth Ft.	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1			Br inf Ss, 2 cm G Fill Hot	
2			Bl-DK Gr Cy, 2 S, 2 (4) m FG Fill - Hot	
3			Yl Br Cy, 2 m inf S, 3 (4) m FG occ chl. Fill - Hot	Battery Plates: + 50 ^{lb} Pb nodule s
4			DK Gr. Cy 2 (4) m G	Significant Pb contamination
5			Fill Hot	
6				
7				

TEST PIT LOCATION AND NOTES:

West edge of
site - near fence.



TEST PIT PLAN

NORTH



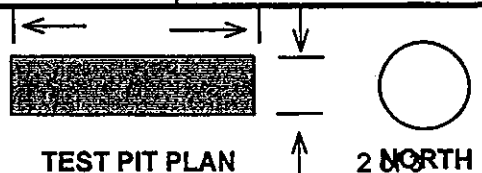
O'BRIEN & GERE
ENGINEERS, INC.

TEST PIT LOG

TEST PIT NO. TP-16

Depth	Sample #	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
8			DK Gr CyamFG Fill Hat	
9			Gr c4smFG, lcy\$, lmfS	poorly Consolidated
10			native - Clean	Stale
11				Bottom of Excavation
12				
13				
14				
15				

TEST PIT LOCATION AND NOTES:



XRF screening data

XRF Screening Data
Revere Smelting and Refining
Walkill, NY

<u>Sample No.</u>	<u>Location</u>	<u>O&G Sample No.</u>	<u>Depth</u>	<u>Source Seconds</u>	<u>Date/Time</u>	<u>Resolution</u>	<u>Resolutin Error</u>	<u>Pb Concentration</u>	<u>Pb Error</u>
16	Energy Calibration			60.1	10/15/2001 13:19	582.4	0	NA	
17	NIST High			122.9	10/15/2001 13:19	NA		5619.2	220
18	NIST Medium			126.5	10/15/2001 13:25	NA		1209.6	83.8
19	NIST Low			117.2	10/15/2001 13:32	NA		<LOD	58.95
20	NIST Blank			121.9	10/15/2001 13:37	NA		<LOD	34.65
21	Test Pit #1		NW End, 2' BS	30.5	10/15/2001 14:25	NA		1939.2	240
22	Test Pit #1		NW End, 1.4' BS	30.5	10/15/2001 14:27	NA		834.4	140
23	Test Pit #1		Above Geofabric @ 1' BS	30.5	10/15/2001 14:38	NA		2708.8	270
24	Test Pit #1		Below Geofabric 2' BS	28.2	10/15/2001 14:40	NA		178.5	95.9
25	Test Pit #1		Below Geofabric 1.5' BS	30.8	10/15/2001 14:43	NA		203.6	110
26	Test Pit #1		Below Geofabric 2.5' BS	28.1	10/15/2001 14:46	NA		225.8	90.4
27	Test Pit #1		Base of Excavation, 3.5' BS	21.1	10/15/2001 15:00	NA		525.6	160
28	Test Pit #1		Above Geofabric	30.5	10/15/2001 15:02	NA		1560	180
29	Test Pit #1		NW End Wall/Escarpment	11.8	10/15/2001 15:11	NA		<LOD	255
30	Test Pit #1		NW End Wall/Escarpment	21.2	10/15/2001 15:12	NA		<LOD	180
31	Test Pit #2		Above Plastic Lining- Upper Fill	30.6	10/15/2001 16:02	NA		759.2	150
32	Test Pit #2		Below Plastic Lining- Lower Fill	30.4	10/15/2001 16:04	NA		3478.4	290
33	Test Pit #2		Native (just below lower fill) 1.6' BS	21.1	10/15/2001 16:06	NA		836	170
34	Test Pit #2		Lower Fill 0.5-1.6' BS	28.2	10/15/2001 16:26	NA		2188.8	260
35	Test Pit #2		Native 1.6-3.5' BS	21.1	10/15/2001 16:28	NA		1109.6	220
36	Test Pit #2		NE End, Lower Fill 1.3' BS	30.5	10/15/2001 17:08	NA		518.4	120
37	Test Pit #2		NE End Native 2.5' BS	30.6	10/15/2001 17:10	NA		245	110
38	Test Pit #2		NE End, Lower Fill	30.5	10/15/2001 17:26	NA		668	130
39	Test Pit #2		Ground Surface	32.5	10/15/2001 17:28	NA		14796.8	969.6
40	Test Pit #1	SS-TP-2	1.3'-1.5' BS	187.7	10/15/2001 17:37	NA		10400	270
41	NIST High			60.3	10/15/2001 17:48	NA		5788.8	320
42	NIST Low			63.3	10/15/2001 17:51	NA		<LOD	78.6
43	Energy Calibration			60.1	10/16/2001 7:27	574	0	NA	
44	NIST High			120.7	10/16/2001 7:29	NA		5548.8	220
45	NIST Medium			166.5	10/16/2001 7:35	NA		1180	72.9
46	NIST Low			122	10/16/2001 7:43	NA		<LOD	60.75
47	Test Pit #3		Ground Surface	30.3	10/16/2001 8:00	NA		8876.8	630
48	Test Pit #3		Base of Excavation, 3.5' BS	30.6	10/16/2001 8:02	NA		2099.2	240
49	Test Pit #3		Native, Base and Sidewall	25.8	10/16/2001 8:03	NA		452.8	130
50	Test Pit #3		Native, Sidewall @ 3'	25.8	10/16/2001 8:05	NA		<LOD	133.8
51	Test Pit #3		Above Plastic Lining- Upper Fill	30.5	10/16/2001 8:06	NA		1868.8	210
52	Test Pit #3		Base/Sidewall(1' Below Fill) @ 5' BS	30.5	10/16/2001 8:24	NA		1220	170
53	Test Pit #3		Base/Sidewall(Buried A) @ 4.5' BS	23.5	10/16/2001 8:26	NA		594.8	140
54	Test Pit #3		Below Lining, Lower Fill 2.8' BS	30.5	10/16/2001 8:28	NA		590.4	120
55	Test Pit #3		Above Lining Upper Fill @ Berm	30.6	10/16/2001 8:30	NA		239.2	99.6
56	Test Pit #3		Native, @ 4' BS, West of Berm	32.8	10/16/2001 8:45	NA		<LOD	110.25
57	Test Pit #3		Fill, 2.5' BS	30.4	10/16/2001 8:47	NA		1569.6	180
58	Test Pit #3		Fill, 0.8' BS	30.6	10/16/2001 8:49	NA		153.9	88.3
59	Test Pit #3		Ground Surface	35.1	10/16/2001 8:52	NA		11097.6	780
60	Test Pit #4		Native, NE End, @4' BS	30.6	10/16/2001 11:12	NA		<LOD	117.6
61	Test Pit #4		Native, NE End, @3' BS	30.5	10/16/2001 11:14	NA		<LOD	116.25
62	Test Pit #4		Native, NE End @1' BS	30.4	10/16/2001 11:16	NA		342.8	88.6

XRF Screening Data
 Revere Smelting and Refining
 Walkill, NY

<u>Sample No.</u>	<u>Location</u>	<u>O&G Sample No.</u>	<u>Depth</u>	<u>Source Seconds</u>	<u>Date/Time</u>	<u>Resolution</u>	<u>Resolutin Error</u>	<u>Pb Concentration</u>	<u>Pb Error</u>
63	Test Pit #4		Reworked Native, Berm, @2.5' BS	30.5	10/16/2001 11:18	NA		444.4	120
64	Test Pit #4		Top of Native At Berm, 1.5' BS	30.4	10/16/2001 11:20	NA		1788.8	190
65	Test Pit #4		Ground Surface SW of Berm	30.1	10/16/2001 11:40	NA		18995.2	1200
66	Test Pit #4		Base of Excavation At Berm, 5' BS	30.5	10/16/2001 11:45	NA		<LOD	119.85
67	Test Pit #4		Base of Excavation At Berm, 2.5' BS	30.5	10/16/2001 11:46	NA		<LOD	115.8
68	Test Pit #4		At Berm, 0.7' BS	37.5	10/16/2001 11:49	NA		899.2	130
69	Test Pit #4		At Berm, 0.2' BS	30.6	10/16/2001 11:52	NA		214.4	100
70	Test Pit #4		Reworked native, SW of Berm @2.5' BS	30.5	10/16/2001 12:09	NA		887.2	150
71	Test Pit #4		Fill, SW of Berm @ 0.2' BS	30.3	10/16/2001 12:12	NA		9337.6	610
72	Test Pit #4		Fill, SW of Berm @ 0.6' BS	30.2	10/16/2001 12:15	NA		13196.8	869.6
73	Prepared Blank			244.1	10/16/2001 12:24	NA		27	16.8
74	NIST High			315.8	10/16/2001 12:36	NA		5788.8	140
75	NIST Low			185.4	10/16/2001 12:52	NA		56.7	32.7
76	Tets Pit #3	SS-TP-3	2.5' BS west of berm above liner	147.6	10/16/2001 13:21	NA		1089.6	71.2
77	Tets Pit #3		1.8' BS middle of berm above liner	126.6	10/16/2001 13:28	NA		121.3	45.1
78	Tets Pit #3		2.5' BS east of berm above liner	121.7	10/16/2001 13:34	NA		1739.2	99.7
79	Tets Pit #3		3' BS east of berm below liner	121.5	10/16/2001 13:40	NA		2619.2	120
80	Tets Pit #3		4.5' BS native soil	128.8	10/16/2001 13:46	NA		<LOD	46.05
81	Test Pit #5		Ground Surface	131.1	10/16/2001 13:53	NA		21593.6	640
82	Test Pit #5		Base of Excavation, West of Berm, @ 4' BS	30.5	10/16/2001 14:16	NA		406.8	110
83	Test Pit #5		West of Berm, 3.5' BS	23.5	10/16/2001 14:17	NA		417.6	110
84	Test Pit #5		Below Lining, Lower Fill 0.6' BS	30.4	10/16/2001 14:19	NA		3798.4	300
85	Test Pit #5		Top of Lining, 0.2' BS	35.3	10/16/2001 14:21	NA		198.9	88.9
86	Test Pit #5		Base of Excavation, West of Berm @ 3.5' BS	30.6	10/16/2001 14:24	NA		416.8	110
87	Test Pit #5		West of Berm, Buried A @ 3' BS	25.8	10/16/2001 14:26	NA		392.8	110
88	Test Pit #5		West of Berm, Gray Fill, @ 1.3' BS	30.6	10/16/2001 14:28	NA		271.8	94
89	Test Pit #5		West of Berm, @ 0.3' BS	30.5	10/16/2001 14:30	NA		472.8	120
90	Test Pit #5		Base of Excavation, West of Berm @3' BS	30.7	10/16/2001 15:05	NA		317.2	110
91	Test Pit #5		East of Berm, 0.5' BS	14.2	10/16/2001 15:06	NA		<LOD	240
92	Test Pit #5		East of Berm, Buried A, @ 0.5' BS	21	10/16/2001 15:07	NA		6854.4	580
93	Test Pit #5		East of Berm, Sandy Layer@ 1' BS	30.5	10/16/2001 15:09	NA		292	91.8
94	Test Pit #5		East End, Base of Excavation @ 3' BS	30.6	10/16/2001 15:11	NA		1089.6	160
95	Test Pit #5		East End, @ 2.5' BS	14.1	10/16/2001 15:13	NA		207.8	120
96	Test Pit #5		East End, Sandy Layer, @ 0.7' BS	32.6	10/16/2001 15:14	NA		8684.8	540
97	Test Pit #6		West End Fill, @ 1.5' BS	30.2	10/16/2001 16:12	NA		41984	3699.2
98	Test Pit #6		West End Fill, @ 2' BS	30.4	10/16/2001 16:14	NA		4489.6	340
99	Test Pit #6		West End Fill, @ 3' BS	30.5	10/16/2001 16:16	NA		682	120
100	Test Pit #6		TP-6 Middle Fill, @ 0.5' BS	32	10/16/2001 16:18	NA		48896	3497.6
101	Test Pit #6		TP-6 Middle Fill, @ 2.5' BS	30.4	10/16/2001 16:20	NA		1329.6	160
102	Test Pit #6		TP-6 Middle Fill, @ 3.5' BS	21.1	10/16/2001 16:21	NA		1920	240
103	Test Pit #6		TP-6 Middle Fill, @ 1' BS	30.4	10/16/2001 16:23	NA		3009.6	250
104	Test Pit #6		TP-6 Middle, Base, Histic Soils @ 3.5' BS	7	10/16/2001 16:26	NA		394.2	220
105	Test Pit #6		TP-6 Middle, Base, Histic Soils @ 3.5' BS	18.8	10/16/2001 16:26	NA		329.6	120
106	Test Pit #6		East End, Fill @ 0.5' BS	30.4	10/16/2001 17:38	NA		4988.8	360
107	Test Pit #6		East End, Fill @ 1.5' BS	35.2	10/16/2001 17:40	NA		357.2	85.7
108	Test Pit #6		East End, Fill @ 0.5' BS	30.5	10/16/2001 17:42	NA		1180	140
109	Test Pit #6		East End, Fill @ 2.5' BS	30.4	10/16/2001 17:45	NA		1329.6	160

XRF Screening Data
Revere Smelting and Refining
Walkill, NY

<u>Sample No.</u>	<u>Location</u>	<u>O&G Sample No.</u>	<u>Depth</u>	<u>Source Seconds</u>	<u>Date/Time</u>	<u>Resolution</u>	<u>Resolutin Error</u>	<u>Pb Concentration</u>	<u>Pb Error</u>
110	Test Pit #6		Ground Surface	30.5	10/16/2001 17:54	NA		1680	180
111	Test Pit #6		East End, Fill (10' West of Pond) @ 0.5' BS	30.4	10/16/2001 18:09	NA		1988.8	200
112	Test Pit #6		East End, Fill @ 2.5' BS	30.3	10/16/2001 18:10	NA		3347.2	270
113	Test Pit #6		East End, Fill @ 3' BS	30.3	10/16/2001 18:13	NA		3219.2	280
114	Test Pit #6		East End, Native @ 3.5' BS	30.4	10/16/2001 18:16	NA		520.8	110
115	NIST High			160.3	10/16/2001 18:27	NA		5907.2	200
116	NIST Low			122	10/16/2001 18:35	NA		<LOD	60.9
117	NIST Blank			129.1	10/16/2001 18:41	NA		<LOD	33.9
118	Energy Calibration			60.2	10/17/2001 7:41	NA		NA	
119	NIST High			122.9	10/17/2001 7:54	NA		5840	230
120	NIST Low			121.8	10/17/2001 8:00	NA		<LOD	60.6
121	Test Pit #7		Ground Surface	30.2	10/17/2001 8:09	NA		4108.8	290
122	Test Pit #7		East of Berm, Fill @ 0.7' BS	30.5	10/17/2001 8:10	NA		1109.6	160
123	Test Pit #7		East of Berm, Fill @ 3.5' BS	30.2	10/17/2001 8:12	NA		833.6	130
124	Test Pit #7		East of Berm, Fill @ 1' BS	30.5	10/17/2001 8:14	NA		391.8	110
125	Test Pit #7		East of Berm, Fill @ 3.5' BS	30.4	10/17/2001 8:16	NA		647.6	120
126	Test Pit #7		East of Berm, Fill @ 4' BS	30.5	10/17/2001 8:18	NA		1720	200
127	Energy Calibration			60.1	10/17/2001 8:33	610.4	0	NA	
128	Test Pit #7		Aborted	2.3	10/17/2001 8:53	NA		<LOD	735
129	Test Pit #7		East of Berm, Base of Excavation @ 3.8' BS	21.1	10/17/2001 8:54	NA		782.8	160
130	Test Pit #7		East of Berm, @ 2.8' BS	30.5	10/17/2001 8:55	NA		<LOD	100.5
131	Test Pit #7		At Berm, Fill @ 1.5' BS	30.5	10/17/2001 8:59	NA		1180	170
132	Test Pit #7		At Berm, Fill, @ 1' BS	30.6	10/17/2001 9:00	NA		589.6	130
133	Test Pit #7		At Berm, Fill, @ 2.3' BS	30.4	10/17/2001 9:02	NA		606.4	110
134	Test Pit #7		West of Berm, Native, @ 3' BS	21	10/17/2001 9:06	NA		297.2	110
135	Test Pit #8		Ground Surface	30.3	10/17/2001 10:32	NA		2468.8	220
136	Test Pit #8		SE Half 4' BS	30.4	10/17/2001 10:34	NA		458.4	100
137	Test Pit #8		SE Half 0.9' BS	32.6	10/17/2001 10:37	NA		689.2	100
138	Test Pit #8		SE Half 1.4' BS	30.4	10/17/2001 10:39	NA		745.6	130
139	Test Pit #8		SE Half 2.8' BS	30.4	10/17/2001 10:41	NA		423.6	96.5
140	Test Pit #5	SS-TP-5	1.2' BS	161.5	10/17/2001 10:48	NA		13798.4	350
141	Test Pit #6	SS-TP-6	1.5' BS	120	10/17/2001 10:56	NA		246988.8	16998.4
142	Test Pit #8		NW Half Native, Base of Excavation, @ 4' BS	30.5	10/17/2001 11:05	NA		170.1	88.7
143	Test Pit #8		NW Half Native, @ 3.1' BS	21.1	10/17/2001 11:07	NA		<LOD	128.55
144	Test Pit #8		NW Half, Fill, @ 2.8' BS	30.4	10/17/2001 11:08	NA		2929.6	270
145	Test Pit #8		NW Half, Fill, @ 0.7' BS	32.4	10/17/2001 11:10	NA		12294.4	720
146	Energy Calibration			60.3	10/17/2001 13:22	NA		NA	
147	Test Pit #9		Ground Surface	30.3	10/17/2001 13:34	NA		2859.2	240
148	Test Pit #9		East End, Base of Excavation @4.5' BS	30.4	10/17/2001 13:38	NA		225.4	79.1
149	Test Pit #9		East End, Native @ 2.5' BS	21	10/17/2001 13:40	NA		<LOD	113.1
150	Test Pit #9		East End, (a Rock) @ 1.5' BS	30.5	10/17/2001 13:41	NA		<LOD	126
151	Test Pit #9		East End, Gray Fill @ 1.4' BS	32.2	10/17/2001 13:44	NA		16793.6	949.6
152	Test Pit #9		East End, Sandy Fill @ 0.8' BS	18.7	10/17/2001 13:46	NA		146.4	89.8
153	Test Pit #9		East End, Native @ 2.5' BS	21.1	10/17/2001 13:49	NA		<LOD	123.15
154	Test Pit #9		West End, Fill, @ 1.5' BS	18.8	10/17/2001 13:50	NA		965.6	190
155	Test Pit #9		West End, Fill, @ 1.5' BS	21.1	10/17/2001 13:52	NA		<LOD	114.6
156	Test Pit #9		Aborted	2.3	10/17/2001 13:54	NA		<LOD	330

XRF Screening Data
Revere Smelting and Refining
Walkill, NY

<u>Sample No.</u>	<u>Location</u>	<u>O&G Sample No.</u>	<u>Depth</u>	<u>Source Seconds</u>	<u>Date/Time</u>	<u>Resolution</u>	<u>Resolutin Error</u>	<u>Pb Concentration</u>	<u>Pb Error</u>
157	Test Pit #9		West End, Sandy Fill @ 0.8' BS	32.7	10/17/2001 13:55	NA		1229.6	150
158	Test Pit #10		East End, Top of Native @2.3' BS	30.6	10/17/2001 14:10	NA		475.2	120
159	Test Pit #10		East End, Native @ 2.8' BS	16.4	10/17/2001 14:12	NA		<LOD	210
160	Test Pit #10		East End, Fill @ 0.5' BS	31.8	10/17/2001 14:14	NA		44595.2	2899.2
161	Test Pit #10		Middle of Excavation Fill @ 0.9' BS	30.1	10/17/2001 14:17	NA		18099.2	1200
162	Test Pit #10		Middle Fill @ 1.4' BS	30.4	10/17/2001 14:19	NA		707.6	130
163	Test Pit #10		Middle of Excavation Native @ 1.7' BS	16.4	10/17/2001 14:21	NA		<LOD	129.3
164	Test Pit #10		Middle Fill @ 0.4' BS	30.1	10/17/2001 14:23	NA		18188.8	1200
165	NIST High			122.7	10/17/2001 15:04	NA		5808	230
166	NIST Low			124.1	10/17/2001 15:10	NA		66.1	40.2
167	Prepared Blank			140.5	10/17/2001 15:28	NA		<LOD	30.75
168	Test Pit #7	SS-TP-7	2.2' BS	156.5	10/17/2001 15:35	NA		1100	65.9
169	Test Pit #8	SS-TP-8	2' BS	128.6	10/17/2001 15:43	NA		642.8	59.5
170	Test Pit #9	SS-TP-9	1.4'BS	128.1	10/17/2001 15:49	NA		2779.2	120
171	Test Pit #14		Ground Surface	32.2	10/17/2001 16:04	NA		9587.2	500
172	Test Pit #14		Ground Surface	32.3	10/17/2001 16:08	NA		5728	300
173	Test Pit #14		East End, Native @ 0.1' BS	14	10/17/2001 16:10	NA		<LOD	128.1
174	Test Pit #14		East End, Native @ 1.2' BS	25.9	10/17/2001 16:12	NA		131.6	83.5
175	Test Pit #14		East End, Native @ 0.1' BS	30.3	10/17/2001 16:14	NA		567.2	100
176	Test Pit #14		East End, Native @ 0.2' BS	30.4	10/17/2001 16:16	NA		355.8	89.9
177	Test Pit #14		East End, Native @ 0.3' BS	30.6	10/17/2001 16:18	NA		551.6	120
178	Test Pit #14		East End, Native @ 0.3' BS	21.1	10/17/2001 16:23	NA		430	120
179	Test Pit #14		East End, Native @ 0.9' BS	30.6	10/17/2001 17:04	NA		<LOD	119.1
180	Test Pit #14		Middle of TP 14, Native @ 0.2' BS	30.5	10/17/2001 17:06	NA		<LOD	111
181	Test Pit #14		Middle of TP 14, Native @ 3' BS	25.8	10/17/2001 17:08	NA		<LOD	113.1
182	Test Pit #14		West End, Native @ 0.2' BS	30.4	10/17/2001 17:11	NA		227.2	79.4
183	NIST High			141.4	10/17/2001 17:18	NA		5827.2	210
184	NIST Low			121.8	10/17/2001 17:25	NA		<LOD	58.2
185	NIST Blank			58.6	10/17/2001 17:31	NA		<LOD	47.7
186	Energy Calibration			60.2	10/18/2001 7:28	NA		NA	
187	NIST High			150.9	10/18/2001 7:28	NA		5929.6	210
188	NIST Low			122	10/18/2001 7:36	NA		<LOD	60.75
189	Test Pit #13		NE End, Fill, @ 0.2' BS	30.2	10/18/2001 7:53	NA		5417.6	380
190	Test Pit #13		NE End, Fill, @ 0.5' BS	30.5	10/18/2001 7:55	NA		292.6	90
191	Test Pit #13		Middle of TP 13 @ 0.5' BS	30.4	10/18/2001 7:58	NA		3160	270
192	Test Pit #13		Middle of TP 13 @ 0.8' BS	30.5	10/18/2001 8:00	NA		787.6	130
193	Test Pit #13		Middle of TP 13 @ 4.5' BS	21.1	10/18/2001 8:02	NA		<LOD	117.15
194	Test Pit #13		SW End Fill, @ 1.8' BS	11.7	10/18/2001 8:04	NA		<LOD	180
195	Test Pit #13		SW End Fill, @ 1' BS	18.6	10/18/2001 8:05	NA		648.4	160
196	Test Pit #13		SW End Fill, @ 1' BS	30.2	10/18/2001 8:06	NA		6198.4	400
197	Test Pit #14	SS-TP-14	0.9' BS	145.2	10/18/2001 8:23	NA		<LOD	43.05
198	Energy Calibration			60.2	10/18/2001 9:21	NA		NA	
199	Test Pit #12		SW End Fill, @ 0.2' BS	30.1	10/18/2001 9:25	NA		1040	110
200	Test Pit #12		SW End Fill, @ 0.9' BS	30.4	10/18/2001 9:32	NA		<LOD	88.2
201	Test Pit #12		SW End Fill, @ 0.6' BS	21.1	10/18/2001 9:39	NA		<LOD	115.8
202	Test Pit #12		NE End Fill, @ 0.9' BS	28	10/18/2001 9:41	NA		<LOD	109.5
203	Test Pit #12		NE End Fill, @ 0.5' BS	21.1	10/18/2001 10:25	NA		<LOD	118.05

XRF Screening Data

Revere Smelting and Refining

Walkill, NY

<u>Sample No.</u>	<u>Location</u>	<u>O&G Sample No.</u>	<u>Depth</u>	<u>Source Seconds</u>	<u>Date/Time</u>	<u>Resolution</u>	<u>Resolutin Error</u>	<u>Pb Concentration</u>	<u>Pb Error</u>
204	Test Pit #12		NE End Fill, @ 0.7' BS	30.6	10/18/2001 10:30	NA		<LOD	119.4
205	Test Pit #12		NE End Fill, @ 1.5' BS	30.6	10/18/2001 10:32	NA		<LOD	125.25
206	Energy Calibration			60.2	10/18/2001 11:15	NA		NA	
207	Test Pit #15		3.5' BS	30.4	10/18/2001 11:22	NA		793.2	130
208	Test Pit #15		3' BS	21.1	10/18/2001 11:24	NA		3209.6	330
209	Test Pit #15		1' BS	30.7	10/18/2001 11:26	NA		413900.81	80998.4
210	Test Pit #15		10' BS	30.8	10/18/2001 11:37	NA		193945.59	21990.4
211	Test Pit #15		12' BS	30.4	10/18/2001 11:46	NA		696.4	120
212	Test Pit #16		0.2' BS	30.2	10/18/2001 12:25	NA		9728	620
213	Test Pit #16		1.2' BS	30.3	10/18/2001 12:27	NA		1520	160
214	Test Pit #16		3.5' BS	28.2	10/18/2001 12:29	NA		514.8	130
215	Test Pit #16		8' BS	30.5	10/18/2001 12:39	NA		1209.6	170
216	Test Pit #16		10' BS	30.6	10/18/2001 12:48	NA		<LOD	127.2
217	Energy Calibration			60.2	10/18/2001 13:31	NA		NA	
218	Test Pit #11		South Half, Fill @ 1.5' BS	30.3	10/18/2001 13:40	NA		2148.8	200
219	Test Pit #11		South Half, Fill @ 2.9' BS	20.9	10/18/2001 13:43	NA		6988.8	570
220	Test Pit #11		North Half, Fill @ 2' BS	16.4	10/18/2001 14:00	NA		275.6	130
221	Test Pit #11		North Half, Fill @ 3.2' BS	23.4	10/18/2001 14:01	NA		1069.6	180
222	Test Pit #11		North Half, Fill @ 2.5' BS	25.9	10/18/2001 14:05	NA		407.8	120
223	Test Pit #11		North Half, Fill @ 5' BS	30.1	10/18/2001 14:08	NA		12396.8	750
224	Test Pit #11		North Half, Native @ 6' BS	30.5	10/18/2001 14:15	NA		<LOD	114.9
225	NIST High			122.8	10/18/2001 14:37	NA		5907.2	230
226	NIST Low			121.9	10/18/2001 14:43	NA		<LOD	60
227	Energy Calibration			60.1	10/18/2001 21:32	550.8	0	NA	
228	Test Pit #12	SS-TP-12	1.2' BS	124.2	10/18/2001 21:35	NA		<LOD	49.35
229	Test Pit #11	SS-TP-11	6' BS	126.4	10/18/2001 21:41	NA		<LOD	55.8
230	NIST Blank			124.2	10/18/2001 21:47	NA		35.5	23.6
231	Prepared Blank			126.6	10/18/2001 21:53	NA		38.2	23.1

Soil boring logs



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-1

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Confirm 3500 ppm Pb SW of SS-9 0.5'-1' BS

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE: Hand Auger

TYPE

DIA.

DATE STARTED 10/24/2001

GROUND WATER DEPTH:

DATE FINISHED 10/24/2001

MEASURING POINT:

WEIGHT

DRILLER G. Sleeman

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1					0-0.3' Brown CLAY, 0, rts 0.3'-1' Greyish Brown to Yellowish-Brown CLAY, trace medium fine SAND	SB-1&2 not staked out Measured from SS-OBG-23 SB-OBG-1 (0.5'-1' BS) 805
2						
3						
4						
5						
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-2

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Confirm 3500 ppm Pb SW of SS-9 0.5'-1' BS

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE: Hand Auger

TYPE

DATE STARTED 10/24/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/24/2001

MEASURING POINT:

WEIGHT

DRILLER G. Sleeman

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1					0'-0.4' Brown CLAY, 0, rts 0.3'-0.9' - Brown to Greyish Brown CLAY, trace medium fine SAND, rts, 0 0.9'-1' Yellow to Brownish Grey CLAY - trace medium fine SAND	SS-OBG-2 (0.5'-1' BS) 825
2						
3						
4						
5						
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-3

PROJECT: Revere Smelting and Refining	SHEET 1 OF 1
CLIENT: NYSDEC	JOB NO. 26408.004.400
DRILLING CONTRACTOR: Parratt Wolff Inc.	MEAS. PT. ELEV.
PURPOSE: Confirm previous 3500 ppm PB Samples SW of SS-9	GROUND ELEV.
DRILLING METHOD: 4.5 Split Barrel	SAMPLE
DRILL RIG TYPE: 3" Auger	CORE
GROUND WATER DEPTH:	CASING
MEASURING POINT:	DATUM
DATE OF MEASUREMENT:	DATE STARTED 10/24/2001
	DATE FINISHED 10/24/2001
	DRILLER J. Percy & J. Wheeler
	INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	6		0-1.3'		0.0-0.7' Brown CLAY, little medium fine Sand, little medium fine Gravel.	0.7 fill
	6				0.7-1.3' Yellowish Brown SILT, trace Clay	0.7'
	4					0.7-1.3 Native Till SB-OBG-3 (0-1.3' BS) 13:40, VOC's Metals
2	11					
	14		2.0-3.3'		2.0-2.7' Yellowish Brown SILT, trace Clay	
					2.7-3.3' Yellowish Brown SILT, little Clay, little coarse(+) medium Sand, some coarse medium(+) fine Gravel	SB-OBG-3 (2-3.3' BS) 13:55
3	20					
	20					
	15					
4	12		4.0-4.9'		4.0-4.9' Yellowish Brown SILT, little Clay, little coarse(+) medium Sand, some coarse medium(+) fine Gravel	SB-OBG-3 (4-4.9' BS) 14:00
5	21					
	21					
6	20					
	24		6.0-7.3'		6.0-7.3' Yellowish Brown SILT, little Clay, little coarse(+) medium Sand, some medium fine Gravel	SB-OBG-3 (6.7.3' BS) 14:05
7	14					
	16					7.3'
8	16					Gravel is shale.
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-4

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Determine if fill is above action level.

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE: 3" Auger

TYPE

DATE STARTED 10/24/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/24/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	8		0-1.0'		0.0-0.7' Brown SILT, little Clay, some coarse medium(+) fine Gravel	0.7 - Fill
	18				0.7-1.0' Yellowish Brown SILT, trace Clay	0.7-1.0' Possible intact/ Native Till
	23					medium firm compaction
2	35				2.0-2.5' Yellowish Brown SILT - SHALE	SB-OBG-4 (0-1.0' BS)
	18					Dry 12:15
3	25					Mostly Shale
	25					No Sample
	30					
4	20		4.0-5.7'		4.0-5.7' Yellowish Brown CLAY, little Silt, little medium fine Sand, some medium(+) fine Gravel	Very firmly Compact
	23					SB-OBG-4 (4.0-5.7' BS)
	23					12:40
6	34				6.0-7.7' Dark Yellowish Brown CLAY, little medium fine Sand, and medium(+) fine Gravel	
	40					Very Firmly Compact
	34					SB-OBG-4 (6.0-7.7' BS)
7	24					12:45
	34					
	24					
8	34					
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-5

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Determine if fill is above action level (500 ppm).

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/23/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/23/2001

MEASURING POINT: Ground Surface

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	5		0-0.9'		0.0-0.9' Brown CLAY, trace medium fine Sand, some coarse medium(+) fine Gravel	Mottled, Dry Fill SB-OBG-5 (0-0.9' BS) 7:45
	12				0.8-0.9' Yellowish Brown SILT, little Clay, trace medium fine Sand, little medium fine Gravel	0.9' Inhomogeneous - Dry Native
	13					
2	7					
	13		2.0-3.3'		2.0-3.3' Yellowish Brown SILT, little Clay, trace Sand and Gravel	Homogenous Dry Higher Silt content than to the south. SB-OBG-5 (2.0-3.3' BS) 7:50
	22					
3	20					
	20					
	20					
4	13		4.0-5.7'		4.0-5.7' Yellowish Brown SILT, little Clay, trace medium fine Sand	Homogeneous Dry SB-OBG-5 (4.0-5.7 BS) 8:00
	20					
	17					
5	17					
	10		6.0-7.1'		6.0-7.1' Yellowish Brown SILT, little Clay, trace medium fine Sand	Homogenous Dry SB-OBG-5 (6.0-7.1 BS) 8:05
	10					
6	14					
	16					
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-6

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Define "Clean" Soil Boundry

GROUND ELEV. 525.57

DRILLING METHOD: 3.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/22/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/22/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1		20	0-1.4'		Gray/White coarse(+) medium GRAVEL 0.4'	Diorite Gravel
		20			Yellowish Brown CLAY, trace coarse medium Sand, some coarse medium(+) fine Gravel	Dry loosely Compact Possible rewarded till SB-OBG-6 (0-1.4') No Recovery
		34				
2		34	NC			
		50-0.4				
3						
4		14	4.0-5.7'		4.0-4.7' Yellowish Brown CLAY, trace coarse medium Sand, some coarse medium(+) fine Gravel 4.7'	Dry Loosely Compact
5		30			4.7-5.4' Yellowish Brown CLAY, some coarse medium(+) fine Gravel	Oxidized Firmly Compact SB-OBG-6 (4.0-5.7')
		24				
6		20	6.0-6.4'		5.4-5.7 Gray SHALE	Native Possible Bedrock Grey Shale Greywacke Homogeneous Stuff - Poor Recovery
		50-0.4'				
7						
8			8.0-8.3' 8.4' Refusal		8.0-8.3' Yellowish Brown CLAY, some coarse medium(+) fine Gravel 8.4'	Dry - Firm Compact SB-OBG-6 (8-8.3') Grey Shale/ Greywacke
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-7

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Boundary of "Clean" Soil vs Fill based on XCF

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/23/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/23/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	3		0-1.2'		0.0-0.6' Brown CLAY SILT, little medium fine Sand, some coarse medium fine Gravel	Subangular Gravel Fill/A Horizon
	3				0.6-1.2' Yellowish Brown CLAY, some Silt, little medium fine Sand, some medium fine Gravel	Homogenous - Dry SB-OBG-7 (0-12 BS) 8:35
	3					
2	6					
	10		2.0-3.2'		2.0-3.2' Yellowish Brown CLAY, some Silt, little medium fine Sand, some medium fine Gravel	Oxidation and reduction Mottling Gravel - Broken Shale Shale at Base SB-OBG-7 (2.0-3.2 BS) 8:40
3	14					
	17					
4	20					
	18		4.0-5.3'		4.0-4.7' Yellowish Brown CLAY, some Silt, little medium fine Sand, some medium fine Gravel	
5	23				4.7-5.3' Dark Yellowish Brown SILT, some Clay, little medium fine Sand, some medium fine Gravel	Shaley Dry SB-OBG-7 (4.0-5.3') 8:50
	23					
6	25					
	35		6.0-6.5'		6.0-6.5' Dark Yellowish Gray, Clay Silt, and medium fine Gravel	Shaley - Dry SB-OBG-7 (6.0-6.5' BS) 8:55
7	50-0.3'					
8						
	9				8.0-9.0' Brown CLAY, coarse medium Sand, some coarse(+) medium fine Gravel	8.3' Moist to Wet Gravel - Shale
9	18					
	21					SB-OBG-7 (8.0-9.0' BS) 9:07
10	26					



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-7


PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11		25			10.0-10.9' Dark Yellowish Brown coarse medium(+) SAND, some Clay, some coarse(+) medium fine Gravel	Moist
		35			10.9-11.2' Gray to Dark Yellowish Brown CLAY, and coarse medium(+) SAND, and coarse(+) medium GRAVEL	SB-OBG-7 (10.0-11.2) 9:15
		45				
12		25			12.0-12.9' Dark Yellowish Brown CLAY, little medium fine SAND, and coarse(+) medium Gravel	Saturated Mostly Shale
		43				SB-OBG-7 (12.0-12.9 BS) 9:25
		22				
13		23				
		25				
		50-0.1'			14.0 Gray SHALE	Possible Bedrock Contact
14						Refusal
15						Drilling Completed
16						9:35
17						
18						
19						
20						
21						
22						

 O'BRIEN & GERE ENGINEERS, INC.		TEST BORING LOG				BORING NO. SB-OBG-8	
PROJECT: Revere Smelting and Refining						SHEET 1 OF 2	
CLIENT: NYSDEC						JOB NO. 26408.004.400	
DRILLING CONTRACTOR: Parratt Wolff Inc.						MEAS. PT. ELEV.	
PURPOSE: Find and Confirm "Clean" Soil Boundry						GROUND ELEV.	
DRILLING METHOD: 4.5 Split Barrel				SAMPLE	CORE	CASING	DATUM
DRILL RIG TYPE:				TYPE			DATE STARTED 10/22/2001
GROUND WATER DEPTH:				DIA.			DATE FINISHED 10/22/2001
MEASURING POINT:				WEIGHT			DRILLER J. Percy & J. Wheeler
DATE OF MEASUREMENT:				FALL			INSPECTOR G. Sleeman
Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION		REMARKS
1	16		0-1.5'		0-1.0' Brown CLAY, little medium SAND, some coarse medium(+) fine Gravel, organic roots, pH?		Loosely Compact Dry Fill
	13				1.0-1.5' Yellowish Brown CLAY, little fine Gravel		1.0' plastic lining (Native) Dry, Firmly Compact Homogeneous
	21						
2	13				2.0-2.6' Yellowish Brown CLAY, trace medium fine SAND, little medium fine Gravel		Dry
	21		2.0-2.6'				
3	27						
	30						
4	45				4.0-4.5' Yellowish Brown CLAY, trace medium fine Sand, little medium fine Gravel		Same, reduced soils
	17		4.0-5.5'		4.5-5.0' Yellowish Brown to White, CLAY, trace medium fine Sand, little medium fine Gravel		Dry Firmly Compact
5	19				5.0-5.5' Brown CLAY, trace medium fine Sand, some medium fine Gravel		Oxidized - More Sub-Angular - Rounded Gravel - Semi-Moist
	21						
6	30				6.0-6.2 Brown CLAY, trace medium fine SAND, little medium fine Gravel		Moist
	32		6.0-6.2'				
7	22						
	40						
8	45				8.0-8.9' Brown CLAY, some medium fine(+) Sand, little medium fine(+) Gravel		Moist
	14		8.0-9.4'				
9	33				8.9-9.4' Reddish Brown CLAY, some medium fine(+) Sand, some coarse medium fine(+) Gravel		Increase in gravel underlying Bedrock Observed Clasts
	25						
10	50-0.2'						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-8

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11		50-0.2'	NR			No Recovery No Sample
12		50-0.4'			12.0-12.4' Grey SHALEY LIMESTONE	Poor Recovery No Sample
13						
14		100-0.2'			14.0-14.2' Grey LIMESTONE	Poor Recovery No Sample
15					Grey LIMESTONE	
16						15.5' Refusal Probably a large limestone boulder - as seen in TP-7
17						
18						
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-9

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Delineate Extent of "Clean" Soils

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE: Hand Auger

TYPE

DATE STARTED 10/25/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/25/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1					0-0.2' Dark Brown CLAY SILT medium Sand 0.2-0.5' Grey SILT, little Clay, little coarse(+) medium fine Gravel 0.5-2.0' Yellowish Brown CLAY SILT, trace coarse Sand, some coarse(+) medium fine Gravel	SB-OBG-9 (0-2.0' BS) VOC's 13:00 Metals Native
2					2.0-2.3' Yellowish Brown SILT, some Clay, some coarse medium fine Gravel	SB-OBG-9 (2.0-2.3' BS) 13:15 Refusal
3						
4						
5						
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-10

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE:

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/23/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/23/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	5		0-0.7'		0-0.7' Yellowish Brown CLAY, some Silt, little coarse(+) medium fine Gravel	Probably - Reworked SB-OBG-10 (0-0.7' BS) 10:00
	14					
	14					
2	18					
	21		2.0-2.9'		2.0-2.9' Grey SHALE	No Sample
3	22					
	50-0.1'					
4	20		4.0-4.8'		4.0-4.8' Yellowish Brown CLAY and coarse medium fine Gravel	SB-OBG-10 (4.0-4.8' BS)
5	30					
	35					
6	35					
	27				6.0-6.4' Yellowish Brown CLAY and coarse medium fine Gravel	Poor Recovery No Sample
7	50-0.4'					
8	50				8.0-8.4' Dark Yellowish Brown CLAY, and coarse Gravel	Poor Recovery No Sample
9	50-0.4'					
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-10

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11	21		10.0-11.4'		10.0-10.8' Dark Yellowish Brown CLAY and GRAVEL	SB-OBG-10 (10.0-11.4' BS) 11:30
	24				10.8-11.4' Dark Brown CLAY and GRAVEL	
	17					
12	27				12.0-17.7' Dark Brown Gray GRAVEL, some Clay	Mostly Shale No Sample
	30		12.0-12.7'			
	34					
13	17				14.0-15.1' Grey SHALE	Saturated - 14.0'
	23					
	45		14.0-15.4'			
15	50				15.1-15.4 Grey SHALE, some Brown Clay	SB-OBG-10 (15.1-15.4' BS) 11:50
	54					
	27					
16	27		16.0-16.9'		16.0-16.9' Grey SHALE, some Brown Clay, little coarse Sand	Mostly Shale Some Clay SB-OBG-10 (16.0-16.9' BS) 11:55
	17					
	16					
18	30				18.0-18.4' Gray Shale	Poor Recovery No Sample
	50-0.4'					
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-11

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE:

GROUND ELEV. 513.04

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/24/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/24/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	22		0-0.5'		0-0.5' Brown CLAY and SILT, some medium fine Gravel	SB-OBG-11 (0-0.5 BS) 10:25 Fill
	38					
	38					
2	44					
	36		2.0-2.9'		2.0-2.9' Brown SILT and coarse medium fine SAND, little Clay, some coarse medium fine Gravel	Loosely Compact SB-OBG-11 (2.0-2.9 BS) 10:30 Fill
3	36					
	39					
4	45					
	20				4.0-4.9' Brown CLAY, little Silt, little coarse medium fine Sand, little medium fine Gravel	Loose SB-OBG-11 (4.0-4.9' BS) 10:35 Fill
5	11					
	29					
6	11					
	100-0.5'				6.0-6.1' Brown CLAY, little coarse medium Sand, some coarse medium fine Gravel	Poor Recovery No Sample Fill
7						
8	8		8.0-9.6'		8.0-8.3' Grayish Brown CLAY, some medium(+) fine Sand	504.74' Native at 8.3'
9	10				8.3-9.6' Dark Yellowish Brown SILT, little Clay, trace Sand, little medium fine(+) Gravel	Medium Firm Compaction SB-OBG-11 (8.3-9.6' BS) SB-X-4 10:45
	36					
10	38					



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-11

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11		60	10.0-11.5'		10.0-10.3 Dark Yellowish Brown SILT, little Clay, some medium fine(+) Gravel	SB-OBG-11 (10.0-11.5' BS) 11:00 Firmly Compact
		30			10.3-11.5 Dark Yellowish Brown SILT, and coarse medium SAND, little Clay, some coarse medium fine Gravel	
		35				
12		35				
		60-0.5'	12.0-12.5'		12.0-12.5' Dark Yellowish Brown coarse(+) medium SAND, little Silt, trace Clay, some fine Gravel	Firmly Compact SB-OBG-11 (12.0-12.5 BS) 11:05
13						
14		8	14.0-15.6'		14.0-15.6 Dark Yellowish Brown SILT CLAY, little medium Sand, some coarse medium fine(+) Gravel	Firmly Compact SB-OBG-11 (14.0-15.6 BS) 11:10
		19				
		50-0.4'				
16						
		75-0.2'	16-16.2'		16.0-16.2' Grey SHALE	Appears Either Bedrock of a layer Boulder - Line of Shale
17						
					17.0' Refusal	Refusal 17.0'
18						
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-12

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Find Vertical Extent of Fill

GROUND ELEV. 512.37

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/23/2001

GROUND WATER DEPTH:

DIA.

1½

¾

DATE FINISHED 10/23/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	9		0-1.6'		0-0.2' Brown CLAY and medium fine Gravel	
	18				0.2-1.1' Grey coarse(+) medium fine SAND, trace Silt, some medium(+) fine Gravel	
	11				1.1-1.6' Brown medium(+) fine SAND, trace Silt	SB-OBG-12 (0-1.6' BS) 16:20 Fill
2	20					
	9		2.0-3.0'		2.0-2.3' Brown medium(+) fine SAND, trace Silt	
	8				2.3-3.0' Brownish Gray CLAY, little medium fine Sand, some medium(+) fine Gravel	SB-OBG-12 (2.0-3.0' BS) 16:25 Fill
3	13					
4	50-0.4'					
	5		4.0-4.9'		4.0-4.9' Brownish Gray CLAY, some medium(+) fine Gravel	SB-OBG-12 (4.0-4.9' BS) 16:35 Loosely Compact Fill
5	8					
	12					
6	12					
	12		6.0-7.4'		6.0-6.8' Brownish Gray CLAY, some medium(+) fine Gravel	SB-OBG-12 (6.0-7.4 BS) 16:40 Fill
7	8				6.8-7.4' Brownish Gray CLAY, some medium(+) fine Gravel	
	6					
8	5					
	6		8.0-9.6'		8.0-9.3' Brownish Gray CLAY, some medium(+) fine Gravel	SB-OBG-12(8.0-9.6' BS) SB X-3 16:50 Native
9	5					
	4				9.3-9.6' Yellowish Brown CLAY, some medium(+) fine Gravel	
10	6					



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-12

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11	10		10.0-11.9'		10.0-10.3' Yellowish Brown CLAY, little medium fine SAND, little Silt, some medium fine Gravel	SB-OBG-12 (10.0-11.0' BS) MS & MSD
	12				10.3-11.9' Dark Yellowish Brown CLAY, little medium fine Sand, little Silt, some medium fine Gravel	17:00 502.37
	10					
12	10					
	10		12.0-12.6'		12.0-12.6' Dark Yellowish Brown coarse(+) medium fine SAND, little CLAY SILT, some medium(+) fine Gravel	SB-OBG-12 (12.0-12.6 BS) Compact
	15					
13	50-0.4'					
	12					
	24		14.0-15.2'		14.0-15.2' Dark Yellowish Brown coarse(+) medium fine SAND, little CLAY SILT, some medium fine Gravel	Firmly Compact SB-OBG-12 (14.0-15.2' BS) 17:35
14	19					
	10					
	12					
16	36		16.0-16.9'		16.0-16.9' Dark Yellowish Brown coarse(+) medium fine SAND, little Clay Silt, some medium fine Gravel	Firmly Compact - Saturated SB-OBG-12 (16.0-16.9' BS) 17:40
	50-0.4'					
17						
18						
	42		18.0-20.0'		Gray LIMESTONE and SHALE	Poor Recovery Limestone in Tip
	22					
19	16					
	28					
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-13

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Presence of Processed Waste/Fill in Drive Way

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/25/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/25/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	17		0.4-1.8'		0-0.4' Asphalt	SB-OBG-13 (0.4-1.8' BS) 9:00 Fill
	28				0.4-1.8' Brown SILT, some coarse medium(+) fine Sand, little medium fine(+) Gravel	
	18					
2	16					Loosely Compact SB-OBG-13 (2.0-3.4' BS) 9:05 (X-5) and VOC's Metals Fill
	23		2.0-3.4'		2.0-3.4' Yellowish Brown coarse(+) medium fine SAND, little Silt, some medium fine(+) Gravel	
	14					
3	13					SB-OBG-13 (4.0-5.3' BS) 9:10 Fill
	16				4.0-4.7' Light Yellowish Brown SILT, some coarse(+) medium fine Sand, some medium fine(+) Gravel	
	9		4.0-5.3'		4.7-5.3' Dark Yellowish Brown SILT, coarse medium fine Sand, trace Clay, some medium fine Gravel	
4	18					SB-OBG-13 (6.0-7.2' BS) 9:15 Moderately Firmly Compact Possible Native
	19					
	14					
5	16		6.0-7.2'		6.0-7.2' Dark Yellowish Brown SILT, and coarse medium fine SAND, trace Clay, some medium fine(+) Gravel	
	15					
	14					
6	20					
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-14

PROJECT: Revere Smelting and Refining				SHEET 1 OF 1	
CLIENT: NYSDEC				JOB NO. 26408.004.400	
DRILLING CONTRACTOR: Parratt Wolff Inc.				MEAS. PT. ELEV.	
PURPOSE: Presence of Processed Waste/Fill in Drive Way				GROUND ELEV.	
DRILLING METHOD: 4.5 Split Barrel		SAMPLE	CORE	CASING	DATUM
DRILL RIG TYPE:	TYPE				DATE STARTED 10/25/2001
GROUND WATER DEPTH:	DIA.				DATE FINISHED 10/25/2001
MEASURING POINT:	WEIGHT				DRILLER J. Percy & J. Wheeler
DATE OF MEASUREMENT:	FALL				INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1			0-0.4'		0.0-0.4' Asphalt	Collected from cutting Rock in Drill Path SB-OBG-14 (0.4-1.0' BS) 9:45 1.0-4.0' Cement Fill
			0.4-1.0'		0.4-1.0' Brown SILT, some medium fine Sand, little medium fine Gravel	
					1.0-4.0' Cement	
2						
		10				
3		50-0.3'				
4						
		7			4.0-4.2' Boulder	
					4.2-5.0' Dark Brown coarse(+) medium SAND, trace Silt, some coarse medium fine(+) Gravel	SB-OBG-14 (4.2-5.0' BS) 10:00 Fill
5		12				
		10				
6		10				
		10			6.0-6.5 Dark Brown coarse(+) medium SAND, trace Silt, some coarse medium fine(+) Gravel	SB-OBG-14 (6.0-6.5' BS) 10:05
7		10				
		9				
8		10				
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-15

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Detect Presence of Fill Along Balard Road

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/25/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/25/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	8		0-0.9'		0.0-0.9' Brown SILT and coarse medium(+) fine SAND, little medium(+) fine Gravel	SB-OBG-15 (0.9' BS) 8:30 Fill
	14					
	20					
2	20					
	16		2.0-2.7'		2.0-2.7' Brown coarse medium(+) SAND, little Silt, little medium fine(+) Gravel	SB-OBG-15 (2.0-2.7' BS) 8:35 Fill
3	10					
	8					
	15					
4	10		4.0-4.6'		4.0-4.6' Brown coarse medium(+) SAND, some Silt, little medium(+) fine Gravel	SB-OBG-15 (4.0-4.6' BS) 8:40 Fill
5	13					
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-16

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Detect Presence of Fill Along Balard Road

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/25/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/25/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	6		0-1.3'		0-1.0' Yellowish Brown SILT, little coarse medium(+) fine SAND, trace medium fine Gravel	Loosely Compact SB-OBG-16 (0-1.3' BS) 8:00
	4					
	6				1.0-1.3' Yellowish Brown SILT, little coarse(+) medium fine Sand, some medium fine(+) Gravel 1.3'	Road Fill
2	11					
	10		2.0-3.7'		2.0-3.7' Yellowish Brown medium(+) fine SAND, little Silt, some medium fine(+) Gravel	SB-OBG-16 (2.0-3.7' BS) 8:05 VOC's, Metals Native Till
	9					
3	9					
	10					
	10		4.0-4.3'		4.0-4.3' Yellowish Brown coarse(+) medium fine SAND, little Silt, some medium fine(+) Gravel 4.3'	Loosely Compact SB-OBG-16 (4.0-4.3' BS) 8:10
4	12					
5						
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-17

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Detect Presence of Fill Along Balard Road

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/25/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/25/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	8		0-1.6'		0-0.1' Brown SILT, roots	SB-OBG-17 (0-1.6' BS) 7:30
	12				0.1-1.6' Yellowish Brown SILT, little medium fine SAND, little medium fine Gravel	
	16					
2	30					
	28		2.0-2.5'		2.0-2.5' Gray CLAY SILT, trace medium fine Sand, trace fine Gravel	SB-OBG-17 (2.0-2.5' BS) 7:35
3	11					
	10					
4	6					
	3		4.0-4.6'		4.0-4.6' Gray SILT, some Clay, trace medium fine Sand, little medium(+) fine Gravel	SB-OBG-17 (4.0-4.6' BS) 7:40
5	3					
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-18

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Identify if Fill is Present

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/24/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/24/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	5		0-1.9'		0-1.9' Yellowish Brown medium fine(+) SAND, little Silt, little medium(+) fine Gravel	Loose SB-OBG-18 (0-1.9' BS) 14:55 Fill
	5					
	6					
2	6					
	6		2.0-2.6'		2.2-6.4' Brown medium fine(+) SAND, little Silt, little Clay, little medium(+) fine Gravel	SB-OBG-18 (2.0-2.6' BS) 15:10 Fill
3	6					
	5					
	7					
4	6		4.0-4.5'		4.0-4.3' Brown medium fine(+) SAND, little Silt, little Clay, little medium(+) fine Gravel	SB-OBG-18 (4.0-4.5' BS) 15:15
					4.3-4.5' Dark Brown coarse medium(+) SAND, trace Silt, little fine(+) Gravel	Fill
5	9					
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-19

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Piece of Fill

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED

10/24/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED

10/24/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	8		0-0.6'		0-0.6' Brown to Yellowish Brown coarse medium fine(+) SAND, little Silt, little medium fine(+) Gravel	SB-OBG-19 (0-0.6' BS) 15:30 Fill
	22					
	22					
2	11					
	8		2.0-3.3'		2.0-2.3' Brown to Yellowish Brown coarse medium fine(+) Gravel	SB-OBG-19 (2.0-3.3' BS) 15:35 MS-MSD
3	6				2.3-3.3' Yellowish Brown SILT, trace Clay, little coarse medium fine Sand, little medium fine Gravel	Native Till
	9					
4	30					
	19		4.0-4.6'		4.0-4.6' Yellowish Brown medium(+) fine SAND, little Silt	SB-OBG-17 (4.0-4.6' BS) 15:40
5	12					
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-20

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Presence of Fill Along Balard Road

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 10/24/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 10/24/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	5		0-1.5'		0-0.3' Brown SILT, little medium fine(+) Sand	
	8				0.3-1.0' Yellowish Brown SILT, some coarse medium(+) fine Sand, little medium(+) fine Gravel	Compact - moderately SB-OBG-20 (0-1.5' BS) 16:00 Native Till
2	9					
	10					
3	5		2.0-3.3'		2.0-2.6' Yellowish Brown SILT, some coarse medium(+) fine Sand, little medium(+) fine Gravel	SB-OBG-20 (2.0-3.3' BS) 16:05
	6				2.6-3.3' Yellowish Brown medium(+) fine SAND, little Silt, little coarse medium fine Gravel	
4	7					
	8					
5	18				4.0-4.9' Yellowish Brown medium(+) fine SAND, some Silt, little medium fine Gravel	SB-OBG-20 (4.0-4.9' BS) 16:10
	18					
6						
7						
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-21

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Determine Vertical & Horizontal Extent of "Clean" Fill SW Facility

GROUND ELEV.

DRILLING METHOD: 3.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE: 850 Track

TYPE

DATE STARTED

11/6/2001

GROUND WATER DEPTH:

DIA.

1½

3¼

DATE FINISHED

11/6/2001

MEASURING POINT:

WEIGHT

DRILLER

J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR

G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	9		0-1.5'		0-1.2' Brown SILT, little medium fine Sand, some coarse medium fine(+) Gravel	Fill - Dry SB-OBG-21 (0-1.5' BS) 9:35 Gravel, Shale and Marble Dry - Loosely Compact
	14					
	9				1.2-1.5' Yellowish Brown SILT, little Clay, some medium fine(+) Gravel	
2	9					
	7		2.0-3.1'		2.0-3.0' Yellowish Brown SILT, trace Clay, some medium(+) fine Gravel	Fill SB-OBG-21 (2.0-3.1' BS) Dry, Moderately Firm 9:45
3	22					
	30					
4	35					
	9		4.0-5.0'		4.0-5.1' Yellowish Brown SILT, trace Clay, some coarse medium(+) fine Gravel, Plastic	Fill Dry - Loss-Moderately Compact SB-OBG-21 (4.0-5.1' BS) 9:55
5	36					
	34					
6	34					
	28		6.0-6.5'		6.0-6.5' Yellowish Brown SILT, trace Clay, some coarse medium(+) fine Gravel	Gravel - Subangular Shale Graywacke SB-OBG-21 (6.0-6.5' BS) 10:00 Refusal @ 7.0' BS moved 4.0' east
7	46					
	55-0.5'					
8			8.0-8.5'			
					8.5' Refusal	Refusal at 8.5'
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-22

PROJECT: Revere Smelting and Refining

SHEET 1 OF 1

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Determine Vertical & Horizontal Extent of "Clean" Fill SW Facility

GROUND ELEV.

DRILLING METHOD: 3.5 Split Barrel

SAMPLE

CORE

CASING

DATUM Ground Surface

DRILL RIG TYPE:

TYPE

DATE STARTED 11/6/2001

GROUND WATER DEPTH:

DIA.

1½

¾

DATE FINISHED 11/6/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	1		0-1.0'		0-0.5' Brown SILT, trace medium fine Sand	Dry - Loose Compacted SB-OBG-22 (0-1.0' BS) 11:55
	5				0.5-1.0' Yellowish Brown SILT, trace Clay, little medium fine(+) Sand, little coarse medium Gravel	
	7					
2	9					Dry - Firm Compaction SB-OBG-22 (2.0-3.1' BS) 12:00
	15		2.0-3.1'		2.0-3.1' Yellowish Brown SILT, trace Clay, some medium fine(+) Sand, little medium(+) fine Gravel	
	30					
3	50-0.5'					Dry - Firm Compaction Reduced Mottles Perched Water Table SB-OBG-22 (4.0-5.3' BS) 12:10
	7		4.0-5.3'		4.0-5.3' Yellowish Brown SILT, little Clay, some medium fine(+) Sand, little medium fine Gravel, Mottles Gray Clay	
	21					
4	21					Moist SB-OBG-22 (6.0-7.8' BS)
	20					
	16		6.0-7.8'		6.0-7.0' Yellowish Brown SILT, little Clay, little medium fine(+) Sand, little medium fine Gravel, Mottles Gray Clay	
5	10					7.5 - Saturated 12:20
	10				7.0-7.8' Gray CLAY SILT, trace medium Sand, little medium fine Gravel	
	10					
6	21					Gray Shale/Greywacke Possible Bedrock
	21				8.0-8.3' Gray SHALE	
	21				8.0-10.0' Gray SHALE; layered Limestone	
7	50-0.1'				Gray Shale, layered Limestone	Discontinued at Bedrock
8						10.0' Refusal
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-23

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Determine Horizontal & Vertical Extent of "Clean" fill

GROUND ELEV.

DRILLING METHOD: 3.5 Split Barrel

SAMPLE

CORE

CASING

DATUM

DRILL RIG TYPE:

TYPE

DATE STARTED 11/5/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 11/5/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1		5	0-1.0'		0-1.0' Brown SILT, little medium fine Sand, some coarse medium fine(+) Gravel	Dry - Fill SB-OBG-23 (0-1.0' BS) 15:45
		5				
		3				
2		2			2.0-3.0' Brown SILT, little Clay, little medium fine Sand, some coarse medium fine(+) Gravel	Moist - Fill SB-OBG-23 (2.0-3.0' BS) 15:50
		9	2.0-3.0'			
3		4				
		3				
4		4			4.0-4.8' Brown SILT, little Clay, little medium fine(+) Sand, trace coarse fine Gravel.	SB-OBG-23 (6.0-7.1' BS) Saturated Possible Native 16:45
		6	4.0-4.8'			
5		5				
		20				
6		50-0.2'			6.0-6.7' Brown SILT, little Clay, little medium fine(+) Sand, trace coarse fine Gravel.	
			6.0-7.1'			
7		7			6.7-6.8' coarse medium fine(+) Gravel 6.8' 6.8-7.1' Brown CLAY SILT, some medium(+) fine Sand, little medium fine Gravel	
		5				
8		7			8.0-9.3' Brown CLAY SILT, some medium(+) fine Sand, some medium fine(+) Gravel	Native SS-OBG-23 (8.0-9.3' BS) 16:50
		7				
9		7				
		7				
10		6				
		8				



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-23

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11		12	10.0-11.3'		10.0-11.3' Brown CLAY SILT, little coarse medium(+) fine Sand, some coarse medium(+) fine Gravel	SB-OBG-23 (10.0-11.3' BS) 17:00
		14				
		24				
12		20			12.0-13.1' Brown SILT, little Clay, little medium fine Sand, some medium fine Gravel	SB-OBG-23 (12.0-13.1' BS) 17:10
		20	12.0-13.1'			
		21				
13		28			14.0-15.1' Brown CLAY SILT, little medium fine Sand, some medium fine(+) Gravel	SB-OBG-23 (14.0-15.1' BS) 17:20
		50-0.2'				
		6	14.0-15.1'			
14		22			16.0-17.1'	SB-OBG-23 (16.0-17.1' BS) 17:30
		40				
		50				
15		28	16.0-17.1'		18.0-18.8' Brown SILT CLAY, trace medium fine Sand, some medium fine(+) Gravel	SB-OBG-23 (18.0-18.8' BS) Gravel Shale 17:35
		32				
		34				
16		37			18.8'	
		6	18.0-18.8'			
		50-0.2'				
17						
18						
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-24

PROJECT: Revere Smelting and Refining				SHEET 1 OF 2	
CLIENT: NYSDEC				JOB NO. 26408.004.400	
DRILLING CONTRACTOR: Parratt Wolff Inc.				MEAS. PT. ELEV.	
PURPOSE: Vertical & Horizontal Extent of "Clean" Fill, South of Facility				GROUND ELEV. 505.31	
DRILLING METHOD: 4.5 Split Barrel		SAMPLE	CORE	CASING	DATUM
DRILL RIG TYPE:	TYPE				DATE STARTED 10/23/2001
GROUND WATER DEPTH:	DIA.				DATE FINISHED 10/23/01
MEASURING POINT:	WEIGHT				DRILLER J. Percy & J. Wheeler
DATE OF MEASUREMENT:	FALL				INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1		15	0-0.4'		0-0.4' Brown coarse(+) medium SAND, little Clay, little Silt, some medium fine Gravel	Dry - Top Fill SB-OBG-24 (0-0.4' BS) 13:00
		50				
2						
		4	2.0-2.6'		2.0-2.6' Brown to Brownish Grey Clay, some medium fine Sand, little medium fine Gravel, organics	Moist, Fill Heterogeneous SB-OBG-24 (2.0-2.6' BS) 13:05
		9				Fill
3		9				
		10				
4						
		2	4.0-4.7'		4.0-4.3' Grayish Brown CLAY, some medium fine Sand, little medium fine Gravel, occasional	Saturated @ 4.0' SB-OBG-24 (4.0-4.7' BS) 13:15
					4.3-4.7' Yellowish Brown coarse(+) medium SAND, and CLAY, some medium(+) fine Gravel	Native Till
5		4				
		9				
6		10				
		11	6.0-6.8'		6.0-6.8' Bark Brown coarse medium(+) fine SAND, some Clay, some coarse medium fine Gravel	Firmly Compact - Till SB-OBG-10 - Above Dry SB-OBG-24 (6.0-6.7' BS) 13:20
7		21				
		18				
8		18				
		26	8.0-9.2'		8.0-8.4' Grey SHALE layer 8.4-9.2' Yellowish Brown CLAY, and medium fine SAND, some coarse medium fine Gravel	Firmly Compact Poorly Sorted - Till SB-OBG-24 (8.4-9.2' BS) 13:30
9		38				
		23				
10						
		28				



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. SB-OBG-24

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11	18		10.0-11.0'		10.0-11.0' Dark Yellowish Brown coarse medium(+) fine SAND and CLAY, some coarse medium(+) fine Gravel	SB-OBG-24 (10.0-11.0' BS) 13:35 Firmly Compact
	16					
	25					
12	35				12.0-12.3' Dark Yellowish Brown coarse medium(+) fine SAND and CLAY, some coarse medium(+) fine Gravel	Poor Recovery No Sample Till
	10		12-12.3'			
	45					
13	50-0.2'				No Recovery	No Recovery
	41					
14	44				16.0-16.4' Brown coarse medium(+) fine SAND, little Clay, some coarse medium(+) fine Gravel	Firmly Compact Till SB-OBG-24 (16.0-16.4' BS) 14:00
	45					
	50					
15	120-0.4'				18.0-18.2' Brownish Gray coarse(+) medium fine SAND, little Clay, some coarse medium fine(+) Gravel	Gravel subangular to rounded
16	40		18-18.2'		Refusal	Refusal
	50-0.2'					
17						
18						
19						
20						
21						
22						




O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-23S

PROJECT: Revere Smelting and Refining	SHEET 1 OF 2
CLIENT: NYSDEC	JOB NO. 26408.004.400
DRILLING CONTRACTOR: Parratt Wolff Inc.	MEAS. PT. ELEV.
PURPOSE: Overburden Monitoring Well South of Sediment Pond	GROUND ELEV. 498.50
DRILLING METHOD: 4.5 Split Barrel	SAMPLE CORE CASING
DRILL RIG TYPE: 850 Track	DATE STARTED 11/7/2001
GROUND WATER DEPTH:	DATE FINISHED 11/7/2001
MEASURING POINT:	DRILLER J. Percy & J. Wheeler
DATE OF MEASUREMENT:	INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	1	Weight of Hammer ↓	0-1.3'		0-1.3' Brown SILT CLAY, some medium fine(+) Sand, trace medium(+) fine Gravel	"Clean" Fill Moist MW-23S (0-1.3' BS) 11:40
2		Weight of Hammer ↓	2.0-2.4'		2.0-2.4' Brown SILT CLAY, some medium fine(+) Sand, trace medium fine Gravel	"Clean" Fill Very Moist MW-23S (2.0-2.4' BS) 11:45
3	2	Weight of Hammer ↓	4-4.2'		4.0-4.2' Brown SILTY CLAY, and medium fine(+) SAND	Saturated "Clean" Fill MW-23S (4.0-4.2' BS) "Clean" Fill 11:50
4		Weight of Hammer ↓	6.0-7.3'		6.0-7.3' Brown SILT CLAY, some medium fine(+) Sand, little medium(+) fine Gravel	MW-23S (6.0-7.3' BS) 12:05 Native Till
5	3	Weight of Hammer ↓				
6		Weight of Hammer ↓				
7	4	Weight of Hammer ↓				
8		Weight of Hammer ↓				
9	5	Weight of Hammer ↓				
10		Weight of Hammer ↓				
				NR		No Recovery

 O'BRIEN & GERE ENGINEERS, INC.		TEST BORING LOG		BORING NO. MW-23S		
PROJECT: Revere Smelting and Refining				SHEET 2 OF 2		
CLIENT: NYSDEC				JOB NO. 26408.004.400		
Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
10.0-10.5'					10.0-10.5' Brown CLAY, some medium fine(+) Sand, trace medium fine Gravel	MW-23S (10.0-10.5' BS)
11	6				Brown CLAY, some medium, fine(+) sand, trace medium fine gravel.	
12						Completed MW-23S Drilling
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-23D

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Overburden Monitoring Well South of Sediment Pond

GROUND ELEV. 498.50

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM Ground Surface

DRILL RIG TYPE: 850 Track

TYPE

DATE STARTED 11/7/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 11/7/2001

MEASURING POINT:

WEIGHT


DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	1	Weight of Hammer ↓	0-1.3'		0-1.3' Brown SILT CLAY, some medium fine(+) Sand, trace medium(+) fine Gravel	"Clean" Fill Moist
2		Weight of Hammer ↓	2.0-2.4'		2.0-2.4' Brown SILT CLAY, some medium fine(+) Sand, trace medium fine Gravel	"Clean" Fill Very Moist
3	2	Weight of Hammer ↓				
4		Weight of Hammer ↓	4-4.2'		4.0-4.2' Brown SILTY CLAY, and medium fine(+) SAND	Saturated "Clean" Fill
5	3	Weight of Hammer ↓				
6		Weight of Hammer ↓	6.0-7.3'		6.0-7.3' Brown SILT CLAY, some medium fine(+) Sand, little medium(+) fine Gravel	Native Till
7	4	Weight of Hammer ↓				
8		Weight of Hammer ↓			NR	No Recovery
9	5	Weight of Hammer ↓				
10		Weight of Hammer ↓				

 O'BRIEN & GERE ENGINEERS, INC.		TEST BORING LOG			BORING NO. MW-23D	
PROJECT: Revere Smelting and Refining					SHEET 2 OF 2	
CLIENT: NYSDEC					JOB NO. 26408.004.400	
Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11	6		10.0-10.5'		10.0-10.5' Brown CLAY, some medium fine(+) Sand, trace medium fine Gravel 10.5'	
12					Brown CLAY, some medium, fine(+) sand, trace medium fine gravel. 12.0'	
13					See Core Log for MW-23D Coring completed at 27 ft.	
14					Note: Soil descriptions taken from MW-23S log.	
15						
16						
17						
18						
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-24

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Monitoring Well Installation South of Railroad Tracks

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM Ground Surface

DRILL RIG TYPE: 850 Track

TYPE

DATE STARTED 11/8/2001

GROUND WATER DEPTH:

DIA.

1.5"

2.0" OD

4 1/4"

DATE FINISHED 11/8/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1		Weight of Hammer	0.0-0.8'		0-0.4' Grayish Brown SILT, little Clay, Organics with roots	A _o Horizon Moist
	1				0.4-0.8' Yellowish Gray CLAY, trace coarse Gravel, little Silt	Moderately Compact Histic B _{ig} Horizon MW-24 (0-0.8' BS) 14:10
	4					
2	5				2.0-2.6' Yellowish Brown CLAY, trace coarse Gravel little Silt	Saturated B _{ig} (Histic Soils) MW-24 (2.0-3.9' BS) 14:15
	5		2.0-3.9'		2.6-3.9' Yellowish Brown CLAY, some Silt, little coarse medium fine Gravel, little medium fine Sand	
3	5					
	13					
4	13				4.0-4.9' Grayish Brown SILT CLAY, little medium fine Sand, some coarse medium fine Gravel	Dry Perched/Water Table Confining Clay Layer Poorly Sorted MW-24 (4.0-4.9' BS) 14:45
	9		4.0-4.9'			
5	13					
	14					
6	11				6.0-7.2' Dark Yellowish Brown CLAY, little coarse(+) medium Sand, little Silt, some coarse medium fine(+) Gravel	MW-24 (6.0-7.2' BS) 14:40 Firmly Compact
	13		6.0-7.2'			
7	20					
	20					
8	15				8.0-9.0' Dark Yellowish Brown CLAY, little coarse(+) medium Sand, little Silt, some coarse medium fine(+) Gravel	MW-24 (8.0-9.5' BS) 14:50
	22		8.0-			
9	17					
	10					
10	7					



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-24

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11	6		10.0-11.5'		10.0-11.5' Dark Yellowish Brown CLAY, little coarse(+) medium Sand, some coarse(-) medium fine(+) Gravel	MW-24 (20.0-11.5' BS) 15:05 Base of 12.0' Tip of Spoon Shale - Possible Bedrock End of Drilling
	20					
	37					
12	37					
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-26

PROJECT: Revere Smelting and Refining				SHEET 1 OF 2	
CLIENT: NYSDEC				JOB NO. 26408.004.400	
DRILLING CONTRACTOR: Parratt Wolff Inc.				MEAS. PT. ELEV.	
PURPOSE: Monitoring Well Installation, Just East of Pond				GROUND ELEV.	
DRILLING METHOD: 4.5 Split Barrel		SAMPLE	CORE	CASING	DATUM Ground Surface
DRILL RIG TYPE:		TYPE			DATE STARTED 11/8/2001
GROUND WATER DEPTH:		DIA.			DATE FINISHED 11/8/2001
MEASURING POINT:		WEIGHT			DRILLER J. Percy & J. Wheeler
DATE OF MEASUREMENT:		FALL			INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1		3	0-0.7'		0-0.7' Brown SILT, little medium fine Sand, trace medium fine Gravel	Fill, Dry, Loose MW-26 (0-0.7' BS) 8:05
		8				
		7				
2		6			2.0-2.7' Brown SILT, trace fine Sand, little medium(+) fine Gravel	Fill, Dry, Loose MW-26 (2.0-2.7' BS) 8:10
		6	2.0-2.7'			
		8				
3		7			4.0-4.1' Brown SILT, trace fine Sand, little coarse medium(+) fine Gravel 4.1-5.4' Gray CLAY, trace fine Sand, little medium fine(+) Gravel	Moist Fill Possible Native MW-26 (4.0-5.5' BS) 8:20
		4				
		2	4.0-5.5'			
4		4			5.4-5.5' Yellowish Brown to Gray SILT CLAY, some medium fine(+) Gravel	Moist MW-26 (6.0-6.6' BS) 8:30
		7				
		6				
5		6	6.0-6.6'		8.0-8.7' Brownish Gray CLAY, trace medium fine Sand, little medium fine(+) Gravel	Moist MW-26 (8.0-8.7' BS) 8:35
		4				
		5				
6		8				
		9				
		5	8.0-8.7'			
7		10				
		10				
		12				
8						
9						
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-26

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11	8				No Recovery	Saturated No Recovery
	16					
	8					
12	8					
	12		12.0-13.0'		12.0-13.0' Yellowish Brown CLAY SILT, little coarse(+) medium Sand, some coarse medium fine(+) Gravel	MW-26 (12.0-13.0' BS) 8:50
13	11					
	12					
14	10					
	5		14.0-15.0'		14.0-14.5' Yellowish Brown CLAY SILT, some medium fine(+) Gravel	MW-26 (14.0-15.5' BS) 9:15
	9				14.5-15.0' Gray Shale	Bedrock at 15.0'
15						
	24					
16	30					
17						
18						
19						
20						
21						
22						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-25

PROJECT: Revere Smelting and Refining	SHEET 1 OF 2
CLIENT: NYSDEC	JOB NO. 26408.004.400
DRILLING CONTRACTOR: Parratt Wolff Inc.	MEAS. PT. ELEV.
PURPOSE: Monitoring Well Installation South of Railroad Tracks	GROUND ELEV.
DRILLING METHOD: 4.5 Split Barrel	SAMPLE CORE CASING
DRILL RIG TYPE:	DATUM Ground Surface
GROUND WATER DEPTH:	DATE STARTED 11/8/2001
MEASURING POINT:	DATE FINISHED 11/8/2001
DATE OF MEASUREMENT:	DRILLER J. Percy & J. Wheeler
	INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	1		0-0.9'		0-0.2' Dark Brown CLAY, organic roots, wood	0.5' BS - Saturated MW-25 (0-0.9' BS)
	2				0.2-0.9' Yellowish Brown CLAY, trace Silt, little coarse medium Sand, some medium fine(+) Gravel	12:25
	3					Native Subangular Gravel
2	6					
	12		2.0-3.0'		2.0-3.0' Yellowish Brown CLAY, and coarse medium SAND, some medium fine(+) Gravel	Firmly Compact Till
3	21					MW-25 (2.0-3.0' BS)
	17					12:35
	19					Angular-Subangular Gravel
4	5		4.0-5.1'		4.0-4.8' Yellowish Brown CLAY and coarse medium SAND, some medium fine(+) Gravel	MW-25 (4.0-5.1' BS)
	8					12:45
5	7				4.8-5.1' Yellowish Brown SILT and medium fine(+) SAND, some CLAY	Firmly Compact Till
	5					
6	5		6.0-7.0'		6.0-7.0' Grayish Brown SILT CLAY, some medium fine Sand, little medium fine(+) Gravel	MW-25 (6.0-7.0' BS)
	11					12:50
7	11					
	12					
8	2		8.0-9.6'		8.0-9.6' Yellowish Brown-Grayish Brown SILT CLAY and coarse(+) medium SAND, some coarse medium fine(+) Gravel, alternating Clay Silt partings	Very firmly Compact MW-25 (8.0-9.6' BS)
	3					12:55
9	13					
	11					
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-25

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

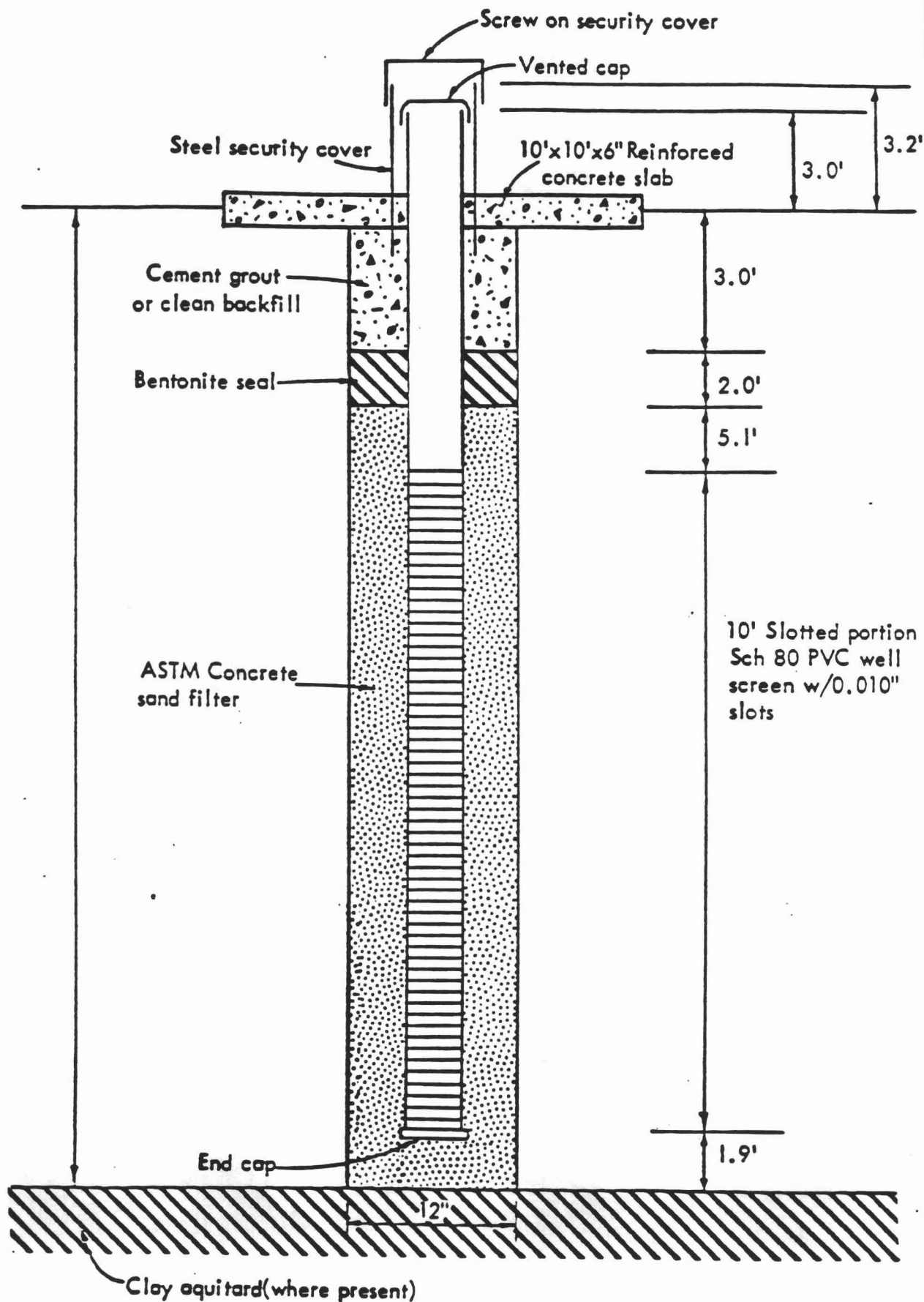
CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
		6	10.0-10.6'		10.0-10.6' Yellowish Brown coarse medium fine(+) Gravel, little Silt Clay, some coarse(+) medium Sand 10.6'	MW-25 (10.0-10.6 BS) 13:00 Very Compact Till Gravel Angular Subrounded Completed MW-25 Drilling
11		13				
		10				
12		10				
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

O'BRIEN & GERE ENGINEERS, INC. 22 Computer Ave, West Albany New York 12205			COP- LOG		Hole No.: MW-23D Sheet 1 of 1		Job No.: 26408.004.400	
Project: Revere Smelting and Refining			Drilling Contractor: Parratt Wolff, Inc		Date Started: 6-Nov-0.		Date Finished: 11/7/01	
Client: NYDEC			Driller: J. Percy, J Wheeler		Total Depth: 10' (27' bgs)			
Purpose: Observe Shallow Bedrock Infillration			Geologist: Garrett Sleeman		Ground Elev.: 496.72			
Location: South of RSR Facility			Length of Casing: 10 ft		S.W.L.: NA			
Hole Location: In Culvert, North of Rail Road Tracks			Casing Size: 2" PVC		Core Size: 2.5" 18.5-27"		Inclination/Bearing: NA	
Formation Member		Run No.	Pen. Rate (min. per foot)	Depth Scale	Lithologic Description (include in order: ROCK TYPE, color, grain size, texture, bedding, fracture & minerals.)		Core Recovery Length	RQD Percent
		1	3-4 (avg.)	17	Bedrock (Limestone) at 17', set BIP at 18.0 Began coring at 18.5			
		18.5-23.2		19	Run #1 Limestone: Dark gray, fine grained, shaley limestone to Limey shale with horizontal bedding dipping approximately 45 degrees to the east. Occasional fractures infilled with argillaceous carbonate stringers, mostly massive.		4.4'	93.6%
		2		21				
		23.2-27	5 (avg.)	23	Run #2 Limestone: Dark gray, fine grained, massive Limestone to muddy Limestone with fewer jointings and fracture than the overlying material		3.8'	100%
				25				
				27				

Well completion logs



Not to Scale

DETAIL OF
RSR WELL

LOG OF BORING NO. GW-1											
RSR CORPORATION - PROJECT 82-21											
MIDDLETOWN, NEW YORK											
TYPE BORING: Wash					LOCATION: See Plan of Borings, Plate I						
DEPTH, FT.	SYMBOL	SAMPLES	SOIL DESCRIPTION	BLOWS PER FT.	% PASSING NO. 200 SIEVE	LIQUID LIMIT	PLASTIC LIMIT	MOISTURE CONTENT, %	SHEAR STRENGTH IN TONS/SQ. FT.	UNIT DRY WT. LBS./CU. FT.	
									0.5	1.0	1.5
0			Brownish-gray sandy clay, w/occasional light tan clay and numerous angular rock fragments								
5											
10			-boulder from 8.0-8.5'								
			-boulder from 9.5-10.0'								
15			-boulder from 13.0-14.0'								
			(Till)								
20			Note: 4" monitor well installed in this boring location								
25											
30											
35											

COMPLETION DEPTH: 15.0'
 DATE: 8/10/82

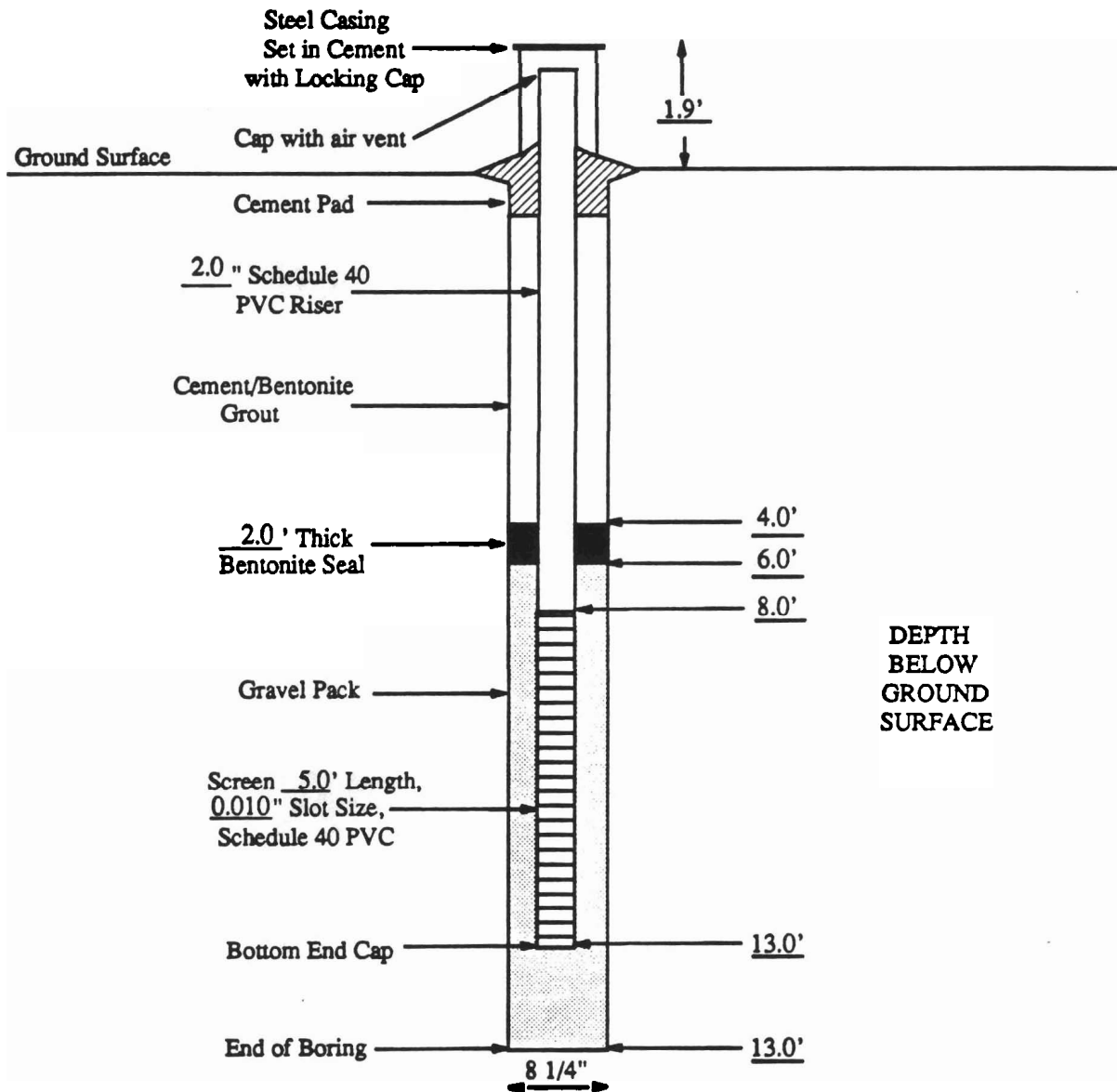
DEPTH TO WATER: 6.5' - Caved at 10.9'
 DATE: 8/11/82

DEPTH TO WATER: 6.5' - Caved at 10.9'
DATE: 8/11/82

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Wallkill, New York

DATE: July 29, 1991



AS-BUILT DIAGRAM FOR WELL MW-1



ENVIRONMENTAL STRATEGIES CORP.
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
412-787-5100

PROJECT: Revere Smelting & Refining Corporation
Wallkill, New York
PA641-02

Environmental Strategies Corporation
Four Penn Center West, Suite 315
Pittsburgh, PA 15276

Boring No.: MW-1
Date Drilled: July 26, 1991

Drilling Co.: Environmental Drilling, Inc.
Driller: Greg Pijak
ESC Geologist: E. Michael Riggins

Boring Location: West of battery storage area
Ground Elevation:
TOC Elevation:

Boring

Method: H.S.A.
Hole Diameter: 8.25"
Inside Diameter: 4.25"
Total Depth: 13.0'

Sampler

Method: Split-spoon
Length Ft.: 2.0
Hammer lbs.: 140
Fall ins.: 30

Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-0.4		90	MW1-1 0.0-1.5	10/21/23/21	TOPSOIL-SILT-dark brown, some clay & angular rock fragments
0.4-2.0					SILT-yellowish brown to brown, little clay, trace rock fragments, FILL
2.0-4.0		60	MW1-2 2.0-4.0	15/16/17/22	SILT-grayish brown, little sand & clay, some rock fragments, calcite crystal, plastic, wood, & plastic sheeting material, FILL, damp
4.0-4.5		60	MW1-3 4.0-5.0	42/33/47/45	SILT-same as above to 4.5'
4.5-6.0					SILT-greenish gray, some clay, trace angular rock fragments, native soil (?)
6.0-7.0		40	MW1-4 6.0-7.0	15/50 over 4"	CLAY-grayish brown, orange mottles, little sand & silt, trace rock fragments, rock fragment in spoon tip
8.0-9.0		80	MW1-5 8.0-9.0	7/25/22/13	CLAY-same as above to 9.0'

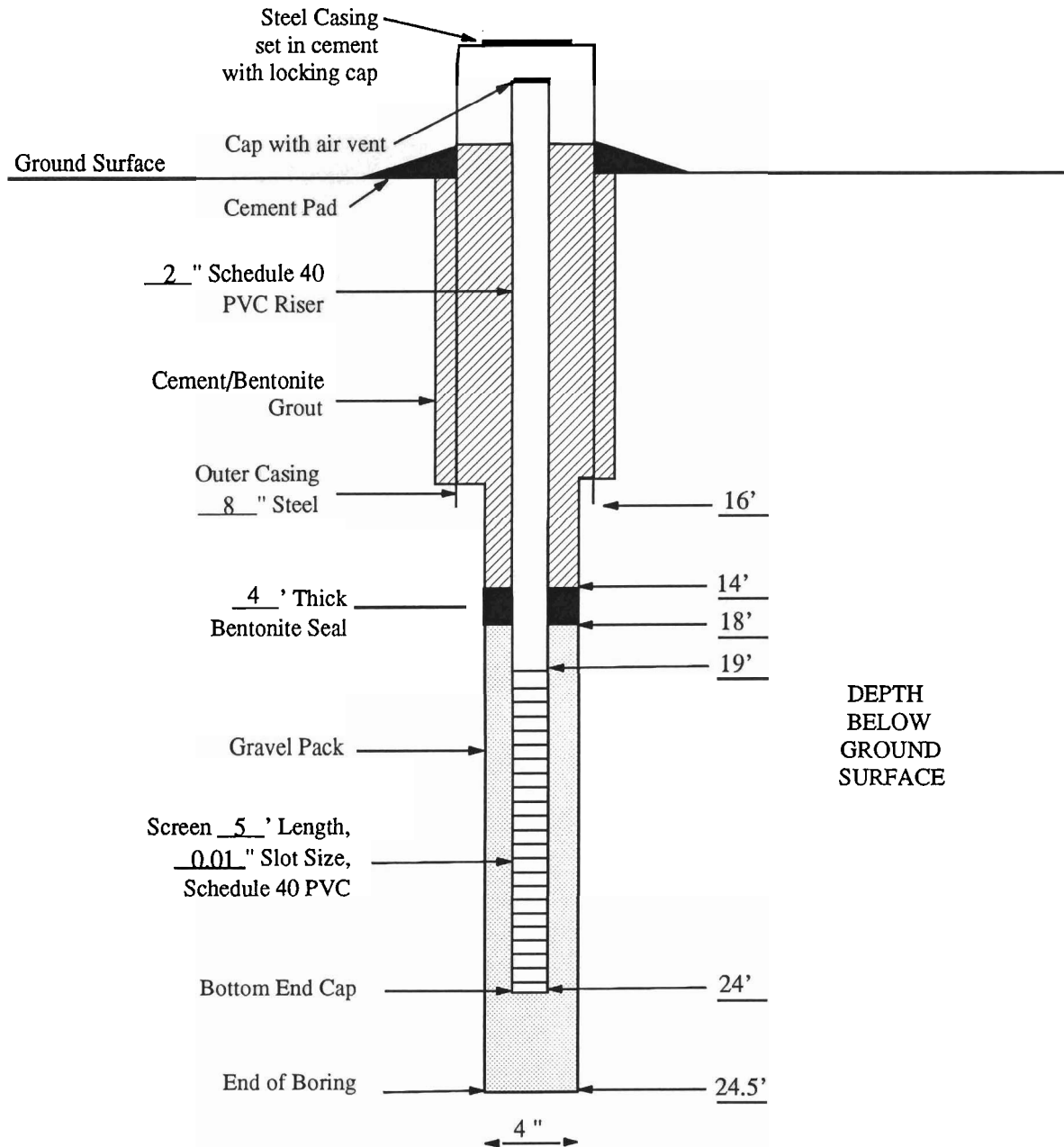
9.0-10.0		SILT & SAND-bluish gray, little rock fragments, trace clay, saturated
10.0-12.0	16/12/12/12	SAND & GRAVEL & ROCK FRAGMENTS-dark bluish gray, trace silt & clay, saturated
12.0-13.0		SAND & GRAVEL & ROCK FRAGMENTS-same as above, augers advanced to 13.0'

NOTE: Groundwater encountered at 9.0'.

SITE NAME: Revere Smelting & Refining

LOCATION: Wallkill, New York

DATE: December 16-22, 1993



ENVIRONMENTAL STRATEGIES CORPORATION
Four Penn Center West • Suite 315
Pittsburgh, Pennsylvania 15276
(412) 787-5100

AS-BUILT DIAGRAM FOR WELL MW-1A

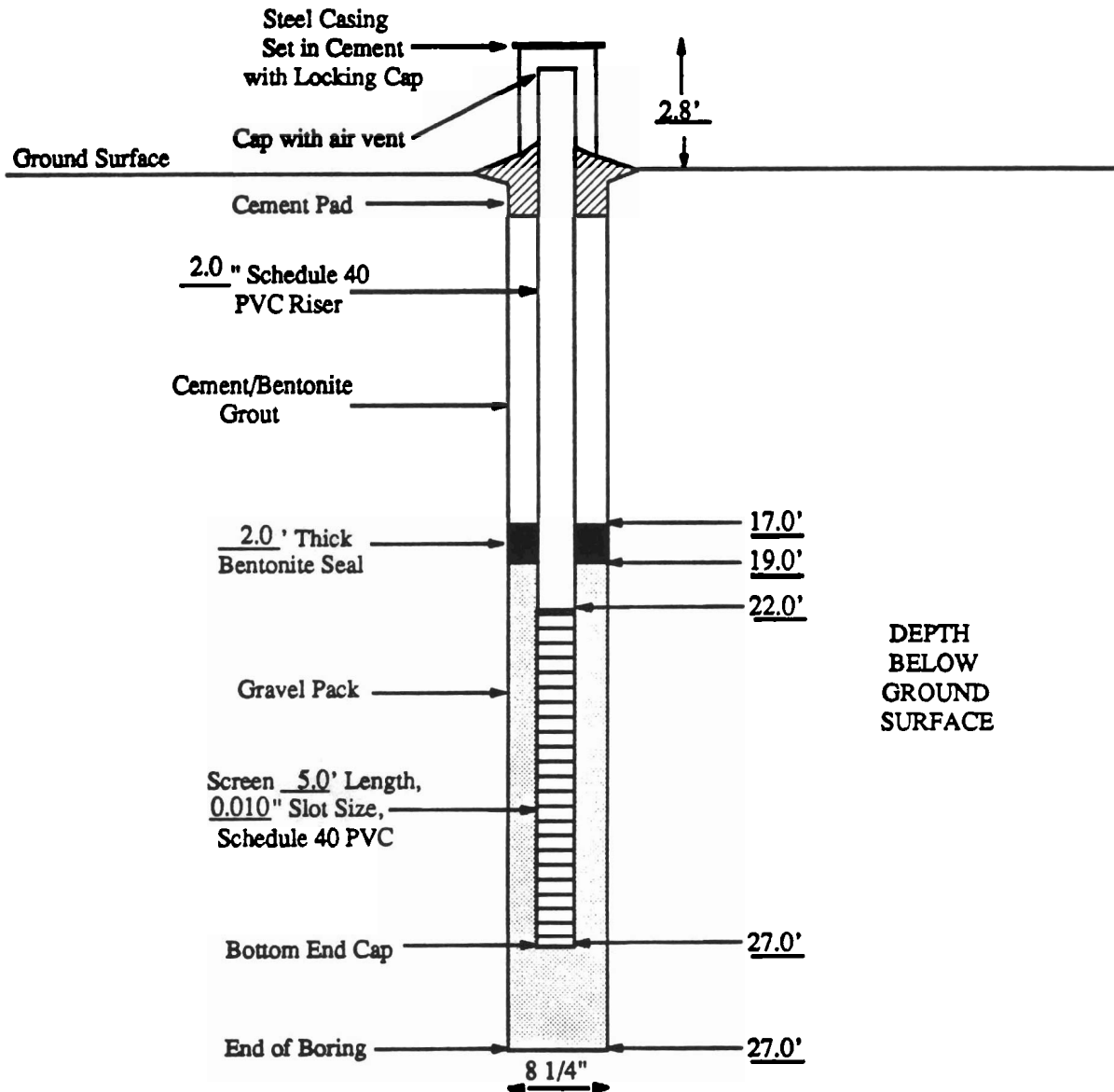
BORING LOG Environmental Strategies Corporation Four Penn Center West, Ste. 315 Pittsburgh, Pennsylvania 15276		PROJECT Revere Smelting & Refining Wallkill, New York PA1217-02		Boring No. <u>MW-1A</u> Sheet <u>1</u> of <u>1</u> Date Drilled <u>12/16-22/93</u>	
Drilling Co. <u>Empire Soil and Investigations</u> Driller <u>Scott Bray</u> ESC Geologist <u>E. Michael Riggins</u>			Boring Location <u>South of MW-1</u> Ground Elevation <u>NA</u> TOC Elevation <u>NA</u>		
Boring Method <u>Hollow Stem Augers</u> Hole Diameter <u>18"-8"-4"</u> Inside Diameter <u>12.25"-4.25"</u> Total Depth <u>24.5 feet</u>		Casing/Screen Type <u>PVC</u> Diameter <u>2 inch</u> Screen Length <u>5 feet</u> Screen Slot Size <u>0.01 inch</u>		Sampler Method <u>Split-spoon</u> Length (ft) <u>2-foot</u> Hammer (lb) <u>140</u> Fall (in) <u>30</u>	

Depth (ft)	P.I.D. (ppm)	Percent Recovery	Sample Depth (ft)	Blows/6"	Sample Number	Sample Description
0	NA	30	0-2	10-11-10-9	MW1A-1	SILT FILL, some clay and roots, trace anthropogenic material, dark brown, moist.
2	NA	40	2-3.5	21-23-100/6"	MW1A-2	SILT FILL, trace clay and rock fragments, some calcite fragments, yellowish brown, moist; large gravel and anthropogenic material below 3 feet.
4	NA	100	4-6	12-21-30-30	MW1A-3	Note: Color change to greenish
					MW1A-4	brown from 4 to 4.5 feet.
4.5						Note: color change to yellowish
	NA	50	6-8	21-50-65-33	MW1A-5	brown, trace bluish gray clay and
	NA	45	8-9.5	10-13-13-7	MW1A-6	rock fragments, orange mottling.
10	NA	40	10-12	6-7-8-10		SILT FILL and shale fragments, bluish gray, little fine grain
	NA	60	12-14	7-15-23-18		sand, saturated; dark greenish gray and moist below 12 feet.
15.5	NA	50	14-16	10-23-30-19		SILT, trace fine sand, clay, and
	NA	40	16-18	20-27-65-60		rock fragments, yellowish brown, dry, native soil; set
						8 inch steel casing at 16 feet.
18	NA	50	18-20	23-28-32-67		SILT TILL with shale fragments, bluish gray, moist.
20	NA	30	20-24.5	Cored	RUN 1	SHALE, dark gray, horizontal fracturing at 30° angles, wet, competent.

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Wallkill, New York

DATE: July 30, 1991



AS-BUILT DIAGRAM FOR WELL MW-2



ENVIRONMENTAL STRATEGIES CORP.
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
412-787-5100

PROJECT: Revere Smelting & Refining Corporation
 Wallkill, New York
 PA641-02

Environmental Strategies Corporation
 Four Penn Center West, Suite 315
 Pittsburgh, PA 15276

Boring No.: MW-2
 Date Drilled: July 30, 1991

Drilling Co.: Environmental Drilling, Inc.
 Driller: Greg Pijak
 ESC Geologist: E. Michael Riggins

Boring Location: South of facility
 Ground Elevation:
 TOC Elevation:

Boring

Method: H.S.A.
 Hole Diameter: 8.25"
 Inside Diameter: 4.25"
 Total Depth: 27.0'

Sampler

Method: Split-spoon
 Length Ft.: 2.0
 Hammer lbs.: 140
 Fall ins.: 30

Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-2.0	0	25	MW2-1 0.0-0.5	9/26/42/43	SILT FILL-medium brown, little clay & angular & rounded rock fragments
2.0-2.5		5		50 over 5"	No recovery-calcite crystal in spoon tip, augered to 4.0'
4.0-5.0	300	90	MW2-2 4.0-5.5	14/50/ 50 over 5"	SILT FILL-same as above to 5.0'
5.0-5.5					SAND-yellowish brown, fine grained, trace silt & rock fragments
6.0-6.5	320	90	MW2-3 6.0-7.0	11/50 over 4"	SAND-same as above to 6.5'
6.5-7.0					SILT FILL-grayish brown, little clay, trace sand & rock fragments
8.0-9.0	30	50	MW2-4 8.0-9.0	5/14/8/9	SILT FILL-same as above to 9.0'

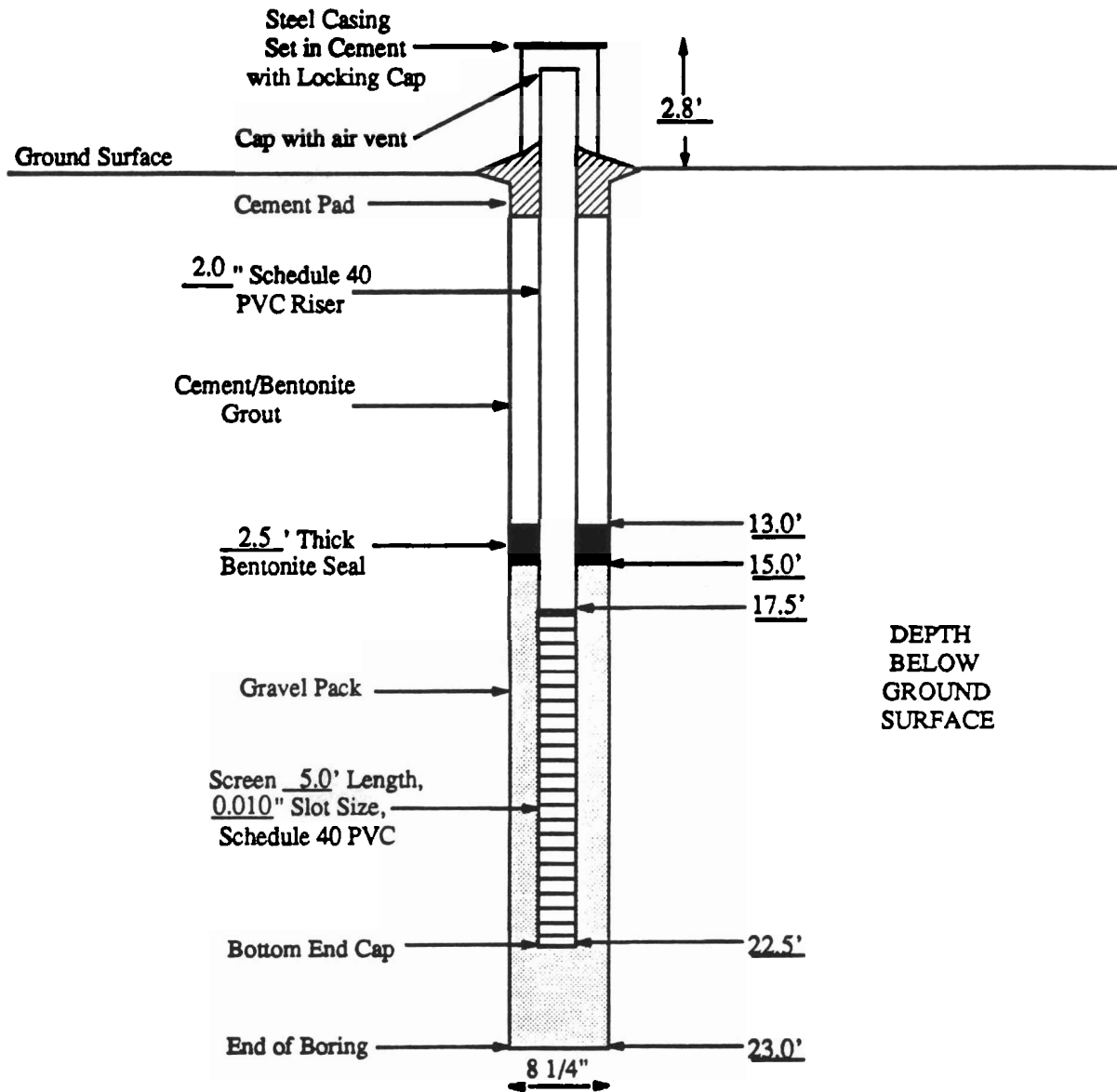
9.0-10.0	3				SILT FILL-dark gray to bluish gray, some clay, little rock fragments, trace sand, poorly sorted, damp
10.0-10.5	3	70	MW2-5 10.0-12.0 MW2-6 10.0-12.0 (dup)	8/9/4/7	SILT-black, organic material, woody material, roots, some clay, trace rock fragments, native soils
10.5-11.2					CLAY-dark gray, some silt, trace rock fragments, organic & root material
11.2-12.0					SILT-yellowish brown, little clay, trace fine sand & rock fragments, TILL
12.0-13.0	3	90	MW2-7 12.0-13.0	9/20/32/42	SILT TILL-yellowish brown, little clay & fine sand, trace rock fragments
13.0-14.0					SILT TILL-yellowish brown, dark orange mottles, little clay & rock fragments
14.0-14.6	3	90	MW2-8 14.0-14.6	29/50 over 2"	SILT TILL-same as above to 14.3', weathered shale fragment in spoon tip
16.0-17.3	4	100	MW2-9 16.0-17.0	48/50/ 50 over 4"	SILT TILL-dark yellowish brown, little clay & rounded rock fragments, poorly sorted
18.0-18.5		5		72	SILT TILL-same as above, very poor recovery
20.0-21.2		30	MW2-10 20.0-21.2	16/19/ 50 over 3"	SILT TILL-yellowish brown, little clay & rock fragments, trace sand, poorly sorted, damp, boulder at 21.0'
22.0-23.2		90	MW2-11 22.0-23.0	27/30/ 50 over 3"	SILT TILL-same as above, sandstone fragments, saturated at 23.0'
23.2-27.0					SILT TILL- same as above, augered to 27.0'

NOTE: Groundwater encountered at 23.0'.

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Wallkill, New York

DATE: July 26, 1991



AS-BUILT DIAGRAM FOR WELL MW-3



ENVIRONMENTAL STRATEGIES CORP.
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
412-787-5100

PROJECT: Revere Smelting & Refining Corporation
Wallkill, New York
PA641-02

Environmental Strategies Corporation
Four Penn Center West, Suite 315
Pittsburgh, PA 15276

Boring No.: MW-3
Date Drilled: July 24 & 25, 1991

Drilling Co.: Environmental Drilling, Inc.
Driller: Greg Pijak
ESC Geologist: E. Michael Riggins

Boring Location: Southeast of facility
Ground Elevation:
TOC Elevation:

Boring

Method: H.S.A.
Hole Diameter: 8.25"
Inside Diameter: 4.25"
Total Depth: 22.0'

Sampler

Method: Split-spoon
Length Ft.: 2.0
Hammer lbs.: 140
Fall ins.: 30

Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-1.0	0	65	MW3-1 0.0-0.5	3/12/30/ 50 over 5"	SAND-brown, fine grained, trace silt & clay, organics & roots, FILL
1.0-2.0	0				SILT FILL-grayish brown, little clay & rock fragments, trace fine sand, trace lead, slag, concrete, & plastic material
2.0-4.0	0	50	MW3-2 2.0-2.5	5/14/8/21	SILT FILL-yellowish brown, little clay & rock fragments, poorly sorted
4.0-6.0	0	75	MW3-3 4.0-4.5	17/10/12/44	SILT TILL-yellowish brown, little clay & rock fragments, rootlets & organics, damp at 4.0', native soils
6.0-8.0	0	100	MW3-4 6.0-6.5	33/50/33/34	SILT TILL-same as above, rock fragments smaller in size
8.0-10.0	0	100	MW3-5 8.0-8.5	50/21/35/22	SILT TILL-same as above
10.0-10.5	0	80	MW3-6 10.0-10.5	50 over 5"	SILT TILL-grayish brown, little clay, trace rock fragments, poorly sorted, dry



12.0-12.7

40

5/50 over 3"

SILT TILL-same as above

15.0-16.9

20

51/100 over 5"

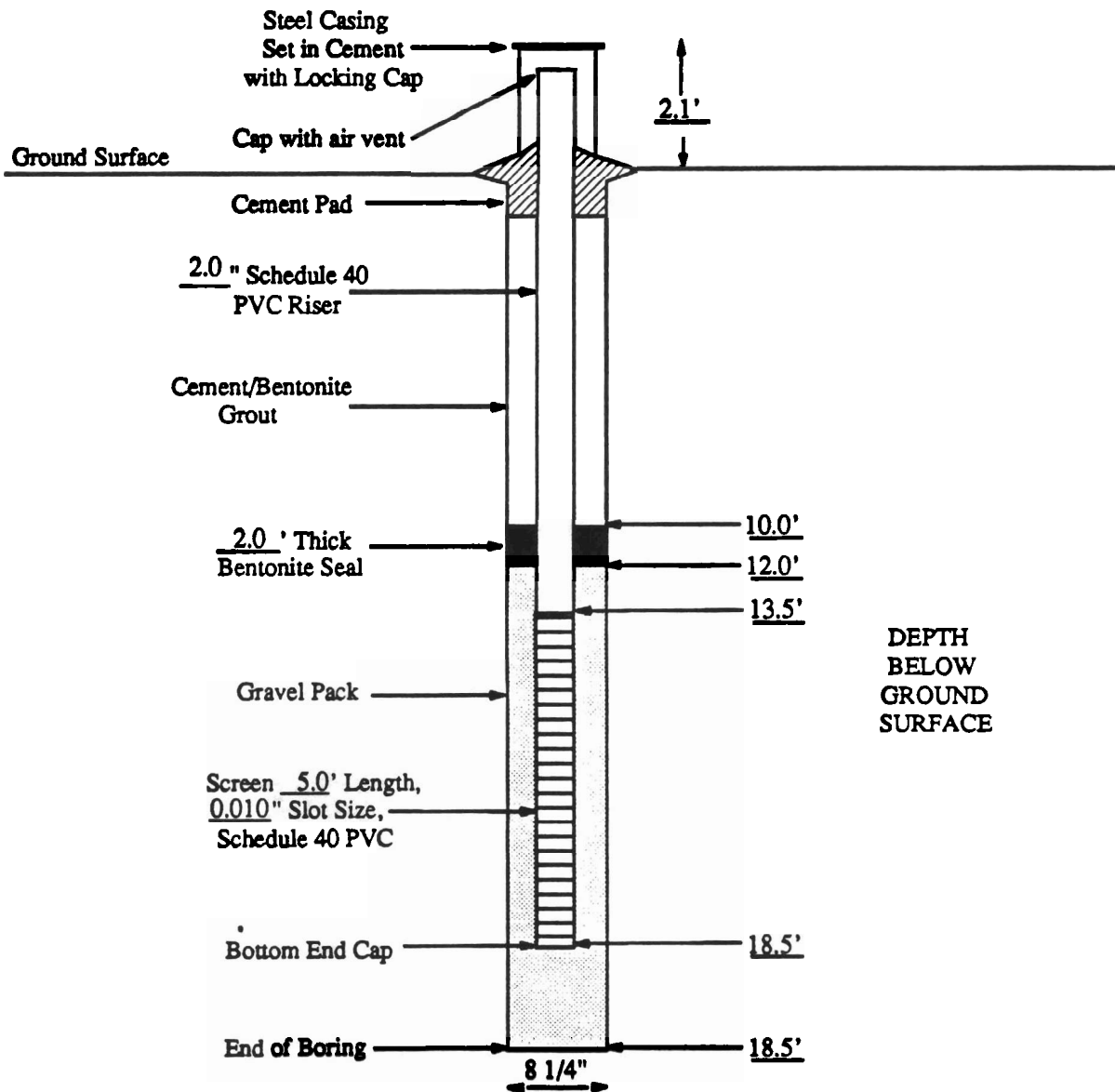
SILT TILL-same as above, gravel sized
fraction has increased

NOTE: Groundwater encountered at 7.0'.

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Wallkill, New York

DATE: July 25, 1991



AS-BUILT DIAGRAM FOR WELL MW-4



ENVIRONMENTAL STRATEGIES CORP.
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
412-787-5100

PROJECT: Revere Smelting & Refining Corporation
Wallkill, New York
PA641-02

Environmental Strategies Corporation
Four Penn Center West, Suite 315
Pittsburgh, PA 15276

Boring No.: MW-4
Date Drilled: July 24, 1991

Drilling Co.: Environmental Drilling, Inc.
Driller: Greg Pijak
ESC Geologist: E. Michael Riggins

Boring Location: East of facility
Ground Elevation:
TOC Elevation:

Boring

Method: H.S.A.
Hole Diameter: 8.25"
Inside Diameter: 4.25"
Total Depth: 20.0'

Sampler

Method: Split-spoon
Length Ft.: 2.0
Hammer lbs.: 140
Fall ins.: 30

Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-0.5	0	90	MW4-1 0.0-0.5	1/8/27/24	SAND-fine grained, root zone, trace silt & rock fragments, FILL
0.5-2.0					SILT FILL-some clay, little rock fragments, plastic & lead material
2.0-4.0	3-4	100	MW4-2 2.0-2.5	17/48/18/41	SILT FILL-same as above, concrete fragment in spoon tip
4.0-6.0	6-8	90	MW4-3 4.0-6.0 MW4-4 4.0-6.0 (dup)	40/38/27/ 50 over 4"	SILT FILL-same as above, lead, wood & concrete material
6.0-7.0	0	80		50/50 over 4"	FILL-wood & slag material in spoon tip, no sample collected
8.0-10.0		5		29/8/14/13	FILL-wood material in spoon tip, no recovery, pushing woody material downward through the FILL
10.0-12.0				2/16/29/30	FILL-same as above, no recovery

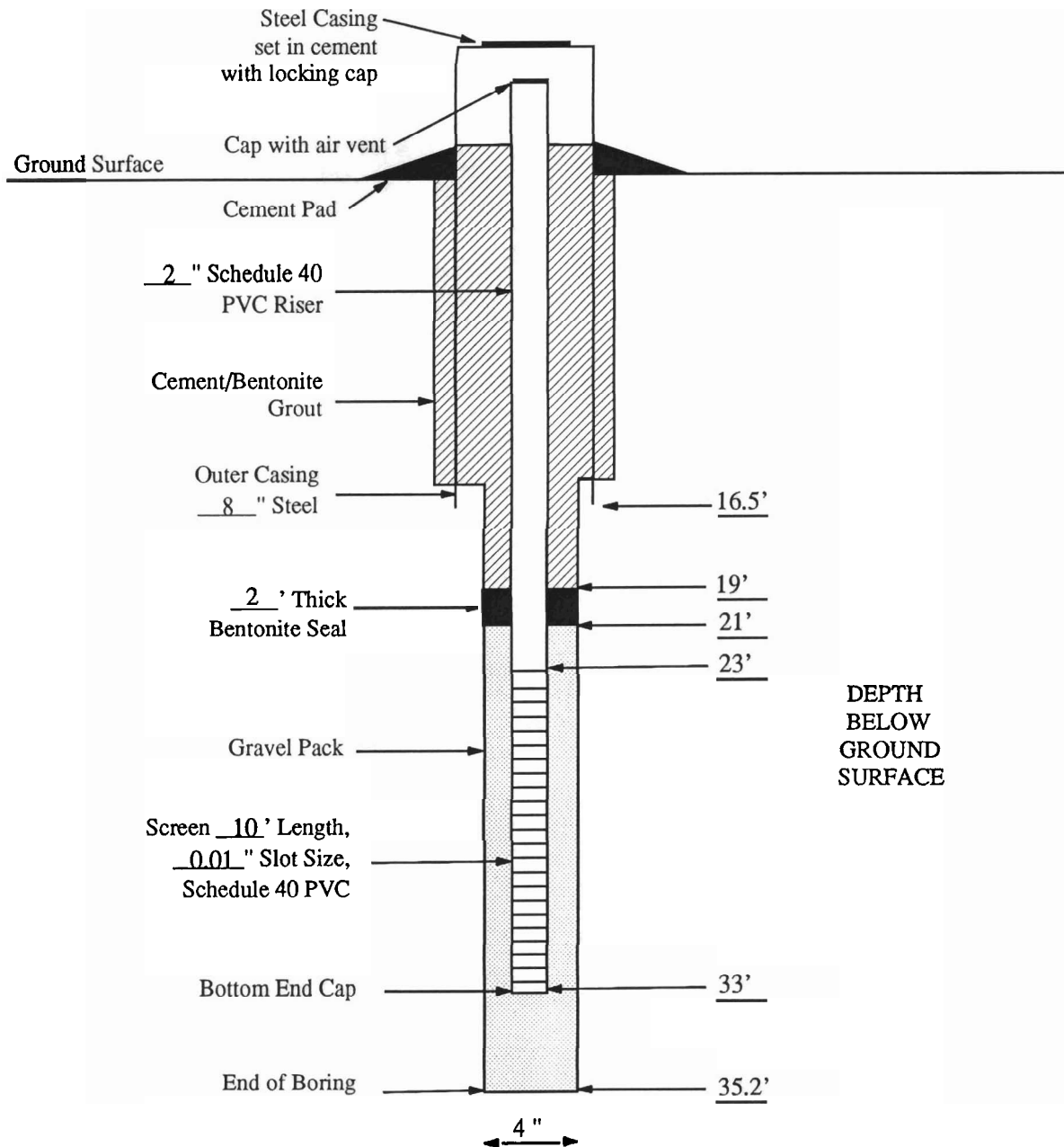
12.0-14.0	0	5	MW4-5 12.0-14.0	4/25/9/34	FILL-slag material, no recovery
14.0-16.0	0	5		25/14/5/7	FILL-SLAG & GRAVEL-dark gray to black, saturated
16.0-16.5	0	90	MW4-6 16.0-17.0	6/3/5/8	SLAG & GRAVEL-same as above to 16.5'
16.5-17.3					SILT-dark gray, little clay, trace fragments, root structures, saturated
17.3-18.0					SILT-yellowish gray to brown, little clay, trace rock fragments, mottled
18.0-20.0	0	90		8/14/18/ 50 over 5"	SILT TILL-light yellowish brown, little clay, trace angular rock fragments, tight formation

NOTE: Groundwater encountered at 16.0'.

SITE NAME: Revere Smelting & Refining

LOCATION: Wallkill, New York

DATE: December 14-21, 1993



ENVIRONMENTAL STRATEGIES CORPORATION
Four Penn Center West • Suite 315
Pittsburgh, Pennsylvania 15276
(412) 787-5100

AS-BUILT DIAGRAM FOR WELL MW-4A

BORING LOG Environmental Strategies Corporation Four Penn Center West, Ste. 315 Pittsburgh, Pennsylvania 15276		PROJECT Revere Smelting & Refining Wallkill, New York PA1217-02		Boring No. <u>MW-4A</u> Sheet <u>1</u> of <u>2</u> Date Drilled <u>12/08/93</u>	
Drilling Co. <u>Empire Soil and Investigations</u> Driller <u>Scott Bray/Craig Conner</u> ESC Geologist <u>E. Michael Riggins</u>			Boring Location <u>South of MW4</u> Ground Elevation <u>NA</u> TOC Elevation <u>NA</u>		
Boring Method <u>Hollow Stem Augers</u> Hole Diameter <u>18"-8"-4"</u> Inside Diameter <u>13.25"-4.25"</u> Total Depth <u>35.2 feet</u>		Casing/Screen Type <u>PVC</u> Diameter <u>2 inch</u> Screen Length <u>10 foot</u> Screen Slot Size <u>0.01 inch</u>		Sampler Method <u>Split-spoon</u> Length (ft) <u>2-foot</u> Hammer (lb) <u>140</u> Fall (in) <u>30</u>	

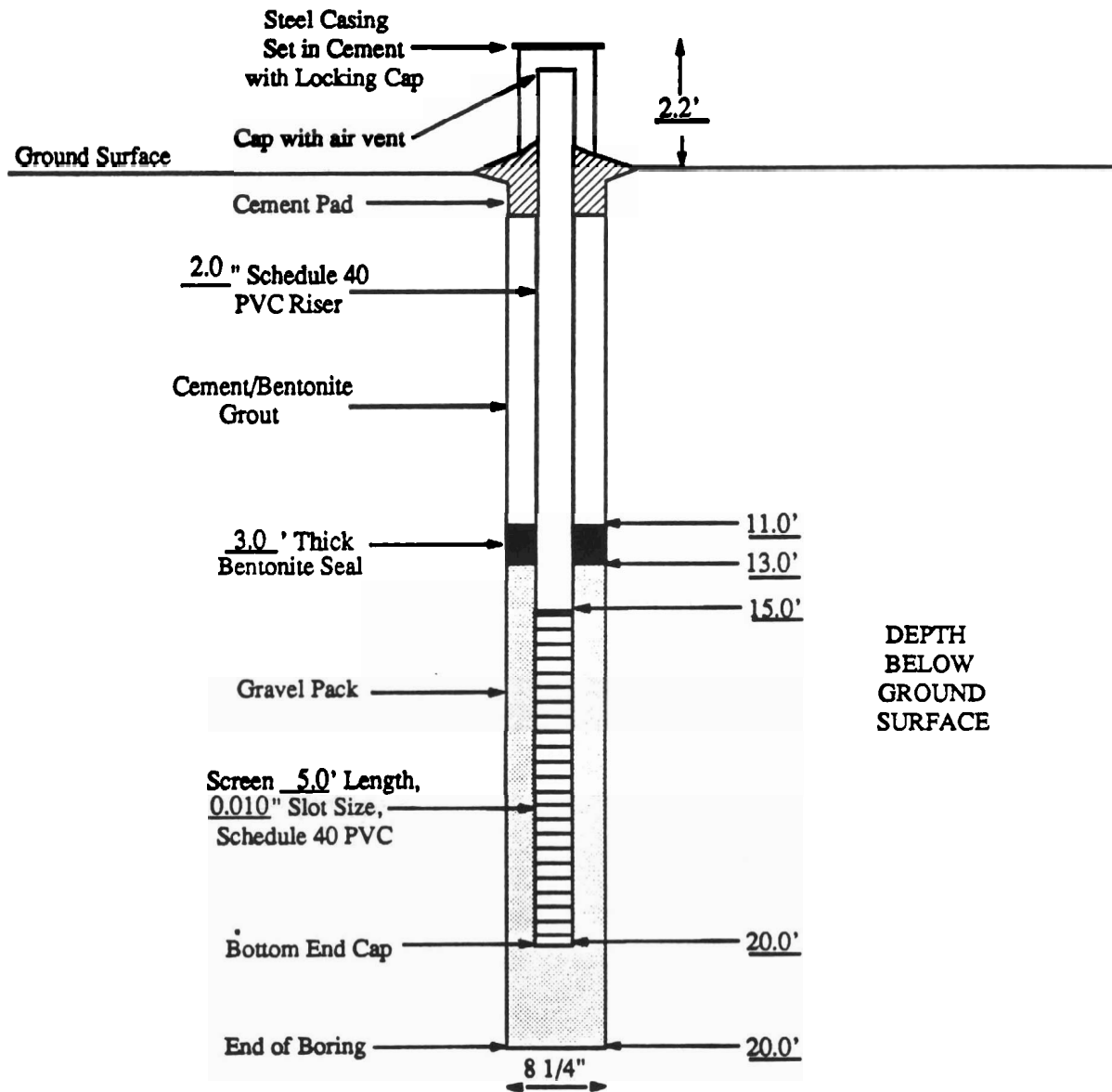
Depth (ft)	P.I.D. (ppm)	Percent Recovery	Sample Depth (ft)	Blows/6"	Sample Number	Sample Description
0	NA	75	0-2	3-12-15-27	MW4A-1	SILT, little sand, trace rock fragments, and roots, brown, moist.
0.5						SILT FILL, little sand and clay, trace rock fragments anthropogenic materials, yellowish brown, moist.
2	NA	80	2-4	12-12-17-13	MW4A-2	SILT FILL, trace sand, anthropogenic material, wood, brownish gray.
5	NA	60	4-6	6-10-17-70/4"	MW4A-3	Note: Large gravel to cobble size rocks at 5 feet.
6	NA	30	6-8	21-11-9-20	MW4A-4	SILT FILL, some gravel, trace rock fragments, dark gray to black.
8	NA	40	8-10	8-10-7-8	MW4A-5	GRAVELLY SILT FILL, trace sand,
	NA	30	10-12	6-4-6-4	MW4A-6	medium to large size gravel, some wood, slag, and rock fragments, dark gray, dry; saturated at 14 to 15 feet.
	NA	0	12-14	11-8-21-19		
15	NA	30	14-16	3-6-3-3		SILT, trace clay and rock fragments, greenish gray, dry, slightly plastic, virgin soil
17	NA	50	16-18	1-6-9-13	MW4A-7	GRAVELLY SAND, little silt, yellowish brown, moist, set 8 inch steel casing to 16.5 feet on 12/14/93.
18	NA	40	18-20	4-10-4-5	MW4A-8	CLAY, some silt, trace rock fragments, reddish brown, plastic,

[illegible]

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Walkill, New York

DATE: July 22, 1991



AS-BUILT DIAGRAM FOR WELL MW-5



ENVIRONMENTAL STRATEGIES CORP.
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
412-787-5100

PROJECT: Revere Smelting & Refining Corporation
Wallkill, New York
PA641-02

Environmental Strategies Corporation
Four Penn Center West, Suite 315
Pittsburgh, PA 15276

Boring No.: MW-5
Date Drilled: July 22, 1991

Drilling Co.: Environmental Drilling, Inc.
Driller: Greg Pijak
ESC Geologist: E. Michael Riggins

Boring Location: East of facility
Ground Elevation:
TOC Elevation:

Boring

Method: H.S.A.
Hole Diameter: 8.25"
Inside Diameter: 4.25"
Total Depth: 20.0'

Sampler

Method: Split-spoon
Length Ft.: 2.0
Hammer lbs.: 140
Fall ins.: 30

Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-2.0	0	20	MW5-1 0.0-0.5	5/7/6/7	TOPSOIL-SILT-medium to dark brown, little clay, trace rock fragments, FILL
2.0-4.0	0	50	MW5-2 2.0-3.0	50 over 3" 12/16/26	SILT FILL-medium gray, some clay, trace rock & plastic fragments
4.0-4.5	0	80	MW5-3 4.0-4.5	27/42/45/30	SILT FILL-same as above to 4.5'
4.5-6.0					SILT-medium brown to reddish brown, some orange staining, some clay, trace shale & rock fragments, poorly sorted, native soils or TILL (?)
6.0-8.0	0	90	MW5-4 6.0-6.5	20/27/40/43	SILT-same as above, TILL (?)
8.0-10.0	50 at 8.8'	80	MW5-5 8.0-8.5	33/34/34/38	SILT-same as above, increasing shale fragments, micaceous siltstone fragment in spoon tip

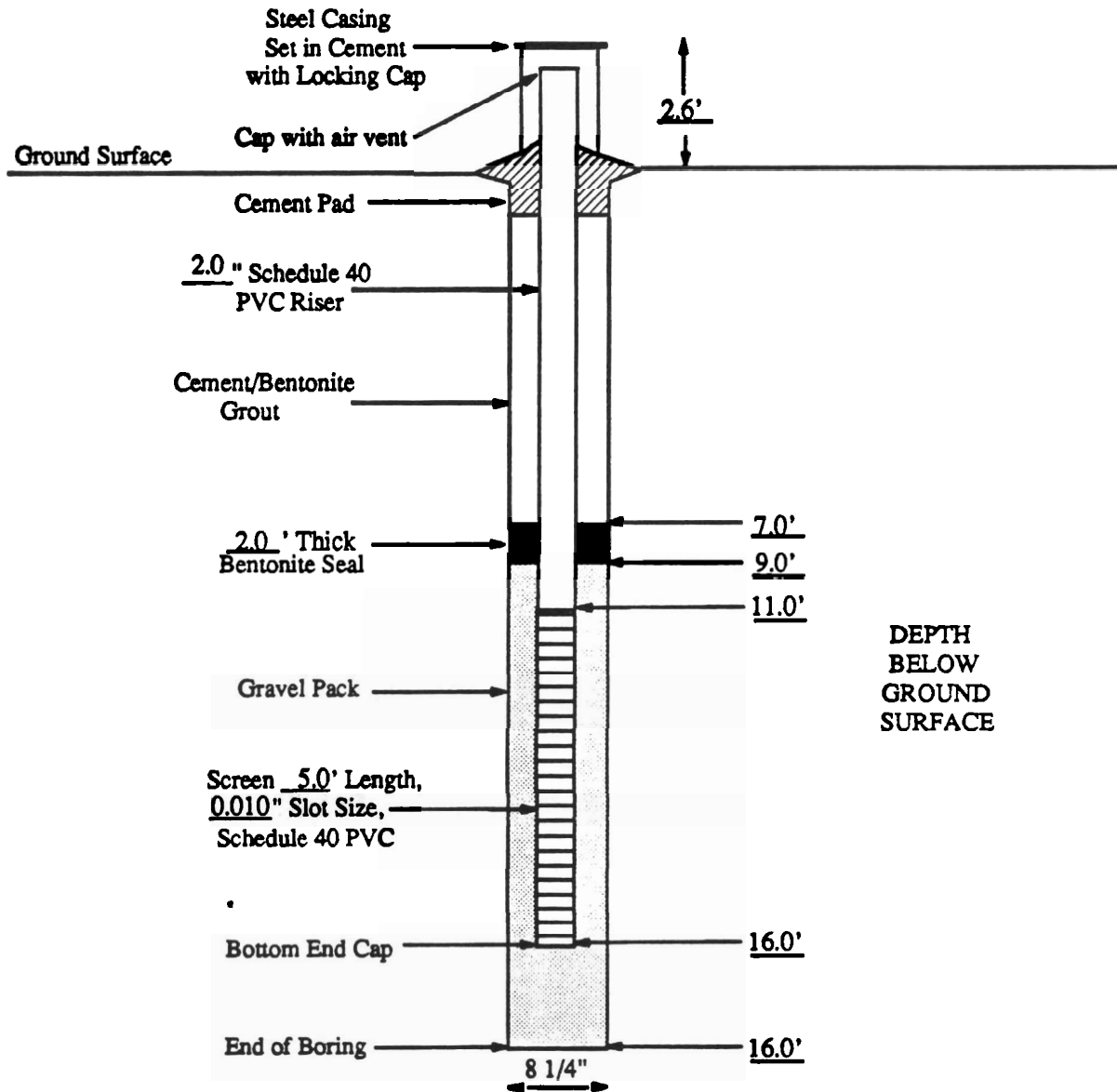
10.0-12.0	30	70	MW5-6 10.0-10.5	19/18/16/16	SILT-same as above, changing color to dark brown
12.0-14.0	0	80	MW5-7 12.0-12.5	33/18/18/29	SILT-same as above, dark brown color, two nails in split-spoon tip
14.0-16.0	0	80	MW5-8 14.0-14.5	8/41/19/25	SILT-same as above, damp at 15.0'
16.0-17.3	0	85	MW5-9 16.0-16.5	60/67/ 50 over 3"	SILT-same as above, shale fragment in spoon tip, saturated at 16.0'
18.0-20.0	0	80		14/33/31/42	Weathered shale fragment to 18.3', SILT TILL-same as above, dry

NOTE: Groundwater encountered at 16.0'

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Wallkill, New York

DATE: July 29, 1991



AS-BUILT DIAGRAM FOR WELL MW-6A



ENVIRONMENTAL STRATEGIES CORP.
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
412-787-5100

PROJECT: Revere Smelting & Refining Corporation
Wallkill, New York
PA641-02

Environmental Strategies Corporation
Four Penn Center West, Suite 315
Pittsburgh, PA 15276

Boring No.: MW-6A
Date Drilled: July 29, 1991

Drilling Co.: Environmental Drilling, Inc.
Driller: Greg Pijak
ESC Geologist: E. Michael Riggins

Boring Location: East of facility
Ground Elevation:
TOC Elevation:

Boring

Method: H.S.A.
Hole Diameter: 8.25"
Inside Diameter: 4.25"
Total Depth: 16.0'

Sampler

Method: Split-spoon
Length Ft.: 2.0
Hammer lbs.: 140
Fall ins.: 30

Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-2.0	0	60	MW6A-1 0.0-1.0	10/20/22/20	SILT FILL-light brown, little clay & rock fragments, trace sand & slag
2.0-3.5	0	100	MW6A-2 2.0-3.0	9/12/25/28	CLAY-bluish to greenish gray, little silt, trace rock fragments, black organic (peat) material
3.5-4.0					SILT-yellowish brown, little clay, trace sand & rock fragments, poorly sorted, TILL
4.0-5.5	0	80	MW6A-3 4.0-5.0	26/26/30/40	SILT TILL-same as above to 5.5'
5.5-6.0					SILT TILL-medium brown, little clay, trace sand & rock fragments
6.0-6.5	0	10		50 over 5"	SANDSTONE FRAGMENT in spoon tip
8.0-9.0		0		25/50 over 5"	No recovery-pushing cobble
10.0-10.2		5		50 over 3"	Dark gray SILTSTONE fragment in spoon tip

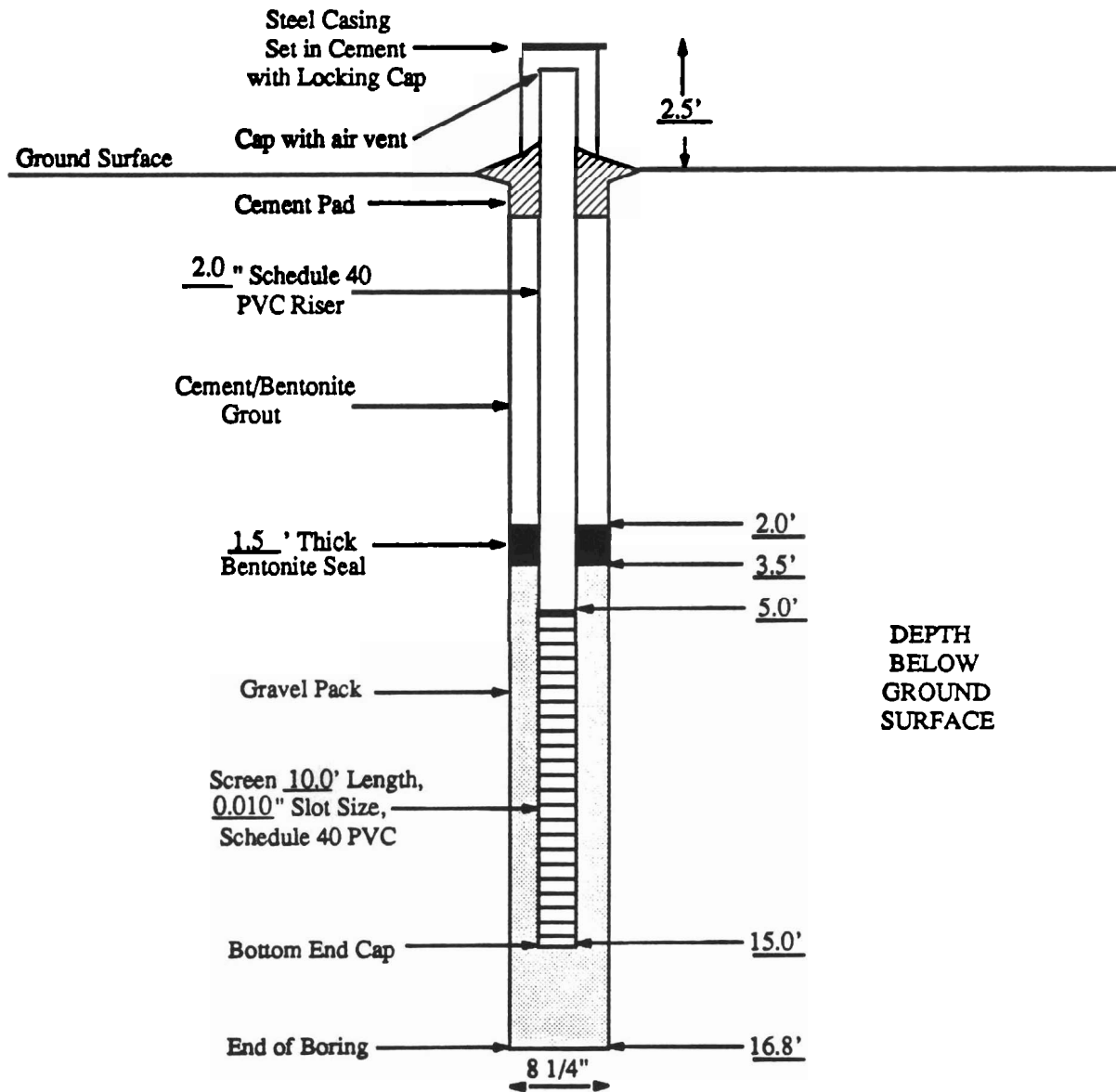
12.0-12.1	10	50 over 1"	SAND & GRAVEL-poor recovery, split-spoon wet, saturated material
12.1-16.0			Material augered, saturated

NOTE: Groundwater encountered at 12.0'.

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Wallkill, New York

DATE: July 11, 1991



AS-BUILT DIAGRAM FOR WELL MW-7



ENVIRONMENTAL STRATEGIES CORP.

Four Penn Center West, Suite 315

Pittsburgh, Pennsylvania 15276

412-787-5100

PROJECT: Revere Smelting & Refining Corporation
Wallkill, New York
PA641-02

Environmental Strategies Corporation
Four Penn Center West, Suite 315
Pittsburgh, PA 15276

Boring No.: MW-7
Date Drilled: July 10, 1991

Drilling Co.: Environmental Drilling, Inc.
Driller: Greg Pijak
ESC Geologist: E. Michael Riggins

Boring Location: North of facility
Ground Elevation:
TOC Elevation:


Boring

Method: H.S.A.
Hole Diameter: 8.25"
Inside Diameter: 4.25"
Total Depth: 16.9'

Sampler

Method: Split-spoon
Length Ft.: 2.0
Hammer lbs.: 140
Fall ins.: 30

Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-1.5	0	50	MW7-1 0.0-0.5	4/8/5	TOPSOIL-SILT-medium grayish brown, organic material, trace sand & clay, yellowish brown mottles, wet
1.5-2.5	0	85	MW7-2 2.0-2.5	5/8/12/23	CLAY-yellowish brown, some silt, root structures, mottled
2.5-3.5					SILT-bluish gray, some clay, little sand, trace rock fragments, yellowish brown mottles in upper 0.5'
3.5-5.5	0	85	MW7-3 4.0-4.5	20/23/28/40	SILT TILL-medium grayish brown, some clay, little sand & rock fragments, trace rounded gravel
5.5-7.5	0	60	MW7-4 6.0-6.5	23/17/18/24	SILT TILL-dark bluish gray, trace clay & rock fragments, saturated at 7.0'
8.0-10.0	0	70	MW7-5 8.0-8.5	6/35/23/25	SILT TILL-dark bluish gray, little sand & rock fragments, saturated
10.0-12.0		40		5/13/17/16	SILT TILL-same as above, gravel sized rock fragments

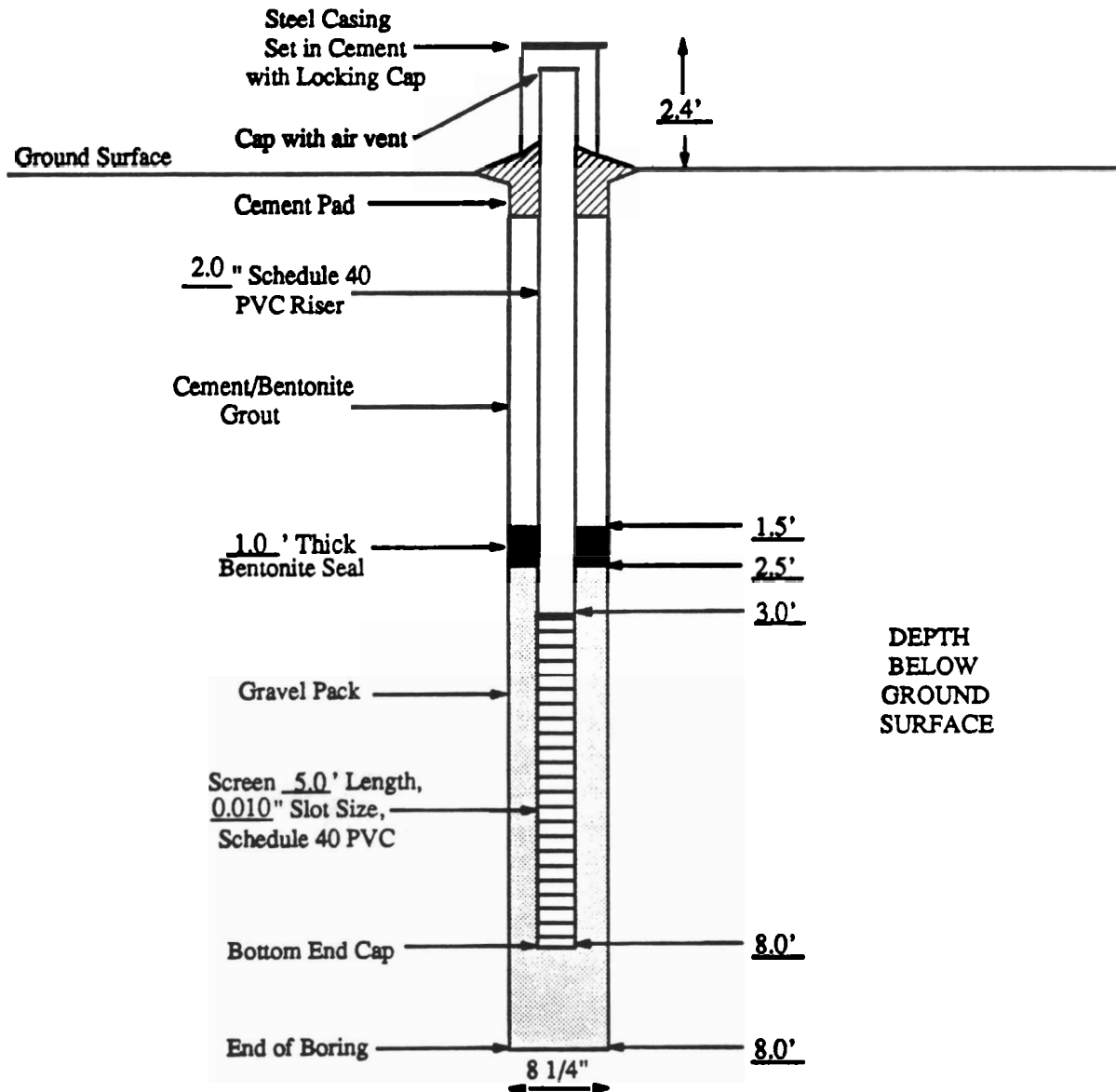
 12.0-12.7	40	5/50 over 3"	SILT TILL-same as above
15.0-16.9	20	51/100 over 5"	SILT TILL-same as above, gravel sized fraction has increased

NOTE: Groundwater encountered at 7.0'.

SITE NAME: Revere Smelting & Refining Corporation

LOCATION: Walkill, New York

DATE: July 29, 1991



AS-BUILT DIAGRAM FOR WELL MW-8



ENVIRONMENTAL STRATEGIES CORP.

Four Penn Center West, Suite 315

Pittsburgh, Pennsylvania 15276

412-787-5100

PROJECT: Revere Smelting & Refining Corporation
Wallkill, New York
PA641-02

Environmental Strategies Corporation
Four Penn Center West, Suite 315
Pittsburgh, PA 15276

Boring No.: MW-8
Date Drilled: July 29, 1991

Drilling Co.: Environmental Drilling, Inc.
Driller: Greg Pijak
ESC Geologist: E. Michael Riggins

Boring Location: North of facility
Ground Elevation:
TOC Elevation:

Boring		Sampler			
Method:	H.S.A.	Method:	Split-spoon		
Hole Diameter:	8.25"	Length Ft.:	2.0		
Inside Diameter:	4.25"	Hammer lbs.:	140		
Total Depth:	8.0'	Fall ins.:	30		

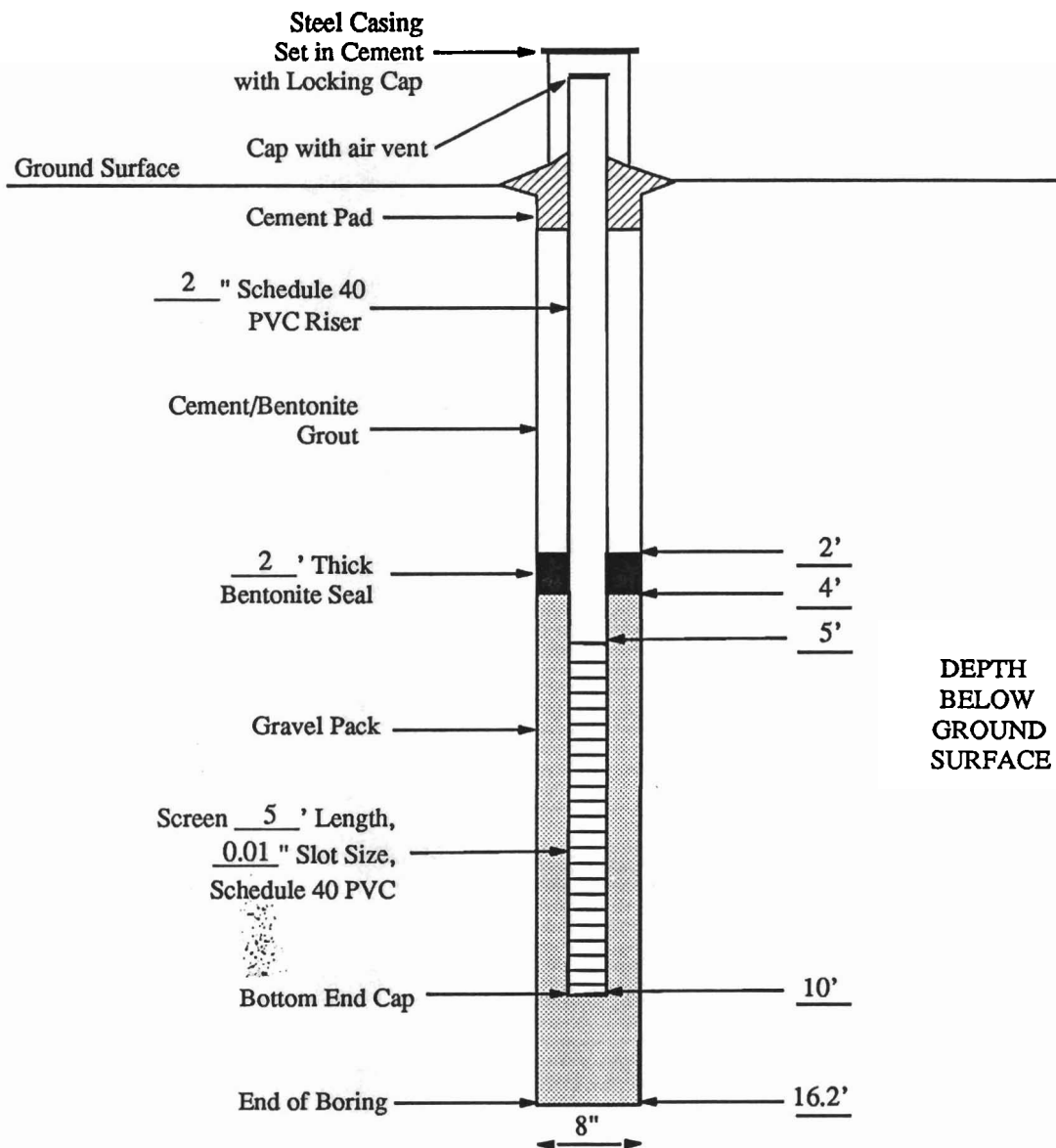
Depth (ft)	PID (ppm)	Percent Rec.	Sample Depth (ft)	Blows/6"	Sample Description
0.0-0.5	0	50	MW8-1 0.0-0.5	2/6/8/14	TOPSOIL-SILT-dark brown, little sand, trace clay, root zone
0.5-2.0					SILT-yellowish brown, some fine sand, trace clay & rock fragments, mottled
2.0-4.0	0	100	MW8-2 2.0-3.0	13/14/11/12	SILT-yellowish brown, little fine grained, gray sand, little clay, trace rock fragments, saturated at 3.5'
4.0-5.0	0	80	MW8-3 4.0-5.0	10/14/18/16	SAND-yellowish brown, some silt, trace rock fragments, grading into gray SAND
5.0-6.0					SAND-dark gray to gray, fine to medium grained, little rock fragments, trace silt, saturated
6.0-7.5	0	100		20/19/15/15	SAND-same as above to 7.5'
7.5-8.0					SAND & GRAVEL & ROCK FRAGMENTS- saturated material

NOTE: Groundwater encountered at 3.5'

SITE NAME: Revere Smelting & Refining

LOCATION: Wallkill, New York

DATE: December 20, 1993



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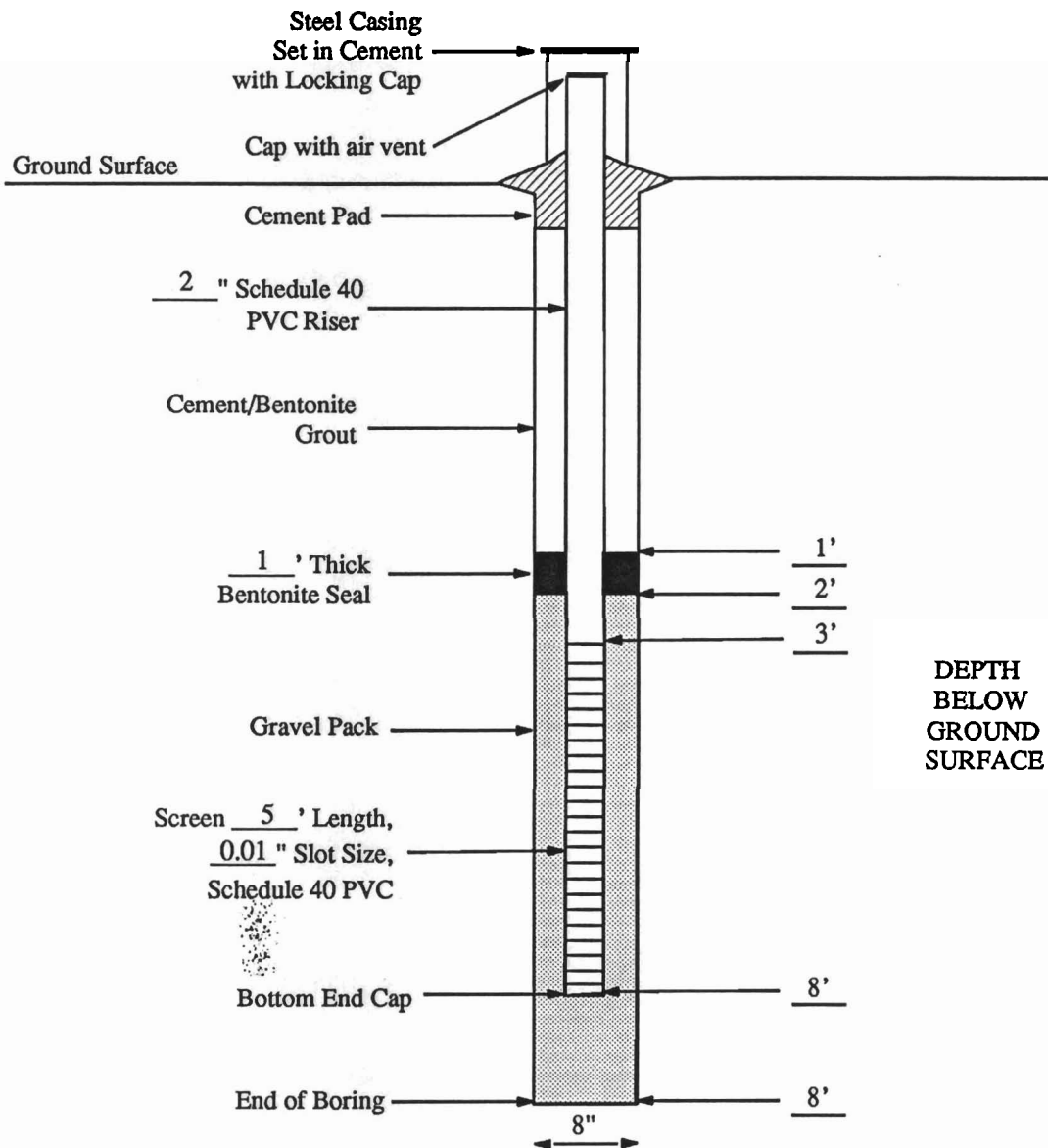
AS-BUILT DIAGRAM FOR WELL MW-9

[illegible]

SITE NAME: Revere Smelting & Refining

LOCATION: Wallkill, New York

DATE: December 10, 1993



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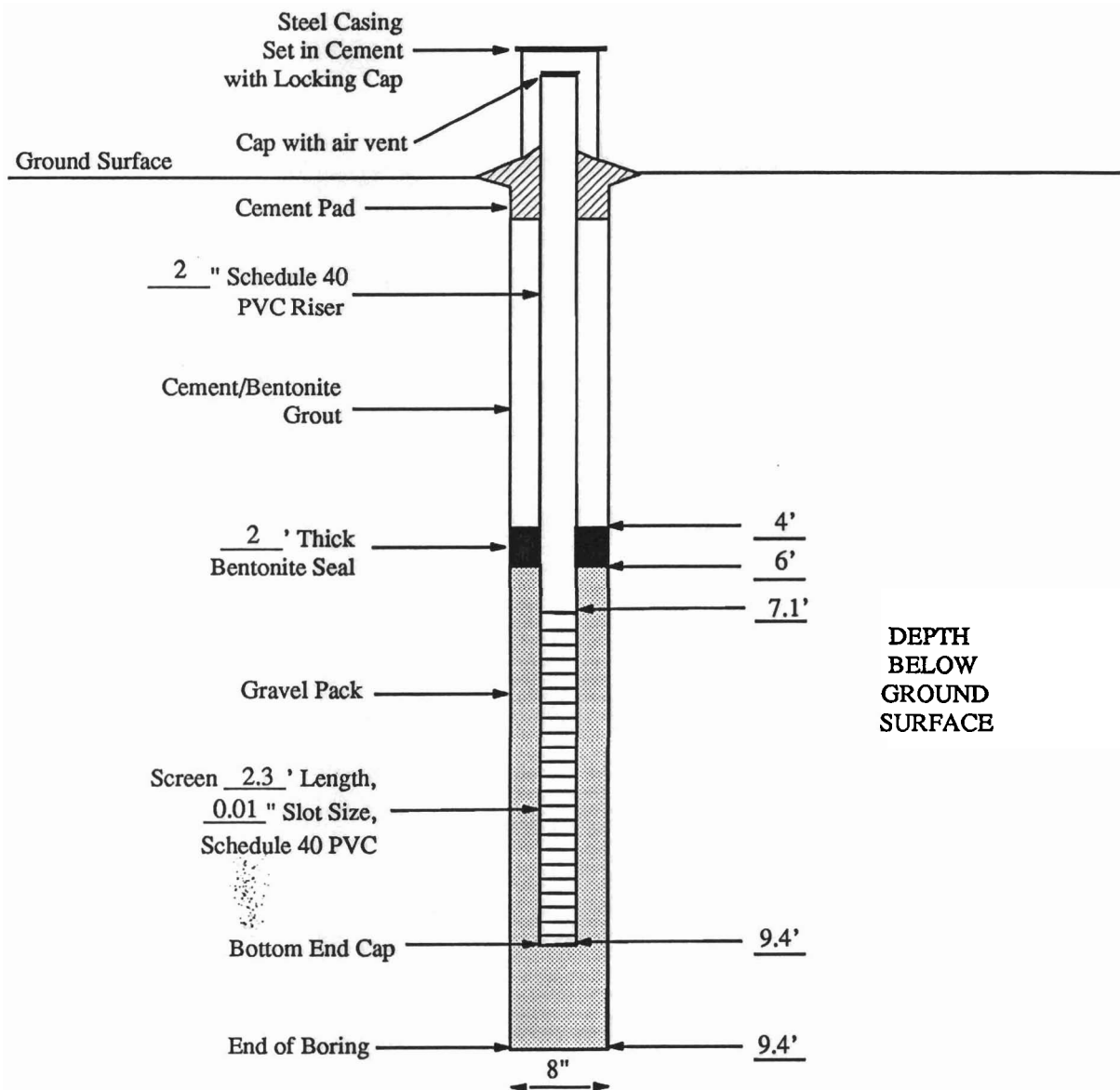
AS-BUILT DIAGRAM FOR WELL MW-10

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SITE NAME: Revere Smelting & Refining

LOCATION: Wallkill, New York

DATE: December 15, 1993



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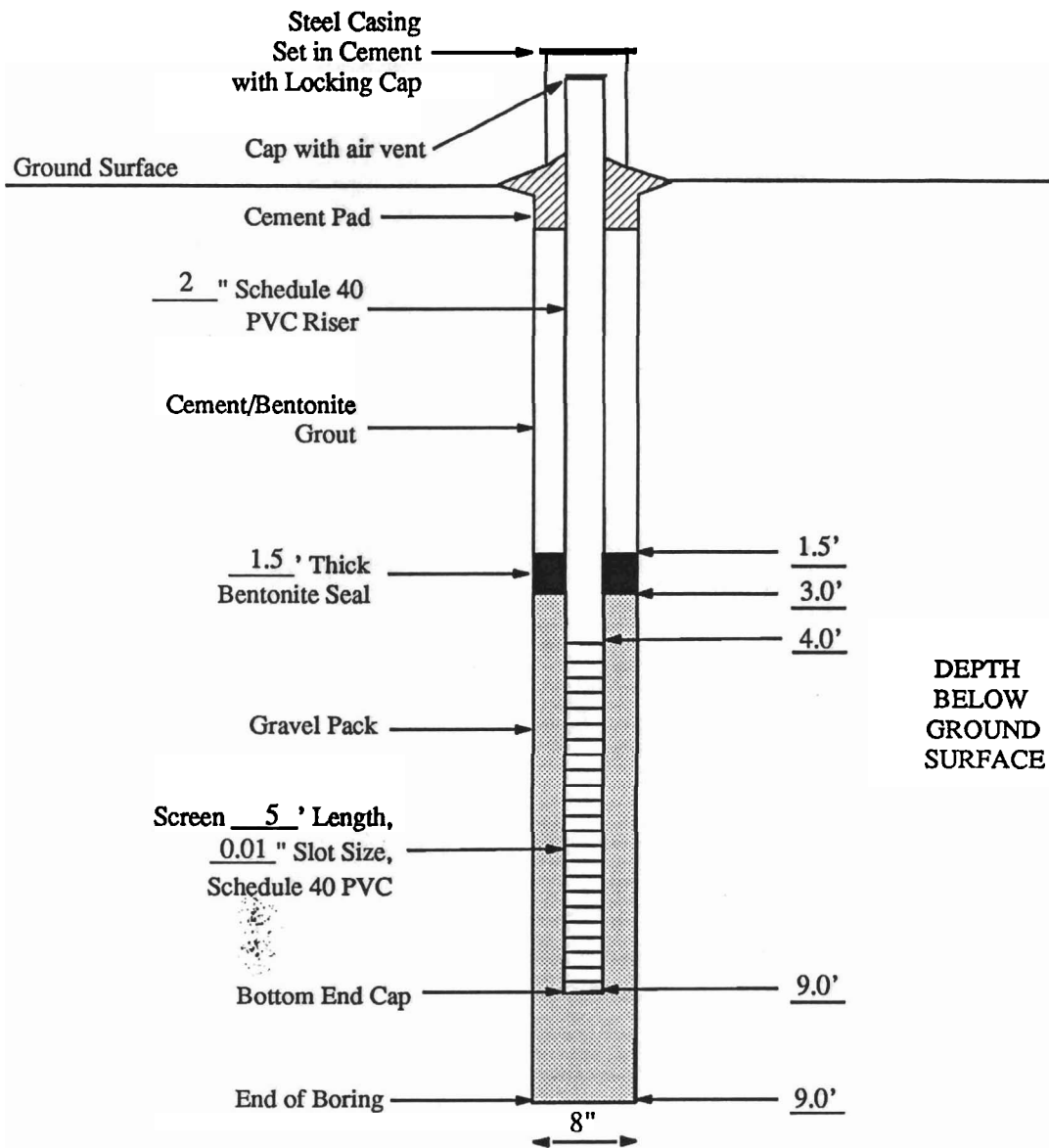
AS-BUILT DIAGRAM FOR WELL MW-11

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SITE NAME: Revere Smelting & Refining

LOCATION: Wallkill, New York

DATE: December 10, 1993



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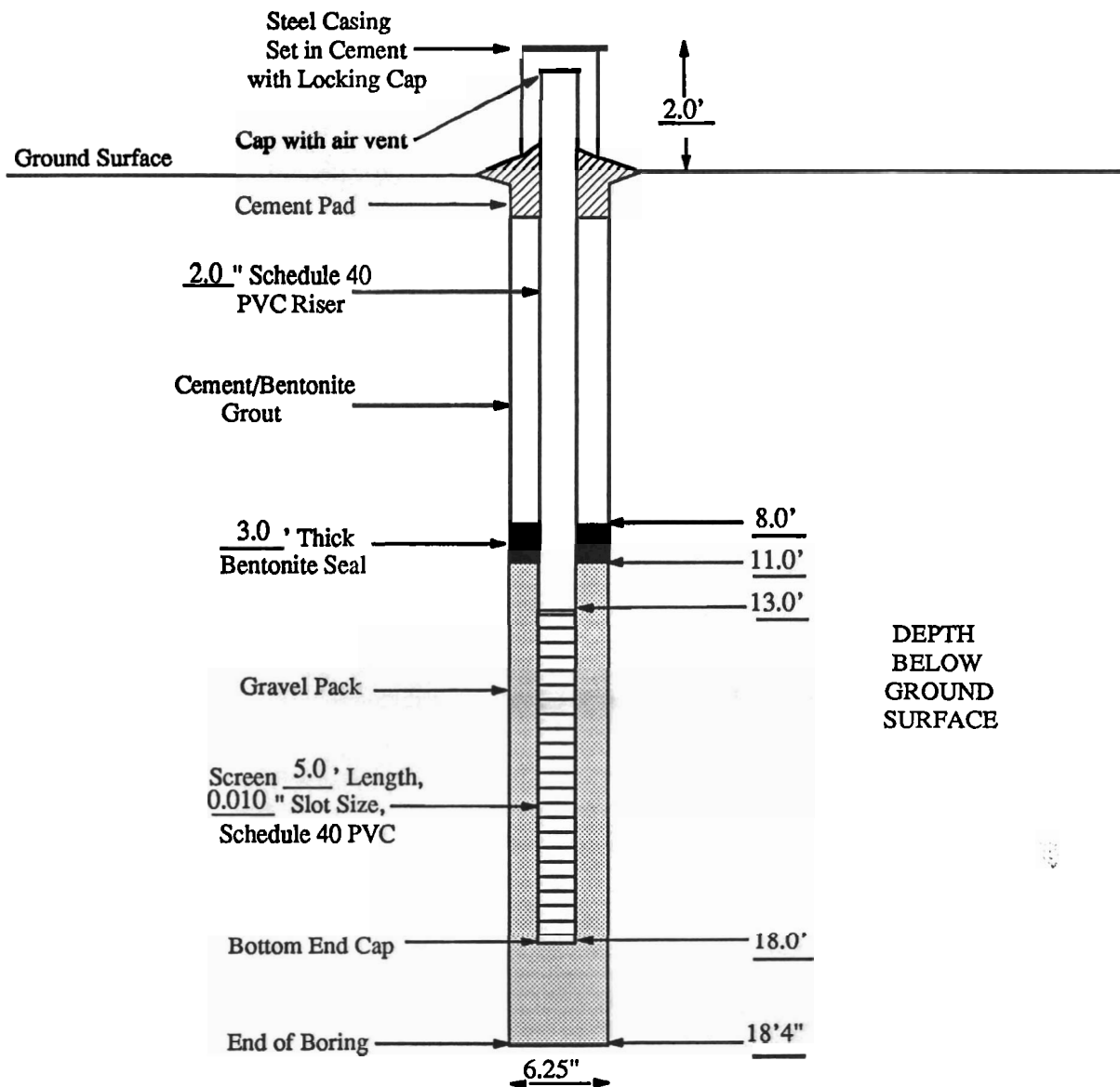
AS-BUILT DIAGRAM FOR WELL MW-12

BORING LOG Environmental Strategies Corporation Four Penn Center West, Ste. 315 Pittsburgh, Pennsylvania 15276			PROJECT Revere Smelting & Refining Wallkill, New York PA1217-02			Boring No. <u>MW-12</u> Sheet <u>1</u> of <u>1</u> Date Drilled <u>12/10/93</u>		
Drilling Co. <u>Empire Soil and Investigations</u> Driller <u>Glen Stevens</u> ESC Geologist <u>Patrick Peterson</u>					Boring Location <u>Near pond and R.R. tracks</u> Ground Elevation <u> </u> TOC Elevation <u> </u>			
Boring Method <u>Hollow Stem Augers</u> Hole Diameter <u>8-inch</u> Inside Diameter <u>4.25-inch</u> Total Depth <u>9.7-feet</u>			Casing/Screen Type <u>PVC</u> Diameter <u>2-inch</u> Screen Length <u>5-foot</u> Screen Slot Size <u>0.01-inch</u>			Sampler Method <u>Split-spoon</u> Length (ft) <u>2-foot</u> Hammer (lb) <u>140</u> Fall (in) <u>30</u>		
Depth (ft)	P.I.D . (ppm)	Percent Recovery	Sample Depth (ft)	Blows/6"	Sample Number	Sample Description		
0	N/A	75	0-2	1-3-6-10	MW12-1	TOPSOIL, silt, brown, trace sand and gravel, moist.		
0.4						CLAY, some silt, little subangular gravel and sand, moderately plastic, brown, gray mottling, no bedding structure, Fill.		
2	N/A	60	2-4	3-6-7-12	MW12-2	FINE GRAVELLY CLAY, some silt, low to high plasticity, brown, some roots and asphalt, bluish gray mottling, stiff, moist, Fill.		
3.8	N/A	80	4-6	5-4-5-5	MW12-3	CLAY, some silt and organics, dark gray, little sand and fine to medium round gravel, slight to moderate plasticity, moist, natural soil.		
6.2	N/A	100	6-8	4-6-8-12	MW12-4	CLAY, light brown, fat clay, little sand, some round fine gravel, moist to well, stiff, natural soil. Increase in silt with depth and little reddish brown mottling.		
9.7	N/A	100	8-10	4-2-12-28		GRAVELLY SILT, some sand and fine to medium round gravel, slightly oxidized, dark brown, stiff, wet, Till at 9.7 feet.		
						Note: Water measured at 4.2 feet.		

SITE NAME: RSR/Walkkill, New York

LOCATION: MW-1

DATE: July 28, 1994



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AS-BUILT DIAGRAM FOR WELL MW-13

BORING LOG Environmental Strategies Corporation Four Penn Center West, Ste. 315 Pittsburgh, Pennsylvania 15276	PROJECT Revere Smelting & Refining Wallkill, New York		Boring No. <u>MW-13</u>
			Sheet <u>1</u> of <u>2</u>
			Date Drilled <u>7/27-8/94</u>
Drilling Co. <u>Parrat Wolff, Inc.</u> Driller <u>Glen Lansing\ Arnold Chapel</u> ESC Geologist <u>E. Michael Riggins</u>		Boring Location <u>East of unnamed tributary</u> Ground Elevation _____ TOC Elevation _____	

Boring Method <u>Hollow-Stem Auger</u> Hole Diameter <u>6.25"</u> Inside Diameter <u>4.25"</u> Total Depth <u>18.4'</u>	Casing/Screen Type <u>Polyvinyl Chloride</u> Diameter <u>2.0"</u> Screen Length <u>5.0'</u> Screen Slot Size <u>0.010"</u>	Sampler Method <u>Split-spoon</u> Length (ft) <u>2.0</u> Hammer (lb) <u>140</u> Fall (in) <u>30</u>
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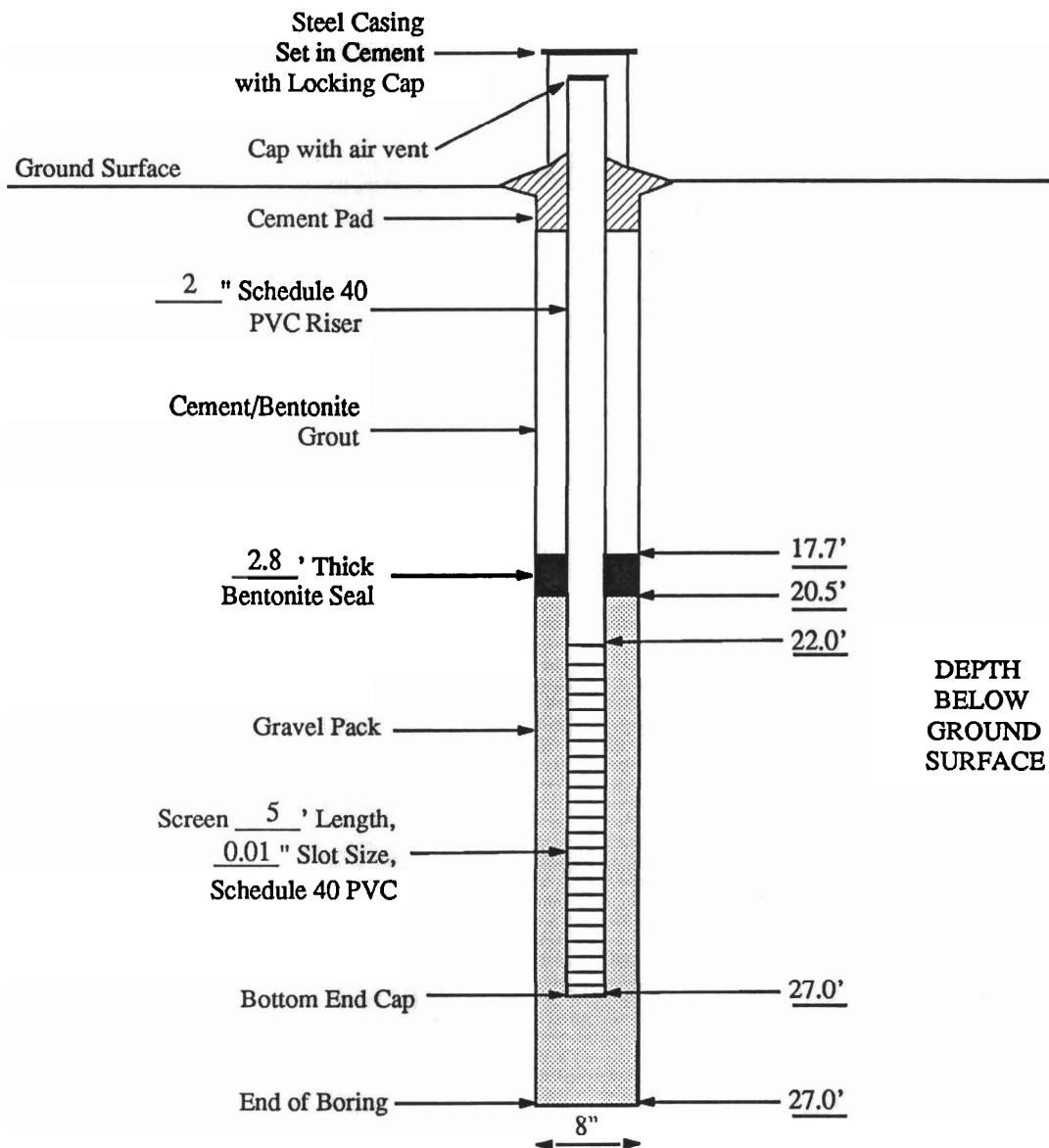
Depth	P.I.D. (ppm)	% Recov	Sample Depth	Blows/6"	Sample Description
0.0 - 2.0'	NS	60	0.3 - 2.0'	5/7/6/25	0.0 - 0.3' - Organics decaying
			MW13-1		leaves, and roots
					0.3 - 2.0' - SILT - light yellowish
					brown, little gravel, trace clay,
					dry, non-plastic
2.0 - 4.0'	NS	80	3.0 - 4.0'	12/32/27/35	Same as above to 2.5', little to
			MW13-2		some sandstone rock fragments from
					2.5 - 3.0', then SILT - yellowish
					gray with orange mottling, little
					clay, trace rock fragments, non-
					plastic, dry
4.0 - 6.0'	NS	0		50/4"	No recovery- sandstone fragment in
					spoon tip
6.0 - 8.0'	NS	75	7.0 - 8.0'	25/14/11/13	SILT TILL - yellowish brown, trace
			MW13-3		clay and sand, some rock
					fragments, damp at 7.5'
8.0 - 10.0'	NS	90	9.0 - 10.0'	16/33/22/46	SILT TILL - and rock fragments, *
			MW13-4		trace clay and sand, dry
10.0 - 11.0'	NS	100	10.0 - 11.0'	27/70	Rock fragment & SILT TILL - trace
			MW13-5		clay and sand, weathered and
					fresh, gray shale fragments,
					dry
12.0 - 14.0'	NS	60	12.0 - 14.0'	20/19/18/18	SILT TILL - dark yellowish brown
			MW13-6		some gray shale fragments, trace
					clay and sand, damp at 13.5'

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SITE NAME: Revere Smelting & Refining

LOCATION: Wallkill, New York

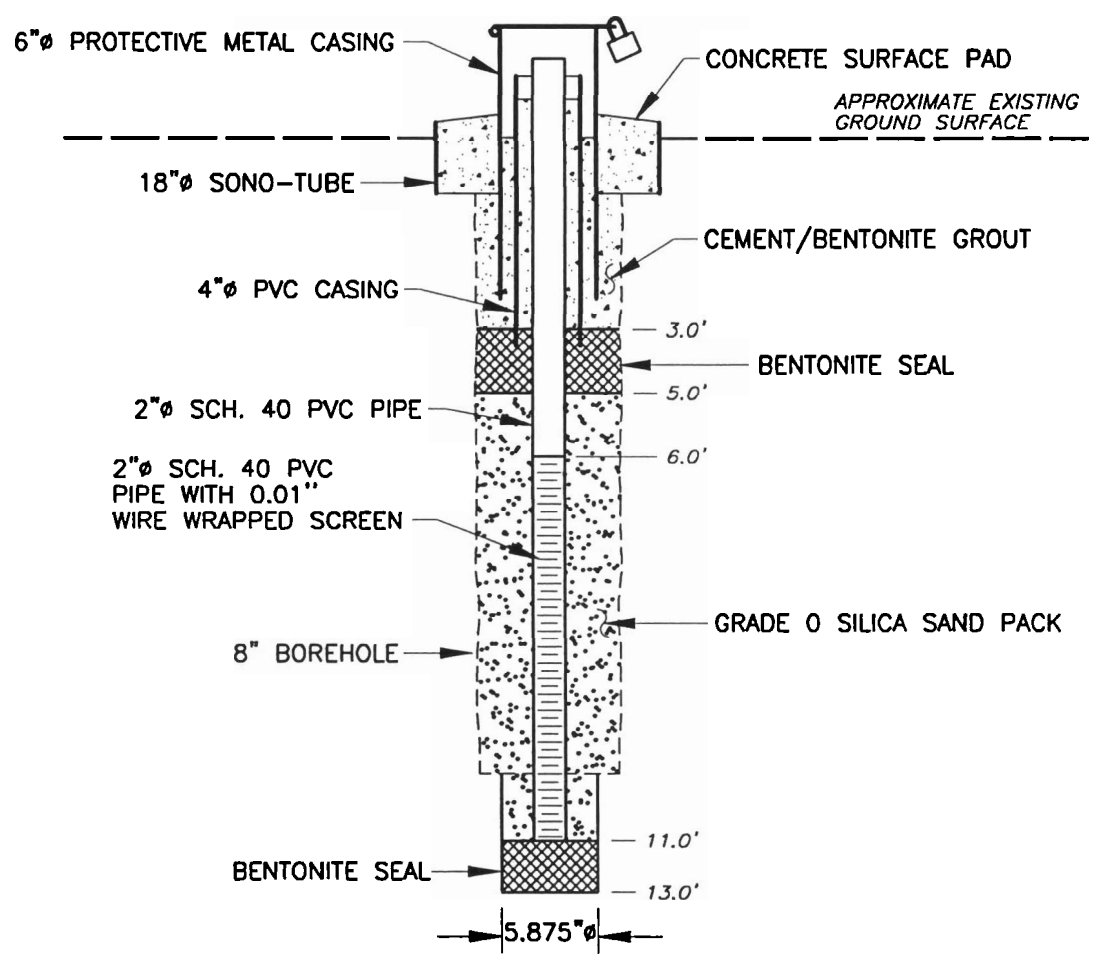
DATE: December 14, 1993



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AS-BUILT DIAGRAM FOR WELL MW-14

BORING LOG Environmental Strategies Corporation Four Penn Center West, Ste. 315 Pittsburgh, Pennsylvania 15276				PROJECT <u>Revere Smelting & Refining</u> <u>Wallkill, New York</u> <u>PA1217-02</u>		Boring No. <u>MW-14</u> Sheet <u>1</u> of <u>2</u> Date Drilled <u>12/13-14/93</u>	
Drilling Co. <u>Empire Soil and Investigations</u> Driller <u>Glen Stevens</u> ESC Geologist <u>Patrick Peterson</u>				Boring Location <u>South property line</u> Ground Elevation <u> </u> TOC Elevation <u> </u>			
Boring Method <u>Hollow Stem Augers</u> Hole Diameter <u>8-inch</u> Inside Diameter <u>4.25-inch</u> Total Depth <u>27-feet</u>				Casing/Screen Type <u>PVC</u> Diameter <u>2-inch</u> Screen Length <u>5-foot</u> Screen Slot Size <u>0.01-inch</u>		Sampler Method <u>Split-spoon</u> Length (ft) <u>2-foot</u> Hammer (lb) <u>140</u> Fall (in) <u>30</u>	
Depth (ft)	P.I.D (ppm)	Percent Recovery	Sample Depth (ft)	Blows/6"	Sample Number	Sample Description	
0	N/A	50	0-2	7-7-12-14	MW14-1	TOPSOIL, silt with clay, some sand and fine gravel, brown, stiff, moderately plastic, moist.	
1.5						CLAYEY SILT, some sand and shale fragments, slight to moderate plasticity, brown, moist.	
3.7	N/A	75	2-4	5-10-10-11	MW14-2	GRAVELLY SILT, with sand and clay,	
	N/A	75	4-6	12-14-17-21	MW14-3	some shale fragments, brown, non-plastic, moist, Till.	
	N/A	75	6-8	24-36-34-26	MW14-5		
	N/A	75	8-10	24-26-21-17	MW14-6	Note: Color change to gray.	
	N/A	75	10-12	16-18-17-13	MW14-7	Note: Some orange brown mottling.	
12	N/A	75	12-14	30-26-24-22	MW14-8	GRAVELLY SILT, some sand and clay, little shale fragments, non-plastic slight mottling, moist, wet zone 13.8 feet, hard Till.	
14	N/A	75	14-16	12-24-26-26	MW14-9	GRAVELLY CLAY, some silt and sand, brown/gray, moist, moderately plastic, hard, Till.	
	N/A	75	16-18	18-22-24-21	MW14-10		
18	N/A	100	18-20	12-20-18-19	MW14-11	CLAYEY SILT, some round gravel and sand, trace shale fragments, moist,	
	N/A	90	20-22	16-21-19-18	MW14-12	brown, hard, Till, color change to gray at 19.5 feet.	
22.5	N/A	80	22-24	17-50-67-97	MW14-13	SILT, with shale fragments, dry,	
	N/A	75	24-26	37-60-33-32	MW14-14	hard, little clay, gray.	
26	N/A	75	26-27.5	37-58-100/4"		SILT with shale fragments, saturated at 26 feet. Auger to 27 feet.	



MW-15A

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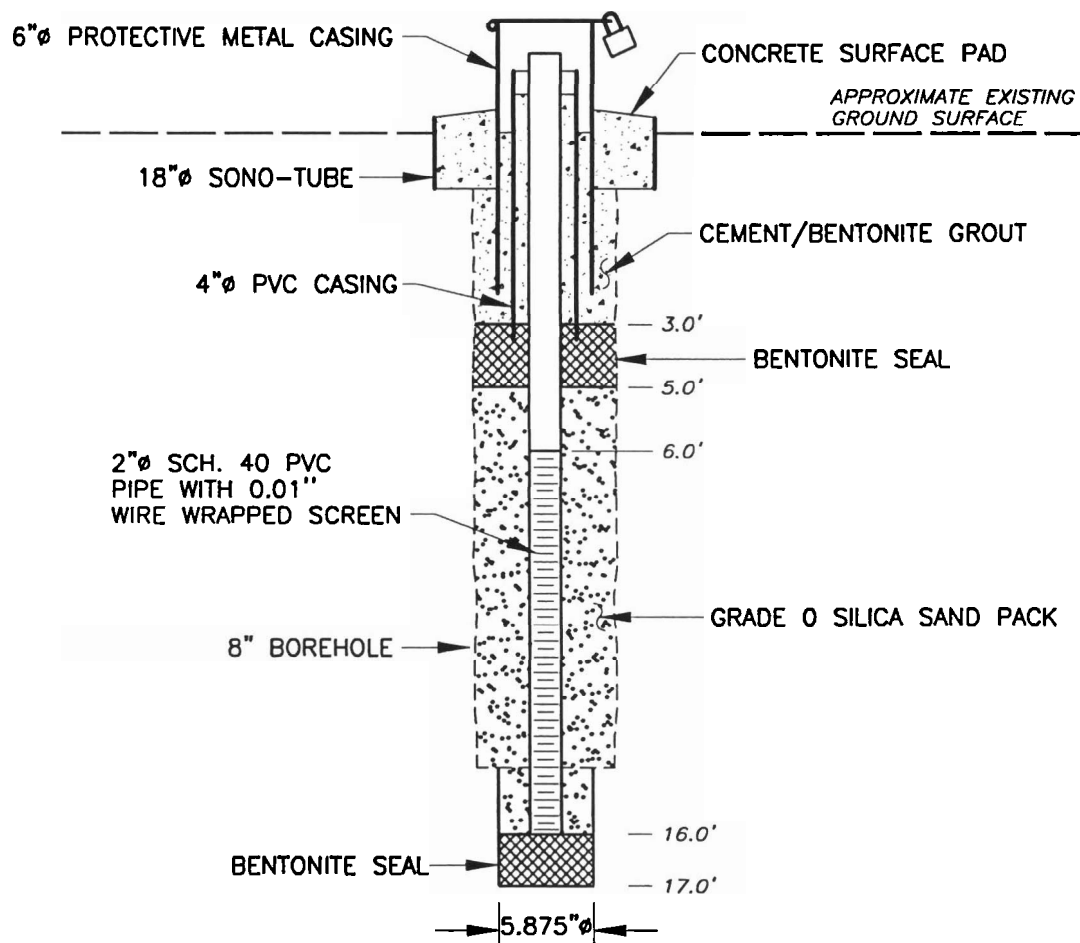
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Figure

"AS-BUILT" MONITORING WELL
DIAGRAM FOR MW-15A

REVERE SMELTING & REFINING CORPORATION
MIDDLETOWN, NEW YORK
PREPARED FOR
RSR CORPORATION
DALLAS, TEXAS

BORING LOG Environmental Strategies Corporation Campbells Run Road Four Penn Center West, Suite 315 Pittsburgh, PA 15276				PROJECT 213471-02 REVERE SMELTING AND REFINING 65 BALLARD RD. MIDDLETOWN, NEW YORK		Boring Number: MW-15A Sheet 1 of 1 Date Drilled: 6/10/97	
Drilling Company: PARRATT WOLFF, INC. Driller: JIM HAMMOND and KEVIN WHITE ESC Geologist: E. MICHAEL RIGGINS				Boring Location: North of Wakefern, South of Rail Line Ground Elevation: 484.17' TOC Elevation: 486.46'			
BORING Method: HOLLOW STEM AUGERS/AIR ROTARY Hole Diameter: 8" / 6" Inside Diameter: 4.25" / 6" Total Depth: 13'				SAMPLER Method: SPLIT SPOON SAMPLER/BEDROCK CORE Length (ft): 2 FEET Hammer (lb): 140 LBS Fall (in): 30 INCHES			
Depth Below Grade (ft)	Samples Collected	Percent Recovery	Sample Depth	Blows/6"	Moisture	Sample Description	
0' - 0.5'	MW15A-1 (0'-0.5')	100	0' - 2'	2/2/2/1	Wet	SILT, dark brown, loamy, trace clay, plastic, root zone.	
0.5' - 2'	MW15A-2 (0.5'-1') MW15A-3 (1'-1.5') MW15A-4 (1.5'-2')				Wet	SAND and GRAVEL, medium gray, little silt, plastic.	
2' - 4'	MW15A-5 (2'-4')	100	2' - 4'	2/3/5/5	Saturated to 3.5'	SAND and GRAVEL, gray, medium to coarse sand and gravel, trace silt and clay, sticky, to 3.5' then SAND, yellowish brown, little silt, trace clay, slightly plastic, fine-grained.	
4' - 6'	MW15A-6 (4' - 6')	100	4' - 6'	14/20/18/13	Saturated	SAND, same as above to 4.5' then, SAND and GRAVEL, gray, medium to coarse, trace silt, plastic to slightly plastic.	
6' - 8'	MW15A-7 (6'-8')	70	6' - 7.4'	12/22/50 for 4"	Wet	SAND and GRAVEL, same as above to 7.5' , then, SILT TILL, bluish gray to light. yellowish brown, little sand, trace gravel and clay, slightly plastic.	
8' - 10'	MW15A-8 (8'-10')	70	8' - 9.5'	37/37/74		SILT TILL, same as above to 10', then weathered shale.	
10'- 13'						SHALE, gray to dark gray, weathered on top to competent at bottom.	
						Bottom of Borehole	
						G:\wp\files\bcd\midtown\rsr\midt. 15	



MW-16

NOT TO SCALE

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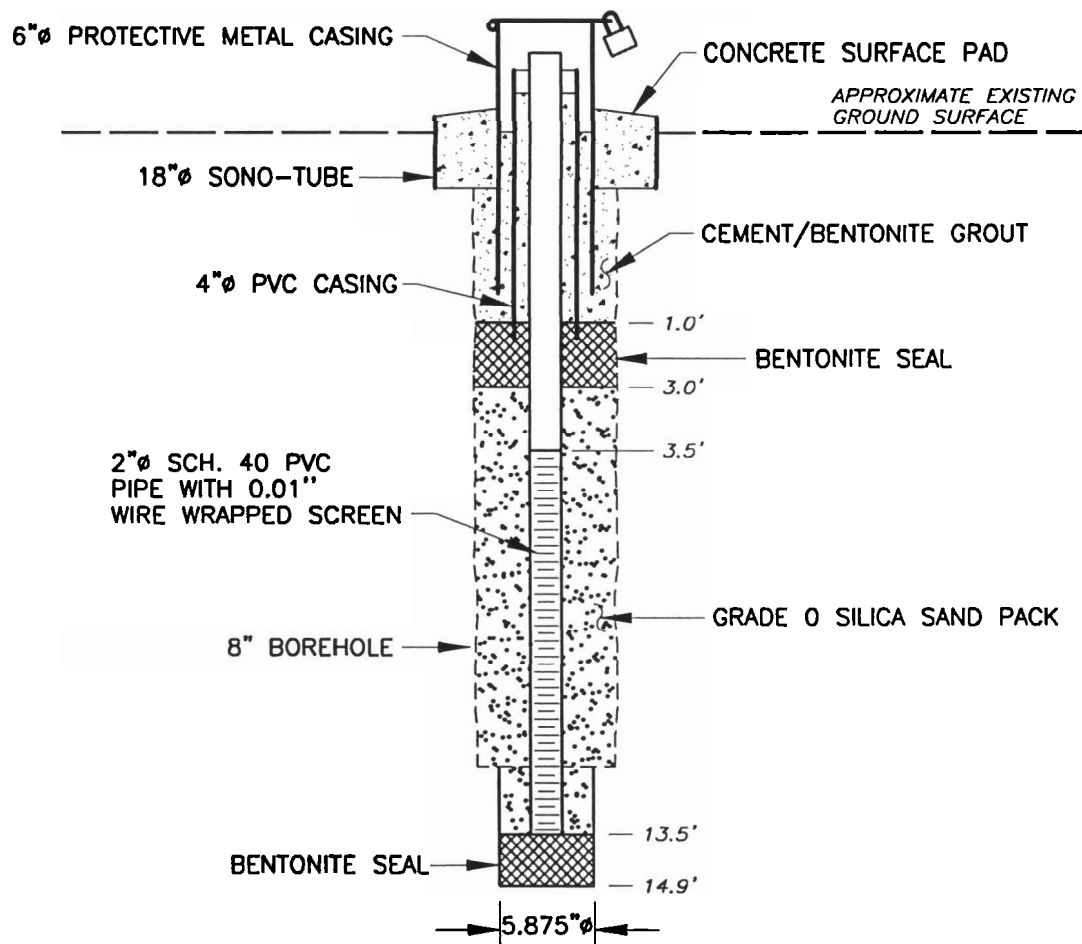
Figure

"AS-BUILT" MONITORING WELL
 DIAGRAM FOR MW-16

REVERE SMELTING & REFINING CORPORATION
 MIDDLETOWN, NEW YORK

PREPARED FOR
 RSR CORPORATION
 DALLAS, TEXAS

BORING LOG Environmental Strategies Corporation Campbells Run Road Four Penn Center West, Suite 315 Pittsburgh, PA 15276				PROJECT 213471-02 REVERE SMELTING AND REFINING 65 BALLARD RD. MIDDLETOWN, NEW YORK		Boring Number: MW-16 Sheet 1 of 1 Date Drilled: 6/03/97 to 6/04/97
Drilling Company: PARRATT WOLFF, INC. Driller: JIM HAMMOND and KEVIN WHITE ESC Geologist: E. MICHAEL RIGGINS				Boring Location: North of Wakefern, South of Rail Line Ground Elevation: 493.12' TOC Elevation: 495.22'		
BORING Method: HOLLOW STEM AUGERS/AIR ROTARY Hole Diameter: 8" / 6" Inside Diameter: 4.25" / 6" Total Depth: 17'				SAMPLER Method: SPLIT SPOON SAMPLER/BEDROCK CORE Length (ft): 2 FEET Hammer (lb): 140 LBS Fall (in): 30 INCHES		
Depth Below Grade (ft)	Samples Collected	Percent Recovery	Sample Depth	Blows/6"	Moisture	Sample Description
0' - 0.6'	MW16A-1 (0'-0.5')	100	0' - 2'	1/3/4/3	Dry	SILT, root zone, trace clay and rock fragments, medium brown.
0.6' - 2'	MW16A-2 (0.5'-1') MW16A-3 (1'-1.5') MW16A-4 (1.5'-2')				Dry	SILT, trace clay and rock frags, non-plastic, tannish brown.
2' - 4'	MW16A-5 (2'-4')	100	2' - 4'	18/22/27/32	Dry	SILT, trace clay and rock frags., faint mottling, light yellowish to yellowish brown, non-plastic, brittle.
4' - 6'	MW16A-6 (4'-6')	100	4' - 6'	27/17/28/18	Dry	SILT same as above to 5.0', then shale fragments to 5.1', then SILT, dark brown to dark. Bluish gray, trace clay and dark gray shale fragments, non-plastic.
6' - 7.5'	MW16A-7 (6'-8')	100	6' - 8'	13/16/17/21	Moist at 7'	SILT, trace clay and rock fragments, light brown, brittle.
7.5' - 8'					Moist to wet	SILT, olive gray to gray, trace sand, clay, little rock fragments, slightly plastic.
8' - 9.5'	MW16A-8 (8'-10')	100	8' - 10'	3/106/7	Wet	SILT and Rock Fragments, dark brown to gray, non-plastic.
9.5' - 10'					Dry	CLAY, med. gray to yellowish brown, little silt.
10' - 12'	MW16A-9 (10'-12')	100	10' - 12'	10/14/13/15	Saturated	ROCK FRAGMENTS, shale, dark gray, some silt, trace clay.
12' - 13.6'	MW16A-10	70	12'-13.6'	20/30/34/50 for 1"	Wet to Saturated	ROCK FRAGMENTS, and SILT, dark brown with dark gray shale fragments, trace clay, slightly plastic.
13.6' - 17'						SHALE, black to dark gray.
						Bottom of borehole.
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MW-17

NOT TO SCALE

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 Pittsburgh, Pennsylvania 15276
 (412) 787-5100

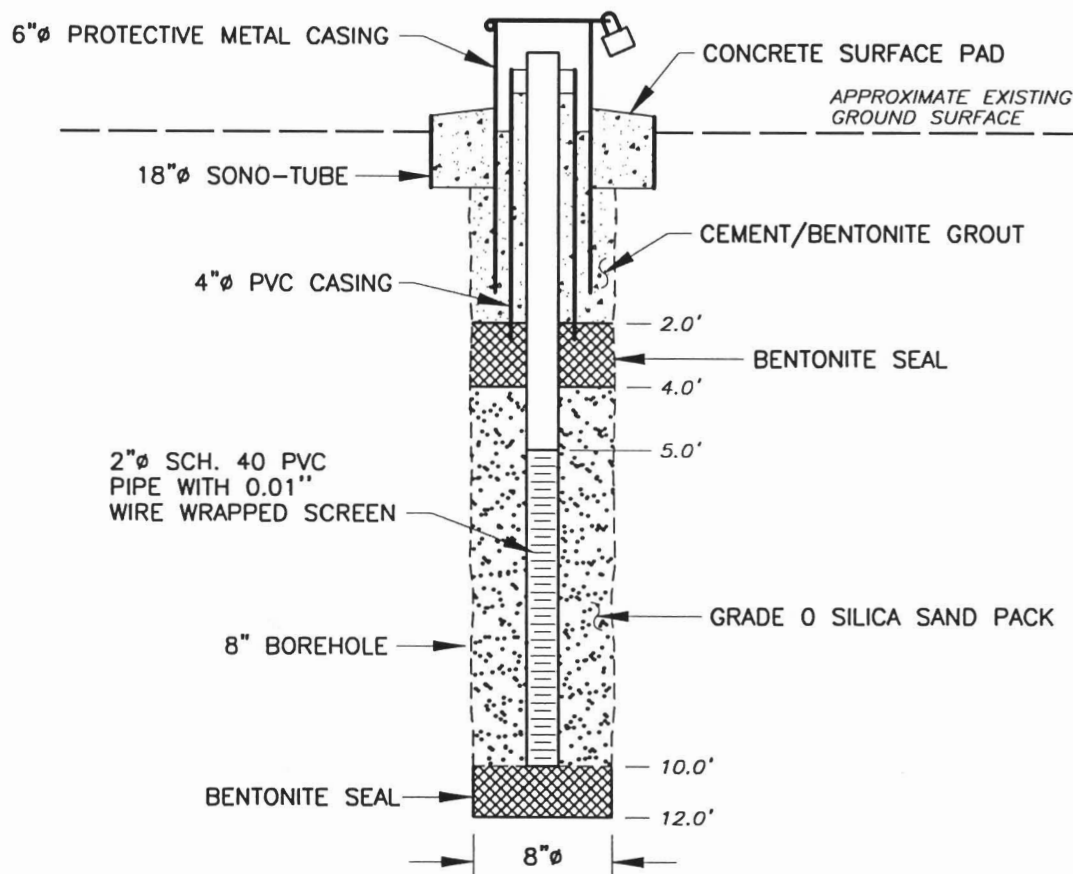
Figure

"AS-BUILT" MONITORING WELL
 DIAGRAM FOR MW-17

REVERE SMELTING & REFINING CORPORATION
 MIDDLETOWN, NEW YORK

PREPARED FOR
 RSR CORPORATION
 DALLAS, TEXAS

BORING LOG Environmental Strategies Corporation Campbells Run Road Four Penn Center West, Suite 315 Pittsburgh, PA 15276				PROJECT 213471-02 REVERE SMELTING AND REFINING 65 BALLARD RD. MIDDLETOWN, NEW YORK		Boring Number: MW-17 Sheet 1 of 1 Date Drilled: 6/05/97, 6/06/97
Drilling Company: PARRATT WOLFF, INC. Driller: JIM HAMMOND and KEVIN WHITE ESC Geologist: E. MICHAEL RIGGINS				Boring Location: North of Wakefern, South of Rail Line Ground Elevation: 488.87' TOC Elevation: 491.46'		
BORING Method: HOLLOW STEM AUGERS/AIRROTARY Hole Diameter: 8" / 6" Inside Diameter: 4.25" / 6" Total Depth: 14.9'				SAMPLER Method: SPLIT SPOON SAMPLER/BEDROCK CORE Length (ft): 2 FEET Hammer (lb): 140 LBS Fall (in): 30 INCHES		
Depth Below Grade (ft)	Samples Collected	Percent Recovery	Sample Depth	Blows/6"	Moisture	Sample Description
0' - 0.5'	MW17A-1	100	0' - 2'	4/5/8/7	Moist	SILT, loam, black, roots, some clay, slightly plastic.
0.5' - 1'	MW17A-2				Wet	CLAY, black, plastic to sticky, little silt, trace rock frags., and roots.
1' - 2'	MW17A-3				Wet	ROCK FRAGMENTS, dark gray, some silt, trace clay.
2' - 4'	MW17A-4	100	2' - 4'	46/32/28/26	Moist to wet	CLAY, gray with some rock fragments, trace silt, yellowish brown mottles, plastic and sticky.
4' - 6'	MW17A-5	100	4' - 6'	4/7/6/8	Moist	SILT TILL, gray, some clay, trace rock fragments, plastic, mottled.
6' - 8'	MW17A-6	100	6' - 8'	7/8/11/13	Moist	SILT TILL, gray, mottled, trace clay, fine sand, and rock fragments, slightly plastic, shale fragment in tip.
8' - 10'		0	8' - 10'	23/24/23/20		No recovery, siltstone fragment in tip, dark gray.
10' - 10.9'	MW17A-7	30	10' - 10.9'	18/50 for 4"		SHALE, dark gray, weathered, bedrock.
10.9' - 14.9'			10.9' - 14.9'			SHALE, dark gray, weathered top 4", weathered zone at @ 12.5' for 2", calcite streaks in competent shale in core bottom.
						Bottom of borehole.
						G:\wp\files\bcd\midtown\rsrcmidt.17



MW-18

NOT TO SCALE

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ENVIRONMENTAL STRATEGIES CORPORATION
Four Penn Center West, Suite 315
Pittsburgh, Pennsylvania 15276
(412) 787-5100

Figure

"AS-BUILT" MONITORING WELL
DIAGRAM FOR MW-18

REVERE SMELTING & REFINING CORPORATION
MIDDLETOWN, NEW YORK

PREPARED FOR
RSR CORPORATION
DALLAS, TEXAS

WELL COMPLETION LOG

Well ID: **MW-23S**

Project: Revere Smelting & Refining
Location: Middletown, New York
Project No.: 26408.004.400

Client: NYSDEC
Date Drilled: 11/7/2001
Date Developed: 11/9/2001

Inspection Notes:

Inspector: Garrett Sleeman
Drilling Contractor: Parratt Wolff, Inc.
Type of Well: Environmental Monitoring Well

Static Water Level (ft bmp): 4.3 **Date:** 11/09/01
Measuring Point: Top of PVC
Total Depth of Well (ft bmp): 13.82

Drilling Method - Overburden:

Type: HSA **Diameter:** 4 1/4" ID
Casing: NA

Sampling Method - Overburden:

Type: Split-Spoon **Diameter:** 2" OD
Weight: 140 # **Fall:** 30"
Interval: 2.0'

Riser Pipe Left in Place:

Material: Sch 40 PVC **Diameter:** 2" ID
Length: 2.0' **Joint Type:** Flush Thread

Screen:

Material: Sch 40 PVC **Diameter:** 2" ID
Slot Size: **Joint Type:** Flush Thread

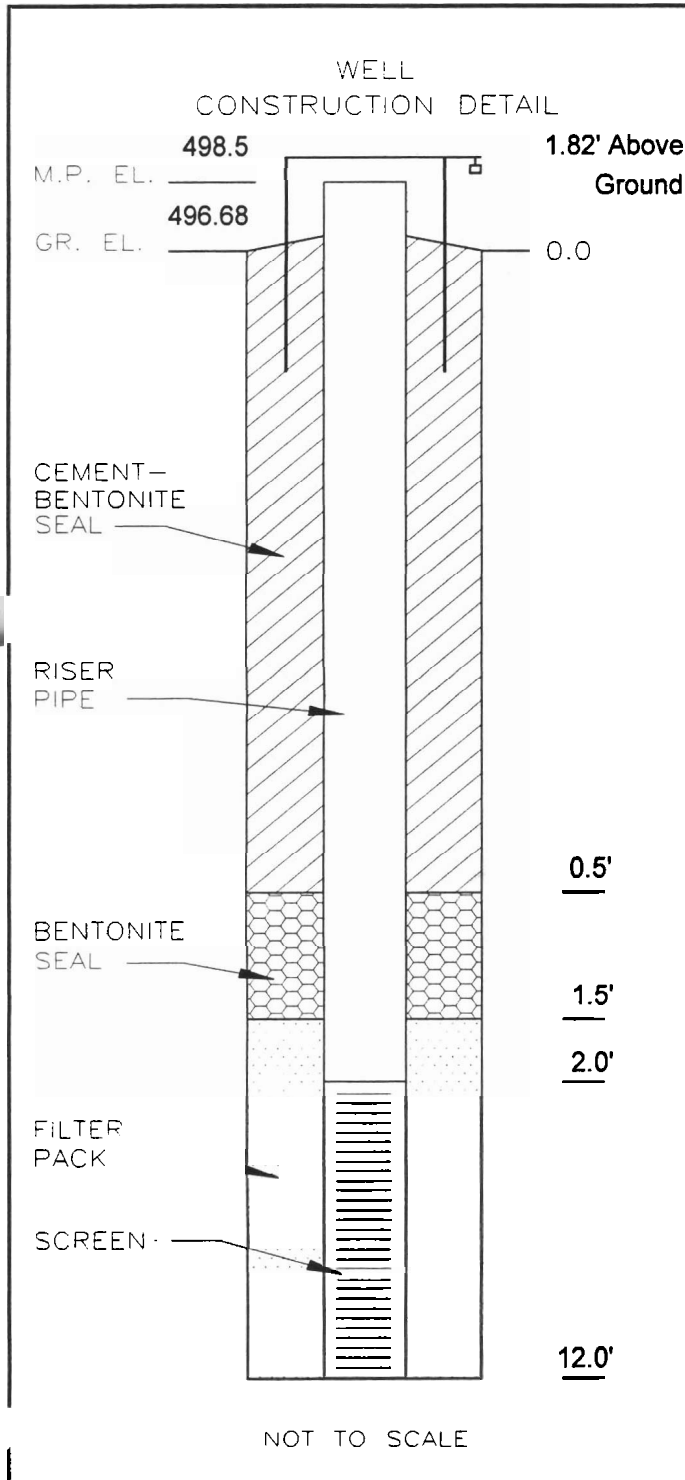
Filter Pack:

Type: Sand **Grade:**
Interval: 2.0'-12.0' BS

Seal(s):

Type: Cement-Bentonite **Interval:** 0.0'-0.5' BS
Type: Bentonite Pellets **Interval:** 0.5'-1.5' BS
Type: **Interval:**

Locking Casing: ☒ Yes ☐ No



OBRIEN & GERE
ENGINEERS, INC.



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-23S

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Overburden Monitoring Well South of Sediment Pond

GROUND ELEV. 498.50

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM Ground Surface

DRILL RIG TYPE: 850 Track

TYPE

DATE STARTED 11/7/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 11/7/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	1	Weight of Hammer	0-1.3'		0-1.3' Brown SILT CLAY, some medium fine(+) Sand, trace medium(+) fine Gravel	"Clean" Fill Moist MW-23S (0-1.3' BS) 11:40
2	2	Weight of Hammer	2.0-2.4'		2.0-2.4' Brown SILT CLAY, some medium fine(+) Sand, trace medium fine Gravel	"Clean" Fill Very Moist MW-23S (2.0-2.4' BS) 11:45
4	3	Weight of Hammer	4-4.2'		4.0-4.2' Brown SILTY CLAY, and medium fine(+) SAND	Saturated "Clean" Fill MW-23S (4.0-4.2' BS) "Clean" Fill 11:50
6	4	Weight of Hammer	6.0-7.3'		6.0-7.3' Brown SILT CLAY, some medium fine(+) Sand, little medium(+) fine Gravel	MW-23S (6.0-7.3' BS) 12:05 Native Till
8					NR	No Recovery
9	5					
10						



OBRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-23S

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
			10.0-10.5'		10.0-10.5' Brown CLAY, some medium fine(+) Sand, trace medium fine Gravel	MW-23S (10.0-10.5' BS)
11	6				Brown CLAY, some medium, fine(+) sand, trace medium fine gravel.	
12						Completed MW-23S Drilling
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

WELL COMPLETION LOG

Well ID: **MW-24**

Project: Revere Smelting & Refining
Location: Middletown, New York
Project No.: 26408.004.400

Client: NYSDEC
Date Drilled: 11/8/2001
Date Developed: 11/9/2001

Inspection Notes:

Inspector: Garrett Sleeman
Drilling Contractor: Parratt Wolff, Inc.
Type of Well: Environmental Monitoring Well

Static Water Level (ft bmp): 3.28 **Date:** 11/09/01
Measuring Point: Top of PVC
Total Depth of Well (ft bmp): 14.25

Drilling Method - Overburden:

Type: HSA **Diameter:** 4 1/4" ID
Casing: NA

Sampling Method - Overburden:

Type: Split-Spoon **Diameter:** 2" OD
Weight: 140 # **Fall:** 30"
Interval: 2.0' Continuous Sampling

Riser Pipe Left in Place:

Material: Sch 40 PVC **Diameter:** 2" ID
Length: 4.45' **Joint Type:** Flush Thread

Screen:

Material: Sch 40 PVC **Diameter:** 2" ID
Slot Size: **Joint Type:** Flush Thread

Filter Pack:

Type: Sand **Grade:**
Interval: 15.0-12.2' BS

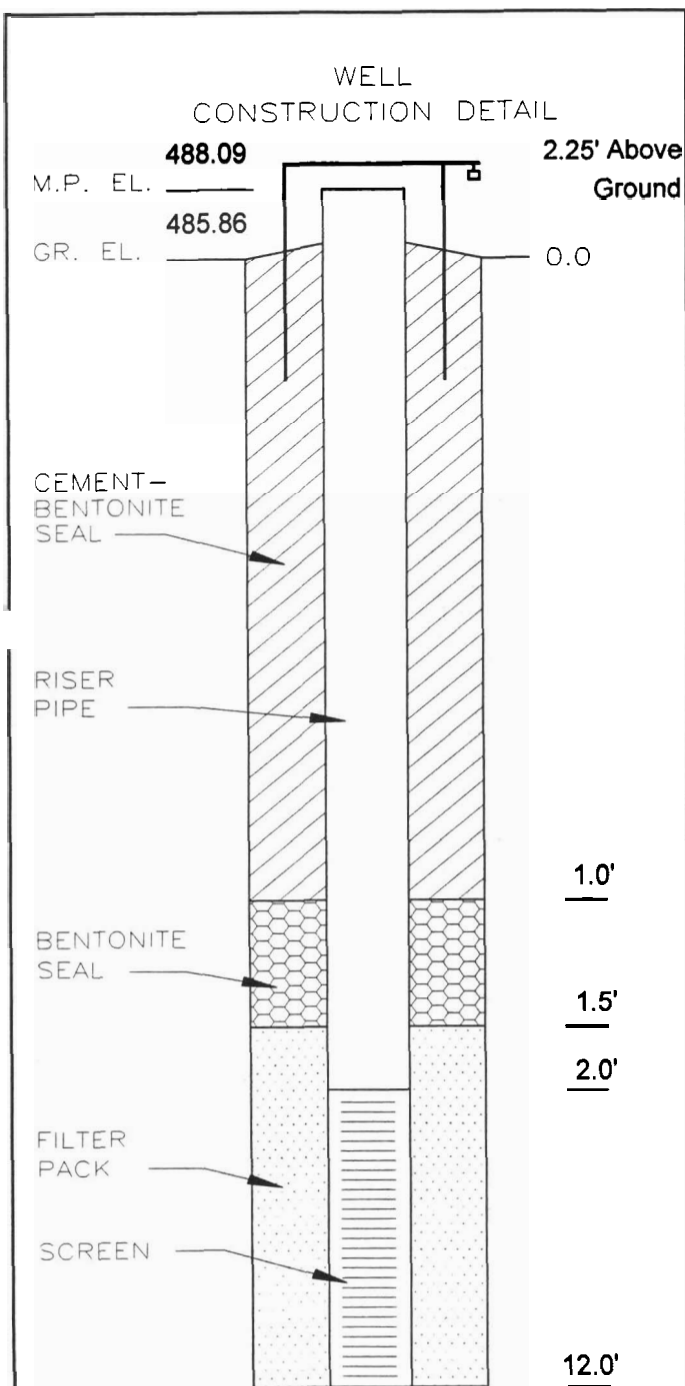
Seal(s):

Type: Cement-Bentonite **Interval:** 0-1.0' BS
Type: Bentonite Pellets **Interval:** 1.0-1.5' BS
Type: **Interval:**

Locking Casing: ☒ Yes ☐ No



OBRIEN & GERE
ENGINEERS, INC.



NOT TO SCALE



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-24

PROJECT: Revere Smelting and Refining	SHEET 1 OF 2
CLIENT: NYSDEC	JOB NO. 26408.004.400
DRILLING CONTRACTOR: Parratt Wolff Inc.	MEAS. PT. ELEV.
PURPOSE: Monitoring Well Installation South of Railroad Tracks	GROUND ELEV.
DRILLING METHOD: 4.5 Split Barrel	DATUM Ground Surface
DRILL RIG TYPE: 850 Track	DATE STARTED 11/8/2001
GROUND WATER DEPTH:	DATE FINISHED 11/8/2001
MEASURING POINT:	DRILLER J. Percy & J. Wheeler
DATE OF MEASUREMENT:	INSPECTOR G. Sleeman

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1		Weight of Hammer	0.0-0.8'		0-0.4' Grayish Brown SILT, little Clay, Organics with roots	A ₀ Horizon
	1				0.4-0.8' Yellowish Gray CLAY, trace coarse Gravel, little Silt	Moist
	4					Moderately Compact
	5					Histic B _{1g} Horizon
2	5		2.0-3.9'		2.0-2.6' Yellowish Brown CLAY, trace coarse Gravel little Silt	MW-24 (0-0.8' BS)
	5				2.6-3.9' Yellowish Brown CLAY, some Silt, little coarse medium fine Gravel, little medium fine Sand	14:10
3	13					
	13					
4	9		4.0-4.9'		4.0-4.9' Grayish Brown SILT CLAY, little medium fine Sand, some coarse medium fine Gravel	Saturated
	13					B _{1g} (Histic Soils)
	14					MW-24 (2.0-3.9' BS)
5	11					14:15
	13		6.0-7.2'		6.0-7.2' Dark Yellowish Brown CLAY, little coarse(+) medium Sand, little Silt, some coarse medium fine(+) Gravel	Dry Perched/Water Table
	20					Confining Clay Layer
	20					Poorly Sorted
6	15					MW-24 (4.0-4.9' BS)
	22		8.0-		8.0-9.0' Dark Yellowish Brown CLAY, little coarse(+) medium Sand, little Silt, some coarse medium fine(+) Gravel	14:45
7	17					
	10					
8	7					MW-24 (6.0-7.2' BS)
						14:40
9						Firmly Compact
10						



O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG


BORING NO. MW-24

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

Depth	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11		6	10.0-11.5'		10.0-11.5' Dark Yellowish Brown CLAY, little coarse(+) medium Sand, some coarse(-) medium fine(+) Gravel	MW-24 (20.0-11.5' BS) 15:05 Base of 12.0' Tip of Spoon Shale - Possible Bedrock End of Drilling
		20				
		37				
12		37				11.5'
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

WELL COMPLETION LOG

Well ID: **MW-25**

Project: Revere Smelting & Refining
Location: Middletown, New York
Project No.: 26408.004.400

Client: NYSDEC
Date Drilled: 11/8/2001
Date Developed: 11/9/2001

Inspection Notes:

Inspector: Garrett Sleeman
Drilling Contractor: Parratt Wolff, Inc.
Type of Well: Environmental Monitoring Well

Static Water Level (ft bmp): 4.26 **Date:** 11/09/01
Measuring Point: Top of PVC
Total Depth of Well (ft bmp): 14.51

Drilling Method - Overburden:

Type: HSA **Diameter:** 4 1/4" ID
Casing: NA

Sampling Method - Overburden:

Type: Split-Spoon **Diameter:** 2" OD
Weight: 140 # **Fall:** 30"
Interval: 2.0' Continuous Sampling

Riser Pipe Left in Place:

Material: Sch 40 PVC **Diameter:** 2" ID
Length: **Joint Type:** Flush Thread

Screen:

Material: Sch 40 PVC **Diameter:** 2" ID
Slot Size: **Joint Type:** Flush Thread

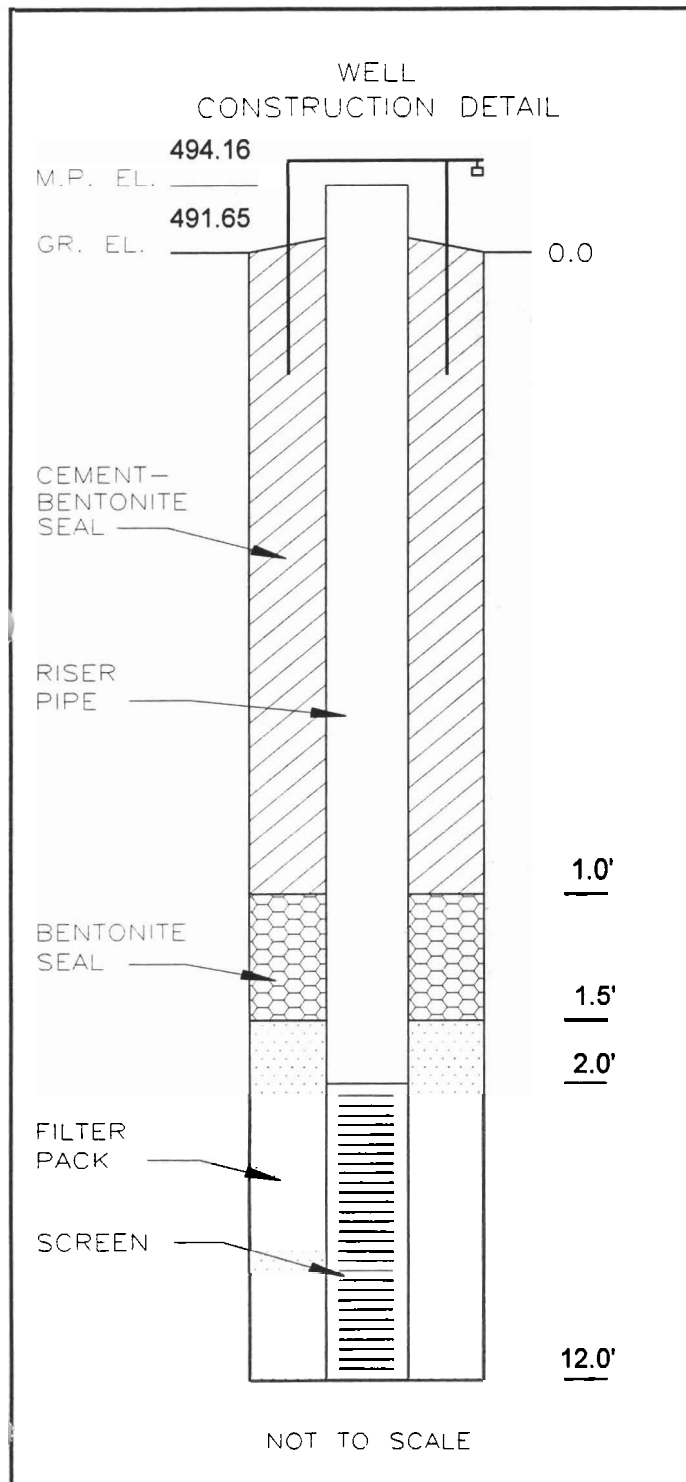
Filter Pack:

Type: Sand **Grade:**
Interval: 15.0-12.0' BS

Seal(s):

Type: Cement-Bentonite **Interval:**
Type: Bentonite Pellets **Interval:** 1.0-1.5' BS
Type: **Interval:**

Locking Casing: ☒ Yes ☐ No





O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-25

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Monitoring Well Installation South of Railroad Tracks

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM Ground Surface

DRILL RIG TYPE:

TYPE

DATE STARTED 11/8/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 11/8/2001

MEASURING POINT:

WEIGHT


DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1		1	0-0.9'		0-0.2' Dark Brown CLAY, organic roots, wood	0.5' BS - Saturated MW-25 (0-0.9' BS) 12:25 Native Subangular Gravel
		2			0.2-0.9' Yellowish Brown CLAY, trace Silt, little coarse medium Sand, some medium fine(+) Gravel	
		3				
2		6				Firmly Compact Till MW-25 (2.0-3.0' BS) 12:35 Angular-Subangular Gravel
		12	2.0-3.0'		2.0-3.0' Yellowish Brown CLAY, and coarse medium SAND, some medium fine(+) Gravel	
3		21				MW-25 (4.0-5.1' BS) 12:45 Firmly Compact Till
		17				
4		19				MW-25 (6.0-7.0' BS) 12:50
		5	4.0-5.1'		4.0-4.8' Yellowish Brown CLAY and coarse medium SAND, some medium fine(+) Gravel	
5		8				Very firmly Compact MW-25 (8.0-9.6' BS) 12:55
		7			4.8-5.1' Yellowish Brown SILT and medium fine(+) SAND, some CLAY	
6		5				
		5	6.0-7.0'		6.0-7.0' Grayish Brown SILT CLAY, some medium fine Sand, little medium fine(+) Gravel	
7		11				
		11				
8		12				
		2	8.0-9.6'		8.0-9.6' Yellowish Brown-Grayish Brown SILT CLAY and coarse(+) medium SAND, some coarse medium fine(+) Gravel, alternating Clay Silt partings	
9		3				
		13				
10		11				

 OBRIEN & GERE <small>AN IRVING-CLOUD COMPANY</small>						TEST BORING LOG		BORING NO. MW-25	
PROJECT: Revere Smelting and Refining								SHEET 2 OF 2	
CLIENT: NYSDEC								JOB NO. 26408.004.400	
Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION		REMARKS		
11		6	10.0-10.6'		10.0-10.6' Yellowish Brown coarse medium fine(+) Gravel, little Silt Clay, some coarse(+) medium Sand 10.6'		MW-25 (10.0-10.6 BS) 13:00		
		13					Very Compact		
		10					Till		
		10					Gravel Angular Subrounded Completed MW-25 Drilling		
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									

WELL COMPLETION LOG

Well ID: MW-26

Project: Revere Smelting & Refining
Location: Middletown, New York
Project No.: 26408.004.400

Client: NYSDEC
Date Drilled: 11/8/2001
Date Developed: 11/9/2001

Inspection Notes:

Inspector: Garrett Sleeman
Drilling Contractor: Parratt Wolff, Inc.
Type of Well: Environmental Monitoring Well

Static Water Level (ft bmp): 9.07 Date: 11/09/01
Measuring Point: Top of PVC
Total Depth of Well (ft bmp): 16.85

Drilling Method - Overburden:

Type: HSA Diameter: 4 1/4" ID
Casing: NA

Sampling Method - Overburden:

Type: Split-Spoon Diameter: 2" OD
Weight: 140 # Fall: 30"
Interval: 2.0' Continuous Sampling

Riser Pipe Left in Place:

Material: Sch 40 PVC Diameter: 2" ID
Length: 10.0' Joint Type: Flush Thread

Screen:

Material: Sch 40 PVC Diameter: 2" ID
Slot Size: Joint Type: Flush Thread

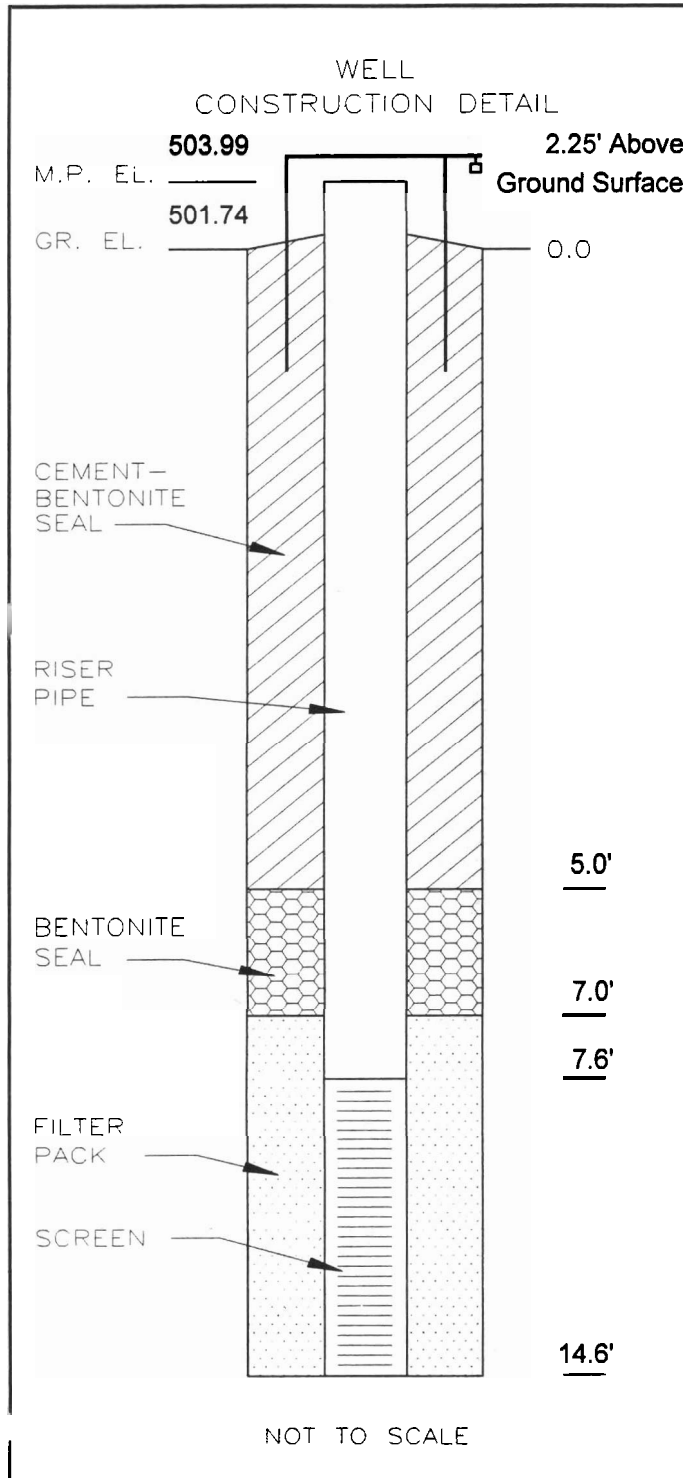
Filter Pack:

Type: Sand Grade:
Interval: 7.0-15.0' BS

Seal(s):

Type: Cement-Bentonite Interval: 0-5.0' BS
Type: Bentonite Pellets Interval: 5.0-7.0' BS
Type: Interval:

Locking Casing: ☒ Yes ☐ No



**O'BRIEN & GERE**

ENGINEERS, INC.

TEST BORING LOG**BORING NO. MW-26**

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Monitoring Well Installation, Just East of Pond

GROUND ELEV.

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM Ground Surface

DRILL RIG TYPE:

TYPE

DATE STARTED 11/8/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 11/8/2001

MEASURING POINT:

WEIGHT

DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth	Sample Number	Blows on Sample Spoon per 6"	Penetration/ Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	3		0-0.7'		0-0.7' Brown SILT, little medium fine Sand, trace medium fine Gravel	Fill, Dry, Loose MW-26 (0-0.7' BS) 8:05
	8					
	7					
2	6					
	6		2.0-2.7'		2.0-2.7' Brown SILT, trace fine Sand, little medium(+) fine Gravel	Fill, Dry, Loose MW-26 (2.0-2.7' BS) 8:10
3	8					
	7					
	4					
4	2		4.0-5.5'		4.0-4.1' Brown SILT, trace fine Sand, little coarse medium(+) fine Gravel	Moist Fill Possible Native MW-26 (4.0-5.5' BS) 8:20
	4				4.1-5.4' Gray CLAY, trace fine Sand, little medium fine(+) Gravel	
5	7				5.4-5.5' Yellowish Brown to Gray SILT CLAY, some medium fine(+) Gravel	
6	6					
	4		6.0-6.6'		6.0-6.6' Yellowish Brown to Gray CLAY, some medium fine(+) Gravel	Moist MW-26 (6.0-6.6' BS) 8:30
7	5					
	8					
8	9					
	5		8.0-8.7'		8.0-8.7' Brownish Gray CLAY, trace medium fine Sand, little medium fine(+) Gravel	Moist MW-26 (8.0-8.7' BS) 8:35
9	10					
	10					
10	12					

**OBRIEN & GERE**

ENGINEERS, INC.

TEST BORING LOG**BORING NO. MW-26**

PROJECT: Revere Smelting and Refining

SHEET 2 OF 2

CLIENT: NYSDEC

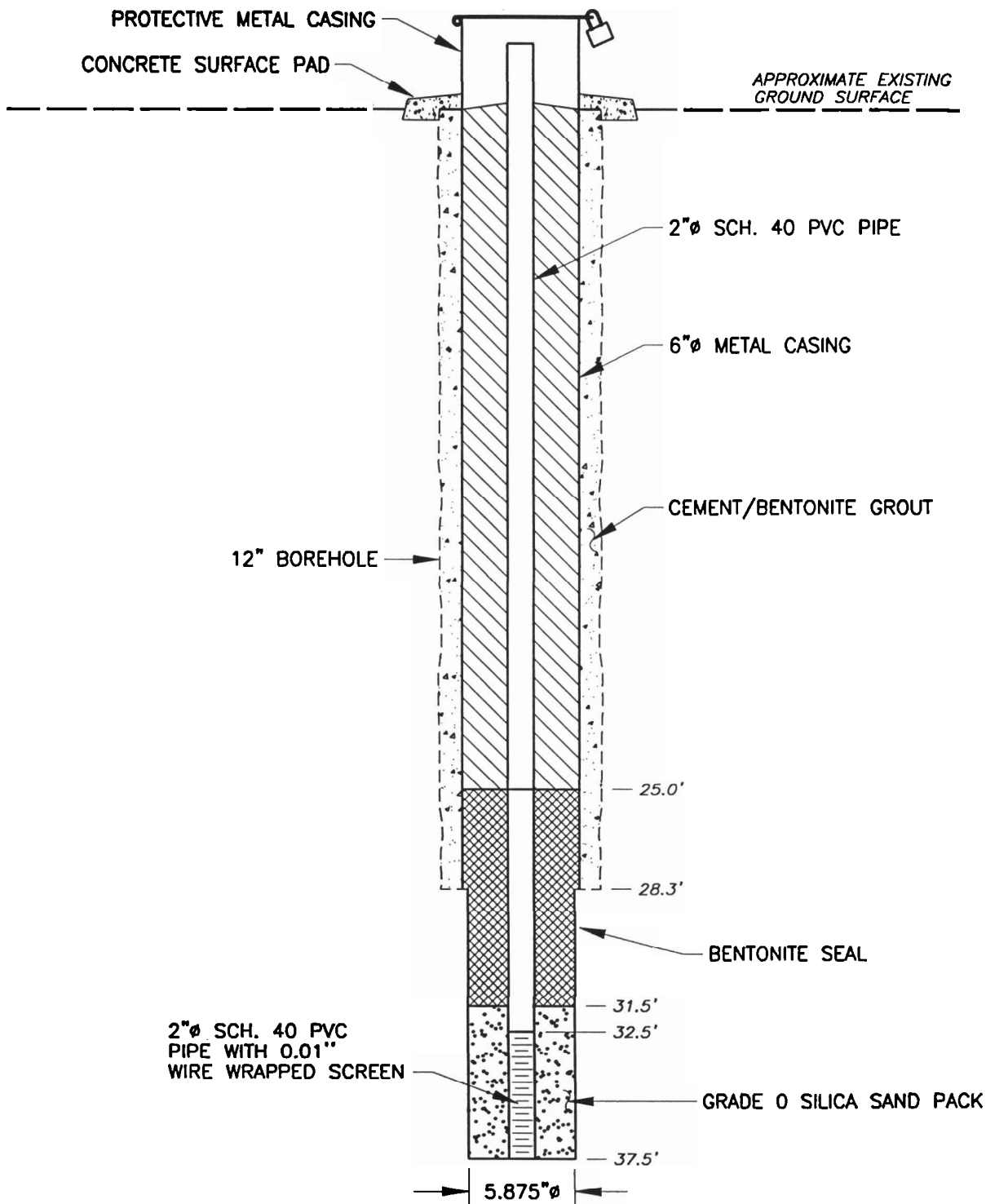
JOB NO. 26408.004.400

Depth Ft.	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
11		8			No Recovery	Saturated No Recovery
		16				
		8				
		8				
12		12	12.0-13.0'		12.0-13.0' Yellowish Brown CLAY SILT, little coarse(+) medium Sand, some coarse medium fine(+) Gravel	MW-26 (12.0-13.0' BS) 8:50
		11				
13		12				
		10				
14		5	14.0-15.0'		14.0-14.5' Yellowish Brown CLAY SILT, some medium fine(+) Gravel	MW-26 (14.0-15.5' BS) 9:15
		9			14.5-15.0' Gray Shale	Bedrock at 15.0'
		24				
		30				
16						
17						
18						
19						
20						
21						
22						

Drawing Number: 213471-A1

Checked: Approved:

Drawn By: TMB 12/3/97



MW-13B

NOT TO SCALE

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ENVIRONMENTAL STRATEGIES CORPORATION
 Four Penn Center West, Suite 315
 Pittsburgh, Pennsylvania 15276
 (412) 787-5100

Figure

"AS-BUILT" MONITORING WELL
 DIAGRAM FOR MW-13B

REVERE SMELTING & REFINING CORPORATION
 MIDDLETOWN, NEW YORK

PREPARED FOR
 RSR CORPORATION
 DALLAS, TEXAS

BORING LOG Environmental Strategies Corporation Campbells Run Road Four Penn Center West, Suite 315 Pittsburgh, PA 15276				PROJECT 213471-02 REVERE SMELTING AND REFINING 65 BALLARD RD. MIDDLETOWN, NEW YORK		Boring Number: MW-13B Sheet 1 of 2 Date Drilled: 6/09/97 to 6/12/97
Drilling Company: PARRATT WOLFF, INC. Driller: JIM HAMMOND and KEVIN WHITE ESC Geologist: E. MICHAEL RIGGINS				Boring Location: North of Wakefern, South of Rail Line Ground Elevation: 482.21' TOC Elevation: 483.82'		
BORING Method: HOLLOW STEM AUGERS/AIR ROTARY Hole Diameter: 12" / 6" Inside Diameter: 6" Total Depth: 37.5'				SAMPLER Method: SPLIT SPOON SAMPLER/BEDROCK CORE Length (ft): 2 FEET Hammer (lb): 140 LBS Fall (in): 30 INCHES		
Depth Below Grade (ft)	Samples Collected	Percent Recovery	Sample Depth	Blows/6"	Moisture	Sample Description
0' - 0.4'	MW13B-1 (0'-0.5')	100	0' - 2'	3/5/6/7	Dry	SILT, medium. brown, loamy, non-plastic, trace clay, rock frags., and roots.
0.4' - 2'	MW13B-2 (0.5'-1') MW13B-3 (1'-1.5') MW13B-4 (1.5'-2')					SILT TILL, yellowish brown, non-plastic, trace clay, rock frags., organics to 1.0'.
2' - 4'	MW13B-5 (2'-4')	100	2' - 4'	13/16/19/22	Dry	SILT TILL, light yellowish brown to gray, trace to little clay, rock frags., non-plastic, faint mottling.
4' - 6'	MW13B-6 (4' -6')	100	4' - 6'	14/15/20/27	Damp at 5'	SILT TILL, yellowish to reddish brown to gray, trace sand and clay, little rock frags., slightly plastic.
6' - 8'	MW13B-7 (6'-8')	100	6' - 8'	21/31/25/26	Moist	SILT TILL, same as above, increasing sand content with depth
8' - 10'	MW13B-8 (8'-10')	100	8' - 10'	8/54/26/15	Moist to wet	SILT TILL, same as above to 8.5' then gray shale boulder, Silt Till yellowish to grayish brown, trace sand, clay, little rock frags., slightly plastic.
10' - 12'	MW13B-9 (10'-12')	100	10' - 12'	9/24/26/50	Moist to wet	Same as above, SILT TILL and Rock fragments.
12'-12.6'	MW13B-10 (12'-12.6')	30	12'-12.6'	44/ 50 for 1"		SILT TILL, gray, trace clay, some rock fragments., weathered shale fragments.
12.6' -14'						Augered out to 14.0'.
14' - 16'	MW13B-11 (14'-16')	100	14' - 16'	8/6/14/54	Saturated	SILT TILL, gray, trace clay, little rock fragments., plastic, sticky.
16'- 16.2'		0	16'-16.2'	50 for 3"		No recovery
16.3' - 18.5'						Augered out, weathered shale boulder.
18.5' - 20'	MW13B-12 (18.5'-20')	70	18.5'-20'	26/53/74	Wet	SILT TILL, dark bluish gray, trace clay, little shale fragments., dark gray shale, hard, plastic.
20' - 22'	MW13B-13 (20'-22')	100	20' - 22'	23/31/44/48		SILT TILL, dark bluish gray to faint yellowish brown, trace sand, clay, and rock frags., plastic, hard, dense.
22' - 24'	MW13B-14 (22'-24')	100	22' - 24'	22/27/30/25		SILT TILL, Same as above, with sand trace to little.
24'- 24.6'		20	24'-24.6'	11/60 for 2"		SHALE, dark gray, weathered.

24.6' – 26'						SHALE, gray to dark gray, weathered.
26' – 28'						SHALE, gray to dark gray, more competent.
28' – 37.5'						SHALE, gray to dark gray
						Bottom of borehole
						G:\wp\files\bcd\midtown\rsrmt.13b

WELL COMPLETION LOG

Well ID: **MW-23D**

Project: Revere Smelting & Refining
Location: Middleton, New York
Project No.: 26408.004.400

Client: NYSDEC
Date Drilled: 11/6/01 - 11/7/01
Date Developed: 11/09/01

Inspection Notes:

Inspector: Garrett Sleeman
Drilling Contractor: Parratt Wolff, Inc.
Type of Well: Environmental Monitoring Well

Static Water Level (ft bmp): 7.04 **Date:** 11/7/2001
Measuring Point: Top of PVC
Total Depth of Well (ft bmp): 28.34

Drilling Method - Overburden: 6 1/4"
Type: HSA **Diameter:** 4 1/4" ID
Casing: 4.5' Steel

Sampling Method - Overburden:
Type: --- **Diameter:** ---
Weight: --- **Fall:** ---
Interval: ---

Drilling Method - Bedrock:
Type: HX Dimond Bit Core **Diameter:** 4"
Casing: 2" PVC

Sampling Method - Bedrock:
Type: 4" OD (HX) Diamond B **Diameter:** 25"
Interval: ---

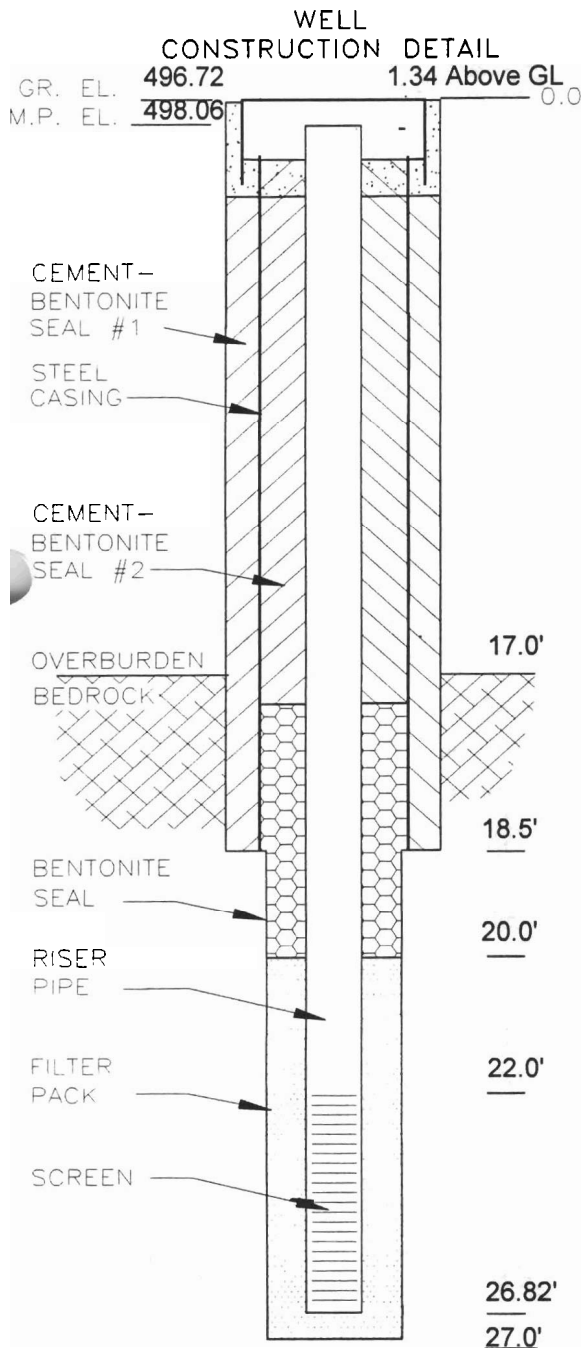
Riser Pipe Left in Place:
Material: Sch 40 PVC **Diameter:** 2" ID
Length: 23.70 **Joint Type:** Flush Thread

Screen:
Material: Sch 40 PVC **Diameter:** 2" ID
Slot Size: --- **Joint Type:** Flush Thread

Filter Pack:
Type: Sand **Grade:** 0
Interval: 27.0-20.0'

Seal(s):
Type: Cement-Bentonite Grout #1 **Interval:** 0-18.5'
Type: Bentonite **Interval:** 16.5-20.0'
Type: Cement-Bentonite Grout #2 **Interval:** 0.16-5.0'

Locking Casing: ☒ Yes ☐ No





O'BRIEN & GERE
ENGINEERS, INC.

TEST BORING LOG

BORING NO. MW-23D

PROJECT: Revere Smelting and Refining

SHEET 1 OF 2

CLIENT: NYSDEC

JOB NO. 26408.004.400

DRILLING CONTRACTOR: Parratt Wolff Inc.

MEAS. PT. ELEV.

PURPOSE: Overburden Monitoring Well South of Sediment Pond

GROUND ELEV. 498.50

DRILLING METHOD: 4.5 Split Barrel

SAMPLE

CORE

CASING

DATUM Ground Surface

DRILL RIG TYPE: 850 Track

TYPE

DATE STARTED 11/7/2001

GROUND WATER DEPTH:

DIA.

DATE FINISHED 11/7/2001

MEASURING POINT:

WEIGHT


DRILLER J. Percy & J. Wheeler

DATE OF MEASUREMENT:

FALL

INSPECTOR G. Sleeman

Depth	Sample Number	Blows on Sample Spoon per 6"	Penetration/Recovery	Unified Classification	GEOLOGIC DESCRIPTION	REMARKS
1	1	Weight of Hammer ↓	0-1.3'		0-1.3' Brown SILT CLAY, some medium fine(+) Sand, trace medium(+) fine Gravel	"Clean" Fill Moist
2	2	Weight of Hammer ↓	2.0-2.4'		2.0-2.4' Brown SILT CLAY, some medium fine(+) Sand, trace medium fine Gravel	"Clean" Fill Very Moist
3						
4		Weight of Hammer ↓	4-4.2'		4.0-4.2' Brown SILTY CLAY, and medium fine(+) SAND	Saturated "Clean" Fill
5	3					
6		Weight of Hammer ↓	6.0-7.3'		6.0-7.3' Brown SILT CLAY, some medium fine(+) Sand, little medium(+) fine Gravel	Native Till
7	4					
8					NR	No Recovery
9	5					
10						

 OBRIEN & GERE ENGINEERS, INC.						TEST BORING LOG		BORING NO. MW-23D	
PROJECT: Revere Smelting and Refining								SHEET 2 OF 2	
CLIENT: NYSDEC								JOB NO. 26408.004.400	
Depth	Sample Number	Blows on Sample Spoon per 6"	Penetration Recovery	Unified Classification	GEOLOGIC DESCRIPTION		REMARKS		
11	6		10.0-10.5'		10.0-10.5' Brown CLAY, some medium fine(+) Sand, trace medium fine Gravel 10.5'				
					Brown CLAY, some medium, fine(+) sand, trace medium fine gravel.				
					12.0'				
12					See Core Log for MW-23D Coring completed at 27 ft.				
13					Note: Soil descriptions taken from MW-23S log.				
14									
15									
16									
17									
18									
19									
20									
21									
22									

O'BRIEN & GFRE ENGINEERS, INC. 22 Computer e, West Albanv New York 12205				COR LOG		Hole No.: MW-23D		Job No.: 26408.004.400		
						Sheet 1 of 1		Date Started: 6-Nov-0		
Project: Revere Smelting and Refining				Drilling Contractor: Parratt Wolff, Inc				Date Finished: 11/7/01		
Client: NYDEC				Driller: J. Percy, J Wheeler				Total Depth:10' (27' bgs)		
Purpose: Observe Shallow Bedrock Infiltration				Geologist: Garrett Sleeman				Ground Elev.: 496.72		
Location: South of RSR Facility				Length of Casing: 10 ft				S.W.L.: NA		
Hole Location: In Culvert, North of Rail Road Tracks				Casing Size: 2" PVC		Core Size: 2.5" 18.5-27'		Inclination/Bearing: NA		
Formation Member Unit			Run No.	Pen. Rate (min. per foot)	Depth Scale	Lithologic Description (include in order: ROCK TYPE, color, grain size, texture, bedding, fracture & minerals.)		Core Recovery Length Percent RQD		
			1	3-4 (avg.)	17	Bedrock (Limestone) at 17', set BIP at 18.0 Began coring at 18.5		4.4'	93.6%	89%
			18.5-23.2		19	Run #1 Limestone: Dark gray, fine grained, shaley limestone to Limey shale with horizontal bedding dipping approximately 45 degrees to the east. Occasional fractures infilled with argillaceous carbonate stringers, mostly massive.				
			2	5 (avg.)	21			3.8'	100%	100%
			23.2-27		23	Run #2 Limestone: Dark gray, fine grained, massive Limestone to muddy Limestone with fewer jointings and fracture than the overlying material				
					25					
					27					

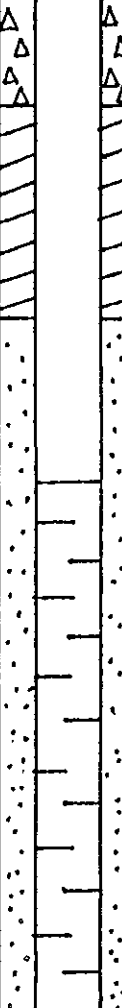
Project: Monitoring Well Installation					Boring No.: MW-19				
Client: RSR Corporation, Middletown, New York					Sheet No.: 1 of 1				
Drilling Contractor: Kendrick Drilling, Inc.					Project No.: 272-01-01				
Groundwater Information					Boring/Sampling Methodology				
Date	Water Depth	Water Elev.	Intake	Type	Cas. F.J.	Samp. S.S.	Core	Tube	G.S. Elevation: 521.99
25-Jun-01	8.13	515.83	5-15'	Diam.	5"	2"			W.L. Ref. Elev.: 523.96
				Wt.	300 #	140 #			Date Started: 14-Jun-01
				Fall	30"	30"			Date Finished: 14-Jun-01
									Driller: T. Kendrick
									Inspector: M. Colantuono
Well Construction	Depth (feet)	Samples				Classifications			Remarks
		No.	PID (ppm)	Rec. (in.)	Blows Per 6"				
	0	S-1	0.0	6	2	<u>FILL</u> 0 - 5.5' "Historical Fill" Material yellow brown fmc SAND, little Clayey Silt, little fm Gravel, damp, grading to brown to grayish brown Clayey SILT, little(-)fm sand, little(-) fm Gravel, moist			Drive & wash 5" casing 0 to 5.5 feet below grade. Advanced borehole by rotary drilling to 16.0 feet below grade.
					2				
					2				
					3				
		S-2	0.0	6	2				
					2				
					4				
					3				
	5	S-3	0.0	18	3				
					3				
					8				
					35				
						<u>ICE CONTACT DEPOSITS</u> Yellow Brown to dk. brown cmf SAND, little to some fmc Gravel, little Clayey Silt moist to wet Grades to brownish Gray to Gray finer sand to clayey silt matrix Gray Br. Clayey SILT, some to little fmc Sand, little cmf Gravel (shale fragments) saturated End of Boring @ 16.0'			Angular Gravels Subangular Gravel with shale fragments Washed-out to 16.0' bgs. Well Installation: Sandpack 4.0' - 16.0' bgs Screen 5.0' - 15.0' bgs Bentonite Slurry 2.0' - 4.0' bgs Concrete Seal 0 - 2.0' bgs Stick-Up Protective Pipe (4") 2" Sched. 40 PVC Screen & Riser 2" ID Sched. 40 PVC Screen
		</							

Test Boring Log
MW-20

C:\GWINProjects\272-01-01\logs.xls\WW-20 pg11 8/13/01
GWI Project No. 272-01-01

Test Boring Log
MW-20

C:\GWR\Projects\272-01-01\logs.xls\WW-20 pg21 8/13/01
GWI Project No. 272-01-01

Project: Monitoring Well Installation				Boring No.: MW-21B					
Client: RSR Corporation, Middletown, New York				Sheet No.: 1 of 1					
Drilling Contractor: Kendrick Drilling, Inc.				Project No.: 272-01-01					
Groundwater Information				Boring/Sampling Methodology					
Date	Water Depth	Water Elev.	Intake	Type	Cas. F.J.	Samp. S.S.	Core NX	Tube	G.S. Elevation: 515.81
25-Jun-01	4.21	511.27	19-29'	Diam.	5"	2"	2"		W.L. Ref. Elev.: 515.48
				Wt.	300 #	140 #			Date Started: 15-Jun-01
				Fall	30"	30"			Date Finished: 15-Jun-01
									Driller: T. Kendrick
									Inspector: L. Coddington
Well Construction	Depth (feet)	Samples				Classifications			Remarks
	0	No.	PID (ppm)	Rec. (in.)	Blows Per 6"				
		S-1	0.0	2	100/4.5	<u>FILL/REWORKED ICE CONTACT</u> Yellow Brown cmf SAND, little fm Gravel to Gray cmf SAND and cmf Gravel, little Clayey Silt, damp to moist <u>BEDROCK</u> Dark Gray to Black Shale			Cut Concrete 2.0' by 2.0' Area Drive & wash 5" casing 0 to 4.0 feet below grade. Advanced borehole by rotary drilling to 19.0 feet below grade. Split Spoon Refusal at 4.5 feet. Hard uniform rotary drilling from 4.5 to 9.0 feet. Fine shale rock cuttings in wash. Trace gray silty clay (from fractures) Split Spoon Refusal at 9.0 feet. (Spoon Bouncing) Rollerbit to 14.0' bgs. Hard uniform drilling, fine shale rock cuttings in wash. NX Rock Core 14.0' to 19.0' bgs. RQD = 0.69 Borehole reamed to 19.0' bgs.
	5								
	10	S-2	n/a	0	100/0	Dark Gray Shale Bedrock, horizontal fractures, trace silty clay filling in fractures.			Well Installation: Sandpack 6.0' - 19.0' bgs Screen 9.0' - 19.0' bgs Bentonite Slurry 2.0' - 6.0' bgs Concrete Seal 0 - 2.0' bgs Flush Mount Manhole Cover 2" Sched. 40 PVC Screen & Riser 2" ID Sched. 40 PVC Screen
	15	Core	n/a	60	NX 14.0' to 19.0'	End of Boring @ 19.0' bgs.			
	20								
	25								

Monitoring well development logs

MONITORING WELL DEVELOPMENT

Reverse Smelting and Refining

General

Well No.: MW-23-S
Field Personnel: GARY BLOOMER
Weather Conditions: Partly Cloudy, cool, low 40s, Windy
Physical Condition of Well: Excellent - Installed 11/7/01
Air Monitoring Results: _____

Pre-Development Information

Date: 11/7/01
Development Time: Start: 915
Stop: 1720
Specific Conductivity: 2.12 u/cm
Turbidity: 7999 NTU
pH: 8.64 8.08
Temperature: 11.00 12.4

Well Diameter: 2 in.
Total Depth of Well Installed: 14.5 ft.
Total Depth of Well Measured: 14.20 ft.
Depth to Water: 4.30 ft.
1 Well Volume: 10.1 1.7 gal.
Development Method: Balcr

Development Water Characteristics

Color: 11.35
Odor: ND
Turbidity: Extremely High

Presence of NAPL: _____
Other: _____

Post-Development Information

Volume Purged: 10.00 gal.
Specific Conductivity: 2.08
Turbidity: 7999
pH: 7.08
Temperature: 12.48

Total Depth of Well Installed: 14.5 ft.
Total Depth of Well Measured: 14.42 ft.
Development Water Disposal Method: Contained in 55 gallon Drum on Site

Notes

Final TD measurement - Hand Bottom



MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

MW-235

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)
Initial T(O)	925	Initial	8.64	11.00	1.12	601.0
During						
During	930	1.7	8.16	12.53	1.40	7999
During						
During	940	3.4	7.88	12.48	1.47	7999
During						
During	1000	5.1	7.75	13.47	1.48	7999
During						
During	1015	6.8	7.80	13.48	1.87	7999
During				13.48		
During	1700	8.5	7.06	13.36	1.94	7999
During						
During	1720	10.00	7.08	12.41	2.17	7999
During						
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

- 1020 purge well - Drop in "clean" Fill composed of Clay
Fine Sand
- let recover will try to redevelop later
- returned @ 1700 to complete development
- 1720 - Drop - ended development



O'BRIEN & GERE
ENGINEERS, INC.

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

General

Well No.: MW-23D
Field Personnel: Garrett Gleason
Weather Conditions: _____
Physical Condition of Well: Excellent Installed 11/7/01
Air Monitoring Results: _____

Pre-Development Information

Date: 11/9/01
Development Time: Start: 845
Stop: 1745
Specific Conductivity: 2.61
Turbidity: >1000
pH: 12.17
Temperature: 11.95°C

Well Diameter: 2 in.
Total Depth of Well Installed: 28.7 ft.
Total Depth of Well Measured: 27.03 ft.
Depth to Water: 7.04 ft.
1 Well Volume: 2001 342 gal.
Development Method: Bailer

Development Water Characteristics

Color: Clear / light Gray
Odor: ND
Turbidity: High - Decreased w/ Development

Presence of NAPL: ND
Other: _____

Post-Development Information

Volume Purged: 5.6 gal.
Specific Conductivity: 1.80 S/cm
Turbidity: 666 NTU
pH: 11.66
Temperature: 11.56°C

Total Depth of Well Installed: 28.7 ft.
Total Depth of Well Measured: 27.8 ft.
Development Water Disposal Method: Contained in 55 Gallon Drum
On site

Notes

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

MW - 23D

	Time	Volume	pH	Temp (°C) or (°F)	Cond ms/cm (UMHO/cm)	Turbidity (NTU)
Initial T(O)	845	Initial	12.17	11.95°	2.61	—
During						
During	950	3.8	12.24	12.20°	2.38	825.0
During						
During	1030	4.2	11.31	10.72	2.28	107.0
During						
During	1735	5.1	11.76	11.30	1.93	79%
During						
During	1745	5.6	11.66	11.50	1.80	66%
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

- High turbidity attributed to drilling water.

@ 910 - well was dry but still turbid After 4 1/2 gallons removed

- decided to wait let well recover - redevelop

1730 - recovered - w/ 4' water column 7 gal/Volume

1745 - Dewatered - Finished Development



OBRIEN & GERE
ENGINEERS, INC.

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

General

Well No.: MW-24
Field Personnel: Gerritt Sleeman
Weather Conditions: Sunny, Clear, Cool, low 40's, Windy
Physical Condition of Well: Excellent - Installed 11/1/01
Air Monitoring Results: _____

Pre-Development Information

Date: 11/9/01
Development Time: Start: 1400
Stop: 1450
Specific Conductivity: 2.52
Turbidity: 550
pH: 6.88
Temperature: 10.76

Well Diameter: 2 in.
Total Depth of Well Installed: 14.45 ft.
Total Depth of Well Measured: 14.10 ft.
Depth to Water: 3.28 ft.
1 Well Volume: 2 gal.
Development Method: Bailer

Development Water Characteristics

Color: Yellowish Brown
Odor: _____
Turbidity: Extremely High

Presence of NAPL: _____
Other: _____

Post-Development Information

Volume Purged: 16 gal.
Specific Conductivity: 4.35 S/cm
Turbidity: 7999
pH: 6.46
Temperature: 12.06 °C

Total Depth of Well Installed: 14.45 ft.
Total Depth of Well Measured: 14.23 ft.
Development Water Disposal Method: Containment
in 55 gallon Drum on site

Notes

Soft Bottom on initial; final TD measurement
Turbidity persisted

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

MW-24

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)
Initial T(O)	1405	initial	6.88	10.96	2.52	550.0
During	1410	2	6.88	11.67	3.87	7999
During	1415	4	6.71	12.02	4.10	7999
During	1422	6	6.52	11.80	4.13	7999
During	1427	8	6.51	12.10	4.19	7999
During	1432	10	6.50	12.30	4.28	7999
During	1435	12	6.50	12.03	4.25	7999
During	1440	14	6.43	12.13	4.29	7999
During	1445	16	6.46	12.06	4.35	7999
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

General

Well No.: MW-25
Field Personnel: GARRETT GLENNAN
Weather Conditions: Clear, Sunny, cool, High 40's, Windy
Physical Condition of Well: Excellent - Installed 11/1/01
Air Monitoring Results: _____

Pre-Development Information

Date: 11/9/01
Development Time: Start: 1250
Stop: 1355
Specific Conductivity: 0.584
Turbidity: 7999
pH: 7.21
Temperature: 11.08

Well Diameter: 2 in.
Total Depth of Well Installed: 14.92 ft.
Total Depth of Well Measured: 14.88 ft.
Depth to Water: 4.26 ft.
1 Well Volume: 1.8 ~~14.88~~ gal.
Development Method: Bailer

Development Water Characteristics

Color: Yellowish Brown
Odor: ←
Turbidity: Extremely High

Presence of NAPL: ✓
Other: _____

Post-Development Information

Volume Purged: 1.8 gal.
Specific Conductivity: 0.528
Turbidity: 7999
pH: 6.77
Temperature: 11.36

Total Depth of Well Installed: 14.91 ft.
Total Depth of Well Measured: 14.88 ft.
Development Water Disposal Method: Containerized in 55 gallon Drum on site

Notes

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

WW - 25

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)
Initial T(O)	1300	initial	7.21	11.08	0.584	7999
During	1305	1.8	6.95	12.02	0.572	7999
During	1312	3.6	6.90	11.92	0.582	7999
During	1317	5.4	6.99	11.20	0.555	7999
During	1323	7.2	6.90	11.36	0.545	7999
During	1330	9.0	6.71	11.61	0.535	7999
During	1335	10.8	6.80	11.34	0.530	7999
During	1340	12.6	6.74	11.39	0.538	7999
During	1345	14.4	6.73	11.52	0.525	7999
During	1350	16.2	6.76	11.48	0.520	7999
During	1355	18.0	6.77	11.36	0.528	7999
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

General

Well No.: MW-26
Field Personnel: Garrett Steeman
Weather Conditions: Excellent installed 11/8/01
Physical Condition of Well: Cool, High 40°s, Clear, Windy
Air Monitoring Results: _____

Pre-Development Information

Date: 11/9/01
Development Time: Start: 11:00
Stop: 12:30
Specific Conductivity: 297
Turbidity: 2999
pH: 8.31
Temperature: 13.04

Well Diameter: 2 in.
Total Depth of Well Installed: 16.8 ft.
Total Depth of Well Measured: 16.45 ft.
Depth to Water: 9.07 ft.
1 Well Volume: 1.1 gal.
Development Method: Bailer

Development Water Characteristics

Color: Yellowish Brown
Odor: ND
Turbidity: Extremely High

Presence of NAPL: ND
Other: _____

Post-Development Information

Volume Purged: 11 gal.
Specific Conductivity: 1195
Turbidity: 2599
pH: 6.59
Temperature: 12.53

Total Depth of Well Installed: 16.8 ft.
Total Depth of Well Measured: 16.75 ft.
Development Water Disposal Method: Contained in 55 gallon Drum onsite

Notes

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

MW-26

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)
Initial T(O)	1130	initel	8.31	13.04	0.97	7999
During	1135	1.1	7.65	13.94	0.91	7999
During	1140	2.2	7.06	13.94	1.15	7999
During	1145	3.3	6.98	13.69	1.19	7999
During	1150	4.4	6.98	12.79	1.23	7999
During	1155	5.5	6.81	12.19	1.22	7999
During	1205	6.6	6.80	12.95	1.22	7999
During	1210	7.7	6.70	12.59	1.20	7999
During	1215	8.8	6.66	12.47	1.20	7999
During	1220	9.9	6.62	12.42	1.20	7999
During	1230	10.0	6.59	12.53	1.19	7999
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

Turbidity Could not be improved - too many fines
 1230 - Discontinued
 Generally all parameters stable except for
 turbidity

Monitoring well purge logs

MONITORING WELL PURGING

Revere Smelting and Refining

MW- 13

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)
Initial T(O) ^{WT}	1137	initial	6.93	14.69	3.94	31.4
During 7.00	1140	5' / 46 sec	6.67	13.13	3.97	33.1
During 7.01	1142	5' / 49 sec	6.64	12.91	3.98	25.2
During 7.01	1145	5' / 50 sec	6.62	12.73	3.97	24.7
During 7.04	1148	5' / 56 sec	6.62	12.67	3.97	23.7
During 7.05	1150	5' / 60 sec	6.61	12.63	3.97	23.9
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

@ 1150 Permeate Stabilized. Began Sampling.
1.5 gallons removed w/ 1.1 ft draw down
WL stabilized @ 7.00

Monitoring well purge and sampling logs

MONITORING WELL PURGING

Revere Smelting and Refining

MW- 238

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)
Initial T(O)	1340	Initial	6.61	14.97	3.05	236.0
During	1350	.54/gd	6.83	14.55	2.88	337.0
During	1352	.54 (1) / 46	6.79	14.82	2.94	330.0
During	1354	.55 / 47	6.90	15.24	2.86	316.0
During	1357	.55 (2) / 47	6.87	14.81	2.96	305.0
During	1403	.57 / 40	6.78	14.85	2.69	296.0
During	1407	.55 (3) / 40	6.75	14.88	2.76	285.0
During						
During						
During	11/16/01					
During	13.21	.54 / 68 ^{sec}	6.72	14.21	3.37	330.1
During	13.42	.54 / 69 ^{sec}	6.80	14.41	3.41	231
During	14.03	.54 / 72 ^{sec}	6.75	14.45	3.64	49.0
During	14.5	.54 / 74 ^{sec}	6.70	14.59	4.20	49.0
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

1410 Turbidity Still High @ 1415 - let recover

1545 - recovered to 1355 - Sample from top of WC

9:40 - dry - cone sampled - metals, 95.2 : 95.3 - couldn't fill all the way

MONITORING WELL PURGING

Revere Smelting and Refining

MW- 23D

11/15/01

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)
Initial T(O) ^{WL} 6.91	1440	Initial	7.77	14.78	3.42	648.0
During 16.73	1450	2.121	8.00	14.29	2.87	62.8
During 23.15	1455	2.5	8.82	14.51	2.75	36.3
During 23.15	1505	3.8 (3.8)	9.66	14.51	2.43	50.1
During 25.61	1525	9.8	8.97	14.64	2.72	50.1
During 26.78	1530	3.7(1)	9.22	14.41	2.66	63.8
During 27.80	1535	4.0	9.54	14.05	2.94	
During 11/16/01						
During WL						
During 15.84	950	.5/45 sec Initial	7.26	14.23	3.73	15.9
During 16.28	952	.5/75 sec	7.25	14.37	3.67	15.4
During 16.61	954	.5/75 sec	7.25	14.39	3.66	15.1
During 16.89	956	.5/75 sec	7.24	14.44	3.67	14.0
During						
During						
During						
During						
During						
During						
During						
During						
Final						

Notes

24 1000 - stable : 1 draw down / min - Sample.
Remainly Clear.

MONITORING WELL PURGING

Revere Smelting and Refining

MW- 24

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)	DO
Initial T(O)	1045	Initial	6.54	12.72	5.09	7999	4.07
During	1055	1.94	6.25	11.99	4.78	461	1.21
During	1100	1.7 (1)	6.01	12.01	4.73	164	0.80
During	1103	2.3	5.93	12.02	4.79	105.0	0.57
During	1110	2.7 (3)	5.87	12.07	4.86	104.0	0.34
During	1115	3.2	5.89	12.20	4.84	105.0	0.42
During	1120	4.2	5.84	12.21	4.87	96.4	0.20
During	1122	4.9 (3)	5.89	12.22	4.88	94.2	0.20
During	1123	1.0 ^L	5.52	12.74	4.83	57.2	0.33
During	1125	1.0 ^L	5.50	12.75	4.82	56.0	0.29
During	1127	1.0 ^L	5.48	12.70	4.82	30.2	0.29
During	1129	1.0 ^L	5.47	12.67	4.83	34.2	0.33
During	1131	1.0 ^L	5.47	12.65	4.83	29.2	0.28
During							
During							
During							
During							
During							
During							
During							
During							
During							
Final							

Notes

1131 - Turbidity remained low (<50) Sampled
 1131 - all parameters remained within 10% of their values
 Commenced Sampling

MONITORING WELL PURGING

Reverse Smelting and Refining

MW-25

TWT	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)	DO
Initial T(O) 4.26	755	Initial	5.86	11.81	0.534	807.0	3.33
During	810	0.27 ²¹	6.20	10.81	0.539	37.3	0.30
During	812	1.09 ^{21/60}	6.23	10.84	0.530	36.4	0.16
During	816	2.37 ¹⁰	6.24	10.85	0.531	32.6	0.04
During	820	2.65	6.27	10.82	0.533	30.2	0.00
During	832	2.58 ²¹	6.29	10.78	0.542	29.9	0.00
During 4.44	840	3.0	6.28	10.78	0.543	33.0	0.00
During 4.50	850	3.4 ²¹	6.29	10.86	0.544	34.2	0.00
During	855	4.2	6.29	10.88	0.532	22.6	0.00
During	9:00	3 ²¹ 4.9	6.29	10.82	0.538	30.0	0.00
During 4.45	9:05	.5 ⁴ /min	6.31	10.86	0.533	33.9	0.00
During	9:08	.5 ⁴ /min	6.31	10.86	0.540	32.5	0.00
During	9:10	.5 ⁴ /min	6.31	10.91	0.542	34.4	0.00
During							
During							
During							
During							
During							
During							
During							
During							
During							
Final							

Notes

9:05 - Well purged - slowdown rate
 9:15 - Well parameters stabilized - sampled.
 - Turbidity very low.

MONITORING WELL DEVELOPMENT

Revere Smelting and Refining

	Time	Volume	pH	Temp (°C) or (°F)	Cond (UMHO/cm)	Turbidity (NTU)	DO
Initial T(O) ^{Wh} 9:13	6:50	Initial	7.17	12.91	1.31	799.9	2.45
During 9:28	6:55	.5" / 74"cc	6.65	12.98	1.32	969.0	1.44
During 9:32	6:59	.5" / 64"cc	6.61	12.74	1.32	913.0	2.46
During 9:35	7:02	.5" / 60"cc	6.56	13.18	1.31	889.0	1.74
During 9:37	7:06	.5" / 56"cc	6.45	13.41	1.32	604.0	1.11
During 9:40	7:09	.5" / 46"cc	6.39	13.63	1.32	391.0	0.97
During 9:40	7:11	.5" / 56"cc	6.36	13.72	1.32	310.0	0.85
During 9:37	7:15	.5" / 56"cc	6.34	13.76	1.32	215.0	0.77
During 9:37	7:18	.5" / 56"cc	6.32	13.78	1.32	172.0	0.72
During 9:32	7:27	.5" / 64"cc	6.31	13.75	1.32	149.0	0.69
During 9:32	7:27	.5" / 82"cc	6.31	13.66	1.31	142.0	0.67
During 9:31	7:33	.5" / 86"cc	6.30	13.56	1.31	100.0	0.65
During 9:31	7:35	.5" / 76"cc	6.30	13.54	1.31	91.0	0.64
During 9:31	7:37	.5" / 70"cc	6.29	13.52	1.30	68.0	0.63
During 9:31	7:40	.5" / 64"cc	6.29	13.53	1.30	50.0	0.63
During 9:31	7:42	.5" / 64"cc	6.28	13.52	1.31	48.0	0.63
During							
During							
During							
During							
During							
During							
Final							

Notes

- Turbidity meter on flow thru unit not accurate.

Ground Water Monitoring
Revere Smelting and Refining
Wallkill, New York

General

Well No.: MW-13
Field Personnel: GES
Weather Conditions: Partly Cloudy, 60° Breeze
Physical Condition of Well: Good
Equipment used: Horiba U-22, Hanna HI925, Geopump II

Purging Information

Date: <u>11/16/01</u>	Measuring Point Elevation: _____ ft. amsl
Purging Time: Start: <u>1130</u>	Well Diameter: <u>2</u> in.
Stop: _____	Total Depth of Well Installed: _____ ft.
Volume to be Purged (3 Vol) _____ gal.	Total Depth of Well Measured: <u>20</u> ft.
Volume Purged: <u>1.5</u> gal.	Depth to Water: <u>5.93</u> ft.
Purging Method: <u>peristaltic pump</u>	1 Well Volume: _____ gal.
Purge Water Disposal Method: <u>Containerized in 55 gallon drum</u>	

Purge Water Characteristics

Color: Slightly Yellowish Presence of NAPL: _____
Odor: _____ Other: _____
Turbidity: very low

Sampling Information

Date of Sample Collected: 11/16/01
Time of Sample Collected: 1150
Sample Identification: MW-13
Method of Sample Collection: low flow sampling
Sample Description: Ground Water
Filter Method: _____
Type of Preservation if any: HCL, UO₂, NaOH, CN, HNO₃ Metals
Analytical Method Requested: 95-1, 95-2, 95-3, SO₄, Cu, Metals
TAIK.

Notes

Ground Water Monitoring
Revere Smelting and Refining
Wallkill, New York

General

Well No.: MW-235
Field Personnel: GES
Weather Conditions: Boutly Cloudy 60°
Physical Condition of Well: Excellent
Equipment used: Horiba U-22, Hanna HI925, Geopump II

Purging Information

Date:	<u>11/15/01</u>	Measuring Point Elevation:	<u> </u> ft. amsl
Purging Time:	Start: <u>1335</u>	Well Diam eter:	<u>2</u> in.
	Stop: <u> </u>	Total Depth of Well Installed:	<u>145</u> ft.
Volume to be Purged (3 Vol)	<u>33</u> gal.	Total Depth of Well Measured:	<u>145</u> ft.
Volume Purged:	<u> </u> gal.	Depth to Water:	<u>8.21</u> ft.
Purging Method:	<u>peristaltic pump</u>	1 Well Volume:	<u>1.1</u> gal.
Purge Water Disposal Method:	<u>Containerized in 55 gallon drum</u>		

Purge Water Characteristics

Color: <u> </u>	Presence of NAPL: <u> </u>
Odor: <u> </u>	Other: <u> </u>
Turbidity: <u> </u>	

Sampling Information

Date of Sample Collected: 11/16/01
Time of Sample Collected: 1000
Sample Identification: MW-235
Method of Sample Collection: low flow Sampr - Had to bail 102's: TALK
Sample Description: Ground Water
Filter Method:
Type of Preservation if any: 102's-HCL, CN-BIOH, Metals HNO₃
Analytical Method Requested: 95-1, 95-2, 95-3, SO₄

Notes

Poor Recovery Well - Couldn't fill all bottle full
except: TALK (Buckbound) and 102's for fear of
running out of H₂O
Had to bail 102's: TALK

Ground Water Monitoring
Revere Smelting and Refining
Wallkill, New York

General

Well No.: MW- 23D
Field Personnel: GES
Weather Conditions: Sunny, Clear 60°
Physical Condition of Well: Excellent
Equipment used: Horiba U-22, Hanna HI925, Geopump II

Purging Information

Date: <u>11/15/01 - 11/16/01</u>	Measuring Point Elevation: _____ ft. amsl
Purging Time: Start: <u>1430</u>	Well Diameter: <u>2</u> in.
Stop: <u>10:00</u>	Total Depth of Well Installed: <u>27.8</u> ft.
Volume to be Purged (3 Vol) <u>11.5</u> gal.	Total Depth of Well Measured: <u>27.3</u> ft.
Volume Purged: <u>5</u> gal.	Depth to Water: <u>6.83</u> ft.
Purging Method: <u>peristaltic pump</u>	1 Well Volume: <u>3.5</u> gal.
Purge Water Disposal Method: <u>Containerized in 55 gallon drum</u>	

Purge Water Characteristics

Color: Initial Cloudy Gray - Clear Presence of NAPL: _____
Odor: _____ Other: _____
Turbidity: low - then clear

Sampling Information

Date of Sample Collected: 11/15/01
Time of Sample Collected: 1000
Sample Identification: MW-23D
Method of Sample Collection: low flow sampling
Sample Description: Groundwater
Filter Method: _____
Type of Preservation if any: HCl - UO₂ - NaOH - CN, HNO₃, Metals
Analytical Method Requested: 95-1, 95-2, 95-3, SO₄, CN, metals, PAH

Notes

Ground Water Monitoring
Revere Smelting and Refining
Wallkill, New York

General

Well No.: MW- 24
Field Personnel: GES
Weather Conditions: Sunny 60°s - Lovely
Physical Condition of Well: Excellent.
Equipment used: Horiba U-22, Hanna HI925, Geopump II

Purging Information

Date: <u>11/15/01</u>	Measuring Point Elevation: _____ ft. amsl
Purging Time: Start: <u>1045</u>	Well Diameter: <u>2</u> in.
Stop: <u>1115</u>	Total Depth of Well Installed: _____ ft.
Volume to be Purged (3 Vol) <u>4.7</u> gal.	Total Depth of Well Measured: <u>13.10</u> ft.
Volume Purged: <u>5.5</u> gal.	Depth to Water: <u>3.21</u> ft.
Purging Method: <u>peristaltic pump</u>	1 Well Volume: <u>1.7</u> gal.
Purge Water Disposal Method: <u>Containerized in 55 gallon drum</u>	

Purge Water Characteristics

Color: Yl. Br Cloudy - then clear Presence of NAPL: ND
Odor: _____ Other: _____
Turbidity: High in Beginning - Clear up

Sampling Information

Date of Sample Collected: 11/15/01
Time of Sample Collected: 11:25
Sample Identification: MW-24
Method of Sample Collection: low flow Sampling
Sample Description: Groundwater
Filter Method: _____
Type of Preservation if any: HCl - Metals, - NaOH - CN, NH₄O₃ - Metals
Analytical Method Requested: 95-1, 95-2, 95-3, SO₄, CN,

Notes

After purging, pulled tubing to middle of Water Column.
Turbidity decreased for Sampling

Ground Water Monitoring
Revere Smelting and Refining
Wallkill, New York

General

Well No.: MW-25
Field Personnel: GES
Weather Conditions: Cloudy Cool - low 50's
Physical Condition of Well: Excellent
Equipment used: Horiba U-22, Hanna HI925, Geopump II

Purging Information

Date:	<u>11/15/01</u>	Measuring Point Elevation:	<u> </u> ft. amsl
Purging Time:	Start: <u>7:30</u>	Well Diameter:	<u>2</u> in.
	Stop: <u> </u>	Total Depth of Well Installed:	<u> </u> ft.
Volume to be Purged (3 Vol)	<u>4.9</u> gal.	Total Depth of Well Measured:	<u>14.78</u> ft.
Volume Purged:	<u>5.5</u> gal.	Depth to Water:	<u>4.26</u> ft.
Purging Method:	<u>peristaltic pump</u>	1 Well Volume:	<u>1.71</u> gal.
Purge Water Disposal Method:	<u>Containerized in 55 gallon drum</u>		

Purge Water Characteristics

Color: <u>Initial Cloudy Brown → Cleared - P</u>	Presence of NAPL: <u>ND</u>
Odor: <u>None</u>	Other: <u> </u>
Turbidity: <u>very low</u>	

Sampling Information

Date of Sample Collected: 11/15/01
Time of Sample Collected: 9:15
Sample Identification: MW-25, MW-25-MS, MW-25-MSD
Method of Sample Collection: low flow sampling
Sample Description: Groundwater
Filter Method:
Type of Preservation if any: 4CL-VOC, N2O4, HNO3
Analytical Method Requested: SS-1, 95-2, 95-3, metals, Sulphates, CN

Notes

Initial TD of Well - Soft Bottom

Ground Water Monitoring
Revere Smelting and Refining
Wallkill, New York

General

Well No.: MW- 26
Field Personnel: GES
Weather Conditions: Clear - mid 50's
Physical Condition of Well: Excellent
Equipment used: Horiba U-22, Hanna HI925, Geopump II

Purging Information

Date:	<u>11/16/01</u>	Measuring Point Elevation:	<u> </u> ft. amsl
Purging Time:	Start: <u>645</u>	Well Diameter:	<u>2</u> in.
	Stop: <u> </u>	Total Depth of Well Installed:	<u>16.8</u> ft.
Volume to be Purged (3 Vol):	<u> </u> gal.	Total Depth of Well Measured:	<u>16.10</u> ft.
Volume Purged:	<u>2.5</u> gal.	Depth to Water:	<u>8.21</u> ft.
Purging Method:	<u>peristaltic pump</u>	1 Well Volume:	<u>1.37</u> gal.
Purge Water Disposal Method:	<u>Containerized in 55 gallon drum</u>		

Purge Water Characteristics

Color: Turbid / y/b - clear
Odor:
Turbidity: decrease w/ low flow
Presence of NAPL:
Other:

Sampling Information

Date of Sample Collected: 11/16/01
Time of Sample Collected: 745
Sample Identification: MW-26, X-1. GW
Method of Sample Collection: low flow sampling < .5 L/min
Sample Description: Groundwater
Filter Method:
Type of Preservation if any: HCl vials, NaOH-CU, HNO₃ metals
Analytical Method Requested: 95-1 95-2 95-3, CU, SO₄, metals
TAC.

Notes

Sediment sampling logs

New York State Department of Environmental Conservation
Revere Smelting & Refinishing Corporation Site
Wallkill, New York

Sediment Sampling Field Log

Sampling Program	Sample ID Number	Date/Time	Weather Conditions
NYSDEC RSR SITE	SED-P2	11/8/2001 10:45	PARTLY SUNNY 50°F
Water Depth	Core Type	Core to be Composited?	
18"	SOIL AUGER (HAND)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Penetration Depth	Length Recovered	GPS Coordinates	
12"	12"	Nothing/Lat. = Easting/Long. =	
Core Section Interval	Visual Description	Grain Size	Comments
0-6" 10:40	BLACK SILTY CLAY W/SOME GRAVEL AND ORGANIC MATTER		Collected for TCL/TAL Analysis
6-12" 10:45	GRAY CLAY w/ LITTLE GRAVEL		LEAD ONLY
<div style="border: 1px solid black; border-radius: 50%; width: 30%; margin: 20px auto; padding: 10px;"> <p>COLLECTED - BLIND DUP. MS/MSD</p> </div> <p>* LOCATION STAKED - SAMPLE COLLECTED ~ 5 FT. FROM STAKE INTO THE POND.</p>			

Sampler Initials:

New York State Department of Environmental Conservation
Revere Smelting & Refinishing Corporation Site
Walkill, New York

Sediment Sampling Field Log

Sampling Program	Sample ID Number	Date/Time	Weather Conditions
NYSDEC RSR SITE	SED-P1	11/8/01 11:50	Partly sunny 50° F
Water Depth	Core Type	Core to be Composited?	
24"	SOIL Auger (HAND)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Penetration Depth	Length Recovered	GPS Coordinates	
12"	12"	Nothing/Lat. = Easting/Long. =	
Core Section Interval	Visual Description	Grain Size	Comments
0-6" 11:50	Gray silty clay w/ little gravel Thin layer of organic Matter on top		LEAD ONLY
6-12" 11:55	Brown silty clay with some gravel		LEAD ONLY
<p>* LOCATION STAKED - SAMPLE COLLECTED APPROXIMATELY 9 FT. FROM STAKE, INTO THE POND</p>			

Sampler Initials:

New York State Department of Environmental Conservation
Revere Smelting & Refinishing Corporation Site
Wallkill, New York

Sediment Sampling Field Log

Sampling Program	Sample ID Number	Date/Time	Weather Conditions
NYSDEC RSR SITE	EX-1	11/00/01 12:40	Partly Sunny 50°F
Water Depth	Core Type	Core to be Composited?	
36"	SOIL ANCHOR (HAND)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Penetration Depth	Length Recovered	GPS Coordinates	
12"	12"	Nothing/Lat. = Easting/Long. =	
Core Section Interval	Visual Description	Grain Size	Comments
0-6" 12:40	Gray silty clay with little gravel Some organic matter		Collected for TCL/TAL ANALYSIS Collected MS/MSD
6-12" 12:45	Gray silty clay w/ little gravel		LEAD ONLY
<p>* Bottom of excavation pit consists of large boulders with sediment settled in between. Algae present throughout the water column</p> <p>* Sample location marked with a buoy</p>			

Sampler Initials:

**New York State Department of Environmental Conservation
Revere Smelting & Refinishing Corporation Site
Walkill, New York**

Sediment Sampling Field Log

Sampling Program	Sample ID Number	Date/Time	Weather Conditions
NYSDEC RSR SITE	EX-2	11/08/01 1320	Partly Sunny 50°F
Water Depth	Core Type	Core to be Composited?	
36"	SOIL AUGER (HAND)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Penetration Depth	Length Recovered	GPS Coordinates	
12"	12"	Nothing/Lat. = Easting/Long. =	
Core Section Interval	Visual Description	Grain Size	Comments
0-6" 1320	Brown coarse sand with some gravel little brown silty clay		LEAD ONLY
6-12" 1325	Brown silty clay some gravel At bottom of interval gray silty clay		LEAD ONLY
<p>* Sample location marked with a buoy</p> <p>* Bottom of excavation pit consists of large boulders with sediment in between. Algae present throughout the water column</p>			

Sampler Initials:

New York State Department of Environmental Conservation
Revere Smelting & Refinishing Corporation Site
 Wallkill, New York

Sediment Sampling Field Log

Sampling Program	Sample ID Number	Date/Time	Weather Conditions
NYSDEC RSR SITE	SED-S1	11/08/01	PARTLY SUNNY 50°F
Water Depth	Core Type	Core to be Composited?	
DRY	SOIL AUGER (HAND)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Penetration Depth	Length Recovered	GPS Coordinates	
24"	24"	Nothing/Lat. = Easting/Long. =	
Core Section Interval	Visual Description	Grain Size	Comments
0-6"	Brownish-Black coarse sand with some gravel 14:55		COLLECTED FOR TEL/TAL ANALYSIS
12-24"	Gray, med-fine silt, fine sand some gravel 15:00		LOAD ONLY
* Sample location staked			

Sampler Initials:

New York State Department of Environmental Conservation
Revere Smelting & Refinishing Corporation Site
 Walkkill, New York

Sediment Sampling Field Log

Sampling Program	Sample ID Number	Date/Time	Weather Conditions
NYSDEC RSR SITE	SED-S2	11/08/01 15:45	Partly Sunny 60°F
Water Depth	Core Type	Core to be Composited?	
2"	HAND SOIL AUGER	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Penetration Depth	Length Recovered	GPS Coordinates	
24"	24"	Nothing/Lat. = Easting/Long. =	
Core Section Interval	Visual Description	Grain Size	Comments
0-6" 15:45	Dark gray coarse silt with lots of organic matter. Some coarse sand. Some gravel		Total Pb
12-24" 15:50	Brown to gray silty clay with some gravel		Total Pb
	* Sample location staked		

Sampler Initials:

New York State Department of Environmental Conservation
Revere Smelting & Refinishing Corporation Site
Walkill, New York

Sediment Sampling Field Log

Sampling Program	Sample ID Number	Date/Time	Weather Conditions
NYSDEC RSR SITE	SED-53	11/08/01 1625	Partly Sunny 60°F
Water Depth	Core Type	Core to be Composited?	
18"	HAND SOIL AUGER	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Penetration Depth	Length Recovered	GPS Coordinates	
24"	24"	Nothing/Lat. = Easting/Long. =	
Core Section Interval	Visual Description	Grain Size	Comments
0-6" 1625	Dark gray coarse sand and gravel some organic matter	Gravel	Total Pb
12-24" 1630	Grayish brown coarse silt to mid-fine sand • bottom of interval some gray silty clay		Total Pb
x Sample location marked by a stake			

Sampler Initials:

Data summary tables

Appendix J – List of Tables

J-1	Surface soil – inorganic results
J-2	Surface soil – TCLP inorganic results
J-3	Surface soil – volatile organic compounds
J-4	Surface soil – semi-volatile organic compounds
J-5	Surface soil – pesticide results
J-6	Surface soil – polychlorinated biphenyl results
J-7	Subsurface soil – inorganic results
J-8	Subsurface soil – TCLP inorganic results
J-9	Subsurface soil – volatile organic compounds
J-10	Subsurface soil – semi-volatile organic compounds
J-11	Subsurface soil – pesticide results
J-12	Subsurface soil – polychlorinated biphenyl results
J-13	Sediment – inorganic results
J-14	Sediment – TCLP lead results
J-15	Sediment – volatile organic compounds
J-16	Sediment – semi-volatile organic compounds
J-17	Sediment – pesticide results
J-18	Sediment – polychlorinated biphenyl results
J-19	Ground water – inorganic results
J-20	Ground water – volatile organic compounds
J-21	Ground water – semi-volatile organic compounds
J-22	Ground water – pesticide results
J-23	Ground water – polychlorinated biphenyl results
J-24	Ground water – total alkalinity results
J-25	Sieve analysis – inorganic results
J-26	Excavation Area – inorganic results
J-27	Excavation Area – TCLP inorganic results
J-28	Excavation Area – volatile organic compounds
J-29	Excavation Area – semi-volatile organic compounds
J-30	Excavation Area – pesticide results
J-31	Excavation Area – polychlorinated biphenyl results

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	MW-13B	MW-15A	MW-16	MW-17A	MW-18	MW-2	MW-3	MW-4	MW-5	OFA-1	OFA-2	OFA-3
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date	6/9/1997	6/10/1997	6/3/1997	6/5/1997	6/10/1997	7/10/1991	7/10/1991	7/10/1991	7/10/1991	9/12/1994	9/12/1994	9/12/1994
Chemical Name	Unit	Action Level												
Aluminum	mg/Kg	SB	14500	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	23	< 7 U	37	11	< 6 U	170	79	170	780	---	---	---
Arsenic	mg/Kg	7.5 or SB	21	10	29	12	19	61	42	72	97	---	---	---
Barium	mg/Kg	300 or SB	53	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	< 1 U	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	< 1 U	< 1 U	< 1 U	< 1 U	2	2.8	11	5.9	17	---	---	---
Calcium Metal	mg/kg	SB	965	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	18	25	22	26	28	24	17	17	20	---	---	---
Cobalt	mg/kg	30 or SB	7	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	29	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	21800	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	1580	121	2590	268	251	12000	7100	12000	26000	207	116.1	30
Magnesium	mg/Kg	SB	3330	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	1140	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	0.112	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	15	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	893	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	2	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	< 1 U	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	< 60 U	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	< 1 U	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	27	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	82	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	OFA-4	OFA-5	OFA-6	OFA-7	OFA-7	OFB-1	OFB-2	OFB-4	OFB-5	OFB-6	OFB-7	OFC-3
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994	9/12/1994
		Action Level												
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	46.5	69.1	32.9	43.2	48.4	121.9	42.4	15.94	57.53	51	29.14	120
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	OFC-4	OFC-5	OFC-6	OFC-7	OS-1	OS-10	OS-11	OS-12	OS-13	OS-14	OS-15
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date	9/12/1994	9/12/1994	9/12/1994	9/12/1994	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993
		Action Level											
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	< 5.3 U	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	9.6	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	< 0.79 U	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	158	80.04	35.08	64.87	46	52.5	297	387	59.7	441.6	98.5
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	OS-16	OS-17	OS-18	OS-19	OS-2	OS-20	OS-21	OS-22	OS-23	OS-24	OS-25
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993
Chemical Name	Unit	Action Level											
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	13.1	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	25.3	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	< 0.85 U	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	85.8	40.1	40.9	123.5	66.8	106.5	7.4	1320	449.8	40.8	491.7
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	OS-26	OS-27	OS-27	OS-28	OS-29	OS-3	OS-30	OS-31	OS-32	OS-33	OS-34
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993
Chemical Name	Unit	Action Level											
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	327	285.2	411.7	44.9	104.3	72.8	72.3	60	398	208.9	343.9
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	OS-35	OS-36	OS-37	OS-38	OS-39	OS-39	OS-4	OS-40	OS-41	OS-42	OS-43
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993	12/13/1993
Chemical Name	Unit	Action Level											
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	346.5	325	187.6	232.7	204.9	123.5	47	129.7	177	144.8	113.4
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	OS-44	OS-45	OS-5	OS-6	OS-7	OS-7	OS-8	OS-9	SB-1	SB-1-A	SB-1-B
		Depth Interval (ft) Sample Date Action Level	0 - 0.5 12/13/1993	0 - 0.5 12/13/1993	0 - 0.5 12/13/1993	0 - 0.5 12/13/1993	0 - 0.5 12/13/1993	0 - 0.5 12/13/1993	0 - 0.5 12/13/1993	0 - 0.5 12/13/1993	0 - 0.5 7/15/1991	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	< 8.0 U	---	---	---	---	---	---	---	15	---	---
Arsenic	mg/Kg	7.5 or SB	9.6	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	< 1.2 U	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	392.5	6.2	103	369	101	115	57.3	165	2100	2500	180,(140)
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	SB-1-C	SB-2	SB-3	SB-4	SB-5	SB-5	SS-1	SS-1	SS-10	SS-10	SS-11	SS-1-1C
		Depth Interval (ft) Sample Date Action Level	0 - 0.5 6/21/1993	0 - 0.5 7/15/1991	0 - 0.5 7/15/1991	0 - 0.5 7/15/1991	0 - 0.5 7/15/1991	0 - 0.5 7/15/1991	0.16 - 0.5 7/10/1991	0 - 0.16 7/10/1991	0 - 0.5 7/10/1991	0 - 0.5 7/10/1991	0 - 0.5 7/10/1991	0 - 0.5 6/21/1993
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	77	4.5	3.4	0.84 J	1.4 J	2.8	25	1 J	0.6 J	4.6	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	4500	7100	720	310	62 B	88 B	110	1200	93	100	400	73
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	SS-12	SS-1-2C	SS-13	SS-1-3C	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-2	SS-2
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.16	0.16 - 0.5
		Sample Date	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	7/10/1991	7/10/1991
Chemical Name	Unit	Action Level												
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	73	4.3
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	100	500	150	760	130	140	480	3700	1900	430	4800	1100
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	SS-20	SS-21	SS-2-1C	SS-22	SS-2-2C	SS-23	SS-23	SS-2-3C	SS-24	SS-25	SS-26	SS-27
		Depth Interval (ft) Sample Date Action Level	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993	0 - 0.5 6/21/1993
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	150	140	220	74	730	51	46	550	250	280	86	150
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	SS-28	SS-28	SS-29	SS-3	SS-3	SS-30	SS-31	SS-32	SS-33	SS-34	SS-35	SS-36
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.16	0.16 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5
		Sample Date	6/21/1993	6/21/1993	6/21/1993	7/10/1991	7/10/1991	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993	6/21/1993
Chemical Name	Unit	Action Level												
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	210	8.9	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	1100	760	92	9000	960	890	790	140	43	48	100	320
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	SS-37	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-9-1C	SS-9-2C	SS-9-3C	SSBA-01	SSBA-02
		Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0.5	0 - 0	0 - 0
		Sample Date	6/21/1993	7/10/1991	7/10/1991	7/10/1991	7/10/1991	7/10/1991	7/10/1991	6/21/1993	6/21/1993	6/21/1993	8/7/2003	8/7/2003
		Action Level												
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	5.6	3.7	2.7	1.3 J	3.8	< 2.6 U	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	12000	480	540	420	180	420	110	40,(48)	180	130	92.2	196
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	SSBA-03	SSBA-04	SS-BG-OBG-41	SS-BG-OBG-42	SS-BG-OBG-43	SS-BG-OBG-44	SS-BG-OBG-45	SS-BG-OBG-46	SSFW-01
		Depth Interval (ft)	0 - 0	0 - 0	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0
		Sample Date	8/7/2003	8/7/2003	11/5/2001	11/5/2001	11/5/2001	11/5/2001	11/5/2001	11/5/2001	8/6/2003
		Action Level									
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	82.2	198	110	4740	7320	250	1340	339	519 J
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	SSFW-02	SSFW-03	SSFW-04	SSFW-05	SSMLA-01	SSMLA-02	SSMLA-03	SSMLA-04	SS-OBG-01	SS-OBG-02	SS-OBG-03
		Depth Interval (ft) Sample Date Action Level	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	15200 J*	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	4.8 JN	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	14.3 J*	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	122 J*	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	0.85 J	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	0.36 J	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	1680 J*	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	16.5 J*	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	8.5 J	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	22.4 J*	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	< .6 U	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	22500 J*	---
Lead	mg/kg	SB	258 J	574 J	1500 J	1920 J	1200	3660	734	1090 J	1260	505	863
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	3600 J*	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	1680 J*	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	0.12 J	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	18.5 J*	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	1290 JE	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	2.1 J*	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	< .25 U	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	27.5 J	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	< 1.2 U	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	22.2 J*	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	105 J*	---

Notes: Bold values indicate exceedances
U - not detected, J - estimated,
* - RPD greater than 20%, R - rejected,
E - recovery greater than 10% for serial dilution.
--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	SS-OBG-04	SS-OBG-05	SS-OBG-06	SS-OBG-07	SS-OBG-08	SS-OBG-09	SS-OBG-10	SS-OBG-11	SS-OBG-12	SS-OBG-13
		Depth Interval (ft) Sample Date Action Level	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001	0 - 0.2 10/19/2001	0 - 0.2 10/19/2001	0 - 0.2 10/19/2001	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	1270	1140	7550	52.0	< .414 R	< .383 R	< .336 R	7160	1090	1180
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	SS-OBG-14	SS-OBG-15	SS-OBG-16	SS-OBG-17	SS-OBG-18	SS-OBG-19	SS-OBG-20	SS-OBG-21	SS-OBG-22	SS-OBG-23
		Depth Interval (ft)	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
		Sample Date	10/26/2001	10/26/2001	10/26/2001	10/25/2001	10/25/2001	10/25/2001	10/25/2001	10/25/2001	10/19/2001	10/19/2001
Chemical Name	Unit	Action Level										
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	9710 J*	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	120 JN	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	143 J*	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	56.2 J*	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	0.45 J	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	3.5	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	1930 J*	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	19.8 J*	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	6.3 J	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	110 J*	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	< .7 U	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	24200 J*	---	---
Lead	mg/kg	SB	1240	77.8	438	2170	2770	464	7030	5610	< .353 R	< .633 R
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	4010 J*	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	304 J*	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	0.43	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	26.9 J*	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	1380 JE	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	18.1 J*	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	< .27 U	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	77.0 J	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	< 1.4 U	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	17.2 J*	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	140 J*	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

		Location ID	SS-OBG-24	SS-OBG-25	SS-OBG-26	SS-OBG-27	SS-OBG-28	SS-OBG-29	SS-OBG-30	SS-OBG-31	SS-OBG-32	SS-OBG-34
		Depth Interval (ft)	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
		Sample Date	10/19/2001	10/19/2001	10/19/2001	10/19/2001	10/25/2001	10/25/2001	10/25/2001	10/25/2001	10/25/2001	10/19/2001
Chemical Name	Unit	Action Level										
Aluminum	mg/Kg	SB	---	---	---	---	---	---	---	13700 J*	15600 J*	---
Antimony	mg/Kg	SB	---	---	---	---	---	---	---	14.0 JN	< .45 UJN	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---	---	22.2 J*	10.8 J*	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---	---	60.6 J*	45.6 J*	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---	---	0.67 J	0.79 J	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---	---	0.66 J	0.23 J	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---	---	995 J*	7010 J*	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---	---	15.5 J*	23.9 J*	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---	---	8.0 J	16.1	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---	---	24.4 J*	41.1 J*	---
Cyanide	mg/Kg	---	---	---	---	---	---	---	---	< .6 U	< .5 U	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---	---	23000 J*	38600 J*	---
Lead	mg/kg	SB	< .358 R	< .368 R	< .320 R	< .328 R	320	1240	13700	1100	108	< .369 R
Magnesium	mg/Kg	SB	---	---	---	---	---	---	---	3250 J*	8000 J*	---
Manganese	mg/Kg	SB	---	---	---	---	---	---	---	738 J*	1030 J*	---
Mercury	mg/Kg	.1	---	---	---	---	---	---	---	0.11 J	< .08 U	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---	---	18.7 J*	33.5 J*	---
Potassium	mg/kg	SB	---	---	---	---	---	---	---	789 JE	1520 JE	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---	---	2.0 J*	1.6 J*	---
Silver	mg/Kg	SB	---	---	---	---	---	---	---	< .23 U	< .22 U	---
Sodium	mg/Kg	SB	---	---	---	---	---	---	---	25.3 J	31.2 J	---
Thallium	mg/Kg	SB	---	---	---	---	---	---	---	< 1.2 U	< 1.1 U	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---	---	21.7 J*	22.0 J*	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---	---	65.5 J*	100 J*	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID Depth Interval (ft) Sample Date Action Level	SS-OBG-35	SS-OBG-36	SS-OBG-37	SS-OBG-38	SS-OBG-39	SS-OBG-40	SSRA-01	SSRA-02	SSRA-04	SSRA-05	SSSSA-01
			0 - 0.2 10/19/2001	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001	0 - 0.2 10/25/2001	0 - 0.2 10/26/2001	0 - 0.2 10/26/2001	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/6/2003	0 - 0 8/7/2003	0 - 0 8/7/2003
Aluminum	mg/Kg	SB	---	14500 J*	---	---	---	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	31.4 JN	---	---	---	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	20.1 J*	---	---	---	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	68.7 J*	---	---	---	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	0.72 J	---	---	---	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	0.89 J	---	---	---	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	5040 J*	---	---	---	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	24.0 J*	---	---	---	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	13.1	---	---	---	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	49.8 J*	---	---	---	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	< .5 U	---	---	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	32100 J*	---	---	---	---	---	---	---	---	---
Lead	mg/kg	SB	< .320 R	2830	1370	3370	61.8	47.9	196	34.1	42.2	50.4	155
Magnesium	mg/Kg	SB	---	7240 J*	---	---	---	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	834 J*	---	---	---	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	< .08 U	---	---	---	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	30.7 J*	---	---	---	---	---	---	---	---	---
Potassium	mg/kg	SB	---	1270 JE	---	---	---	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	1.7 J*	---	---	---	---	---	---	---	---	---
Silver	mg/Kg	SB	---	< .21 U	---	---	---	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	243 J	---	---	---	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	< 1.1 U	---	---	---	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	22.3 J*	---	---	---	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	113 J*	---	---	---	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-1
Revere Smelting and Refining
Walkill, New York
Surface Soil - Inorganics Results

Chemical Name	Unit	Location ID	SSSSA-02	SSSSA-03	SSSSA-04	SSSSA-05	SY-1	SY-3
		Depth Interval (ft) Sample Date Action Level	0 - 0 8/7/2003	0 - 0 8/7/2003	0 - 0 8/7/2003	0 - 0 8/7/2003	0 - 0.5 7/10/1991	0 - 0.5 7/10/1991
Aluminum	mg/Kg	SB	---	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	46	9.2
Barium	mg/Kg	300 or SB	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	2	< 1.0 U
Calcium Metal	mg/kg	SB	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---
Iron	mg/Kg	2 or SB	---	---	---	---	---	---
Lead	mg/kg	SB	257	159	127	333	9300	2000
Magnesium	mg/Kg	SB	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---
Mercury	mg/Kg	.1	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---

Notes: Bold values indicate exceedances

U - not detected, J - estimated,

* - RPD greater than 20%, R - rejected,

E - recovery greater than 10% for serial dilution.

--- no action level.

Table J-2
Revere Smelting and Refining
Walkill, New York
Surface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Sample Date	Lead mg/L	Lead mg/L	Antimony mg/L	Arsenic mg/L	Cadmium mg/L
OS-14	0 - 0.5	12/13/1993	---	0.366	---	---	---
OS-22	0 - 0.5	12/13/1993	---	1.33	---	---	---
OS-44	0 - 0.5	12/13/1993	---	0.166	---	---	---
SB-1	0 - 0.5	7/15/1991	0.28 J	0.82 B	---	---	---
SB-2	0 - 0.5	7/15/1991	5.4	70	---	---	---
SB-3	0 - 0.5	7/15/1991	< 0.50 U	1.7	---	---	---
SB-4	0 - 0.5	7/15/1991	< 0.50 U	0.75	---	---	---
SB-5	0 - 0.5	7/15/1991	< 0.50 U	0.3 J	---	---	---
SB-5	0 - 0.5	7/15/1991	< 0.50 U	0.52 B	---	---	---
SS-1	0.16 - 0.5	7/10/1991	< 0.5 U	< 0.57 U	---	---	---
SS-1	0 - 0.16	7/10/1991	< 0.5 U	1.3	---	---	---
SS-10	0 - 0.5	7/10/1991	< 0.5 U	< 0.55 U	---	---	---
SS-10	0 - 0.5	7/10/1991	< 0.5 U	< 0.45 U	---	---	---
SS-11	0 - 0.5	7/10/1991	2.8	1.2	---	---	---
SS-2	0 - 0.16	7/10/1991	< 0.5 U	2.1	---	---	---
SS-2	0.16 - 0.5	7/10/1991	< 0.5 U	2.1	---	---	---
SS-3	0 - 0.16	7/10/1991	< 0.5 U	1.1	---	---	---
SS-3	0.16 - 0.5	7/10/1991	< 0.5 U	< 0.57 U	---	---	---
SS-4	0 - 0.5	7/10/1991	< 0.5 U	0.31 J	---	---	---
SS-5	0 - 0.5	7/10/1991	3.4	0.99	---	---	---
SS-6	0 - 0.5	7/10/1991	< 0.5 U	0.37 J	---	---	---
SS-7	0 - 0.5	7/10/1991	< 0.5 U	< 0.60 U	---	---	---
SS-8	0 - 0.5	7/10/1991	< 0.5 U	< 0.60 U	---	---	---
SS-9	0 - 0.5	7/10/1991	< 0.5 U	0.36 J	---	---	---
SS-OBG-10	0 - 0.2	10/19/2001	---	0.964	---	---	---
SY-1	0 - 0.5	7/10/1991	---	700	2.7	0.83	0.1 J
SY-3	0 - 0.5	7/10/1991	---	170	< 0.59 U	0.92	0.077 J

Notes: U - not detected, J - estimated, B - associated blank contamination, --- not analyzed.

Table J-3
Revere Smelting and Refining
Walkill, New York
Surface Soil - Volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
		Location ID	SS-OBG-02	SS-OBG-21	SS-OBG-31	SS-OBG-32	SS-OBG-36
		Sample Date	10/26/2001	10/25/2001	10/25/2001	10/25/2001	10/26/2001
		Sample ID	SS-OBG-02_10262001N-1	SS-OBG-21_10252001N-1	SS-OBG-31_10252001N-1	SS-OBG-32_10252001N-1	SS-OBG-36_10262001N-1
Chemical Name	Unit	Action Level					
1,1,1-Trichloroethane	ug/Kg	800	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
1,1,2,2-Tetrachloroethane	ug/Kg	600	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
1,1,2-Trichloroethane	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
1,1-Dichloroethane	ug/Kg	200	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
1,1-Dichloroethene	ug/Kg	400	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
1,2-Dichloroethane	ug/Kg	100	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
1,2-Dichloropropane	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
2-Hexanone	ug/Kg	---	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
4-Methyl-2-pentanone	ug/Kg	1000	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
Acetone	ug/Kg	200	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Benzene	ug/Kg	60	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Bromodichloromethane	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Bromoform	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Bromomethane	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Carbon disulfide	ug/Kg	2700	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Carbon tetrachloride	ug/Kg	600	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Chlorobenzene	ug/Kg	1700	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
Chloroethane	ug/Kg	1900	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Chloroform	ug/Kg	300	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
cis-1,2-Dichloroethene	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
cis-1,3-Dichloropropene	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Dibromochloromethane	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Ethylbenzene	ug/Kg	5500	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
Methyl chloride	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Methyl ethyl ketone	ug/Kg	300	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Methylene chloride	ug/Kg	100	< 12.2 U	< 13.3 U	< 11.6 U	< 10.8 U	< 10.6 U
Styrene	ug/Kg	---	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
Tetrachloroethene	ug/Kg	1400	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
Toluene	ug/Kg	1500	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U
trans-1,2-Dichloroethene	ug/Kg	300	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
trans-1,3-Dichloropropene	ug/Kg	---	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Trichloroethene	ug/Kg	700	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Vinyl chloride	ug/Kg	200	< 12 U	< 13 U	< 12 U	< 11 U	< 11 U
Xylenes, Total	ug/Kg	1200	< 12 UJ	< 13 U	< 12 U	< 11 U	< 11 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-4
Revere Smelting and Refining
Walkill, New York
Surface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
		Location ID	SS-OBG-02	SS-OBG-21	SS-OBG-31	SS-OBG-32	SS-OBG-36
		Sample Date	10/26/2001	10/25/2001	10/25/2001	10/25/2001	10/26/2001
		Sample ID	SS-OBG-02_10262001N-1	SS-OBG-21_10252001N-1	SS-OBG-31_10252001N-1	SS-OBG-32_10252001N-1	SS-OBG-36_10262001N-1
Action Level							
2,4,5-Trichlorophenol	ug/Kg	100	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
2,4,6-Trichlorophenol	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2,4-Dichlorophenol	ug/Kg	400	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2,4-Dimethylphenol	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2,4-Dinitrophenol	ug/Kg	200	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
2,4-Dinitrotoluene	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2,6-Dinitrotoluene	ug/Kg	1000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2-Chloronaphthalene	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2-Chlorophenol	ug/Kg	800	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2-Methylnaphthalene	ug/Kg	36400	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2-Methylphenol	ug/Kg	100 or MDL	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
2-Nitroaniline	ug/Kg	430 or MDL	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
2-Nitrophenol	ug/Kg	330 or MDL	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
3,3'-Dichlorobenzidine	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
3-Nitroaniline	ug/Kg	500 or MDL	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
4,6-Dinitro-2-Methylphenol	ug/Kg	---	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
4-Bromophenylphenylether	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
4-chloro-3-Methylphenol	ug/Kg	240 or MDL	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
4-Chloroaniline	ug/Kg	220 or MDL	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
4-Chlorophenyl phenyl ether	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
4-Methylphenol	ug/Kg	900	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
4-Nitroaniline	ug/Kg	---	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
4-Nitrophenol	ug/Kg	100 or MDL	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
Acenaphthene	ug/Kg	50000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Acenaphthylene	ug/Kg	41000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Anthracene	ug/Kg	50000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Benz(a)anthracene	ug/Kg	224 or MDL	77 J	72 J	< 390 U	< 360 U	260 J
Benzo(a)pyrene	ug/Kg	61 or MDL	96 J	80 J	< 390 U	< 360 U	300 J
Benzo(b)fluoranthene	ug/Kg	1100	190 J	350 J	40 J	< 360 U	640 J
Benzo(g,h,i)perylene	ug/Kg	50000	< 410 UJ	< 440 U	< 390 U	< 360 U	110 J
Benzo(k)fluoranthene	ug/Kg	1100	49 J	66 J	< 390 U	< 360 U	190 J
Bis(2-chloro-1-methylethyl)ether	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Bis(2-chloroethoxy)methane	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Bis(2-chloroethyl)ether	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U

Notes: Bold values indicate exceedances,
U - not detected, J - estimated, --- no action level.

Table J-4
Revere Smelting and Refining
Walkill, New York
Surface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
		Location ID	SS-OBG-02	SS-OBG-21	SS-OBG-31	SS-OBG-32	SS-OBG-36
		Sample Date	10/26/2001	10/25/2001	10/25/2001	10/25/2001	10/26/2001
		Sample ID	SS-OBG-02_10262001N-1	SS-OBG-21_10252001N-1	SS-OBG-31_10252001N-1	SS-OBG-32_10252001N-1	SS-OBG-36_10262001N-1
		Action Level					
Bis(2-ethylhexyl)phthalate	ug/Kg	50000	47 J	130 J	66 J	< 360 U	240 J
Butyl benzyl phthalate	ug/Kg	50000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Carbazole	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Chrysene	ug/Kg	400	110 J	160 J	< 390 U	< 360 U	340 J
Dibenz(a,h)anthracene	ug/Kg	14 or MDL	< 410 UJ	< 440 U	< 390 U	< 360 U	38 J
Dibenzofuran	ug/Kg	6200	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Dichlorobenzenes (1,2-)	ug/Kg	7900	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Dichlorobenzenes (1,3-)	ug/Kg	1600	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Dichlorobenzenes (1,4-)	ug/Kg	8500	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Diethyl phthalate	ug/Kg	7100	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Dimethyl phthalate	ug/Kg	2000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Di-n-butylphthalate	ug/Kg	8100	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Di-n-octyl phthalate	ug/Kg	50000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Fluoranthene	ug/Kg	50000	170 J	160 J	41 J	< 360 U	490
Fluorene	ug/Kg	50000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Hexachlorobenzene	ug/Kg	410	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Hexachlorobutadiene	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Hexachlorocyclopentadiene	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Hexachloroethane	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Indeno (1,2,3-cd)pyrene	ug/Kg	3200	< 410 UJ	< 440 U	< 390 U	< 360 U	120 J
Isophorone	ug/Kg	4400	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Naphthalene	ug/Kg	13000	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Nitrobenzene	ug/Kg	200 or MDL	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
N-Nitrosodiphenylamine	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
N-Nitrosodipropylamine	ug/Kg	---	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Pentachlorophenol	ug/Kg	1000 or MDL	< 1000 U	< 1100 U	< 970 U	< 900 U	< 890 U
Phenanthrene	ug/Kg	50000	76 J	72 J	< 390 U	< 360 U	190 J
Phenol	ug/Kg	30 or MDL	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U
Pyrene	ug/Kg	50000	220 J	150 J	< 390 U	< 360 U	560
Trichlorobenzenes (1,2,4-)	ug/Kg	3400	< 410 U	< 440 U	< 390 U	< 360 U	< 350 U

Notes: Bold values indicate exceedances,
U - not detected, J - estimated, --- no action level.

Table J-5
Revere Smelting and Refining
Walkill, New York
Surface Soil - Pesticides Results

Chemical Name	Depth Interval (ft)		0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
	Location ID		SS-OBG-02	SS-OBG-21	SS-OBG-31	SS-OBG-32	SS-OBG-36
	Sample Date		10/26/2001	10/25/2001	10/25/2001	10/25/2001	10/26/2001
	Sample ID		SS-OBG-02_10262001N-1	SS-OBG-21_10252001N-1	SS-OBG-31_10252001N-1	SS-OBG-32_10252001N-1	SS-OBG-36_10262001N-1
	Unit	Action Level					
a-Chlordane	ug/Kg	---	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
Aldrin	ug/Kg	41	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
alpha-Hexachlorocyclohexane	ug/Kg	110	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
beta-Hexachlorocyclohexane	ug/Kg	---	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
delta-Hexachlorocyclohexane	ug/Kg	300	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
Dieldrin	ug/Kg	44	< 4.1 U	< 4.5 U	< 3.9 U	< 3.6 U	< 3.5 U
Endosulfan I	ug/Kg	900	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
Endosulfan II	ug/Kg	900	< 4.1 U	< 4.5 U	< 3.9 U	< 3.6 U	< 3.5 U
Endosulfan sulfate	ug/Kg	1000	< 4.1 U	< 4.5 U	< 3.9 U	< 3.6 U	< 3.5 U
Endrin	ug/Kg	100	< 4.1 U	< 4.5 U	< 3.9 U	< 3.6 U	< 3.5 U
Endrin aldehyde	ug/Kg	---	< 4.1 R	< 4.5 U	< 3.3 R	< 3.6 U	< 3.5 U
Endrin ketone	ug/Kg	---	< 4.1 U	< 4.5 U	< 3.9 U	< 3.6 U	< 3.5 U
Gamma-Chlordane	ug/Kg	---	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
gamma-Hexachlorocyclohexane	ug/Kg	60	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
Heptachlor	ug/Kg	100	< 2 U	< 2.2 U	< 1.9 U	< 1.8 U	< 1.8 U
Heptachlor epoxide	ug/Kg	20	< 2 U	< 2.2 U	1.1 J	< 1.8 U	< 1.8 U
Methoxychlor	ug/Kg	---	< 20 U	< 22 U	< 19 U	< 18 U	< 18 U
p,p'-DDD	ug/Kg	2900	< 4.1 U	< 4.5 U	1.4 J	< 3.6 U	< 3.5 U
p,p'-DDE	ug/Kg	2100	3 J	< 4.5 U	4	< 3.6 U	< 3.5 U
p,p'-DDT	ug/Kg	2100	2.8 JPN	4.4 J	5.1	< 3.6 U	2.2 JP
Toxaphene	ug/Kg	---	< 200 U	< 220 U	< 190 U	< 180 U	< 180 U

Notes: U - not detected, J - estimated, R - rejected, --- no action level,
N - matrix spike outside 75-125% limit, P - greater than 25% difference on two GC columns.

Table J-6
Revere Smelting and Refining
Walkill, New York
Surface Soil - PCBs Results

Depth Interval (ft)			0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2	0 - 0.2
Location ID			SS-OBG-02	SS-OBG-21	SS-OBG-31	SS-OBG-32	SS-OBG-36
Sample Date			10/26/2001	10/25/2001	10/25/2001	10/25/2001	10/26/2001
Sample ID			SS-OBG-02_10262001N-1	SS-OBG-21_10252001N-1	SS-OBG-31_10252001N-1	SS-OBG-32_10252001N-1	SS-OBG-36_10262001N-1
Chemical Name	Unit	Action Level					
Aroclor-1016	ug/Kg	1000	< 41 U	< 45 U	< 39 U	< 36 U	< 35 U
Aroclor-1221	ug/Kg	1000	< 81 U	< 89 U	< 77 U	< 72 U	< 71 U
Aroclor-1232	ug/Kg	1000	< 41 U	< 45 U	< 39 U	< 36 U	< 35 U
Aroclor-1242	ug/Kg	1000	< 41 U	< 45 U	< 39 U	< 36 U	< 35 U
Aroclor-1248	ug/Kg	1000	< 41 U	< 45 U	< 39 U	< 36 U	< 35 U
Aroclor-1254	ug/Kg	1000	< 41 U	< 45 U	< 39 U	< 36 U	< 35 U
Aroclor-1260	ug/Kg	1000	< 41 U	< 45 U	< 39 U	< 36 U	< 35 U

Notes: U - not detected, action level for total PCBs.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SB-OBG-19	0 - 0.6	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SY-2	0 - 0.6	7/10/1991	---	3.7	7.4	---	---	< 1.0 U	---	---	---	---	---	---
SB-OBG-10	0 - 0.7	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-16	0 - 0.7	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-16	0 - 0.7	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-05	0 - 0.9	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-15	0 - 0.9	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
BC-1	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-2	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-3	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-5	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-6	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-3	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-5	0 - 1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-1	0 - 1	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-2	0 - 1	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-3	0 - 1	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	0 - 1	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	0 - 1	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	0 - 1	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-02	0 - 1	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-04	0 - 1	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-23	0 - 1	11/5/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-15	0 - 1	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-28	0 - 1	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-28	0 - 1	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-30	0 - 1	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-39	0 - 1	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-07	0 - 1.2	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-36	0 - 1.2	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-03	0 - 1.3	10/24/2001	15200 J*	0.51 JN	6.9 J*	43.3 J*	0.60 J	< .086 U	261 J*	9.6 J	23.0 J*	18.1 J*	< .6 U	28000 J*
SB-OBG-16	0 - 1.3	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-06	0 - 1.4	10/22/2001	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SB-OBG-19	0 - 0.6	10/24/2001	23.3	---	---	---	---	---	---	---	---	---	---	---
SY-2	0 - 0.6	7/10/1991	570	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-10	0 - 0.7	10/23/2001	332	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-16	0 - 0.7	10/26/2001	426	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-16	0 - 0.7	10/26/2001	438	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-05	0 - 0.9	10/23/2001	34.5	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-15	0 - 0.9	10/25/2001	69200	---	---	---	---	---	---	---	---	---	---	---
BC-1	0 - 1	11/30/1993	1900	---	---	---	---	---	---	---	---	---	---	---
BC-2	0 - 1	11/30/1993	750	---	---	---	---	---	---	---	---	---	---	---
BC-3	0 - 1	11/30/1993	610	---	---	---	---	---	---	---	---	---	---	---
BC-5	0 - 1	11/30/1993	1000	---	---	---	---	---	---	---	---	---	---	---
BC-6	0 - 1	11/30/1993	210	---	---	---	---	---	---	---	---	---	---	---
BS-1	0 - 1	11/30/1993	260	---	---	---	---	---	---	---	---	---	---	---
BS-3	0 - 1	11/30/1993	76	---	---	---	---	---	---	---	---	---	---	---
BS-5	0 - 1	11/30/1993	170	---	---	---	---	---	---	---	---	---	---	---
FB-1	0 - 1	12/15/1993	83600	---	---	---	---	---	---	---	---	---	---	---
FB-2	0 - 1	12/15/1993	1870	---	---	---	---	---	---	---	---	---	---	---
FB-3	0 - 1	12/15/1993	631	---	---	---	---	---	---	---	---	---	---	---
LB-12	0 - 1	9/1/1992	200	---	---	---	---	---	---	---	---	---	---	---
LB-7	0 - 1	9/1/1992	350000	---	---	---	---	---	---	---	---	---	---	---
LB-9	0 - 1	9/1/1992	330000	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-02	0 - 1	10/24/2001	38.2	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-04	0 - 1	10/24/2001	39.7	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-23	0 - 1	11/5/2001	38.2	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-15	0 - 1	10/26/2001	187	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-28	0 - 1	10/25/2001	219	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-28	0 - 1	10/25/2001	273	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-30	0 - 1	10/25/2001	23900	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-39	0 - 1	10/26/2001	769	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-07	0 - 1.2	10/23/2001	16.0	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-36	0 - 1.2	10/26/2001	331	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-03	0 - 1.3	10/24/2001	30.7	4310 J*	313 J*	< .064 U	20.1 J*	728 JE	1.4 J*	< .23 U	24.4 J	< 1.2 U	20.4 J*	60.1 J*
SB-OBG-16	0 - 1.3	10/25/2001	55.9	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-06	0 - 1.4	10/22/2001	21.5	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution

B - associated blank contamination, * - RPD greater than 20%.

E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
MW-1	0 - 1.5	7/10/1991	---	170	150	---	---	< ND U	---	---	---	24	---	---
SB-OBG-08	0 - 1.5	10/22/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-20	0 - 1.5	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-21	0 - 1.5	11/6/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-07	0 - 1.5	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-14	0 - 1.5	10/26/2001	14800 J*	7.1 JN	10.1 J*	83.2 J*	0.69 J	0.37 J	911 J*	7.8 J	22.5 J*	15.8 J*	< .6 U	22300 J*
SS-OBG-31	0 - 1.5	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	0 - 1.6	10/23/2001	---	---	---	---	---	---	---	---	---	---	< .5 U	---
SB-OBG-12	0 - 1.6	10/25/2001	8280 J*	21.1 JN	14.2 J*	70.3 J*	0.38 J	0.65 J	5190 J*	6.3 J	31.3 J*	13.3 J*	< .5 U	17700 J*
SB-OBG-17	0 - 1.6	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-11	0 - 1.8	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-18	0 - 1.9	10/24/2001	12600 J*	0.53 JN	6.1 J*	56.0 J*	0.65 J	0.1 J	1680 J*	8.7 J	23.3 J*	17.0 J*	< .6 U	27000 J*
FB-4	0 - 2	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-5	0 - 2	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-10	0 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	0 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	0 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	0 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	0 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-09	0 - 2	10/25/2001	17200 J*	4.5 JN	8.9 J*	52.2 J*	0.66 J	0.27 J	351 J*	7.8 J	15.6 J*	18.3 J*	< .5 U	26400 J*
SB-OBG-25	0 - 2	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	0 - 2	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	0 - 2	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	0 - 2	12/12/2005	15800	4.2	9.6	35.9	0.7	0.3 B	2110	10.7	37.6	27.7	---	33800
SB-OBG-28	0 - 2	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	0 - 2	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-29	0 - 2	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	0 - 2	11/28/2005	11000 EJ	189 NJ	155 *EJ	231	0.6 EJ	3.6 *J	14400 *EJ	8.5 *EJ	180 EJ	13.9 EJ	---	30000
SB-OBG-31	0 - 2	12/13/2005	17600	9.9	13.5	58.3	0.73	0.6	2020	14	35	22.1	---	31100
SB-OBG-32	0 - 2	11/29/2005	11200 EJ	232 NJ	88.8 *EJ	99.7	0.72 EJ	3 *	5640 *EJ	12.1 *EJ	110 EJ	13.8 EJ	---	29100
SB-OBG-33	0 - 2	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	0 - 2	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	0 - 2	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	0 - 2	11/29/2005	11400 EJ	9.6 NJ	15.6 *EJ	43.1	0.55 EJ	0.034 *BJ	2950 *EJ	11.4 *EJ	40.8 EJ	16.7 EJ	---	28800

Notes: U - not detected, J - estimated, D - result from dilution
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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
MW-1	0 - 1.5	7/10/1991	33000	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-08	0 - 1.5	10/22/2001	8990	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-20	0 - 1.5	10/24/2001	125	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-21	0 - 1.5	11/6/2001	39300	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-07	0 - 1.5	10/26/2001	154	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-14	0 - 1.5	10/26/2001	427	3780 J*	628 J*	< .09 U	18.9 J*	937 JE	1.2 J*	< .23 U	39.5 J	< 1.2 U	19.7 J*	66.6 J*
SS-OBG-31	0 - 1.5	10/25/2001	170	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	0 - 1.6	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	0 - 1.6	10/25/2001	1190	4880 J*	454 J*	< .08 U	13.9 J*	2680 JE	1.7 J*	< .21 U	127 J	< 1.1 U	16.0 J*	47.7 J*
SB-OBG-17	0 - 1.6	10/25/2001	33.3	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-11	0 - 1.8	10/26/2001	1980	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-18	0 - 1.9	10/24/2001	30.5	4530 J*	703 J*	< .062 U	21.3 J*	895 JE	1.9 J*	< .23 U	269 J	< 1.2 U	19.3 J*	71.1 J*
FB-4	0 - 2	12/15/1993	13400	---	---	---	---	---	---	---	---	---	---	---
FB-5	0 - 2	12/15/1993	86	---	---	---	---	---	---	---	---	---	---	---
LB-10	0 - 2	9/1/1992	210000	---	---	---	---	---	---	---	---	---	---	---
LB-11	0 - 2	9/1/1992	380000	---	---	---	---	---	---	---	---	---	---	---
LB-4	0 - 2	9/1/1992	3500	---	---	---	---	---	---	---	---	---	---	---
LB-6	0 - 2	9/1/1992	1500	---	---	---	---	---	---	---	---	---	---	---
LB-8	0 - 2	9/1/1992	5100	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-09	0 - 2	10/25/2001	349	3660 J*	320 J*	< .08 U	20.0 J*	639 JE	1.4 J*	< .21 U	32.7 J	< 1.1 U	25.0 J*	67.8 J*
SB-OBG-25	0 - 2	11/28/2005	594 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	0 - 2	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	0 - 2	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	0 - 2	12/12/2005	380 N*EJ	8080	567	0.074	30.6	1330	< 0.077 U	< 0.022 U	174	< 0.091 U	19.1	73.5
SB-OBG-28	0 - 2	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	0 - 2	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-29	0 - 2	11/28/2005	24.1 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	0 - 2	11/28/2005	13300 *EJ	4910 EJ	549 *ER	0.1	37.5 EJ	854 EJ	3.4	0.14 B	1040 *J	2.4	14.6 EJ	154 EJ
SB-OBG-31	0 - 2	12/13/2005	666 N*EJ	6890	688	0.068	29.2	1400	< 0.07 U	< 0.02 U	61.6	0.44 B	21.8	80.6
SB-OBG-32	0 - 2	11/29/2005	12600 *EJ	4690 EJ	1160 *ER	0.079	30.8 EJ	892 EJ	2.3	0.19 B	74.6 *J	5.8	13.9 EJ	74.5 EJ
SB-OBG-33	0 - 2	11/29/2005	99.9 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	0 - 2	11/29/2005	24.8 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	0 - 2	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	0 - 2	11/29/2005	848 *EJ	5720 EJ	721 *ER	0.064	25.3 EJ	800 EJ	2.6	< 0.02 U	82.1 *J	2.9	16.8 EJ	84.2 EJ

Notes: U - not detected, J - estimated, D - result from dilution
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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SB-OBG-37	0 - 2	12/13/2005	14300	7.4	15.8	33.9	0.71	0.53	2680	13.5	41.3	20.5	---	30000
SB-OBG-37A	0 - 2	12/13/2005	14500	5.5	14	35.9	0.68	0.45	2430	12.7	38.1	19.2	---	29800
SB-OBG-38	0 - 2	11/29/2005	12300 EJ	416 NJ	317 *EJ	135	0.62 EJ	13.7 *J	7360 *EJ	12 *EJ	380 EJ	19.6 EJ	---	33600
SS-OBG-06	0 - 2	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-12	0 - 2	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-13	0 - 2	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-27	0 - 2	10/19/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-29	0 - 2	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-32	0 - 2	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-37	0 - 2	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-40	0 - 2	10/26/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-41	0 - 2	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	0 - 2	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-43	0 - 2	11/30/2005	8110 *EJ	3.9 NJ	16.2 *EJ	42.8 *EJ	0.29 BEJ	< 0.0066 U	< 516 *EJU	2.9 BEJ	15.7	8.9 *EJ	---	11800 *EJ
SS-OBG-44	0 - 2	11/30/2005	8040 *EJ	9.7 NJ	15.4 *EJ	50.2 *EJ	0.26 BEJ	0.34 B	< 1360 *EJU	4 EJ	26	12 *EJ	---	14600 *EJ
SS-OBG-45	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-46	0 - 2	11/27/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-48	0 - 2	11/30/2005	9560 *EJ	0.59 BNJ	7.8 *EJ	59 *EJ	0.41 EJ	< 0.0056 U	1440 *EJ	4.2 EJ	11.3	< 8.9 *EJU	---	12900 *EJ
SS-OBG-48	0 - 2	11/30/2005	8940 *EJ	0.69 BNJ	7.2 *EJ	59.2 *EJ	0.37 EJ	< 0.006 U	< 1650 *EJU	3.9 EJ	11	8.1 *EJ	---	11000 *EJ
SS-OBG-48	0 - 2	11/30/2005	10000 *EJ	0.44 BNJ	8.5 *EJ	68.1 *EJ	0.43 EJ	< 0.0067 U	< 1880 *EJU	4.4 EJ	11.8	9.1 *EJ	---	12300 *EJ
SS-OBG-49	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-50	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-51	0 - 2	11/27/2005	12800	1.8	11	40.3	0.59	< 0.0051 U	2850	14.3	40.2	18.5	---	35600
SS-OBG-52	0 - 2	11/30/2005	9870	35.5	79.1	46.2	0.36 B	0.21 B	990	3.9 B	46.2	13	---	13200
SS-OBG-53	0 - 2	11/30/2005	11300	10.1	17.3	111	0.95	0.13 B	2490	6.6	20.9	13.8	---	16100
SS-OBG-54	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	0 - 2	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-55	0 - 2	11/30/2005	13200	1.8	12.4	17.2	0.57	< 0.0052 U	148	10.4	37.1	18.4	---	31500
SS-OBG-56	0 - 2	12/1/2005	6330	113	39.8	38.4	0.23 B	1.7	2060	2.3 B	66.9	10	---	9330
SS-OBG-57	0 - 2	12/1/2005	14900	5.2	17.6	174	0.83	0.19 B	2280	7.3	20.6	14	---	17000

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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SB-OBG-37	0 - 2	12/13/2005	451 N*EJ	7140	685	0.061	31	1250	< 0.063 U	< 0.018 U	60.6	0.36 B	19.1	82.1
SB-OBG-37A	0 - 2	12/13/2005	368 N*EJ	6370	656	0.063	27.3	1170	< 0.069 U	< 0.019 U	101	0.31 B	19.4	77.9
SB-OBG-38	0 - 2	11/29/2005	37500 *EJ	5140 EJ	591 *ER	0.13	58.9 EJ	947 EJ	3.4	0.59 B	251 *J	2.7	18.7 EJ	126 EJ
SS-OBG-06	0 - 2	10/26/2001	17400	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-12	0 - 2	10/26/2001	411	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-13	0 - 2	10/26/2001	486	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-27	0 - 2	10/19/2001	< .326 R	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-29	0 - 2	10/25/2001	143	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-32	0 - 2	10/25/2001	45.3	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-37	0 - 2	10/26/2001	626	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-40	0 - 2	10/26/2001	435	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-41	0 - 2	12/1/2005	117 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	0 - 2	12/1/2005	335 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-43	0 - 2	11/30/2005	996 *EJ	1900 *EJ	238 EJ	0.1 J	9.8 EJ	326 EJ	2.4	< 0.023 U	< 17.3 UB	0.89 B	15.4 *EJ	44.3 EJ
SS-OBG-44	0 - 2	11/30/2005	1550 *EJ	2830 *EJ	378 EJ	0.16 J	13.8 EJ	626 EJ	3	< 0.03 U	< 17.4 UB	1.3 B	16.9 *EJ	52.2 EJ
SS-OBG-45	0 - 2	11/30/2005	302 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-46	0 - 2	11/27/2005	236 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	0 - 2	11/30/2005	260 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	0 - 2	11/30/2005	236 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	0 - 2	11/30/2005	244 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-48	0 - 2	11/30/2005	195 *EJ	1870 *EJ	408 EJ	0.062 J	10.4 EJ	449 EJ	1.8	< 0.02 U	< 13.8 UB	1.8	12.5 *EJ	58.9 EJ
SS-OBG-48	0 - 2	11/30/2005	209 *EJ	1630 *EJ	362 EJ	0.056 J	9.6 EJ	473 EJ	1.8	< 0.021 U	< 13 UB	1.7	11.3 *EJ	56.8 EJ
SS-OBG-48	0 - 2	11/30/2005	241 *EJ	1790 *EJ	399 EJ	0.068 J	10.8 EJ	491 EJ	2	< 0.023 U	< 15.7 UB	1.8	12.6 *EJ	65.9 EJ
SS-OBG-49	0 - 2	11/30/2005	21 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-50	0 - 2	11/30/2005	124 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-51	0 - 2	11/27/2005	204 EJ	6420	635	0.036	27.7	744	2.4	< 0.018 U	31.9 B	2.2	18.2	79.7
SS-OBG-52	0 - 2	11/30/2005	4560 EJ	2110	99.6	0.27	14.2	455	3.6	< 0.03 U	38.5 B	0.33 B	20.3	47.6
SS-OBG-53	0 - 2	11/30/2005	1410 EJ	2030	1260	0.2	17.9	572	4	< 0.038 U	52.8 B	6.4	21.3	64.5
SS-OBG-54	0 - 2	11/30/2005	342 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	0 - 2	11/30/2005	324 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	0 - 2	11/30/2005	326 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-55	0 - 2	11/30/2005	198 EJ	5830	445	0.069	24.4	651	2.7	< 0.018 U	14.6 B	1.1	19	70.7
SS-OBG-56	0 - 2	12/1/2005	10300 EJ	1300	86.4	0.36	15.7	420	4	0.45 B	77.7	0.27 B	16	37.9
SS-OBG-57	0 - 2	12/1/2005	467 EJ	2680	1620	0.21	17	1070	3.9	0.27 B	17.8 B	8.5	20.3	84.7

Notes: U - not detected, J - estimated, D - result from dilution
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E - recovery greater than 10% for serial dilution, --- not analyzed.

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Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SB-OBG-14	0.4 - 1	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-13	0.4 - 1.8	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	0.5 - 1	6/9/1997	17100	< 5 U	6.41	48	< 1 U	< 1 U	167	9.2	20.2	19.2	---	27800
MW-13B	0.5 - 1	6/9/1997	16500	< 5 U	5.4	48	< 1 U	< 1 U	160	9.2	20.7	19	---	27300
MW-15A	0.5 - 1	6/10/1997	---	< 6 U	4	---	---	< 1 U	---	---	---	16	---	---
MW-16	0.5 - 1	6/3/1997	---	< 6 U	5	---	---	< 1 U	---	---	---	15	---	---
MW-16	0.5 - 1	6/3/1997	---	< 6 U	5	---	---	< 1 U	---	---	---	14	---	---
MW-17A	0.5 - 1	6/5/1997	---	< 7 U	9	---	---	< 1 U	---	---	---	32	---	---
MW-18	0.5 - 1	6/10/1997	---	< 6 U	7	---	---	< 1 U	---	---	---	14	---	---
SB-OBG-01	0.5 - 1	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SS-1	0.5 - 1	7/10/1991	---	0.8 J	---	---	---	---	---	---	---	---	---	---
SS-1-1C	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-12	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-1-2C	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-13	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-1-3C	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-14	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-15	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-15	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-16	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-17	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-18	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-19	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-2	0.5 - 1	7/10/1991	---	< 3.7 U	---	---	---	---	---	---	---	---	---	---
SS-20	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-21	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-2-1C	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-22	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-2-2C	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-23	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-2-3C	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-24	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-25	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-26	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SB-OBG-14	0.4 - 1	10/25/2001	304	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-13	0.4 - 1.8	10/25/2001	53.1	---	---	---	---	---	---	---	---	---	---	---
MW-13B	0.5 - 1	6/9/1997	28	4380	782	0.0491	14.5	749	< 1 U	< 1 U	< 50 U	< 1 U	23.2	64.8
MW-13B	0.5 - 1	6/9/1997	25.2	4440	681	0.059	16	724	< 1 U	< 1 U	< 50 U	< 1 U	22	59
MW-15A	0.5 - 1	6/10/1997	14.5	---	---	---	---	---	---	---	---	---	---	---
MW-16	0.5 - 1	6/3/1997	179	---	---	---	---	---	---	---	---	---	---	---
MW-16	0.5 - 1	6/3/1997	159	---	---	---	---	---	---	---	---	---	---	---
MW-17A	0.5 - 1	6/5/1997	382	---	---	---	---	---	---	---	---	---	---	---
MW-18	0.5 - 1	6/10/1997	191	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-01	0.5 - 1	10/24/2001	36.0	---	---	---	---	---	---	---	---	---	---	---
SS-1	0.5 - 1	7/10/1991	22	---	---	---	---	---	---	---	---	---	---	---
SS-1-1C	0.5 - 1	6/21/1993	14	---	---	---	---	---	---	---	---	---	---	---
SS-12	0.5 - 1	6/21/1993	36	---	---	---	---	---	---	---	---	---	---	---
SS-1-2C	0.5 - 1	6/21/1993	46	---	---	---	---	---	---	---	---	---	---	---
SS-13	0.5 - 1	6/21/1993	33	---	---	---	---	---	---	---	---	---	---	---
SS-1-3C	0.5 - 1	6/21/1993	29	---	---	---	---	---	---	---	---	---	---	---
SS-14	0.5 - 1	6/21/1993	57	---	---	---	---	---	---	---	---	---	---	---
SS-15	0.5 - 1	6/21/1993	16	---	---	---	---	---	---	---	---	---	---	---
SS-15	0.5 - 1	6/21/1993	16	---	---	---	---	---	---	---	---	---	---	---
SS-16	0.5 - 1	6/21/1993	91, (88)	---	---	---	---	---	---	---	---	---	---	---
SS-17	0.5 - 1	6/21/1993	530	---	---	---	---	---	---	---	---	---	---	---
SS-18	0.5 - 1	6/21/1993	31	---	---	---	---	---	---	---	---	---	---	---
SS-19	0.5 - 1	6/21/1993	230	---	---	---	---	---	---	---	---	---	---	---
SS-2	0.5 - 1	7/10/1991	43	---	---	---	---	---	---	---	---	---	---	---
SS-20	0.5 - 1	6/21/1993	30	---	---	---	---	---	---	---	---	---	---	---
SS-21	0.5 - 1	6/21/1993	15	---	---	---	---	---	---	---	---	---	---	---
SS-2-1C	0.5 - 1	6/21/1993	59	---	---	---	---	---	---	---	---	---	---	---
SS-22	0.5 - 1	6/21/1993	33	---	---	---	---	---	---	---	---	---	---	---
SS-2-2C	0.5 - 1	6/21/1993	28	---	---	---	---	---	---	---	---	---	---	---
SS-23	0.5 - 1	6/21/1993	21	---	---	---	---	---	---	---	---	---	---	---
SS-2-3C	0.5 - 1	6/21/1993	49	---	---	---	---	---	---	---	---	---	---	---
SS-24	0.5 - 1	6/21/1993	55	---	---	---	---	---	---	---	---	---	---	---
SS-25	0.5 - 1	6/21/1993	16 J	---	---	---	---	---	---	---	---	---	---	---
SS-26	0.5 - 1	6/21/1993	54	---	---	---	---	---	---	---	---	---	---	---

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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SS-27	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-28	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-29	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-3	0.5 - 1	7/10/1991	---	< 2.8 U	---	---	---	---	---	---	---	---	---	---
SS-30	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-31	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-32	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-33	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-34	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-35	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-36	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-37	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-7	0.5 - 1	7/10/1991	---	0.17 J	---	---	---	---	---	---	---	---	---	---
SS-7	0.5 - 1	7/10/1991	---	0.23 J	---	---	---	---	---	---	---	---	---	---
SS-9	0.5 - 1	7/10/1991	---	28	---	---	---	---	---	---	---	---	---	---
SS-9-1C	0.5 - 1	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SY-19	0.5 - 1.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	0.5 - 2	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	0.5 - 2	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-2	0.6 - 1.1	7/10/1991	---	29	16	---	---	< 1.0 U	---	---	---	---	---	---
SY-22	0.7 - 2.7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	1 - 1.5	6/9/1997	20100	< 6 U	22	59	< 1 U	< 1 U	185	10	33	25	---	35000
MW-15A	1 - 1.5	6/10/1997	---	< 6 U	6	---	---	< 1 U	---	---	---	18	---	---
MW-16	1 - 1.5	6/3/1997	---	< 5 U	3.4	---	---	< 0.9 U	---	---	---	17	---	---
MW-18	1 - 1.5	6/10/1997	---	< 6 U	5	---	---	< 1 U	---	---	---	14	---	---
SS-1	1 - 1.5	7/10/1991	---	< 2.4 U	---	---	---	---	---	---	---	---	---	---
SS-2	1 - 1.5	7/10/1991	---	< 2.7 U	---	---	---	---	---	---	---	---	---	---
SS-3	1 - 1.5	7/10/1991	---	< 2.5 U	---	---	---	---	---	---	---	---	---	---
SS-4	1 - 1.5	7/10/1991	---	0.6 J	---	---	---	---	---	---	---	---	---	---
SS-5	1 - 1.5	7/10/1991	---	< 2.2 U	---	---	---	---	---	---	---	---	---	---
SS-7	1 - 1.5	7/10/1991	---	0.42 J	---	---	---	---	---	---	---	---	---	---
SS-9	1 - 1.5	7/10/1991	---	< 2.5 U	---	---	---	---	---	---	---	---	---	---
SS-OBG-14	1 - 1.5	10/26/2001	21900 J*	9.2 JN	16.1 J*	121 J*	1.0 J	0.90 J	1320 J*	12.5	35.7 J*	24.3 J*	< .6 U	35900 J*
BC-1	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---

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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SS-27	0.5 - 1	6/21/1993	50	---	---	---	---	---	---	---	---	---	---	---
SS-28	0.5 - 1	6/21/1993	210	---	---	---	---	---	---	---	---	---	---	---
SS-29	0.5 - 1	6/21/1993	37	---	---	---	---	---	---	---	---	---	---	---
SS-3	0.5 - 1	7/10/1991	22	---	---	---	---	---	---	---	---	---	---	---
SS-30	0.5 - 1	6/21/1993	82	---	---	---	---	---	---	---	---	---	---	---
SS-31	0.5 - 1	6/21/1993	250	---	---	---	---	---	---	---	---	---	---	---
SS-32	0.5 - 1	6/21/1993	29	---	---	---	---	---	---	---	---	---	---	---
SS-33	0.5 - 1	6/21/1993	17	---	---	---	---	---	---	---	---	---	---	---
SS-34	0.5 - 1	6/21/1993	12	---	---	---	---	---	---	---	---	---	---	---
SS-35	0.5 - 1	6/21/1993	14	---	---	---	---	---	---	---	---	---	---	---
SS-36	0.5 - 1	6/21/1993	110	---	---	---	---	---	---	---	---	---	---	---
SS-37	0.5 - 1	6/21/1993	1200	---	---	---	---	---	---	---	---	---	---	---
SS-7	0.5 - 1	7/10/1991	11	---	---	---	---	---	---	---	---	---	---	---
SS-7	0.5 - 1	7/10/1991	41	---	---	---	---	---	---	---	---	---	---	---
SS-9	0.5 - 1	7/10/1991	3500	---	---	---	---	---	---	---	---	---	---	---
SS-9-1C	0.5 - 1	6/21/1993	31	---	---	---	---	---	---	---	---	---	---	---
SY-19	0.5 - 1.5	1/27/1992	25000	---	---	---	---	---	---	---	---	---	---	---
SY-21	0.5 - 2	1/27/1992	38000	---	---	---	---	---	---	---	---	---	---	---
SY-21	0.5 - 2	1/27/1992	480	---	---	---	---	---	---	---	---	---	---	---
SY-2	0.6 - 1.1	7/10/1991	1700	---	---	---	---	---	---	---	---	---	---	---
SY-22	0.7 - 2.7	1/27/1992	600	---	---	---	---	---	---	---	---	---	---	---
MW-13B	1 - 1.5	6/9/1997	132	6350	525	0.047	21	1340	< 1 U	< 1 U	< 60 U	< 1 U	27	76
MW-15A	1 - 1.5	6/10/1997	13.1	---	---	---	---	---	---	---	---	---	---	---
MW-16	1 - 1.5	6/3/1997	12.7	---	---	---	---	---	---	---	---	---	---	---
MW-18	1 - 1.5	6/10/1997	74	---	---	---	---	---	---	---	---	---	---	---
SS-1	1 - 1.5	7/10/1991	20	---	---	---	---	---	---	---	---	---	---	---
SS-2	1 - 1.5	7/10/1991	25	---	---	---	---	---	---	---	---	---	---	---
SS-3	1 - 1.5	7/10/1991	11	---	---	---	---	---	---	---	---	---	---	---
SS-4	1 - 1.5	7/10/1991	46	---	---	---	---	---	---	---	---	---	---	---
SS-5	1 - 1.5	7/10/1991	62	---	---	---	---	---	---	---	---	---	---	---
SS-7	1 - 1.5	7/10/1991	28	---	---	---	---	---	---	---	---	---	---	---
SS-9	1 - 1.5	7/10/1991	8.4	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-14	1 - 1.5	10/26/2001	667	5810 J*	943 J*	< .08 U	29.9 J*	1360 JE	2.4 J*	< .23 U	44.9 J	< 1.1 U	29.8 J*	102 J*
BC-1	1 - 2	11/30/1993	21	---	---	---	---	---	---	---	---	---	---	---

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Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
BC-2	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-3	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-5	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-6	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-3	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-5	1 - 2	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	1 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	1 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	1 - 2	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-17A	1 - 2	6/5/1997	---	< 7 U	15	---	---	3	---	---	---	21	---	---
SB-1-A	1 - 2	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SB-1-B	1 - 2	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SB-1-B	1 - 2	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SB-1-C	1 - 2	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SY-2	1.1 - 1.5	7/10/1991	---	5700	770	---	---	< 1.0 U	---	---	---	---	---	---
TP-02	1.3 - 1.5	10/15/2001	---	---	---	---	---	---	---	---	---	---	---	---
TP-02	1.3 - 1.5	12/15/2001	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	1.5 - 2	6/9/1997	16100	< 5 U	20	61	< 1 U	< 1 U	203	9	35	22	---	34500
MW-15A	1.5 - 2	6/10/1997	---	< 5 U	5.7	---	---	< 0.9 U	---	---	---	20	---	---
MW-16	1.5 - 2	6/3/1997	---	< 5 U	5	---	---	< 1 U	---	---	---	22	---	---
MW-18	1.5 - 2	6/10/1997	---	< 6 U	3	---	---	< 1 U	---	---	---	16	---	---
SB-1	1.5 - 2	7/15/1991	---	2.2	---	---	---	---	---	---	---	---	---	---
SB-2	1.5 - 2	7/15/1991	---	0.28 J	---	---	---	---	---	---	---	---	---	---
SB-3	1.5 - 2	7/15/1991	---	1.4 J	---	---	---	---	---	---	---	---	---	---
SB-4	1.5 - 2	7/15/1991	---	1.3 J	---	---	---	---	---	---	---	---	---	---
SB-5	1.5 - 2	7/15/1991	---	0.84 J	---	---	---	---	---	---	---	---	---	---
SS-1	1.5 - 2	7/10/1991	---	0.7 J	---	---	---	---	---	---	---	---	---	---
SS-10	1.5 - 2	7/10/1991	---	< 2.1 U	---	---	---	---	---	---	---	---	---	---
SS-11	1.5 - 2	7/10/1991	---	1.4 J	---	---	---	---	---	---	---	---	---	---
SS-2	1.5 - 2	7/10/1991	---	< 2.6 U	---	---	---	---	---	---	---	---	---	---
SS-3	1.5 - 2	7/10/1991	---	< 2.4 U	---	---	---	---	---	---	---	---	---	---
SS-6	1.5 - 2	7/10/1991	---	< 2.2 U	---	---	---	---	---	---	---	---	---	---
SS-7	1.5 - 2	7/10/1991	---	0.41 J	---	---	---	---	---	---	---	---	---	---

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Walkill, New York
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Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
BC-2	1 - 2	11/30/1993	47	---	---	---	---	---	---	---	---	---	---	---
BC-3	1 - 2	11/30/1993	740	---	---	---	---	---	---	---	---	---	---	---
BC-5	1 - 2	11/30/1993	16	---	---	---	---	---	---	---	---	---	---	---
BC-6	1 - 2	11/30/1993	17	---	---	---	---	---	---	---	---	---	---	---
BS-1	1 - 2	11/30/1993	8.3 J	---	---	---	---	---	---	---	---	---	---	---
BS-3	1 - 2	11/30/1993	25	---	---	---	---	---	---	---	---	---	---	---
BS-5	1 - 2	11/30/1993	18	---	---	---	---	---	---	---	---	---	---	---
LB-12	1 - 2	9/1/1992	350000	---	---	---	---	---	---	---	---	---	---	---
LB-7	1 - 2	9/1/1992	180000	---	---	---	---	---	---	---	---	---	---	---
LB-9	1 - 2	9/1/1992	280000	---	---	---	---	---	---	---	---	---	---	---
MW-17A	1 - 2	6/5/1997	62.4	---	---	---	---	---	---	---	---	---	---	---
SB-1-A	1 - 2	6/21/1993	1800	---	---	---	---	---	---	---	---	---	---	---
SB-1-B	1 - 2	6/21/1993	61	---	---	---	---	---	---	---	---	---	---	---
SB-1-B	1 - 2	6/21/1993	60	---	---	---	---	---	---	---	---	---	---	---
SB-1-C	1 - 2	6/21/1993	330	---	---	---	---	---	---	---	---	---	---	---
SY-2	1.1 - 1.5	7/10/1991	160000	---	---	---	---	---	---	---	---	---	---	---
TP-02	1.3 - 1.5	10/15/2001	< .317 R	---	---	---	---	---	---	---	---	---	---	---
TP-02	1.3 - 1.5	12/15/2001	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	1.5 - 2	6/9/1997	232	5950	523	0.056	20	1150	< 1 U	< 1 U	61	< 1 U	24	61
MW-15A	1.5 - 2	6/10/1997	12.7	---	---	---	---	---	---	---	---	---	---	---
MW-16	1.5 - 2	6/3/1997	12.3	---	---	---	---	---	---	---	---	---	---	---
MW-18	1.5 - 2	6/10/1997	13.1	---	---	---	---	---	---	---	---	---	---	---
SB-1	1.5 - 2	7/15/1991	160	---	---	---	---	---	---	---	---	---	---	---
SB-2	1.5 - 2	7/15/1991	24	---	---	---	---	---	---	---	---	---	---	---
SB-3	1.5 - 2	7/15/1991	88	---	---	---	---	---	---	---	---	---	---	---
SB-4	1.5 - 2	7/15/1991	32	---	---	---	---	---	---	---	---	---	---	---
SB-5	1.5 - 2	7/15/1991	170	---	---	---	---	---	---	---	---	---	---	---
SS-1	1.5 - 2	7/10/1991	28	---	---	---	---	---	---	---	---	---	---	---
SS-10	1.5 - 2	7/10/1991	7	---	---	---	---	---	---	---	---	---	---	---
SS-11	1.5 - 2	7/10/1991	100	---	---	---	---	---	---	---	---	---	---	---
SS-2	1.5 - 2	7/10/1991	19	---	---	---	---	---	---	---	---	---	---	---
SS-3	1.5 - 2	7/10/1991	13	---	---	---	---	---	---	---	---	---	---	---
SS-6	1.5 - 2	7/10/1991	61	---	---	---	---	---	---	---	---	---	---	---
SS-7	1.5 - 2	7/10/1991	14	---	---	---	---	---	---	---	---	---	---	---

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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SS-8	1.5 - 2	7/10/1991	---	0.026 J	---	---	---	---	---	---	---	---	---	---
SS-9	1.5 - 2	7/10/1991	---	< 2.3 U	---	---	---	---	---	---	---	---	---	---
SY-1	1.5 - 2	7/10/1991	---	3.9	9.6	---	---	< 1.0 U	---	---	---	---	---	---
SY-2	1.5 - 2	7/10/1991	---	5.8	97	---	---	< 1.0 U	---	---	---	---	---	---
SY-3	1.5 - 2	7/10/1991	---	88	55	---	---	< 1.0 U	---	---	---	---	---	---
SY-19	1.5 - 2.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	10 - 10.5	7/10/1991	---	450	150	---	---	< ND U	---	---	---	59	---	---
MW-5	10 - 10.5	7/10/1991	---	8	51	---	---	< ND U	---	---	---	23	---	---
SB-1	10 - 10.5	7/15/1991	---	1.6 J	---	---	---	---	---	---	---	---	---	---
SB-2	10 - 10.5	7/15/1991	---	0.4 J	---	---	---	---	---	---	---	---	---	---
LB-7	10 - 10.7	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-17A	10 - 11	6/5/1997	---	< 6 U	6	---	---	< 1 U	---	---	---	23	---	---
SB-OBG-36	10 - 11	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	10 - 11.9	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	10 - 11.9	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	10 - 12	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-10	10 - 12	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	10 - 12	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	10 - 12	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	10 - 12	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	10 - 12	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	10 - 12	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	10 - 12	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	10 - 12	6/9/1997	16300	< 5 U	7	46	< 1 U	< 1 U	2050	20	41	24	---	36100
MW-16	10 - 12	6/3/1997	---	< 4 U	5	---	---	< 0.7 U	---	---	---	21	---	---
MW-2	10 - 12	7/10/1991	---	0.86 J	5.3	---	---	< ND U	---	---	---	17	---	---
MW-2	10 - 12	7/10/1991	---	0.09 J	3.7	---	---	< ND U	---	---	---	15	---	---
SB-OBG-26	10 - 12	11/28/2005	13700 EJ	1.8 NJ	8 *EJ	37.6	0.6 EJ	< 0.0058 U*J	1910 *EJ	11 *EJ	40.5 EJ	19.7 EJ	---	61000
SB-OBG-27	10 - 12	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	10 - 12	12/12/2005	14800	784	320	122	0.69	16.9	4710	10.9	84.2	21.4	---	25100
SB-OBG-29	10 - 12	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	10 - 12	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	10 - 12	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	10 - 12	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---

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E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SS-8	1.5 - 2	7/10/1991	19	---	---	---	---	---	---	---	---	---	---	---
SS-9	1.5 - 2	7/10/1991	8.1	---	---	---	---	---	---	---	---	---	---	---
SY-1	1.5 - 2	7/10/1991	310	---	---	---	---	---	---	---	---	---	---	---
SY-2	1.5 - 2	7/10/1991	200	---	---	---	---	---	---	---	---	---	---	---
SY-3	1.5 - 2	7/10/1991	12000	---	---	---	---	---	---	---	---	---	---	---
SY-19	1.5 - 2.5	1/27/1992	5300	---	---	---	---	---	---	---	---	---	---	---
MW-3	10 - 10.5	7/10/1991	17000	---	---	---	---	---	---	---	---	---	---	---
MW-5	10 - 10.5	7/10/1991	300	---	---	---	---	---	---	---	---	---	---	---
SB-1	10 - 10.5	7/15/1991	160	---	---	---	---	---	---	---	---	---	---	---
SB-2	10 - 10.5	7/15/1991	54 B	---	---	---	---	---	---	---	---	---	---	---
LB-7	10 - 10.7	9/1/1992	13000	---	---	---	---	---	---	---	---	---	---	---
MW-17A	10 - 11	6/5/1997	17.2	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	10 - 11	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	10 - 11.9	10/23/2001	10000	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	10 - 11.9	10/23/2001	106	---	---	---	---	---	---	---	---	---	---	---
BS-1	10 - 12	11/30/1993	26	---	---	---	---	---	---	---	---	---	---	---
LB-10	10 - 12	9/1/1992	64	---	---	---	---	---	---	---	---	---	---	---
LB-11	10 - 12	9/1/1992	88	---	---	---	---	---	---	---	---	---	---	---
LB-11	10 - 12	9/1/1992	29	---	---	---	---	---	---	---	---	---	---	---
LB-4	10 - 12	9/1/1992	120	---	---	---	---	---	---	---	---	---	---	---
LB-6	10 - 12	9/1/1992	23	---	---	---	---	---	---	---	---	---	---	---
LB-8	10 - 12	9/1/1992	43	---	---	---	---	---	---	---	---	---	---	---
LB-9	10 - 12	9/1/1992	360	---	---	---	---	---	---	---	---	---	---	---
MW-13B	10 - 12	6/9/1997	18.4	9040	592	0.047	34	1760	< 1 U	< 1 U	134	< 1 U	21	86
MW-16	10 - 12	6/3/1997	15.2	---	---	---	---	---	---	---	---	---	---	---
MW-2	10 - 12	7/10/1991	24 B	---	---	---	---	---	---	---	---	---	---	---
MW-2	10 - 12	7/10/1991	27 B	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	10 - 12	11/28/2005	193 *EJ	7320 EJ	597 *ER	0.011 B	26.3 EJ	813 EJ	2.2	< 0.02 U	86 *J	2	17 EJ	74.6 EJ
SB-OBG-27	10 - 12	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	10 - 12	12/12/2005	33100 N*EJ	4810	576	0.08	27.7	1190	< 0.075 U	< 0.021 U	215	1 B	20.6	93.4
SB-OBG-29	10 - 12	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	10 - 12	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	10 - 12	12/13/2005	55.1 N*ER	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	10 - 12	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---

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Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SB-OBG-34	10 - 12	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	10 - 12	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-23	10 - 12	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-23	10 - 12	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	10 - 12.6	6/10/1997	14800	< 5 U	7.7	38.9	< 0.9 U	< 0.9 U	6850	17	39	23	---	35800
SY-19	10.5 - 12.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-2	11.5 - 12	7/15/1991	---	0.53 J	---	---	---	---	---	---	---	---	---	---
MW-3	12 - 12.3	7/10/1991	---	340	120	---	---	< ND U	---	---	---	44	---	---
MW-5	12 - 12.5	7/10/1991	---	560	100	---	---	7.4	---	---	---	22	---	---
MW-2	12 - 13	7/10/1991	---	1.2 J	7.2	---	---	< ND U	---	---	---	20	---	---
SB-OBG-29	12 - 13	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	12 - 13	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	12 - 13	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	12 - 13	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	12 - 13.1	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
MW-16	12 - 13.5	6/3/1997	---	< 4 U	4.9	---	---	< 0.9 U	---	---	---	20	---	---
LB-10	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	12 - 14	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12 - 14	7/10/1991	---	3200	6700	---	---	< ND U	---	---	---	< ND U	---	---
SB-OBG-26	12 - 14	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	12 - 14	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	12 - 14	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	12 - 14	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	12 - 14	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	12 - 14	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	12 - 14	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	12 - 14	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---

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Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SB-OBG-34	10 - 12	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	10 - 12	1/27/1992	13	---	---	---	---	---	---	---	---	---	---	---
SY-23	10 - 12	1/27/1992	13	---	---	---	---	---	---	---	---	---	---	---
SY-23	10 - 12	1/27/1992	840	---	---	---	---	---	---	---	---	---	---	---
MW-13B	10 - 12.6	6/10/1997	20.8	10100	751	0.058	34	1660	< 0.9 U	< 0.9 U	124	< 0.9 U	20	62
SY-19	10.5 - 12.5	1/27/1992	14	---	---	---	---	---	---	---	---	---	---	---
SB-2	11.5 - 12	7/15/1991	41 B	---	---	---	---	---	---	---	---	---	---	---
MW-3	12 - 12.3	7/10/1991	15000	---	---	---	---	---	---	---	---	---	---	---
MW-5	12 - 12.5	7/10/1991	9800	---	---	---	---	---	---	---	---	---	---	---
MW-2	12 - 13	7/10/1991	66 B	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-29	12 - 13	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	12 - 13	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	12 - 13	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	12 - 13	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	12 - 13.1	11/30/1993	46	---	---	---	---	---	---	---	---	---	---	---
MW-16	12 - 13.5	6/3/1997	15.6	---	---	---	---	---	---	---	---	---	---	---
LB-10	12 - 14	9/1/1992	49	---	---	---	---	---	---	---	---	---	---	---
LB-11	12 - 14	9/1/1992	13000	---	---	---	---	---	---	---	---	---	---	---
LB-12	12 - 14	9/1/1992	39 J	---	---	---	---	---	---	---	---	---	---	---
LB-12	12 - 14	9/1/1992	400 J	---	---	---	---	---	---	---	---	---	---	---
LB-4	12 - 14	9/1/1992	44	---	---	---	---	---	---	---	---	---	---	---
LB-6	12 - 14	9/1/1992	20	---	---	---	---	---	---	---	---	---	---	---
LB-7	12 - 14	9/1/1992	110	---	---	---	---	---	---	---	---	---	---	---
LB-8	12 - 14	9/1/1992	180	---	---	---	---	---	---	---	---	---	---	---
LB-9	12 - 14	9/1/1992	280	---	---	---	---	---	---	---	---	---	---	---
MW-4	12 - 14	7/10/1991	91000	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	12 - 14	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	12 - 14	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	12 - 14	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	12 - 14	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	12 - 14	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	12 - 14	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	12 - 14	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	12 - 14	1/27/1992	15	---	---	---	---	---	---	---	---	---	---	---

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Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SY-19	12.5 - 14.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	14 - 14.5	7/10/1991	---	2.4	0.42 J	---	---	< ND U	---	---	---	29	---	---
MW-2	14 - 14.6	7/10/1991	---	0.31 J	8.6	---	---	< ND U	---	---	---	23	---	---
LB-10	14 - 16	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	14 - 16	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	14 - 16	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	14 - 16	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	14 - 16	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	14 - 16	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	14 - 16	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	14 - 16	6/10/1997	14700	< 4 U	9.3	54.8	< 0.9 U	< 0.9 U	5590	18	38	22	---	35200
SB-OBG-28A	14 - 16	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	14 - 16	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	14 - 16	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	16 - 16.3	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	16 - 16.5	7/10/1991	---	0.5 J	6.4	---	---	< ND U	---	---	---	24	---	---
LB-9	16 - 16.7	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	16 - 17	7/10/1991	---	0.31 J	6.4	---	---	< ND U	---	---	---	21	---	---
MW-4	16 - 17	7/10/1991	---	640	130	---	---	21	---	---	---	32	---	---
SB-OBG-31	16 - 17	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	16 - 17.3	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-10	16 - 18	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	16 - 18	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	16 - 18	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	16 - 18	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	16 - 18	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	18 - 20	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	18 - 20	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	18 - 20	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	19 - 20.5	6/10/1997	15500	< 5 U	6	54.1	< 0.9 U	< 0.9 U	9230	15	39	27	---	33300
SB-OBG-07	2 - 2.3	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-09	2 - 2.3	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	2 - 2.5	7/10/1991	---	25	95	---	---	< ND U	---	---	---	24	---	---
MW-4	2 - 2.5	7/10/1991	---	340	220	---	---	14	---	---	---	24	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SY-19	12.5 - 14.5	1/27/1992	42	---	---	---	---	---	---	---	---	---	---	---
MW-5	14 - 14.5	7/10/1991	54	---	---	---	---	---	---	---	---	---	---	---
MW-2	14 - 14.6	7/10/1991	28 B	---	---	---	---	---	---	---	---	---	---	---
LB-10	14 - 16	9/1/1992	21	---	---	---	---	---	---	---	---	---	---	---
LB-11	14 - 16	9/1/1992	97	---	---	---	---	---	---	---	---	---	---	---
LB-12	14 - 16	9/1/1992	26 B	---	---	---	---	---	---	---	---	---	---	---
LB-6	14 - 16	9/1/1992	170	---	---	---	---	---	---	---	---	---	---	---
LB-7	14 - 16	9/1/1992	140	---	---	---	---	---	---	---	---	---	---	---
LB-8	14 - 16	9/1/1992	100	---	---	---	---	---	---	---	---	---	---	---
LB-9	14 - 16	9/1/1992	39	---	---	---	---	---	---	---	---	---	---	---
MW-13B	14 - 16	6/10/1997	16.7	9010	463	< 0.033 U	34	1400	< 0.9 U	< 0.9 U	90	< 0.9 U	19	85
SB-OBG-28A	14 - 16	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	14 - 16	12/13/2005	41.7 N*ER	---	---	---	---	---	---	---	---	---	---	---
SY-21	14 - 16	1/27/1992	28	---	---	---	---	---	---	---	---	---	---	---
LB-11	16 - 16.3	9/1/1992	570	---	---	---	---	---	---	---	---	---	---	---
MW-5	16 - 16.5	7/10/1991	26	---	---	---	---	---	---	---	---	---	---	---
LB-9	16 - 16.7	9/1/1992	45	---	---	---	---	---	---	---	---	---	---	---
MW-2	16 - 17	7/10/1991	17 B	---	---	---	---	---	---	---	---	---	---	---
MW-4	16 - 17	7/10/1991	39000	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	16 - 17	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	16 - 17.3	9/1/1992	16	---	---	---	---	---	---	---	---	---	---	---
LB-10	16 - 18	9/1/1992	860	---	---	---	---	---	---	---	---	---	---	---
LB-12	16 - 18	9/1/1992	38 B	---	---	---	---	---	---	---	---	---	---	---
LB-7	16 - 18	9/1/1992	24	---	---	---	---	---	---	---	---	---	---	---
LB-8	16 - 18	9/1/1992	12	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	16 - 18	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	18 - 20	9/1/1992	120	---	---	---	---	---	---	---	---	---	---	---
LB-8	18 - 20	9/1/1992	12	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	18 - 20	12/12/2005	1280 N*EJ	---	---	---	---	---	---	---	---	---	---	---
MW-13B	19 - 20.5	6/10/1997	14.4	9570	478	< 0.033 U	30	1940	< 0.9 U	< 0.9 U	95	< 0.9 U	22	69
SB-OBG-07	2 - 2.3	10/23/2001	20.3	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-09	2 - 2.3	10/25/2001	480	---	---	---	---	---	---	---	---	---	---	---
MW-3	2 - 2.5	7/10/1991	1500	---	---	---	---	---	---	---	---	---	---	---
MW-4	2 - 2.5	7/10/1991	43000	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
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E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SY-2	2 - 2.5	7/10/1991	---	1.8 J	27	---	---	< 1.0 U	---	---	---	---	---	---
BC-3	2 - 2.6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
SB-4	2 - 2.6	7/15/1991	---	0.93 J	---	---	---	---	---	---	---	---	---	---
SB-OBG-08	2 - 2.6	10/22/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-18	2 - 2.6	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-24	2 - 2.6	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	2 - 2.9	10/24/2001	19100 J*	20.3 JN	22.9 J*	78.0 J*	0.90 J	1.1 J	453 J*	12.1	38.2 J*	25.8 J*	< .6 U	40700 J*
A1-CSWN	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
A1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
A2-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
A2-CSWN	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
B1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
B2-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
C1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
C2-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
D1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
D2-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
E1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
E2-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
F1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
F3-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
G1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
G3-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
H1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
H3-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
I1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
I3-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
J1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
J3-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
K1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
K4-CSWN	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
K5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
L1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
L5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SY-2	2 - 2.5	7/10/1991	73	---	---	---	---	---	---	---	---	---	---	---
BC-3	2 - 2.6	11/30/1993	180	---	---	---	---	---	---	---	---	---	---	---
SB-4	2 - 2.6	7/15/1991	41	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-08	2 - 2.6	10/22/2001	3690	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-18	2 - 2.6	10/24/2001	37.7	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-24	2 - 2.6	10/23/2001	19800	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	2 - 2.9	10/24/2001	1620	7880 J*	919 J*	< .0620 U	31.0 J*	1000 JE	2.3 J*	< .23 U	56.7 J	< 1.1 U	24.8 J*	79.0 J*
A1-CSWN	2 - 3	unknown	3240	---	---	---	---	---	---	---	---	---	---	---
A1-CSWW	2 - 3	unknown	10128	---	---	---	---	---	---	---	---	---	---	---
A2-CSWE	2 - 3	unknown	58.9	---	---	---	---	---	---	---	---	---	---	---
A2-CSWN	2 - 3	unknown	272	---	---	---	---	---	---	---	---	---	---	---
B1-CSWW	2 - 3	unknown	8648	---	---	---	---	---	---	---	---	---	---	---
B2-CSWE	2 - 3	unknown	42.8	---	---	---	---	---	---	---	---	---	---	---
C1-CSWW	2 - 3	unknown	1375	---	---	---	---	---	---	---	---	---	---	---
C2-CSWE	2 - 3	unknown	88.7	---	---	---	---	---	---	---	---	---	---	---
D1-CSWW	2 - 3	unknown	2456	---	---	---	---	---	---	---	---	---	---	---
D2-CSWE	2 - 3	unknown	47.4	---	---	---	---	---	---	---	---	---	---	---
E1-CSWW	2 - 3	unknown	4403	---	---	---	---	---	---	---	---	---	---	---
E2-CSWE	2 - 3	unknown	49.5	---	---	---	---	---	---	---	---	---	---	---
F1-CSWW	2 - 3	unknown	32256	---	---	---	---	---	---	---	---	---	---	---
F3-CSWE	2 - 3	unknown	40.2	---	---	---	---	---	---	---	---	---	---	---
G1-CSWW	2 - 3	unknown	21831	---	---	---	---	---	---	---	---	---	---	---
G3-CSWE	2 - 3	unknown	96.7	---	---	---	---	---	---	---	---	---	---	---
H1-CSWW	2 - 3	unknown	3285	---	---	---	---	---	---	---	---	---	---	---
H3-CSWE	2 - 3	unknown	84.7	---	---	---	---	---	---	---	---	---	---	---
I1-CSWW	2 - 3	unknown	1894	---	---	---	---	---	---	---	---	---	---	---
I3-CSWE	2 - 3	unknown	69.1	---	---	---	---	---	---	---	---	---	---	---
J1-CSWW	2 - 3	unknown	3821	---	---	---	---	---	---	---	---	---	---	---
J3-CSWE	2 - 3	unknown	44.2	---	---	---	---	---	---	---	---	---	---	---
K1-CSWW	2 - 3	unknown	6734	---	---	---	---	---	---	---	---	---	---	---
K4-CSWN	2 - 3	unknown	139	---	---	---	---	---	---	---	---	---	---	---
K5-CSWE	2 - 3	unknown	280	---	---	---	---	---	---	---	---	---	---	---
L1-CSWW	2 - 3	unknown	1231	---	---	---	---	---	---	---	---	---	---	---
L5-CSWE	2 - 3	unknown	147	---	---	---	---	---	---	---	---	---	---	---

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Walkill, New York
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Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
LB-10	2 - 3	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
M1-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
M1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
M2-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
M3-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
M4-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
M5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
M5-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
MS1-CSWN	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
MS1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
MS2-CSWN	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
MS3-CSWN	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
MS4-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
MS4-CSWN	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	2 - 3	7/10/1991	---	9400	2600	---	---	140	---	---	---	39	---	---
N1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
N4-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
O1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
O5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
P1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
P5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
Q1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
Q5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
R1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
R5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
S1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
S5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
T1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
T4-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
T4-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
U1-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
U1-CSWW	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
U2-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
U3-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

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Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
LB-10	2 - 3	9/1/1992	83000	---	---	---	---	---	---	---	---	---	---	---
M1-CSWS	2 - 3	unknown	805	---	---	---	---	---	---	---	---	---	---	---
M1-CSWW	2 - 3	unknown	136	---	---	---	---	---	---	---	---	---	---	---
M2-CSWS	2 - 3	unknown	641	---	---	---	---	---	---	---	---	---	---	---
M3-CSWS	2 - 3	unknown	3400	---	---	---	---	---	---	---	---	---	---	---
M4-CSWS	2 - 3	unknown	1770	---	---	---	---	---	---	---	---	---	---	---
M5-CSWE	2 - 3	unknown	883	---	---	---	---	---	---	---	---	---	---	---
M5-CSWS	2 - 3	unknown	803	---	---	---	---	---	---	---	---	---	---	---
MS1-CSWN	2 - 3	unknown	5420	---	---	---	---	---	---	---	---	---	---	---
MS1-CSWW	2 - 3	unknown	2000	---	---	---	---	---	---	---	---	---	---	---
MS2-CSWN	2 - 3	unknown	770	---	---	---	---	---	---	---	---	---	---	---
MS3-CSWN	2 - 3	unknown	3100	---	---	---	---	---	---	---	---	---	---	---
MS4-CSWE	2 - 3	unknown	624	---	---	---	---	---	---	---	---	---	---	---
MS4-CSWN	2 - 3	unknown	22400	---	---	---	---	---	---	---	---	---	---	---
MW-5	2 - 3	7/10/1991	170000	---	---	---	---	---	---	---	---	---	---	---
N1-CSWW	2 - 3	unknown	111	---	---	---	---	---	---	---	---	---	---	---
N4-CSWE	2 - 3	unknown	448	---	---	---	---	---	---	---	---	---	---	---
O1-CSWW	2 - 3	unknown	7340	---	---	---	---	---	---	---	---	---	---	---
O5-CSWE	2 - 3	unknown	634	---	---	---	---	---	---	---	---	---	---	---
P1-CSWW	2 - 3	unknown	115	---	---	---	---	---	---	---	---	---	---	---
P5-CSWE	2 - 3	unknown	152	---	---	---	---	---	---	---	---	---	---	---
Q1-CSWW	2 - 3	unknown	108	---	---	---	---	---	---	---	---	---	---	---
Q5-CSWE	2 - 3	unknown	369	---	---	---	---	---	---	---	---	---	---	---
R1-CSWW	2 - 3	unknown	2900	---	---	---	---	---	---	---	---	---	---	---
R5-CSWE	2 - 3	unknown	31	---	---	---	---	---	---	---	---	---	---	---
S1-CSWW	2 - 3	unknown	1180	---	---	---	---	---	---	---	---	---	---	---
S5-CSWE	2 - 3	unknown	371	---	---	---	---	---	---	---	---	---	---	---
T1-CSWW	2 - 3	unknown	214	---	---	---	---	---	---	---	---	---	---	---
T4-CSWE	2 - 3	unknown	177	---	---	---	---	---	---	---	---	---	---	---
T4-CSWS	2 - 3	unknown	936	---	---	---	---	---	---	---	---	---	---	---
U1-CSWS	2 - 3	unknown	821	---	---	---	---	---	---	---	---	---	---	---
U1-CSWW	2 - 3	unknown	926	---	---	---	---	---	---	---	---	---	---	---
U2-CSWS	2 - 3	unknown	294	---	---	---	---	---	---	---	---	---	---	---
U3-CSWS	2 - 3	unknown	225	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
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E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
U5-CSWE	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
U5-CSWS	2 - 3	unknown	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-22	2 - 3.1	11/6/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-03	2 - 3.3	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-05	2 - 3.3	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-19	2 - 3.3	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-13	2 - 3.4	10/25/2001	18400 J*	0.66 JN	11.7 J*	52.4 J*	0.89 J	0.08 J	754 J*	21.9	47.2 J*	25.1 J*	< .6 U	45100 J*
SB-OBG-13	2 - 3.4	10/25/2001	19600 J*	0.63 JN	12.4 J*	50.9 J*	0.97 J	0.13 J	24700 J*	17.9	53.9 J*	28.0 J*	< .5 U	45900 J*
BS-1	2 - 3.5	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-16	2 - 3.7	10/25/2001	17400 J*	0.56 JN	12.0 J*	45.9 J*	0.96 J	0.22 J	1030 J*	18.5	49.5 J*	26.5 J*	< .5 U	44700 J*
MW-24	2 - 3.9	11/8/2001	---	---	---	---	---	---	---	---	---	---	---	---
BC-1	2 - 4	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-2	2 - 4	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-5	2 - 4	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-6	2 - 4	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-3	2 - 4	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-5	2 - 4	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-1	2 - 4	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-2	2 - 4	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-4	2 - 4	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-5	2 - 4	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	2 - 4	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	2 - 4	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	2 - 4	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	2 - 4	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	2 - 4	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	2 - 4	7/10/1991	---	600	540	---	---	7.2	---	---	---	15	---	---
MW-13B	2 - 4	6/9/1997	15400	< 4 U	5.3	48.5	0.8	< 0.8 U	982	13	43	21	---	32200
MW-15A	2 - 4	6/10/1997	---	< 4 U	3	---	---	< 0.9 U	---	---	---	19	---	---
MW-16	2 - 4	6/3/1997	---	< 4 U	5.4	---	---	< 0.8 U	---	---	---	21	---	---
MW-17A	2 - 4	6/5/1997	---	< 5 U	2	---	---	< 1 U	---	---	---	21	---	---
SB-OBG-25	2 - 4	11/25/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	2 - 4	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
U5-CSWE	2 - 3	unknown	1201	---	---	---	---	---	---	---	---	---	---	---
U5-CSWS	2 - 3	unknown	643	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-22	2 - 3.1	11/6/2001	23.1	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-03	2 - 3.3	10/24/2001	23.9	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-05	2 - 3.3	10/23/2001	14.3	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-19	2 - 3.3	10/24/2001	21.4	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-13	2 - 3.4	10/25/2001	24.5	9370 J*	1080 J*	< .08 U	33.2 J*	1500 JE	1.6 J*	< .22 U	341 J	< 1.1 U	23.8 J*	111 J*
SB-OBG-13	2 - 3.4	10/25/2001	36.5	22200 J*	788 J*	< .08 U	36.1 J*	1730 JE	1.8 J*	< .22 U	467 J	< 1.1 U	26.8 J*	119 J*
BS-1	2 - 3.5	11/30/1993	11	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-16	2 - 3.7	10/25/2001	26.0	8760 J*	917 J*	< .08 U	37.0 J*	1710 JE	1.9 J*	< .22 U	71.8 J	< 1.1 U	24.7 J*	118 J*
MW-24	2 - 3.9	11/8/2001	23.7 J*	---	---	---	---	---	---	---	---	---	---	---
BC-1	2 - 4	11/30/1993	19	---	---	---	---	---	---	---	---	---	---	---
BC-2	2 - 4	11/30/1993	51	---	---	---	---	---	---	---	---	---	---	---
BC-5	2 - 4	11/30/1993	16	---	---	---	---	---	---	---	---	---	---	---
BC-6	2 - 4	11/30/1993	560	---	---	---	---	---	---	---	---	---	---	---
BS-3	2 - 4	11/30/1993	6.6 J	---	---	---	---	---	---	---	---	---	---	---
BS-5	2 - 4	11/30/1993	11	---	---	---	---	---	---	---	---	---	---	---
FB-1	2 - 4	12/15/1993	124000	---	---	---	---	---	---	---	---	---	---	---
FB-2	2 - 4	12/15/1993	80000	---	---	---	---	---	---	---	---	---	---	---
FB-4	2 - 4	12/15/1993	181000	---	---	---	---	---	---	---	---	---	---	---
FB-5	2 - 4	12/15/1993	1780	---	---	---	---	---	---	---	---	---	---	---
LB-11	2 - 4	9/1/1992	1300	---	---	---	---	---	---	---	---	---	---	---
LB-4	2 - 4	9/1/1992	9300	---	---	---	---	---	---	---	---	---	---	---
LB-6	2 - 4	9/1/1992	270	---	---	---	---	---	---	---	---	---	---	---
LB-7	2 - 4	9/1/1992	62000	---	---	---	---	---	---	---	---	---	---	---
LB-9	2 - 4	9/1/1992	1500	---	---	---	---	---	---	---	---	---	---	---
MW-1	2 - 4	7/10/1991	87000	---	---	---	---	---	---	---	---	---	---	---
MW-13B	2 - 4	6/9/1997	19.7	7230	344	0.04	29	1520	< 0.8 U	< 0.8 U	87	< 0.8 U	20	89
MW-15A	2 - 4	6/10/1997	9.1	---	---	---	---	---	---	---	---	---	---	---
MW-16	2 - 4	6/3/1997	15.9	---	---	---	---	---	---	---	---	---	---	---
MW-17A	2 - 4	6/5/1997	7.4	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-25	2 - 4	11/25/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	2 - 4	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---

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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SB-OBG-28	2 - 4	12/12/2005	13500	445	288	91.4	0.85	6.3	13500	12.8	69.6	24.1	---	49000
SB-OBG-28A	2 - 4	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-29	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-37	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-37A	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-41	2 - 4	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	2 - 4	12/1/2005	13600	2.9	7.5	97.1	0.62	< 0.007 U	1040	5.1	17.6	15.4	---	16200
SS-OBG-43	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-44	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-45	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-46	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-48	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-50	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-51	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-52	2 - 4	11/30/2005	9820	5.1	22.2	41.9	0.33 B	< 0.007 U	519	3.4	17.5	11.1	---	10500
SS-OBG-53	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-55	2 - 4	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-56	2 - 4	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-57	2 - 4	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-1	2.5 - 3	7/15/1991	---	2 J	---	---	---	---	---	---	---	---	---	---
SB-2	2.5 - 3	7/15/1991	---	0.39 J	---	---	---	---	---	---	---	---	---	---
SB-3	2.5 - 3	7/15/1991	---	0.65 J	---	---	---	---	---	---	---	---	---	---
SY-1	2.5 - 3	7/10/1991	---	6.6	44	---	---	< 1.0 U	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
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E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SB-OBG-28	2 - 4	12/12/2005	49900 N*EJ	5580	609	0.16	35.8	1110	< 0.064 U	< 0.018 U	86.2	2.6	19.6	88.1
SB-OBG-28A	2 - 4	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-29	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	2 - 4	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	2 - 4	11/29/2005	73.3 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	2 - 4	11/29/2005	128 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-37	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-37A	2 - 4	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	2 - 4	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-41	2 - 4	12/1/2005	326 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	2 - 4	12/1/2005	340 EJ	2720	360	0.11	13.3	680	2.2	< 0.024 U	25.5 B	1.4	21.8	80.1
SS-OBG-43	2 - 4	11/30/2005	145 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-44	2 - 4	11/30/2005	78.5 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-45	2 - 4	11/30/2005	179 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-46	2 - 4	11/28/2005	2520 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	2 - 4	11/30/2005	157 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-48	2 - 4	11/30/2005	200 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-50	2 - 4	11/30/2005	19.2 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-51	2 - 4	11/28/2005	39.2 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-52	2 - 4	11/30/2005	993 EJ	2000	67.8	0.1	10.9	382	1.7 B	< 0.024 U	31.7 B	< 0.1 U	15.5	40.4
SS-OBG-53	2 - 4	11/30/2005	453 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	2 - 4	11/30/2005	133 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-55	2 - 4	11/30/2005	56.3 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-56	2 - 4	12/1/2005	770 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-57	2 - 4	12/1/2005	193 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-1	2.5 - 3	7/15/1991	200	---	---	---	---	---	---	---	---	---	---	---
SB-2	2.5 - 3	7/15/1991	32	---	---	---	---	---	---	---	---	---	---	---
SB-3	2.5 - 3	7/15/1991	66 B	---	---	---	---	---	---	---	---	---	---	---
SY-1	2.5 - 3	7/10/1991	570	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SY-2	2.5 - 3	7/10/1991	---	0.9 J	33	---	---	< 1.0 U	---	---	---	---	---	---
SY-3	2.5 - 3	7/10/1991	---	0.7 J	6.7	---	---	< 1.0 U	---	---	---	---	---	---
SY-19	2.5 - 3.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	2.5 - 4	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-22	2.7 - 3.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	20 - 20.4	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	20 - 20.9	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	20 - 21.2	7/10/1991	---	0.36 J	5.1	---	---	< ND U	---	---	---	19	---	---
LB-8	20 - 22	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13A	20 - 22	6/4/1997	---	< 6 U	3	---	---	< 1 U	---	---	---	22	---	---
MW-13B	20 - 22	6/10/1997	10900	< 4 U	4.1	32.6	< 0.9 U	< 0.9 U	11700	10	27	16	---	25700
SB-OBG-28A	20 - 22	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	20 - 22	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	22 - 22.9	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	22 - 23	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	22 - 23	7/10/1991	---	0.46 J	6.7	---	---	< ND U	---	---	---	25	---	---
MW-13A	22 - 23.4	6/4/1997	---	< 5 U	1	---	---	< 1 U	---	---	---	14	---	---
MW-13B	22 - 24	6/10/1997	11400	< 5 U	4.2	40.3	< 0.9 U	< 0.9 U	13300	11	27	19	---	26200
SB-OBG-28A	22 - 24	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-9-2C	3 - 4	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SS-9-3C	3 - 4	6/21/1993	---	---	---	---	---	---	---	---	---	---	---	---
SY-23	3 - 4	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-19	3.5 - 4.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-22	3.5 - 4.7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	4 - 4.5	7/10/1991	---	2.8	120	---	---	< ND U	---	---	---	25	---	---
MW-5	4 - 4.5	7/10/1991	---	240	99	---	---	6.3	---	---	---	24	---	---
SB-1	4 - 4.5	7/15/1991	---	1.8 J	---	---	---	---	---	---	---	---	---	---
SB-2	4 - 4.5	7/15/1991	---	< 2.4 U	---	---	---	---	---	---	---	---	---	---
SB-3	4 - 4.5	7/15/1991	---	0.94 J	---	---	---	---	---	---	---	---	---	---
SB-5	4 - 4.5	7/15/1991	---	1500	---	---	---	---	---	---	---	---	---	---
SB-OBG-15	4 - 4.6	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-17	4 - 4.6	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-10	4 - 4.8	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	4 - 4.9	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---

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B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SY-2	2.5 - 3	7/10/1991	28 B	---	---	---	---	---	---	---	---	---	---	---
SY-3	2.5 - 3	7/10/1991	66 B	---	---	---	---	---	---	---	---	---	---	---
SY-19	2.5 - 3.5	1/27/1992	880	---	---	---	---	---	---	---	---	---	---	---
SY-21	2.5 - 4	1/27/1992	77	---	---	---	---	---	---	---	---	---	---	---
SY-22	2.7 - 3.5	1/27/1992	45	---	---	---	---	---	---	---	---	---	---	---
SY-21	20 - 20.4	1/27/1992	8.8	---	---	---	---	---	---	---	---	---	---	---
LB-7	20 - 20.9	9/1/1992	62	---	---	---	---	---	---	---	---	---	---	---
MW-2	20 - 21.2	7/10/1991	23 B	---	---	---	---	---	---	---	---	---	---	---
LB-8	20 - 22	9/1/1992	20	---	---	---	---	---	---	---	---	---	---	---
MW-13A	20 - 22	6/4/1997	20.9	---	---	---	---	---	---	---	---	---	---	---
MW-13B	20 - 22	6/10/1997	12.2	7110	321	< 0.033 U	21	1050	< 0.9 U	< 0.9 U	48	< 0.9 U	15	58
SB-OBG-28A	20 - 22	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	20 - 22	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	22 - 22.9	1/27/1992	9.5	---	---	---	---	---	---	---	---	---	---	---
LB-8	22 - 23	9/1/1992	16	---	---	---	---	---	---	---	---	---	---	---
MW-2	22 - 23	7/10/1991	28 B	---	---	---	---	---	---	---	---	---	---	---
MW-13A	22 - 23.4	6/4/1997	14.4	---	---	---	---	---	---	---	---	---	---	---
MW-13B	22 - 24	6/10/1997	12.1	7640	492	< 0.033 U	22	1240	< 0.9 U	< 0.9 U	64	< 0.9 U	16	56
SB-OBG-28A	22 - 24	12/12/2005	2780 N*EJ	---	---	---	---	---	---	---	---	---	---	---
SS-9-2C	3 - 4	6/21/1993	23	---	---	---	---	---	---	---	---	---	---	---
SS-9-3C	3 - 4	6/21/1993	11	---	---	---	---	---	---	---	---	---	---	---
SY-23	3 - 4	1/27/1992	18	---	---	---	---	---	---	---	---	---	---	---
SY-19	3.5 - 4.5	1/27/1992	3200	---	---	---	---	---	---	---	---	---	---	---
SY-22	3.5 - 4.7	1/27/1992	36	---	---	---	---	---	---	---	---	---	---	---
MW-3	4 - 4.5	7/10/1991	53	---	---	---	---	---	---	---	---	---	---	---
MW-5	4 - 4.5	7/10/1991	9000	---	---	---	---	---	---	---	---	---	---	---
SB-1	4 - 4.5	7/15/1991	360	---	---	---	---	---	---	---	---	---	---	---
SB-2	4 - 4.5	7/15/1991	13	---	---	---	---	---	---	---	---	---	---	---
SB-3	4 - 4.5	7/15/1991	130	---	---	---	---	---	---	---	---	---	---	---
SB-5	4 - 4.5	7/15/1991	770000	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-15	4 - 4.6	10/25/2001	204	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-17	4 - 4.6	10/25/2001	29.7	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-10	4 - 4.8	10/23/2001	26.3	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	4 - 4.9	10/24/2001	14600	---	---	---	---	---	---	---	---	---	---	---

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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SB-OBG-20	4 - 4.9	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
BS-3	4 - 5	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	4 - 5	7/10/1991	---	0.62 J	2.2	---	---	< ND U	---	---	---	23	---	---
SB-4	4 - 5	7/15/1991	---	0.78	---	---	---	---	---	---	---	---	---	---
SB-4	4 - 5	7/15/1991	---	0.8 J	---	---	---	---	---	---	---	---	---	---
SB-OBG-37	4 - 5	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	4 - 5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-23	4 - 5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-26	4 - 5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-25	4 - 5.1	11/8/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-21	4 - 5.1	11/6/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-22	4 - 5.3	11/6/2001	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	4 - 5.5	7/10/1991	---	60	26	---	---	< ND U	---	---	---	10	---	---
SB-OBG-04	4 - 5.7	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-06	4 - 5.7	10/22/2001	---	---	---	---	---	---	---	---	---	---	---	---
BC-1	4 - 6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-1	4 - 6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-2	4 - 6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-5	4 - 6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-6	4 - 6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	4 - 6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-5	4 - 6	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-1	4 - 6	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-2	4 - 6	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-4	4 - 6	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-5	4 - 6	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-10	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SB-OBG-20	4 - 4.9	10/24/2001	22.8	---	---	---	---	---	---	---	---	---	---	---
BS-3	4 - 5	11/30/1993	76	---	---	---	---	---	---	---	---	---	---	---
MW-1	4 - 5	7/10/1991	44 B	---	---	---	---	---	---	---	---	---	---	---
SB-4	4 - 5	7/15/1991	34	---	---	---	---	---	---	---	---	---	---	---
SB-4	4 - 5	7/15/1991	28	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-37	4 - 5	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	4 - 5	1/27/1992	24	---	---	---	---	---	---	---	---	---	---	---
SY-23	4 - 5	1/27/1992	42	---	---	---	---	---	---	---	---	---	---	---
SY-26	4 - 5	1/27/1992	22	---	---	---	---	---	---	---	---	---	---	---
MW-25	4 - 5.1	11/8/2001	32.0 J*	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-21	4 - 5.1	11/6/2001	568	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-22	4 - 5.3	11/6/2001	12.0	---	---	---	---	---	---	---	---	---	---	---
MW-2	4 - 5.5	7/10/1991	3300	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-04	4 - 5.7	10/24/2001	35.5	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-06	4 - 5.7	10/22/2001	21.3	---	---	---	---	---	---	---	---	---	---	---
BC-1	4 - 6	11/30/1993	23	---	---	---	---	---	---	---	---	---	---	---
BC-1	4 - 6	11/30/1993	12	---	---	---	---	---	---	---	---	---	---	---
BC-2	4 - 6	11/30/1993	35	---	---	---	---	---	---	---	---	---	---	---
BC-5	4 - 6	11/30/1993	7.4 J	---	---	---	---	---	---	---	---	---	---	---
BC-6	4 - 6	11/30/1993	29	---	---	---	---	---	---	---	---	---	---	---
BS-1	4 - 6	11/30/1993	22	---	---	---	---	---	---	---	---	---	---	---
BS-5	4 - 6	11/30/1993	21	---	---	---	---	---	---	---	---	---	---	---
FB-1	4 - 6	12/15/1993	107000	---	---	---	---	---	---	---	---	---	---	---
FB-2	4 - 6	12/15/1993	3440	---	---	---	---	---	---	---	---	---	---	---
FB-4	4 - 6	12/15/1993	54.4	---	---	---	---	---	---	---	---	---	---	---
FB-5	4 - 6	12/15/1993	40.6	---	---	---	---	---	---	---	---	---	---	---
LB-10	4 - 6	9/1/1992	100	---	---	---	---	---	---	---	---	---	---	---
LB-11	4 - 6	9/1/1992	2000	---	---	---	---	---	---	---	---	---	---	---
LB-12	4 - 6	9/1/1992	200	---	---	---	---	---	---	---	---	---	---	---
LB-4	4 - 6	9/1/1992	310	---	---	---	---	---	---	---	---	---	---	---
LB-6	4 - 6	9/1/1992	210	---	---	---	---	---	---	---	---	---	---	---
LB-7	4 - 6	9/1/1992	16000	---	---	---	---	---	---	---	---	---	---	---
LB-8	4 - 6	9/1/1992	5000	---	---	---	---	---	---	---	---	---	---	---
LB-8	4 - 6	9/1/1992	12000	---	---	---	---	---	---	---	---	---	---	---

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Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
LB-9	4 - 6	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	4 - 6	6/9/1997	15200	< 5 U	12	43	< 1 U	< 1 U	1270	18	42	21	---	34600
MW-15A	4 - 6	6/10/1997	---	< 4 U	5.1	---	---	< 0.9 U	---	---	---	22	---	---
MW-16	4 - 6	6/3/1997	---	< 4 U	5.4	---	---	< 0.8 U	---	---	---	30	---	---
MW-17A	4 - 6	6/5/1997	---	< 5 U	1.1	---	---	< 0.9 U	---	---	---	17	---	---
MW-4	4 - 6	7/10/1991	---	8300	2300	---	---	160	---	---	---	32	---	---
MW-4	4 - 6	7/10/1991	---	8900	2300	---	---	190	---	---	---	46	---	---
SB-OBG-25	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	4 - 6	11/28/2005	16300 EJ	1.9 NJ	10.7 *EJ	91.1	0.88 EJ	0.72 *J	2440 *EJ	13.5 *EJ	29.2 EJ	18.4 EJ	---	51400
SB-OBG-26	4 - 6	11/28/2005	13600 EJ	2.7 NJ	9.2 *EJ	78.6	0.74 EJ	< 0.0064 U*J	1400 *EJ	11.9 *EJ	28.9 EJ	16.7 EJ	---	29000
SB-OBG-27	4 - 6	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	4 - 6	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-29	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	4 - 6	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-41	4 - 6	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	4 - 6	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-43	4 - 6	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-44	4 - 6	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-45	4 - 6	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-46	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	4 - 6	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-51	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-52	4 - 6	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-53	4 - 6	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	4 - 6	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-56	4 - 6	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-57	4 - 6	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-24	4 - 6	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
LB-9	4 - 6	9/1/1992	16000	---	---	---	---	---	---	---	---	---	---	---
MW-13B	4 - 6	6/9/1997	19.5	7730	700	0.039	30	1320	< 1 U	< 1 U	100	< 1 U	20	99
MW-15A	4 - 6	6/10/1997	11.9	---	---	---	---	---	---	---	---	---	---	---
MW-16	4 - 6	6/3/1997	36.3	---	---	---	---	---	---	---	---	---	---	---
MW-17A	4 - 6	6/5/1997	12.5	---	---	---	---	---	---	---	---	---	---	---
MW-4	4 - 6	7/10/1991	170000	---	---	---	---	---	---	---	---	---	---	---
MW-4	4 - 6	7/10/1991	170000	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-25	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	4 - 6	11/28/2005	571 *EJ	5220 EJ	602 *ER	0.048	24.9 EJ	735 EJ	2.1	< 0.019 U	140 *J	2.3	21.4 EJ	69.1 EJ
SB-OBG-26	4 - 6	11/28/2005	468 *EJ	4940 EJ	568 *ER	0.059	24.6 EJ	757 EJ	2.9	< 0.022 U	129 *J	2.3	17.8 EJ	68.7 EJ
SB-OBG-27	4 - 6	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	4 - 6	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-29	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	4 - 6	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	4 - 6	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	4 - 6	11/29/2005	191 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	4 - 6	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-41	4 - 6	12/1/2005	407 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	4 - 6	12/1/2005	223 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-43	4 - 6	11/30/2005	68.6 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-44	4 - 6	11/30/2005	22.1 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-45	4 - 6	11/30/2005	60.1 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-46	4 - 6	11/28/2005	81.5 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-47	4 - 6	11/30/2005	97.9 *EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-51	4 - 6	11/28/2005	426 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-52	4 - 6	11/30/2005	284 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-53	4 - 6	11/30/2005	118 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-54	4 - 6	11/30/2005	54.3 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-56	4 - 6	12/1/2005	74.6 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-57	4 - 6	12/1/2005	118 EJ	---	---	---	---	---	---	---	---	---	---	---
SY-24	4 - 6	1/27/1992	5300	---	---	---	---	---	---	---	---	---	---	---

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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SS-OBG-48	4 - 8	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-19	4.5 - 5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-22	4.7 - 5.7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	5 - 6	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-23	5 - 6	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-19	5 - 6.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-27	5 - 7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-27	5 - 7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-1	5.5 - 6	7/15/1991	---	0.56 J	---	---	---	---	---	---	---	---	---	---
SB-2	5.5 - 6	7/15/1991	---	< 2.3 U	---	---	---	---	---	---	---	---	---	---
SB-3	5.5 - 6	7/15/1991	---	0.6 J	---	---	---	---	---	---	---	---	---	---
SY-22	5.7 - 6.7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	6 - 12	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-49	6 - 12	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-50	6 - 12	11/30/2005	---	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-57	6 - 12	12/1/2005	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	6 - 6.3	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	6 - 6.5	7/10/1991	---	780	140	---	---	< ND U	---	---	---	27	---	---
MW-5	6 - 6.5	7/10/1991	---	17	19	---	---	1.3	---	---	---	32	---	---
SB-5	6 - 6.5	7/15/1991	---	3800	---	---	---	---	---	---	---	---	---	---
SB-OBG-14	6 - 6.5	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-21	6 - 6.5	11/6/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-24	6 - 6.7	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	6 - 7	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	6 - 7	7/10/1991	---	17	---	---	---	---	---	---	---	21	---	---
MW-14	6 - 7	7/10/1991	---	---	4.2	---	---	< ND U	---	---	---	---	---	---
MW-2	6 - 7	7/10/1991	---	220	84	---	---	< ND U	---	---	---	19	---	---
SY-20	6 - 7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-23	6 - 7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-23	6 - 7.1	11/5/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-13	6 - 7.2	10/25/2001	---	---	---	---	---	---	---	---	---	---	---	---
MW-23S	6 - 7.3	11/8/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-22	6 - 7.8	11/6/2001	---	---	---	---	---	---	---	---	---	---	---	---
BC-1	6 - 8	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
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Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SS-OBG-48	4 - 8	11/30/2005	35.9 *EJ	---	---	---	---	---	---	---	---	---	---	---
SY-19	4.5 - 5	1/27/1992	400	---	---	---	---	---	---	---	---	---	---	---
SY-22	4.7 - 5.7	1/27/1992	610	---	---	---	---	---	---	---	---	---	---	---
SY-21	5 - 6	1/27/1992	12	---	---	---	---	---	---	---	---	---	---	---
SY-23	5 - 6	1/27/1992	68	---	---	---	---	---	---	---	---	---	---	---
SY-19	5 - 6.5	1/27/1992	150	---	---	---	---	---	---	---	---	---	---	---
SY-27	5 - 7	1/27/1992	37	---	---	---	---	---	---	---	---	---	---	---
SY-27	5 - 7	1/27/1992	350	---	---	---	---	---	---	---	---	---	---	---
SB-1	5.5 - 6	7/15/1991	43 B	---	---	---	---	---	---	---	---	---	---	---
SB-2	5.5 - 6	7/15/1991	32 B	---	---	---	---	---	---	---	---	---	---	---
SB-3	5.5 - 6	7/15/1991	74 B	---	---	---	---	---	---	---	---	---	---	---
SY-22	5.7 - 6.7	1/27/1992	43	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-42	6 - 12	12/1/2005	246 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-49	6 - 12	11/30/2005	42.6 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-50	6 - 12	11/30/2005	112 EJ	---	---	---	---	---	---	---	---	---	---	---
SS-OBG-57	6 - 12	12/1/2005	79.8 EJ	---	---	---	---	---	---	---	---	---	---	---
LB-8	6 - 6.3	9/1/1992	29000	---	---	---	---	---	---	---	---	---	---	---
MW-3	6 - 6.5	7/10/1991	5900	---	---	---	---	---	---	---	---	---	---	---
MW-5	6 - 6.5	7/10/1991	460	---	---	---	---	---	---	---	---	---	---	---
SB-5	6 - 6.5	7/15/1991	340	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-14	6 - 6.5	10/25/2001	18.8	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-21	6 - 6.5	11/6/2001	8410	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-24	6 - 6.7	10/23/2001	49.1	---	---	---	---	---	---	---	---	---	---	---
LB-6	6 - 7	9/1/1992	88	---	---	---	---	---	---	---	---	---	---	---
MW-1	6 - 7	7/10/1991	2400	---	---	---	---	---	---	---	---	---	---	---
MW-14	6 - 7	7/10/1991	---	---	---	---	---	---	---	---	---	---	---	---
MW-2	6 - 7	7/10/1991	27000	---	---	---	---	---	---	---	---	---	---	---
SY-20	6 - 7	1/27/1992	11	---	---	---	---	---	---	---	---	---	---	---
SY-23	6 - 7	1/27/1992	180	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-23	6 - 7.1	11/5/2001	475	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-13	6 - 7.2	10/25/2001	21.0	---	---	---	---	---	---	---	---	---	---	---
MW-23S	6 - 7.3	11/8/2001	14.5 J*	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-22	6 - 7.8	11/6/2001	12.2	---	---	---	---	---	---	---	---	---	---	---
BC-1	6 - 8	11/30/1993	12	---	---	---	---	---	---	---	---	---	---	---

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Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
BC-2	6 - 8	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-5	6 - 8	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-6	6 - 8	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	6 - 8	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-3	6 - 8	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-5	6 - 8	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-1	6 - 8	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-2	6 - 8	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-4	6 - 8	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-5	6 - 8	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-10	6 - 8	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	6 - 8	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	6 - 8	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	6 - 8	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	6 - 8	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	6 - 8	6/9/1997	14900	< 5 U	8.2	52.8	< 0.9 U	< 0.9 U	1080	14	39	24	---	31700
MW-15A	6 - 8	6/10/1997	---	< 5 U	7	---	---	< 1 U	---	---	---	21	---	---
MW-16	6 - 8	6/3/1997	---	< 5 U	6	---	---	< 1 U	---	---	---	24	---	---
MW-17A	6 - 8	6/5/1997	---	< 5 U	4	---	---	< 0.9 U	---	---	---	20	---	---
SB-OBG-25	6 - 8	11/25/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	6 - 8	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	6 - 8	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	6 - 8	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	6 - 8	12/12/2005	15100	851	298	167	0.71	9.6	7510	13.9	142	26.4	---	39400
SB-OBG-29	6 - 8	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	6 - 8	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	6 - 8	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	6 - 8	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	6 - 8	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	6 - 8	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	6 - 8	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	6 - 8	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-26	6 - 8	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-3	6.5 - 7	7/15/1991	---	1 J	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
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Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
BC-2	6 - 8	11/30/1993	33	---	---	---	---	---	---	---	---	---	---	---
BC-5	6 - 8	11/30/1993	11	---	---	---	---	---	---	---	---	---	---	---
BC-6	6 - 8	11/30/1993	13	---	---	---	---	---	---	---	---	---	---	---
BS-1	6 - 8	11/30/1993	58	---	---	---	---	---	---	---	---	---	---	---
BS-3	6 - 8	11/30/1993	16	---	---	---	---	---	---	---	---	---	---	---
BS-5	6 - 8	11/30/1993	9.9 J	---	---	---	---	---	---	---	---	---	---	---
FB-1	6 - 8	12/15/1993	28.4	---	---	---	---	---	---	---	---	---	---	---
FB-2	6 - 8	12/15/1993	263	---	---	---	---	---	---	---	---	---	---	---
FB-4	6 - 8	12/15/1993	976	---	---	---	---	---	---	---	---	---	---	---
FB-5	6 - 8	12/15/1993	924	---	---	---	---	---	---	---	---	---	---	---
LB-10	6 - 8	9/1/1992	1300	---	---	---	---	---	---	---	---	---	---	---
LB-12	6 - 8	9/1/1992	2900	---	---	---	---	---	---	---	---	---	---	---
LB-4	6 - 8	9/1/1992	62000	---	---	---	---	---	---	---	---	---	---	---
LB-7	6 - 8	9/1/1992	710	---	---	---	---	---	---	---	---	---	---	---
LB-9	6 - 8	9/1/1992	6400	---	---	---	---	---	---	---	---	---	---	---
MW-13B	6 - 8	6/9/1997	30.8	7310	623	< 0.033 U	28	1690	< 0.9 U	< 0.9 U	109	< 0.9 U	21	86
MW-15A	6 - 8	6/10/1997	17.8	---	---	---	---	---	---	---	---	---	---	---
MW-16	6 - 8	6/3/1997	48.1	---	---	---	---	---	---	---	---	---	---	---
MW-17A	6 - 8	6/5/1997	13.3	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-25	6 - 8	11/25/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	6 - 8	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	6 - 8	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	6 - 8	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	6 - 8	12/12/2005	39500 N*EJ	5770	671	0.19	35.8	1740	< 0.065 U	< 0.018 U	276	1.2	21.6	115
SB-OBG-29	6 - 8	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	6 - 8	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	6 - 8	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-32	6 - 8	11/29/2005	993 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-35	6 - 8	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	6 - 8	11/29/2005	60.2 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	6 - 8	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	6 - 8	1/27/1992	38	---	---	---	---	---	---	---	---	---	---	---
SY-26	6 - 8	1/27/1992	100	---	---	---	---	---	---	---	---	---	---	---
SB-3	6.5 - 7	7/15/1991	120	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SY-19	6.5 - 7.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-22	6.7 - 8.7	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-1	7 - 7.5	7/15/1991	---	3.5	---	---	---	---	---	---	---	---	---	---
SB-2	7 - 7.5	7/15/1991	---	0.46 J	---	---	---	---	---	---	---	---	---	---
SY-19	7.5 - 8.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
BC-1	8 - 10	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BC-6	8 - 10	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-1	8 - 10	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-1	8 - 10	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-2	8 - 10	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-2	8 - 10	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-3	8 - 10	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-4	8 - 10	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
FB-5	8 - 10	12/15/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-11	8 - 10	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-12	8 - 10	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	8 - 10	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-4	8 - 10	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-7	8 - 10	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-8	8 - 10	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
LB-9	8 - 10	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-13B	8 - 10	6/9/1997	12500	< 4 U	6.5	31.7	< 0.7 U	< 0.7 U	1300	14	35	18	---	28800
MW-15A	8 - 10	6/10/1997	---	< 4 U	7	---	---	< 0.7 U	---	---	---	25	---	---
MW-16	8 - 10	6/3/1997	---	< 5 U	7	---	---	< 1 U	---	---	---	23	---	---
SB-OBG-25	8 - 10	11/25/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	8 - 10	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	8 - 10	12/12/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	8 - 10	12/12/2005	15700	1800	358	129	0.73	11.4	5970	14	244	26.6	---	32300
SB-OBG-29	8 - 10	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	8 - 10	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	8 - 10	12/13/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SY-19	6.5 - 7.5	1/27/1992	34	---	---	---	---	---	---	---	---	---	---	---
SY-22	6.7 - 8.7	1/27/1992	16	---	---	---	---	---	---	---	---	---	---	---
SB-1	7 - 7.5	7/15/1991	310	---	---	---	---	---	---	---	---	---	---	---
SB-2	7 - 7.5	7/15/1991	12 B	---	---	---	---	---	---	---	---	---	---	---
SY-19	7.5 - 8.5	1/27/1992	120	---	---	---	---	---	---	---	---	---	---	---
BC-1	8 - 10	11/30/1993	24	---	---	---	---	---	---	---	---	---	---	---
BC-6	8 - 10	11/30/1993	19	---	---	---	---	---	---	---	---	---	---	---
BS-1	8 - 10	11/30/1993	17	---	---	---	---	---	---	---	---	---	---	---
FB-1	8 - 10	12/15/1993	37	---	---	---	---	---	---	---	---	---	---	---
FB-2	8 - 10	12/15/1993	6090	---	---	---	---	---	---	---	---	---	---	---
FB-2	8 - 10	12/15/1993	4590	---	---	---	---	---	---	---	---	---	---	---
FB-3	8 - 10	12/15/1993	146	---	---	---	---	---	---	---	---	---	---	---
FB-4	8 - 10	12/15/1993	745	---	---	---	---	---	---	---	---	---	---	---
FB-5	8 - 10	12/15/1993	602	---	---	---	---	---	---	---	---	---	---	---
LB-11	8 - 10	9/1/1992	55	---	---	---	---	---	---	---	---	---	---	---
LB-12	8 - 10	9/1/1992	8700	---	---	---	---	---	---	---	---	---	---	---
LB-4	8 - 10	9/1/1992	29 J	---	---	---	---	---	---	---	---	---	---	---
LB-4	8 - 10	9/1/1992	54 J	---	---	---	---	---	---	---	---	---	---	---
LB-7	8 - 10	9/1/1992	1100	---	---	---	---	---	---	---	---	---	---	---
LB-8	8 - 10	9/1/1992	520	---	---	---	---	---	---	---	---	---	---	---
LB-9	8 - 10	9/1/1992	4600	---	---	---	---	---	---	---	---	---	---	---
MW-13B	8 - 10	6/9/1997	16	6690	613	< 0.033 U	26	1140	< 0.7 U	< 0.7 U	121	< 0.7 U	17	76
MW-15A	8 - 10	6/10/1997	17.9	---	---	---	---	---	---	---	---	---	---	---
MW-16	8 - 10	6/3/1997	15	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-25	8 - 10	11/25/2005	228 EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-26	8 - 10	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-27	8 - 10	12/12/2005	555 N*EJ	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-28A	8 - 10	12/12/2005	62600 N*EJ	6470	659	0.31	41.4	1110	< 0.065 U	< 0.018 U	199	1.8	20.8	99.1
SB-OBG-29	8 - 10	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-30	8 - 10	11/28/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-31	8 - 10	12/13/2005	135 N*ER	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-33	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-34	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-36	8 - 10	11/29/2005	2250 EJ	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Aluminum mg/Kg SB	Antimony mg/Kg SB	Arsenic mg/Kg 7.5 or SB	Barium mg/Kg 300 or SB	Beryllium mg/Kg 0.16 or SB	Cadmium mg/Kg 1 or SB	Calcium Metal mg/Kg SB	Cobalt mg/Kg 30 or SB	Copper mg/Kg 25 or SB	Chromium mg/Kg 10 or SB	Cyanide mg/Kg ---	Iron mg/Kg 2000 or SB
SB-OBG-38	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-20	8 - 10	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-20	8 - 10	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-3	8 - 8.5	7/10/1991	---	20	58	---	---	< ND U	---	---	---	25	---	---
MW-5	8 - 8.5	7/10/1991	---	35	4.6	---	---	< ND U	---	---	---	28	---	---
MW-26	8 - 8.7	11/8/2001	---	---	---	---	---	---	---	---	---	---	---	---
BS-3	8 - 9	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
LB-6	8 - 9	9/1/1992	---	---	---	---	---	---	---	---	---	---	---	---
MW-1	8 - 9	7/10/1991	---	290	49	---	---	< ND U	---	---	---	28	---	---
MW-2	8 - 9	7/10/1991	---	1.8 J	5.2	---	---	< ND U	---	---	---	19	---	---
SY-21	8 - 9	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-23	8 - 9.3	11/5/2001	---	---	---	---	---	---	---	---	---	---	---	---
BS-5	8 - 9.5	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
BS-5	8 - 9.5	11/30/1993	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	8 - 9.6	10/23/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	8.3 - 9.6	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	8.3 - 9.6	10/24/2001	---	---	---	---	---	---	---	---	---	---	---	---
SY-19	8.5 - 10.5	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SB-1	8.5 - 9	7/15/1991	---	0.84 J	---	---	---	---	---	---	---	---	---	---
SB-2	8.5 - 9	7/15/1991	---	0.8 J	---	---	---	---	---	---	---	---	---	---
SY-22	8.7 - 10	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---
SY-21	9 - 10	1/27/1992	---	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-7
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Inorganic Results

Location ID	Depth Interval (feet)	Criteria Date	Lead mg/Kg SB	Magnesium mg/Kg SB	Manganese mg/Kg SB	Mercury mg/Kg 0.1	Nickel mg/Kg 13 or SB	Potassium mg/Kg SB	Selenium mg/Kg 2 or SB	Silver mg/Kg SB	Sodium mg/Kg SB	Thallium mg/Kg SB	Vanadium mg/Kg 150 or SB	Zinc mg/Kg 20 or SB
SB-OBG-38	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-38	8 - 10	11/29/2005	---	---	---	---	---	---	---	---	---	---	---	---
SY-20	8 - 10	1/27/1992	10	---	---	---	---	---	---	---	---	---	---	---
SY-20	8 - 10	1/27/1992	13	---	---	---	---	---	---	---	---	---	---	---
MW-3	8 - 8.5	7/10/1991	210	---	---	---	---	---	---	---	---	---	---	---
MW-5	8 - 8.5	7/10/1991	1000	---	---	---	---	---	---	---	---	---	---	---
MW-26	8 - 8.7	11/8/2001	189 J*	---	---	---	---	---	---	---	---	---	---	---
BS-3	8 - 9	11/30/1993	42	---	---	---	---	---	---	---	---	---	---	---
LB-6	8 - 9	9/1/1992	50	---	---	---	---	---	---	---	---	---	---	---
MW-1	8 - 9	7/10/1991	17000	---	---	---	---	---	---	---	---	---	---	---
MW-2	8 - 9	7/10/1991	62 B	---	---	---	---	---	---	---	---	---	---	---
SY-21	8 - 9	1/27/1992	9.5	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-23	8 - 9.3	11/5/2001	44.2	---	---	---	---	---	---	---	---	---	---	---
BS-5	8 - 9.5	11/30/1993	17	---	---	---	---	---	---	---	---	---	---	---
BS-5	8 - 9.5	11/30/1993	28	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-12	8 - 9.6	10/23/2001	873	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	8.3 - 9.6	10/24/2001	20.2	---	---	---	---	---	---	---	---	---	---	---
SB-OBG-11	8.3 - 9.6	10/24/2001	38.3	---	---	---	---	---	---	---	---	---	---	---
SY-19	8.5 - 10.5	1/27/1992	22	---	---	---	---	---	---	---	---	---	---	---
SB-1	8.5 - 9	7/15/1991	35 B	---	---	---	---	---	---	---	---	---	---	---
SB-2	8.5 - 9	7/15/1991	20 B	---	---	---	---	---	---	---	---	---	---	---
SY-22	8.7 - 10	1/27/1992	11	---	---	---	---	---	---	---	---	---	---	---
SY-21	9 - 10	1/27/1992	11	---	---	---	---	---	---	---	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination, * - RPD greater than 20%.
E - recovery greater than 10% for serial dilution, --- not analyzed.

Table J-8
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Chemical Name Unit Sample Date	Antimony UG/L	Arsenic UG/L	Barium UG/L	Cadmium UG/L	Chromium UG/L	Lead UG/L	Lead UG/L	Mercury UG/L	Selenium UG/L	Silver UG/L
BC-1	0 - 1	11/30/1993	---	---	---	---	---	28000	---	---	---	---
BC-2	0 - 1	11/30/1993	---	---	---	---	---	16000	---	---	---	---
BC-3	1 - 2	11/30/1993	---	---	---	---	---	1200	---	---	---	---
BC-3	2 - 2.6	11/30/1993	---	---	---	---	---	1600	---	---	---	---
BC-3	0 - 1	11/30/1993	---	---	---	---	---	7100	---	---	---	---
BC-5	0 - 1	11/30/1993	---	---	---	---	---	21000	---	---	---	---
BC-6	2 - 4	11/30/1993	---	---	---	---	---	2600	---	---	---	---
BC-6	0 - 1	11/30/1993	---	---	---	---	---	5900 D	---	---	---	---
BS-1	0 - 1	11/30/1993	---	---	---	---	---	1500	---	---	---	---
BS-5	0 - 1	11/30/1993	---	---	---	---	---	600	---	---	---	---
FB-1	0 - 1	12/15/1993	---	---	---	---	---	276000	---	---	---	---
FB-1	2 - 4	12/15/1993	---	---	---	---	---	121000	---	---	---	---
FB-1	8 - 10	12/15/1993	---	---	---	---	---	< ND U	---	---	---	---
FB-1	4 - 6	12/15/1993	---	---	---	---	---	395000	---	---	---	---
FB-1	6 - 8	12/15/1993	---	---	---	---	---	< ND U	---	---	---	---
FB-2	6 - 8	12/15/1993	---	---	---	---	---	2100	---	---	---	---
FB-2	4 - 6	12/15/1993	---	---	---	---	---	192000	---	---	---	---
FB-2	0 - 1	12/15/1993	---	---	---	---	---	134000	---	---	---	---
FB-2	8 - 10	12/15/1993	---	---	---	---	---	25700	---	---	---	---
FB-2	2 - 4	12/15/1993	---	---	---	---	---	398000	---	---	---	---
FB-2	8 - 10	12/15/1993	---	---	---	---	---	67200	---	---	---	---
FB-3	8 - 10	12/15/1993	---	---	---	---	---	1200	---	---	---	---
FB-3	0 - 1	12/15/1993	---	---	---	---	---	4400	---	---	---	---
FB-4	4 - 6	12/15/1993	---	---	---	---	---	2100	---	---	---	---
FB-4	8 - 10	12/15/1993	---	---	---	---	---	300	---	---	---	---
FB-4	2 - 4	12/15/1993	---	---	---	---	---	355000	---	---	---	---
FB-4	6 - 8	12/15/1993	---	---	---	---	---	2100	---	---	---	---
FB-4	0 - 2	12/15/1993	---	---	---	---	---	228000	---	---	---	---
FB-5	2 - 4	12/15/1993	---	---	---	---	---	18600	---	---	---	---
FB-5	4 - 6	12/15/1993	---	---	---	---	---	300	---	---	---	---
FB-5	8 - 10	12/15/1993	---	---	---	---	---	1900	---	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination,
E - recovery greater than 10% for serial dilution.

Table J-8
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Chemical Name Unit Sample Date	Antimony UG/L	Arsenic UG/L	Barium UG/L	Cadmium UG/L	Chromium UG/L	Lead UG/L	Lead UG/L	Mercury UG/L	Selenium UG/L	Silver UG/L
FB-5	6 - 8	12/15/1993	---	---	---	---	---	11900	---	---	---	---
FB-5	0 - 2	12/15/1993	---	---	---	---	---	300	---	---	---	---
LB-10	16 - 18	9/1/1992	---	---	---	---	---	34000	13	---	---	---
LB-10	2 - 3	9/1/1992	---	---	---	---	---	410000	54000	---	---	---
LB-10	0 - 2	9/1/1992	---	---	---	---	---	200000	3000	---	---	---
LB-10	6 - 8	9/1/1992	---	---	---	---	---	47000	72	---	---	---
LB-12	1 - 2	9/1/1992	---	---	---	---	---	180000	440	---	---	---
LB-12	12 - 14	9/1/1992	---	---	---	---	---	4100	63	---	---	---
LB-12	8 - 10	9/1/1992	---	---	---	---	---	630000	870	---	---	---
LB-12	6 - 8	9/1/1992	---	---	---	---	---	14000	1600	---	---	---
LB-4	6 - 8	9/1/1992	---	---	---	---	---	250000	3100	---	---	---
LB-4	2 - 4	9/1/1992	---	---	---	---	---	130000	220	---	---	---
LB-4	0 - 2	9/1/1992	---	---	---	---	---	79000	480	---	---	---
LB-4	4 - 6	9/1/1992	---	---	---	---	---	36000	40	---	---	---
LB-6	0 - 2	9/1/1992	---	---	---	---	---	570000	100000	---	---	---
LB-6	2 - 4	9/1/1992	---	---	---	---	---	7800	1600	---	---	---
LB-8	4 - 6	9/1/1992	---	---	---	---	---	59000 J	4300	---	---	---
LB-8	8 - 10	9/1/1992	---	---	---	---	---	48000	1000	---	---	---
LB-8	6 - 6.3	9/1/1992	---	---	---	---	---	24000	1000	---	---	---
LB-8	4 - 6	9/1/1992	---	---	---	---	---	4400 J	3600	---	---	---
LB-8	0 - 2	9/1/1992	---	---	---	---	---	270000	3500	---	---	---
SB-1	10 - 10.5	7/15/1991	---	---	---	---	---	1300	< 500 U	---	---	---
SB-1	4 - 4.5	7/15/1991	---	---	---	---	---	400 J	190 J	---	---	---
SB-1	1.5 - 2	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-1	8.5 - 9	7/15/1991	---	---	---	---	---	260 J	< 500 U	---	---	---
SB-1	5.5 - 6	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-1	2.5 - 3	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-1	7 - 7.5	7/15/1991	---	---	---	---	---	1200	< 500 U	---	---	---
SB-2	8.5 - 9	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-2	7 - 7.5	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-2	4 - 4.5	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination,
E - recovery greater than 10% for serial dilution.

Table J-8
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Chemical Name Unit Sample Date	Antimony UG/L	Arsenic UG/L	Barium UG/L	Cadmium UG/L	Chromium UG/L	Lead UG/L	Lead UG/L	Mercury UG/L	Selenium UG/L	Silver UG/L
SB-2	11.5 - 12	7/15/1991	---	---	---	---	---	27000 J	< 500 U	---	---	---
SB-2	5.5 - 6	7/15/1991	---	---	---	---	---	330 J	< 500 U	---	---	---
SB-2	1.5 - 2	7/15/1991	---	---	---	---	---	750 B	< 500 U	---	---	---
SB-2	2.5 - 3	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-2	10 - 10.5	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-3	2.5 - 3	7/15/1991	---	---	---	---	---	< 520 U	< 500 U	---	---	---
SB-3	6.5 - 7	7/15/1991	---	---	---	---	---	< 520 U	< 500 U	---	---	---
SB-3	1.5 - 2	7/15/1991	---	---	---	---	---	< 530 U	< 500 U	---	---	---
SB-3	4 - 4.5	7/15/1991	---	---	---	---	---	< 520 U	< 500 U	---	---	---
SB-3	5.5 - 6	7/15/1991	---	---	---	---	---	< 520 U	< 500 U	---	---	---
SB-4	4 - 5	7/15/1991	---	---	---	---	---	910	< 500 U	---	---	---
SB-4	1.5 - 2	7/15/1991	---	---	---	---	---	6500	< 500 U	---	---	---
SB-4	2 - 2.6	7/15/1991	---	---	---	---	---	920	< 500 U	---	---	---
SB-4	4 - 5	7/15/1991	---	---	---	---	---	870	< 500 U	---	---	---
SB-5	1.5 - 2	7/15/1991	---	---	---	---	---	1600	< 500 U	---	---	---
SB-5	4 - 4.5	7/15/1991	---	---	---	---	---	240000	63000	---	---	---
SB-5	6 - 6.5	7/15/1991	---	---	---	---	---	7400	610 B	---	---	---
SB-OBG-11	2 - 2.9	10/24/2001	---	---	---	---	---	---	2020	---	---	---
SB-OBG-12	8 - 9.6	10/23/2001	---	---	---	---	---	---	103000	---	---	---
SB-OBG-12	0 - 1.6	10/25/2001	---	---	---	---	---	---	246	---	---	---
SB-OBG-21	4 - 5.1	11/6/2001	---	---	---	---	---	---	3490	---	---	---
SB-OBG-25	6 - 8	11/25/2005	---	---	---	---	---	---	1130 EJ	---	---	---
SB-OBG-25	2 - 4	11/25/2005	---	---	---	---	---	---	381 EJ	---	---	---
SB-OBG-25	8 - 10	11/25/2005	---	---	---	---	---	---	1660 EJ	---	---	---
SB-OBG-25	0 - 2	11/28/2005	---	---	---	---	---	---	2270 EJ	---	---	---
SB-OBG-25	4 - 6	11/28/2005	---	---	---	---	---	---	352 EJ	---	---	---
SB-OBG-26	6 - 8	11/28/2005	---	---	---	---	---	---	1140 EJ	---	---	---
SB-OBG-26	2 - 4	11/28/2005	---	---	---	---	---	---	< 58.2 UJE	---	---	---
SB-OBG-26	8 - 10	11/28/2005	---	---	---	---	---	---	< 104 EJU	---	---	---
SB-OBG-26	10 - 12	11/28/2005	---	---	---	---	---	---	3470 EJ	---	---	---
SB-OBG-26	4 - 6	11/28/2005	---	---	---	---	---	---	16700 EJ	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination,
E - recovery greater than 10% for serial dilution.

Table J-8
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Chemical Name Unit Sample Date	Antimony UG/L	Arsenic UG/L	Barium UG/L	Cadmium UG/L	Chromium UG/L	Lead UG/L	Lead UG/L	Mercury UG/L	Selenium UG/L	Silver UG/L
SB-OBG-26	4 - 6	11/28/2005	---	---	---	---	---	---	12700 EJ	---	---	---
SB-OBG-26	12 - 14	11/28/2005	---	---	---	---	---	---	19600 EJ	---	---	---
SB-OBG-26	0 - 2	11/28/2005	---	329	240	61.4 EJ	9.4 B	---	260000 EJ	< 0.064 U	6.5 B	2.3 B
SB-OBG-26	0 - 2	11/28/2005	---	50.4	210	41.4 EJ	2.1 B	---	92100 EJ	< 0.068 U	10.7 B	1.1 B
SB-OBG-27	10 - 12	12/12/2005	---	21.3	504	19 EJ	< 0.38 U	---	7680	< 0.047 U	9.9 B	< 0.91 U
SB-OBG-27	6 - 8	12/12/2005	---	---	---	---	---	---	55300	---	---	---
SB-OBG-27	8 - 10	12/12/2005	---	---	---	---	---	---	10100	---	---	---
SB-OBG-27	2 - 4	12/12/2005	---	---	---	---	---	---	662	---	---	---
SB-OBG-27	0 - 2	12/12/2005	---	---	---	---	---	---	2460	---	---	---
SB-OBG-27	4 - 6	12/12/2005	---	35.4	512	19.9 EJ	< 0.38 U	---	10300	< 0.047 U	8.7 B	< 0.91 U
SB-OBG-27	12 - 14	12/12/2005	---	---	---	---	---	---	1800	---	---	---
SB-OBG-27	6 - 8	12/12/2005	---	---	---	---	---	---	136000	---	---	---
SB-OBG-28	0 - 2	12/12/2005	---	12500	19.4 B	700 EJ	2.1 B	---	121000	< 0.047 U	16.5 B	< 0.91 U
SB-OBG-28	2 - 4	12/12/2005	---	---	---	---	---	---	210000	---	---	---
SB-OBG-28A	8 - 10	12/12/2005	---	---	---	---	---	---	300000	---	---	---
SB-OBG-28A	18 - 20	12/12/2005	---	---	---	---	---	---	6100 EJ	---	---	---
SB-OBG-28A	16 - 18	12/12/2005	---	---	---	---	---	---	371	---	---	---
SB-OBG-28A	12 - 14	12/12/2005	---	21.2	620	39.3 EJ	2.7 B	---	6310	< 0.047 U	13.2 B	< 0.91 U
SB-OBG-28A	10 - 12	12/12/2005	---	---	---	---	---	---	167000	---	---	---
SB-OBG-28A	0 - 2	12/12/2005	---	2510	14 B	395 EJ	1.3 B	---	316000	< 0.047 U	12.7 B	< 0.91 U
SB-OBG-28A	14 - 16	12/12/2005	---	---	---	---	---	---	3590 EJ	---	---	---
SB-OBG-28A	4 - 6	12/12/2005	---	4380	40.2 B	465 EJ	1.9 B	---	1010000	< 0.047 U	16.4 B	< 0.91 U
SB-OBG-28A	2 - 4	12/12/2005	---	9.3 B	131 B	11.6 EJ	< 0.38 U	---	78700	< 0.47 U	8.3 B	< 0.91 U
SB-OBG-28A	6 - 8	12/12/2005	---	---	---	---	---	---	82900	---	---	---
SB-OBG-28A	22 - 24	12/12/2005	---	---	---	---	---	---	11300 EJ	---	---	---
SB-OBG-28A	20 - 22	12/12/2005	---	---	---	---	---	---	10000 EJ	---	---	---
SB-OBG-28A	20 - 22	12/12/2005	---	---	---	---	---	---	39700 EJ	---	---	---
SB-OBG-29	6 - 8	11/28/2005	---	---	---	---	---	---	< 110 UEJ	---	---	---
SB-OBG-29	4 - 6	11/28/2005	---	---	---	---	---	---	< 159 UEJ	---	---	---
SB-OBG-29	0 - 2	11/28/2005	---	---	---	---	---	---	48300 EJ	---	---	---
SB-OBG-29	8 - 10	11/28/2005	---	---	---	---	---	---	< 48.9 UEJ	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination,
E - recovery greater than 10% for serial dilution.

Table J-8
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Chemical Name Unit Sample Date	Antimony UG/L	Arsenic UG/L	Barium UG/L	Cadmium UG/L	Chromium UG/L	Lead UG/L	Lead UG/L	Mercury UG/L	Selenium UG/L	Silver UG/L
SB-OBG-29	10 - 12	11/28/2005	---	---	---	---	---	---	898 EJ	---	---	---
SB-OBG-29	12 - 13	11/28/2005	---	145	439	11.6 EJ	3.3 B	---	38200 EJ	< 0.066 U	4.8 B	1.2 B
SB-OBG-29	2 - 4	11/28/2005	---	---	---	---	---	---	446 EJ	---	---	---
SB-OBG-30	10 - 12	11/28/2005	---	---	---	---	---	---	3820 EJ	---	---	---
SB-OBG-30	8 - 10	11/28/2005	---	---	---	---	---	---	18000 EJ	---	---	---
SB-OBG-30	0 - 2	11/28/2005	---	---	---	---	---	---	4540 EJ	---	---	---
SB-OBG-30	2 - 4	11/28/2005	---	---	---	---	---	---	24700 EJ	---	---	---
SB-OBG-30	4 - 6	11/28/2005	---	---	---	---	---	---	6020 EJ	---	---	---
SB-OBG-30	12 - 13	11/28/2005	---	---	---	---	---	---	18100 EJ	---	---	---
SB-OBG-30	6 - 8	11/28/2005	---	---	---	---	---	---	10800 EJ	---	---	---
SB-OBG-31	2 - 4	12/13/2005	---	---	---	---	---	---	4520 EJ	---	---	---
SB-OBG-31	6 - 8	12/13/2005	---	25.7	480	18.2	4.1 B	---	28000	< 0.047 U	8.8 B	< 0.91 U
SB-OBG-31	14 - 16	12/13/2005	---	---	---	---	---	---	93.3 EJ	---	---	---
SB-OBG-31	16 - 17	12/13/2005	---	---	---	---	---	---	1090 EJ	---	---	---
SB-OBG-31	8 - 10	12/13/2005	---	---	---	---	---	---	3120 EJ	---	---	---
SB-OBG-31	10 - 12	12/13/2005	---	---	---	---	---	---	385 EJ	---	---	---
SB-OBG-31	4 - 6	12/13/2005	---	32.9	549	19.9	< 0.38 U	---	57600	< 0.047 U	8.9 B	< 0.91 U
SB-OBG-31	12 - 14	12/13/2005	---	---	---	---	---	---	35.4 EJ	---	---	---
SB-OBG-31	2 - 4	12/13/2005	---	---	---	---	---	---	139 EJ	---	---	---
SB-OBG-31	0 - 2	12/13/2005	---	---	---	---	---	---	6110 EJ	---	---	---
SB-OBG-31	12 - 14	12/13/2005	---	---	---	---	---	---	30 EJ	---	---	---
SB-OBG-32	6 - 8	11/29/2005	---	---	---	---	---	---	39900	---	---	---
SB-OBG-32	2 - 4	11/29/2005	---	---	---	---	---	---	7290	---	---	---
SB-OBG-32	4 - 6	11/29/2005	---	---	---	---	---	---	30800	---	---	---
SB-OBG-32	0 - 2	11/29/2005	---	---	---	---	---	---	188000	---	---	---
SB-OBG-32	12 - 14	11/29/2005	---	---	---	---	---	---	6460	---	---	---
SB-OBG-32	10 - 12	11/29/2005	---	---	---	---	---	---	243	---	---	---
SB-OBG-33	2 - 4	11/29/2005	---	---	---	---	---	---	266	---	---	---
SB-OBG-33	0 - 2	11/29/2005	---	---	---	---	---	---	213	---	---	---
SB-OBG-33	12 - 13	11/29/2005	---	---	---	---	---	---	822	---	---	---
SB-OBG-33	12 - 14	11/29/2005	---	---	---	---	---	---	76.5	---	---	---

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Table J-8
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Chemical Name Unit Sample Date	Antimony UG/L	Arsenic UG/L	Barium UG/L	Cadmium UG/L	Chromium UG/L	Lead UG/L	Lead UG/L	Mercury UG/L	Selenium UG/L	Silver UG/L
SB-OBG-33	8 - 10	11/29/2005	---	---	---	---	---	---	11.6	---	---	---
SB-OBG-34	8 - 10	11/29/2005	---	---	---	---	---	---	3860	---	---	---
SB-OBG-34	2 - 4	11/29/2005	---	---	---	---	---	---	1670	---	---	---
SB-OBG-34	0 - 2	11/29/2005	---	---	---	---	---	---	742	---	---	---
SB-OBG-34	12 - 13	11/29/2005	---	---	---	---	---	---	7.9 B	---	---	---
SB-OBG-34	10 - 12	11/29/2005	---	---	---	---	---	---	158	---	---	---
SB-OBG-34	4 - 6	11/29/2005	---	---	---	---	---	---	20.2	---	---	---
SB-OBG-35	0 - 2	11/29/2005	---	---	---	---	---	---	1160	---	---	---
SB-OBG-35	2 - 4	11/29/2005	---	---	---	---	---	---	660	---	---	---
SB-OBG-35	4 - 6	11/29/2005	---	---	---	---	---	---	701	---	---	---
SB-OBG-35	6 - 8	11/29/2005	---	---	---	---	---	---	191	---	---	---
SB-OBG-36	2 - 4	11/29/2005	---	---	---	---	---	---	68.7	---	---	---
SB-OBG-36	0 - 2	11/29/2005	---	---	---	---	---	---	13000	---	---	---
SB-OBG-36	10 - 11	11/29/2005	---	---	---	---	---	---	8.4 B	---	---	---
SB-OBG-36	6 - 8	11/29/2005	---	---	---	---	---	---	760	---	---	---
SB-OBG-36	4 - 6	11/29/2005	---	---	---	---	---	---	153	---	---	---
SB-OBG-36	8 - 10	11/29/2005	---	---	---	---	---	---	1290	---	---	---
SB-OBG-37	2 - 4	12/13/2005	---	56.4	350	20.8	< 0.38 U	---	109000	< 0.047 U	8.6 B	< 0.91 U
SB-OBG-37	0 - 2	12/13/2005	---	---	---	---	---	---	5780 EJ	---	---	---
SB-OBG-37	4 - 5	12/13/2005	---	---	---	---	---	---	11700 EJ	---	---	---
SB-OBG-37A	2 - 4	12/13/2005	---	62	242	16.3	< 0.38 U	---	111000	< 0.047 U	17.4 B	< 0.91 U
SB-OBG-37A	0 - 2	12/13/2005	---	---	---	---	---	---	12800 EJ	---	---	---
SB-OBG-38	0 - 2	11/29/2005	---	---	---	---	---	---	194000	---	---	---
SB-OBG-38	8 - 10	11/29/2005	---	---	---	---	---	---	56700	---	---	---
SB-OBG-38	8 - 10	11/29/2005	---	---	---	---	---	---	78200	---	---	---
SB-OBG-38	6 - 8	11/29/2005	---	---	---	---	---	---	30400	---	---	---
SB-OBG-38	4 - 6	11/29/2005	---	---	---	---	---	---	365000	---	---	---
SB-OBG-38	2 - 4	11/29/2005	---	374	8.8 B	88.9	< 0.38 U	---	404000	< 0.071 U	16.9 B	< 0.91 U
SS-1	0.5 - 1	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-1	1 - 1.5	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-1	1.5 - 2	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination,
E - recovery greater than 10% for serial dilution.

Table J-8
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - TCLP Inorganic Results

Location ID	Depth Interval (feet)	Chemical Name Unit Sample Date	Antimony UG/L	Arsenic UG/L	Barium UG/L	Cadmium UG/L	Chromium UG/L	Lead UG/L	Lead UG/L	Mercury UG/L	Selenium UG/L	Silver UG/L
SS-10	1.5 - 2	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-11	1.5 - 2	7/10/1991	---	---	---	---	---	---	210 J	---	---	---
SS-2	1.5 - 2	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-2	1 - 1.5	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-2	0.5 - 1	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-3	0.5 - 1	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-3	1 - 1.5	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-3	1.5 - 2	7/10/1991	---	---	---	---	---	---	170 J	---	---	---
SS-4	1 - 1.5	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-5	1 - 1.5	7/10/1991	---	---	---	---	---	---	410 J	---	---	---
SS-6	1.5 - 2	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-7	0.5 - 1	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-7	0.5 - 1	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-7	1 - 1.5	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-7	1.5 - 2	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-8	1.5 - 2	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-9	0.5 - 1	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-9	1.5 - 2	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SS-9	1 - 1.5	7/10/1991	---	---	---	---	---	---	< 500 U	---	---	---
SY-1	1.5 - 2	7/10/1991	< 590 U	< 510 U	---	< 110 U	---	---	---	---	---	---
SY-1	2.5 - 3	7/10/1991	< 590 U	< 510 U	---	< 110 U	---	---	---	---	---	---
SY-2	2.5 - 3	7/10/1991	< 590 U	< 510 U	---	< 110 U	---	---	---	---	---	---
SY-2	0 - 0.6	7/10/1991	< 590 U	< 510 U	---	< 110 U	---	---	---	---	---	---
SY-2	1.1 - 1.5	7/10/1991	7900	1300	---	100 J	---	---	---	---	---	---
SY-2	0.6 - 1.1	7/10/1991	220 J	< 510 U	---	26 J	---	---	---	---	---	---
SY-2	1.5 - 2	7/10/1991	380 J	< 510 U	---	< 110 U	---	---	---	---	---	---
SY-2	2 - 2.5	7/10/1991	< 590 U	< 0.51 U	---	< 110 U	---	---	---	---	---	---
SY-3	1.5 - 2	7/10/1991	1400	370 J	---	25 J	---	---	---	---	---	---
SY-3	2.5 - 3	7/10/1991	< 590 U	< 0.51 U	---	< 110 U	---	---	---	---	---	---
TP-02	1.3 - 1.5	12/15/2001	---	---	---	---	---	---	60000	---	---	---

Notes: U - not detected, J - estimated, D - result from dilution
B - associated blank contamination,
E - recovery greater than 10% for serial dilution.

Table J-9
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 1.3	0 - 2	2 - 2.9	0 - 1.6
		Location ID	SB-OBG-03	SB-OBG-09	SB-OBG-11	SB-OBG-12
		Sample Date	10/24/2001	10/25/2001	10/24/2001	10/23/2001
		Sample ID	SB-OBG-03_10242001N-1	SB-OBG-09_10252001N-1	SB-OBG-11_10242001N-1	SB-OBG-12_10232001N-1
Action Level						
1,1,1-Trichloroethane	ug/Kg	800	< 11 U	< 11 U	< 11 U	< 11 U
1,1,2,2-Tetrachloroethane	ug/Kg	600	< 11 U	< 11 U	< 11 U	< 11 U
1,1,2-Trichloroethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
1,1-Dichloroethane	ug/Kg	200	< 11 U	< 11 U	< 11 U	< 11 U
1,1-Dichloroethene	ug/Kg	400	< 11 U	< 11 U	< 11 U	< 11 U
1,2-Dichloroethane	ug/Kg	100	< 11 U	< 11 U	< 11 U	< 11 U
1,2-Dichloropropane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
2-Hexanone	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
4-Methyl-2-pentanone	ug/Kg	1000	< 11 U	< 11 U	< 11 U	< 11 U
Acetone	ug/Kg	200	< 11 U	8 J	8 J	< 11 U
Benzene	ug/Kg	60	< 11 U	< 11 U	< 11 U	< 11 U
Bromodichloromethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Bromoform	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Bromomethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Carbon disulfide	ug/Kg	2700	< 11 U	< 11 U	< 11 U	< 11 U
Carbon tetrachloride	ug/Kg	600	< 11 U	< 11 U	< 11 U	< 11 U
Chlorobenzene	ug/Kg	1700	< 11 U	< 11 U	< 11 U	< 11 U
Chloroethane	ug/Kg	1900	< 11 U	< 11 U	< 11 U	< 11 U
Chloroform	ug/Kg	300	< 11 U	< 11 U	< 11 U	< 11 U
cis-1,2-Dichloroethene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
cis-1,3-Dichloropropene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Dibromochloromethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Ethylbenzene	ug/Kg	5500	< 11 U	< 11 U	< 11 U	< 11 U
Methyl chloride	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Methyl ethyl ketone	ug/Kg	300	< 11 U	< 11 U	< 11 U	< 11 U
Methylene chloride	ug/Kg	100	< 11.5 U	< 10.8 U	< 11.2 U	< 10.8 U
Styrene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Tetrachloroethene	ug/Kg	1400	< 11 U	< 11 U	< 11 U	< 11 U
Toluene	ug/Kg	1500	< 11 U	< 11 U	< 11 U	< 11 U
trans-1,2-Dichloroethene	ug/Kg	300	< 11 U	< 11 U	< 11 U	< 11 U
trans-1,3-Dichloropropene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Trichloroethene	ug/Kg	700	< 11 U	< 11 U	< 11 U	< 11 U
Vinyl chloride	ug/Kg	200	< 11 U	< 11 U	< 11 U	< 11 U
Xylenes, Total	ug/Kg	1200	< 11 U	< 11 U	< 11 U	< 11 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-9
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Volatile Organic Compounds Results

Depth Interval (ft)			2 - 3.4	2 - 3.4	2 - 3.7	0 - 1.9
Location ID			SB-OBG-13	SB-OBG-13	SB-OBG-16	SB-OBG-18
Sample Date			10/25/2001	10/25/2001	10/25/2001	10/24/2001
Sample ID			SB-OBG-13_10252001N-2	SB-OBG-13_10252001FD-2	SB-OBG-16_10252001N-2	SB-OBG-18_10242001N-1
Chemical Name	Unit	Action Level				
1,1,1-Trichloroethane	ug/Kg	800	< 11 U	< 11 U	< 11 U	< 11 U
1,1,2,2-Tetrachloroethane	ug/Kg	600	< 11 U	< 11 U	< 11 U	< 11 U
1,1,2-Trichloroethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
1,1-Dichloroethane	ug/Kg	200	< 11 U	< 11 U	< 11 U	< 11 U
1,1-Dichloroethene	ug/Kg	400	< 11 U	< 11 U	< 11 U	< 11 U
1,2-Dichloroethane	ug/Kg	100	< 11 U	< 11 U	< 11 U	< 11 U
1,2-Dichloropropane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
2-Hexanone	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
4-Methyl-2-pentanone	ug/Kg	1000	< 11 U	< 11 U	< 11 U	< 11 U
Acetone	ug/Kg	200	< 11 U	13	< 11 U	< 11 U
Benzene	ug/Kg	60	< 11 U	< 11 U	< 11 U	< 11 U
Bromodichloromethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Bromoform	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Bromomethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Carbon disulfide	ug/Kg	2700	< 11 U	< 11 U	< 11 U	< 11 U
Carbon tetrachloride	ug/Kg	600	< 11 U	< 11 U	< 11 U	< 11 U
Chlorobenzene	ug/Kg	1700	< 11 U	< 11 U	< 11 U	< 11 U
Chloroethane	ug/Kg	1900	< 11 U	< 11 U	< 11 U	< 11 U
Chloroform	ug/Kg	300	< 11 U	< 11 U	< 11 U	< 11 U
cis-1,2-Dichloroethene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
cis-1,3-Dichloropropene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Dibromochloromethane	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Ethylbenzene	ug/Kg	5500	< 11 U	< 11 U	< 11 U	< 11 U
Methyl chloride	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Methyl ethyl ketone	ug/Kg	300	< 11 U	< 11 U	< 11 U	< 11 U
Methylene chloride	ug/Kg	100	< 10.8 U	< 11.0 U	< 10.9 U	< 11 U
Styrene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Tetrachloroethene	ug/Kg	1400	< 11 U	< 11 U	< 11 U	< 11 U
Toluene	ug/Kg	1500	< 11 U	< 11 U	< 11 U	< 11 U
trans-1,2-Dichloroethene	ug/Kg	300	< 11 U	< 11 U	< 11 U	< 11 U
trans-1,3-Dichloropropene	ug/Kg	---	< 11 U	< 11 U	< 11 U	< 11 U
Trichloroethene	ug/Kg	700	< 11 U	< 11 U	< 11 U	< 11 U
Vinyl chloride	ug/Kg	200	< 11 U	< 11 U	< 11 U	< 11 U
Xylenes, Total	ug/Kg	1200	< 11 U	< 11 U	< 11 U	< 11 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-9
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Volatile Organic Compounds Results

Chemical Name	Depth Interval (ft)		1 - 1.5	0 - 1.5
	Location ID		SS-OBG-14	SS-OBG-14
	Sample Date		10/26/2001	10/26/2001
	Sample ID		SS-OBG-14_10262001FD-2	SS-OBG-14_10262001N-2
	Unit	Action Level		
1,1,1-Trichloroethane	ug/Kg	800	< 11 U	< 11 U
1,1,2,2-Tetrachloroethane	ug/Kg	600	< 11 U	< 11 U
1,1,2-Trichloroethane	ug/Kg	---	< 11 U	< 11 U
1,1-Dichloroethane	ug/Kg	200	< 11 U	< 11 U
1,1-Dichloroethene	ug/Kg	400	< 11 U	< 11 U
1,2-Dichloroethane	ug/Kg	100	< 11 U	< 11 U
1,2-Dichloropropane	ug/Kg	---	< 11 U	< 11 U
2-Hexanone	ug/Kg	---	< 11 U	< 11 U
4-Methyl-2-pentanone	ug/Kg	1000	< 11 U	< 11 U
Acetone	ug/Kg	200	< 11 U	< 11 U
Benzene	ug/Kg	60	< 11 U	< 11 U
Bromodichloromethane	ug/Kg	---	< 11 U	< 11 U
Bromoform	ug/Kg	---	< 11 U	< 11 U
Bromomethane	ug/Kg	---	< 11 U	< 11 U
Carbon disulfide	ug/Kg	2700	< 11 U	< 11 U
Carbon tetrachloride	ug/Kg	600	< 11 U	< 11 U
Chlorobenzene	ug/Kg	1700	< 11 U	< 11 U
Chloroethane	ug/Kg	1900	< 11 U	< 11 U
Chloroform	ug/Kg	300	< 11 U	< 11 U
cis-1,2-Dichloroethene	ug/Kg	---	< 11 U	< 11 U
cis-1,3-Dichloropropene	ug/Kg	---	< 11 U	< 11 U
Dibromochloromethane	ug/Kg	---	< 11 U	< 11 U
Ethylbenzene	ug/Kg	5500	< 11 U	< 11 U
Methyl chloride	ug/Kg	---	< 11 U	< 11 U
Methyl ethyl ketone	ug/Kg	300	< 11 U	< 11 U
Methylene chloride	ug/Kg	100	< 11.2 U	< 11.4 U
Styrene	ug/Kg	---	< 11 U	< 11 U
Tetrachloroethene	ug/Kg	1400	< 11 U	< 11 U
Toluene	ug/Kg	1500	< 11 U	< 11 U
trans-1,2-Dichloroethene	ug/Kg	300	< 11 U	< 11 U
trans-1,3-Dichloropropene	ug/Kg	---	< 11 U	< 11 U
Trichloroethene	ug/Kg	700	< 11 U	< 11 U
Vinyl chloride	ug/Kg	200	< 11 U	< 11 U
Xylenes, Total	ug/Kg	1200	< 11 U	< 11 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-10
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 1.3	0 - 2	2 - 2.9	0 - 1.6
		Location ID	SB-OBG-03	SB-OBG-09	SB-OBG-11	SB-OBG-12
		Sample Date	10/24/2001	10/25/2001	10/24/2001	10/25/2001
		Sample ID	SB-OBG-03_10242001N-1	SB-OBG-09_10252001N-1	SB-OBG-11_10242001N-1	SB-OBG-12_10252001N-1
Action Level						
2,4,5-Trichlorophenol	ug/Kg	100	< 960 U	< 900 U	< 940 U	< 880 U
2,4,6-Trichlorophenol	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
2,4-Dichlorophenol	ug/Kg	400	< 380 U	< 360 U	< 370 U	< 350 U
2,4-Dimethylphenol	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
2,4-Dinitrophenol	ug/Kg	200 or MDL	< 960 U	< 900 U	< 940 U	< 880 U
2,4-Dinitrotoluene	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
2,6-Dinitrotoluene	ug/Kg	1000	< 380 U	< 360 U	< 370 U	< 350 U
2-Chloronaphthalene	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
2-Chlorophenol	ug/Kg	800	< 380 U	< 360 U	< 370 U	< 350 U
2-Methylnaphthalene	ug/Kg	36400	< 380 U	< 360 U	< 370 U	< 350 U
2-Methylphenol	ug/Kg	100 or MDL	< 380 U	< 360 U	< 370 U	< 350 U
2-Nitroaniline	ug/Kg	430 or MDL	< 960 U	< 900 U	< 940 U	< 880 U
2-Nitrophenol	ug/Kg	330 or MDL	< 380 U	< 360 U	< 370 U	< 350 U
3,3'-Dichlorobenzidine	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
3-Nitroaniline	ug/Kg	500 or MDL	< 960 U	< 900 U	< 940 U	< 880 U
4,6-Dinitro-2-Methylphenol	ug/Kg	---	< 960 U	< 900 U	< 940 U	< 880 U
4-Bromophenylphenylether	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
4-chloro-3-Methylphenol	ug/Kg	240 or MDL	< 380 U	< 360 U	< 370 U	< 350 U
4-Chloroaniline	ug/Kg	220 or MDL	< 380 U	< 360 U	< 370 U	< 350 U
4-Chlorophenyl phenyl ether	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
4-Methylphenol	ug/Kg	900	< 380 U	< 360 U	< 370 U	< 350 U
4-Nitroaniline	ug/Kg	---	< 960 U	< 900 U	< 940 U	< 880 U
4-Nitrophenol	ug/Kg	100 or MDL	< 960 U	< 900 U	< 940 U	< 880 U
Acenaphthene	ug/Kg	50000	< 380 U	< 360 U	< 370 U	< 350 U
Acenaphthylene	ug/Kg	41000	< 380 U	< 360 U	< 370 U	< 350 U
Anthracene	ug/Kg	50000	< 380 U	< 360 U	< 370 U	< 350 U
Benz(a)anthracene	ug/Kg	224 or MDL	< 380 U	< 360 U	< 370 U	< 350 U
Benzo(a)pyrene	ug/Kg	61 or MDL	< 380 U	< 360 U	< 370 UJ	81 J
Benzo(b)fluoranthene	ug/Kg	1100	< 380 U	< 360 U	< 370 UJ	< 350 U
Benzo(g,h,i)perylene	ug/Kg	50000	< 380 U	< 360 U	< 370 UJ	< 350 U
Benzo(k)fluoranthene	ug/Kg	1100	< 380 U	< 360 U	< 370 UJ	< 350 U
Bis(2-chloro-1-methylethyl)ether	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
Bis(2-chloroethoxy)methane	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
Bis(2-chloroethyl)ether	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-10
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 1.3	0 - 2	2 - 2.9	0 - 1.6
		Location ID	SB-OBG-03	SB-OBG-09	SB-OBG-11	SB-OBG-12
		Sample Date	10/24/2001	10/25/2001	10/24/2001	10/25/2001
		Sample ID	SB-OBG-03_10242001N-1	SB-OBG-09_10252001N-1	SB-OBG-11_10242001N-1	SB-OBG-12_10252001N-1
Action Level						
Bis(2-ethylhexyl)phthalate	ug/Kg	50000	540	< 360 U	720	110 J
Butyl benzyl phthalate	ug/Kg	50000	< 380 U	< 360 U	< 370 U	< 350 U
Carbazole	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
Chrysene	ug/Kg	400	< 380 U	< 360 U	39 J	< 350 U
Dibenz(a,h)anthracene	ug/Kg	14 or MDL	< 380 U	< 360 U	< 370 UJ	< 350 U
Dibenzofuran	ug/Kg	6200	< 380 U	< 360 U	< 370 U	< 350 U
Dichlorobenzenes (1,2-)	ug/Kg	7900	< 380 U	< 360 U	< 370 U	< 350 U
Dichlorobenzenes (1,3-)	ug/Kg	1600	< 380 U	< 360 U	< 370 U	< 350 U
Dichlorobenzenes (1,4-)	ug/Kg	8500	< 380 U	< 360 U	< 370 U	< 350 U
Diethyl phthalate	ug/Kg	7100	< 380 U	< 360 U	< 370 U	< 350 U
Dimethyl phthalate	ug/Kg	2000	< 380 U	< 360 U	< 370 U	< 350 U
Di-n-butylphthalate	ug/Kg	8100	< 380 U	< 360 U	< 370 U	< 350 U
Di-n-octyl phthalate	ug/Kg	50000	< 380 U	< 360 U	< 370 U	< 350 U
Fluoranthene	ug/Kg	50000	< 380 U	< 360 U	< 370 U	< 350 U
Fluorene	ug/Kg	50000	< 380 U	< 360 U	< 370 U	< 350 U
Hexachlorobenzene	ug/Kg	410	< 380 U	< 360 U	< 370 U	< 350 U
Hexachlorobutadiene	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
Hexachlorocyclopentadiene	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
Hexachloroethane	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
Indeno (1,2,3-cd)pyrene	ug/Kg	3200	< 380 U	< 360 U	< 370 UJ	< 350 U
Isophorone	ug/Kg	4400	< 380 U	< 360 U	< 370 U	< 350 U
Naphthalene	ug/Kg	13000	< 380 U	< 360 U	< 370 U	< 350 U
Nitrobenzene	ug/Kg	200 or MDL	< 380 U	< 360 U	< 370 U	< 350 U
N-Nitrosodiphenylamine	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
N-Nitrosodipropylamine	ug/Kg	---	< 380 U	< 360 U	< 370 U	< 350 U
Pentachlorophenol	ug/Kg	1000 or MDL	< 960 U	< 900 U	< 940 U	< 880 U
Phenanthrene	ug/Kg	50001	< 380 U	< 360 U	< 370 U	< 350 U
Phenol	ug/Kg	30 or MDL	< 380 U	< 360 U	< 374 U	< 350 U
Pyrene	ug/Kg	50000	< 380 U	< 360 U	< 370 U	< 350 U
Trichlorobenzenes (1,2,4-)	ug/Kg	3400	< 380 U	< 360 U	< 370 U	< 350 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-10
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	2 - 3.4	2 - 3.4	2 - 3.7
		Location ID	SB-OBG-13	SB-OBG-13	SB-OBG-16
		Sample Date	10/25/2001	10/25/2001	10/25/2001
		Sample ID	SB-OBG-13_10252001N-2	SB-OBG-13_10252001FD-2	SB-OBG-16_10252001N-2
Action Level					
2,4,5-Trichlorophenol	ug/Kg	100	< 900 U	< 880 U	< 910 U
2,4,6-Trichlorophenol	ug/Kg	---	< 360 U	< 370 U	< 360 U
2,4-Dichlorophenol	ug/Kg	400	< 360 U	< 370 U	< 360 U
2,4-Dimethylphenol	ug/Kg	---	< 360 U	< 370 U	< 360 U
2,4-Dinitrophenol	ug/Kg	200 or MDL	< 900 U	< 880 U	< 910 U
2,4-Dinitrotoluene	ug/Kg	---	< 360 U	< 370 U	< 360 U
2,6-Dinitrotoluene	ug/Kg	1000	< 360 U	< 370 U	< 360 U
2-Chloronaphthalene	ug/Kg	---	< 360 U	< 370 U	< 360 U
2-Chlorophenol	ug/Kg	800	< 360 U	< 370 U	< 360 U
2-Methylnaphthalene	ug/Kg	36400	< 360 U	< 370 U	< 360 U
2-Methylphenol	ug/Kg	100 or MDL	< 360 U	< 370 U	< 360 U
2-Nitroaniline	ug/Kg	430 or MDL	< 900 U	< 880 U	< 910 U
2-Nitrophenol	ug/Kg	330 or MDL	< 360 U	< 370 U	< 360 U
3,3'-Dichlorobenzidine	ug/Kg	---	< 360 U	< 370 U	< 360 U
3-Nitroaniline	ug/Kg	500 or MDL	< 900 U	< 880 U	< 910 U
4,6-Dinitro-2-Methylphenol	ug/Kg	---	< 900 U	< 880 U	< 910 U
4-Bromophenylphenylether	ug/Kg	---	< 360 U	< 370 U	< 360 U
4-chloro-3-Methylphenol	ug/Kg	240 or MDL	< 360 U	< 370 U	< 360 U
4-Chloroaniline	ug/Kg	220 or MDL	< 360 U	< 370 U	< 360 U
4-Chlorophenyl phenyl ether	ug/Kg	---	< 360 U	< 370 U	< 360 U
4-Methylphenol	ug/Kg	900	< 360 U	< 370 U	< 360 U
4-Nitroaniline	ug/Kg	---	< 900 U	< 880 U	< 910 U
4-Nitrophenol	ug/Kg	100 or MDL	< 900 U	< 880 U	< 910 U
Acenaphthene	ug/Kg	50000	< 360 U	< 370 U	< 360 U
Acenaphthylene	ug/Kg	41000	< 360 U	< 370 U	< 360 U
Anthracene	ug/Kg	50000	< 360 U	< 370 U	< 360 U
Benz(a)anthracene	ug/Kg	224 or MDL	< 360 U	< 370 U	< 360 U
Benzo(a)pyrene	ug/Kg	61 or MDL	< 360 UJ	< 370 U	< 360 U
Benzo(b)fluoranthene	ug/Kg	1100	< 360 UJ	< 370 U	< 360 U
Benzo(g,h,i)perylene	ug/Kg	50000	< 360 UJ	< 370 U	< 360 U
Benzo(k)fluoranthene	ug/Kg	1100	< 360 UJ	< 370 U	< 360 U
Bis(2-chloro-1-methylethyl)ether	ug/Kg	---	< 360 U	< 370 U	< 360 U
Bis(2-chloroethoxy)methane	ug/Kg	---	< 360 U	< 370 U	< 360 U
Bis(2-chloroethyl)ether	ug/Kg	---	< 360 U	< 370 U	< 360 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-10
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	2 - 3.4	2 - 3.4	2 - 3.7
		Location ID	SB-OBG-13	SB-OBG-13	SB-OBG-16
		Sample Date	10/25/2001	10/25/2001	10/25/2001
		Sample ID	SB-OBG-13_10252001N-2	SB-OBG-13_10252001FD-2	SB-OBG-16_10252001N-2
Action Level					
Bis(2-ethylhexyl)phthalate	ug/Kg	50000	470	90 J	210 J
Butyl benzyl phthalate	ug/Kg	50000	< 360 U	< 370 U	< 360 U
Carbazole	ug/Kg	---	< 360 U	< 370 U	< 360 U
Chrysene	ug/Kg	400	< 360 U	< 370 U	< 360 U
Dibenz(a,h)anthracene	ug/Kg	14 or MDL	< 360 UJ	< 370 U	< 360 U
Dibenzofuran	ug/Kg	6200	< 360 U	< 370 U	< 360 U
Dichlorobenzenes (1,2-)	ug/Kg	7900	< 360 U	< 370 U	< 360 U
Dichlorobenzenes (1,3-)	ug/Kg	1600	< 360 U	< 370 U	< 360 U
Dichlorobenzenes (1,4-)	ug/Kg	8500	< 360 U	< 370 U	< 360 U
Diethyl phthalate	ug/Kg	7100	< 360 U	< 370 U	< 360 U
Dimethyl phthalate	ug/Kg	2000	< 360 U	< 370 U	< 360 U
Di-n-butylphthalate	ug/Kg	8100	< 360 U	< 370 U	< 360 U
Di-n-octyl phthalate	ug/Kg	50000	< 360 U	< 370 U	< 360 U
Fluoranthene	ug/Kg	50000	< 360 U	< 370 U	< 360 U
Fluorene	ug/Kg	50000	< 360 U	< 370 U	< 360 U
Hexachlorobenzene	ug/Kg	410	< 360 U	< 370 U	< 360 U
Hexachlorobutadiene	ug/Kg	---	< 360 U	< 370 U	< 360 U
Hexachlorocyclopentadiene	ug/Kg	---	< 360 U	< 370 U	< 360 U
Hexachloroethane	ug/Kg	---	< 360 U	< 370 U	< 360 U
Indeno (1,2,3-cd)pyrene	ug/Kg	3200	< 360 UJ	< 370 U	< 360 U
Isophorone	ug/Kg	4400	< 360 U	< 370 U	< 360 U
Naphthalene	ug/Kg	13000	< 360 U	< 370 U	< 360 U
Nitrobenzene	ug/Kg	200 or MDL	< 360 U	< 370 U	< 360 U
N-Nitrosodiphenylamine	ug/Kg	---	< 360 U	< 370 U	< 360 U
N-Nitrosodipropylamine	ug/Kg	---	< 360 U	< 370 U	< 360 U
Pentachlorophenol	ug/Kg	1000 or MDL	< 900 U	< 880 U	< 910 U
Phenanthrene	ug/Kg	50001	< 360 U	< 370 U	< 360 U
Phenol	ug/Kg	30 or MDL	< 360 U	< 370 U	< 362 U
Pyrene	ug/Kg	50000	< 360 U	< 370 U	< 360 U
Trichlorobenzenes (1,2,4-)	ug/Kg	3400	< 360 U	< 370 U	< 360 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-10
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 1.9	1 - 1.5	0 - 1.5
		Location ID	SB-OBG-18	SS-OBG-14	SS-OBG-14
		Sample Date	10/24/2001	10/26/2001	10/26/2001
		Sample ID	SB-OBG-18_10242001N-1	SS-OBG-14_10262001FD-2	SS-OBG-14_10262001N-2
Action Level					
2,4,5-Trichlorophenol	ug/Kg	100	< 950 U	< 940 U	< 950 U
2,4,6-Trichlorophenol	ug/Kg	---	< 380 U	< 370 U	< 380 U
2,4-Dichlorophenol	ug/Kg	400	< 380 U	< 370 U	< 380 U
2,4-Dimethylphenol	ug/Kg	---	< 380 U	< 370 U	< 380 U
2,4-Dinitrophenol	ug/Kg	200 or MDL	< 950 U	< 940 U	< 950 U
2,4-Dinitrotoluene	ug/Kg	---	< 380 U	< 370 U	< 380 U
2,6-Dinitrotoluene	ug/Kg	1000	< 380 U	< 370 U	< 380 U
2-Chloronaphthalene	ug/Kg	---	< 380 U	< 370 U	< 380 U
2-Chlorophenol	ug/Kg	800	< 380 U	< 370 U	< 380 U
2-Methylnaphthalene	ug/Kg	36400	< 380 U	< 370 U	< 380 U
2-Methylphenol	ug/Kg	100 or MDL	< 380 U	< 370 U	< 380 U
2-Nitroaniline	ug/Kg	430 or MDL	< 950 U	< 940 U	< 950 U
2-Nitrophenol	ug/Kg	330 or MDL	< 380 U	< 370 U	< 380 U
3,3'-Dichlorobenzidine	ug/Kg	---	< 380 U	< 370 U	< 380 U
3-Nitroaniline	ug/Kg	500 or MDL	< 950 U	< 940 U	< 950 U
4,6-Dinitro-2-Methylphenol	ug/Kg	---	< 950 U	< 940 U	< 950 U
4-Bromophenylphenylether	ug/Kg	---	< 380 U	< 370 U	< 380 U
4-chloro-3-Methylphenol	ug/Kg	240 or MDL	< 380 U	< 370 U	< 380 U
4-Chloroaniline	ug/Kg	220 or MDL	< 380 U	< 370 U	< 380 U
4-Chlorophenyl phenyl ether	ug/Kg	---	< 380 U	< 370 U	< 380 U
4-Methylphenol	ug/Kg	900	< 380 U	< 370 U	< 380 U
4-Nitroaniline	ug/Kg	---	< 950 U	< 940 U	< 950 U
4-Nitrophenol	ug/Kg	100 or MDL	< 950 U	< 940 U	< 950 U
Acenaphthene	ug/Kg	50000	< 380 U	< 370 U	< 380 U
Acenaphthylene	ug/Kg	41000	< 380 U	< 370 U	< 380 U
Anthracene	ug/Kg	50000	< 380 U	< 370 U	< 380 U
Benz(a)anthracene	ug/Kg	224 or MDL	44 J	< 370 U	< 380 U
Benzo(a)pyrene	ug/Kg	61 or MDL	52 J	< 370 U	< 380 U
Benzo(b)fluoranthene	ug/Kg	1100	110 J	< 370 U	< 380 U
Benzo(g,h,i)perylene	ug/Kg	50000	< 380 U	< 370 U	< 380 U
Benzo(k)fluoranthene	ug/Kg	1100	< 380 U	< 370 U	< 380 U
Bis(2-chloro-1-methylethyl)ether	ug/Kg	---	< 380 U	< 370 U	< 380 U
Bis(2-chloroethoxy)methane	ug/Kg	---	< 380 U	< 370 U	< 380 U
Bis(2-chloroethyl)ether	ug/Kg	---	< 380 U	< 370 U	< 380 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-10
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Depth Interval (ft)	0 - 1.9	1 - 1.5	0 - 1.5
		Location ID	SB-OBG-18	SS-OBG-14	SS-OBG-14
		Sample Date	10/24/2001	10/26/2001	10/26/2001
		Sample ID	SB-OBG-18_10242001N-1	SS-OBG-14_10262001FD-2	SS-OBG-14_10262001N-2
Action Level					
Bis(2-ethylhexyl)phthalate	ug/Kg	50000	620	< 370 U	< 380 U
Butyl benzyl phthalate	ug/Kg	50000	< 380 U	< 370 U	< 380 U
Carbazole	ug/Kg	---	< 380 U	< 370 U	< 380 U
Chrysene	ug/Kg	400	60 J	< 370 U	< 380 U
Dibenz(a,h)anthracene	ug/Kg	14 or MDL	< 380 U	< 370 U	< 380 U
Dibenzofuran	ug/Kg	6200	< 380 U	< 370 U	< 380 U
Dichlorobenzenes (1,2-)	ug/Kg	7900	< 380 U	< 370 U	< 380 U
Dichlorobenzenes (1,3-)	ug/Kg	1600	< 380 U	< 370 U	< 380 U
Dichlorobenzenes (1,4-)	ug/Kg	8500	< 380 U	< 370 U	< 380 U
Diethyl phthalate	ug/Kg	7100	< 380 U	< 370 U	< 380 U
Dimethyl phthalate	ug/Kg	2000	< 380 U	< 370 U	< 380 U
Di-n-butylphthalate	ug/Kg	8100	< 380 U	< 370 U	< 380 U
Di-n-octyl phthalate	ug/Kg	50000	< 380 U	< 370 U	< 380 U
Fluoranthene	ug/Kg	50000	91 J	41 J	< 380 U
Fluorene	ug/Kg	50000	< 380 U	< 370 U	< 380 U
Hexachlorobenzene	ug/Kg	410	< 380 U	< 370 U	< 380 U
Hexachlorobutadiene	ug/Kg	---	< 380 U	< 370 U	< 380 U
Hexachlorocyclopentadiene	ug/Kg	---	< 380 U	< 370 U	< 380 U
Hexachloroethane	ug/Kg	---	< 380 U	< 370 U	< 380 U
Indeno (1,2,3-cd)pyrene	ug/Kg	3200	< 380 U	< 370 U	< 380 U
Isophorone	ug/Kg	4400	< 380 U	< 370 U	< 380 U
Naphthalene	ug/Kg	13000	< 380 U	< 370 U	< 380 U
Nitrobenzene	ug/Kg	200 or MDL	< 380 U	< 370 U	< 380 U
N-Nitrosodiphenylamine	ug/Kg	---	< 380 U	< 370 U	< 380 U
N-Nitrosodipropylamine	ug/Kg	---	< 380 U	< 370 U	< 380 U
Pentachlorophenol	ug/Kg	1000 or MDL	< 950 U	< 940 U	< 950 U
Phenanthrene	ug/Kg	50001	< 380 U	< 370 U	< 380 U
Phenol	ug/Kg	30 or MDL	< 380 U	< 374 U	< 378 U
Pyrene	ug/Kg	50000	76 J	< 370 U	< 380 U
Trichlorobenzenes (1,2,4-)	ug/Kg	3400	< 380 U	< 370 U	< 380 U

Notes: U - not detected, J - estimated, --- no action level.

Table J-11
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Pesticide Results

Chemical Name	Depth Interval (ft)		0 - 1.3	0 - 2	2 - 2.9	0 - 1.6
	Location ID		SB-OBG-03	SB-OBG-09	SB-OBG-11	SB-OBG-12
	Sample Date		10/24/2001	10/25/2001	10/24/2001	10/23/2001
	Sample ID		SB-OBG-03_10242001N-1	SB-OBG-09_10252001N-1	SB-OBG-11_10242001N-1	SB-OBG-12_10232001N-1
	Unit	Action Level				
4,4'-DDD	ug/Kg	2900	< 3.9 U	< 3.6 U	< 3.8 U	< 1.8 U
4,4'-DDE	ug/Kg	2100	< 3.9 U	3.7	< 3.8 U	< 1.8 U
4,4'-DDT	ug/Kg	2100	< 3.9 U	2.8 JP	< 20 JP	< 1.8 U
a-Chlordane	ug/Kg	---	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
Aldrin	ug/Kg	41	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
alpha-Hexachlorocyclohexane	ug/Kg	110	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
beta-Hexachlorocyclohexane	ug/Kg	---	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
delta-Hexachlorocyclohexane	ug/Kg	300	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
Dieldrin	ug/Kg	44	< 3.9 U	< 3.6 U	< 3.8 U	< 3.5 U
Endosulfan I	ug/Kg	900	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
Endosulfan II	ug/Kg	900	< 3.9 U	< 3.6 U	< 6.7	< 3.5 U
Endosulfan sulfate	ug/Kg	1000	< 3.9 U	< 3.6 U	< 8.4 UJ	< 3.5 U
Endrin	ug/Kg	100	< 3.9 U	< 3.6 U	< 4.9 R	< 3.5 U
Endrin aldehyde	ug/Kg	---	< 3.9 U	< 3.6 U	< 3.8 U	< 3.5 U
Endrin ketone	ug/Kg	---	< 3.9 U	< 3.6 U	< 3.8 U	< 3.5 U
Gamma-Chlordane	ug/Kg	---	< 1.9 U	< 1.8 U	2 JBP	< 1.8 U
gamma-Hexachlorocyclohexane	ug/Kg	60	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
Heptachlor	ug/Kg	100	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
Heptachlor epoxide	ug/Kg	20	< 1.9 U	< 1.8 U	< 1.9 U	< 1.8 U
Methoxychlor	ug/Kg	---	< 19 U	< 18 U	< 1 U	< 18 U
Toxaphene	ug/Kg	---	< 190 U	< 180 U	< 19 U	< 180 U

Notes: U - not detected, J - estimated,

B - detected in associated blank, --- no action level,

P - greater than 25% difference on two GC columns.

Table J-11
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Pesticide Results

Chemical Name	Unit	Depth Interval (ft)	2 - 3.4	2 - 3.4	1 - 1.5
		Location ID	SB-OBG-13	SB-OBG-13	SB-OBG-14
		Sample Date	10/25/2001	10/25/2001	10/26/2001
		Sample ID	SB-OBG-13_10252001N-2	SB-OBG-13_10252001FD-2	SB-OBG-14_10262001FD-2
Action Level					
4,4'-DDD	ug/Kg	2900	< 3.6 U	2 JP	< 3.8 U
4,4'-DDE	ug/Kg	2100	< 3.6 U	< 3.7 U	4.1 JP
4,4'-DDT	ug/Kg	2100	< 3.6 U	1.9 JNP	3.6 J
a-Chlordane	ug/Kg	---	< 1.8 U	< 1.8 U	< 1.9 U
Aldrin	ug/Kg	41	< 1.8 U	< 1.8 U	< 1.9 U
alpha-Hexachlorocyclohexane	ug/Kg	110	< 1.8 U	< 1.8 U	< 1.9 U
beta-Hexachlorocyclohexane	ug/Kg	---	< 1.8 U	< 1.8 U	< 1.9 U
delta-Hexachlorocyclohexane	ug/Kg	300	< 1.8 U	< 1.8 U	< 1.9 U
Dieldrin	ug/Kg	44	< 3.6 U	< 3.7 U	< 3.8 U
Endosulfan I	ug/Kg	900	< 1.8 U	< 1.8 U	< 1.9 U
Endosulfan II	ug/Kg	900	< 3.6 U	< 3.7 U	< 3.8 U
Endosulfan sulfate	ug/Kg	1000	< 3.6 U	< 3.7 U	< 3.8 U
Endrin	ug/Kg	100	< 3.6 U	< 3.7 U	< 3.8 U
Endrin aldehyde	ug/Kg	---	< 3.6 U	< 3.7 U	< 3.8 U
Endrin ketone	ug/Kg	---	< 3.6 U	< 3.7 U	< 3.8 U
Gamma-Chlordane	ug/Kg	---	< 1.8 U	< 1.8 U	< 1.9 U
gamma-Hexachlorocyclohexane	ug/Kg	60	< 1.8 U	< 1.8 U	< 1.9 U
Heptachlor	ug/Kg	100	< 1.8 U	< 1.8 U	< 1.9 U
Heptachlor epoxide	ug/Kg	20	< 1.8 U	< 1.8 U	< 1.9 U
Methoxychlor	ug/Kg	---	< 18 U	< 18 U	< 19 U
Toxaphene	ug/Kg	---	< 180 U	< 180 U	< 190 U

Notes: U - not detected, J - estimated,

B - detected in associated blank, --- no action level,

P - greater than 25% difference on two GC columns.

Table J-11
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - Pesticide Results

Chemical Name	Unit	Depth Interval (ft)	2 - 3.7	0 - 1.9	0 - 1.5
		Location ID	SB-OBG-16	SB-OBG-18	SS-OBG-14
		Sample Date	10/25/2001	10/24/2001	10/26/2001
		Sample ID	SB-OBG-16_10252001N-2	SB-OBG-18_10242001N-1	SS-OBG-14_10262001N-2
Chemical Name	Unit	Action Level			
4,4'-DDD	ug/Kg	2900	< 3.6 U	< 3.8 U	< 3.8 U
4,4'-DDE	ug/Kg	2100	< 3.6 U	< 3.8 U	4.7
4,4'-DDT	ug/Kg	2100	< 3.6 U	< 3.8 U	< 3.8 R
a-Chlordane	ug/Kg	---	< 1.8 U	< 1.9 U	< 1.9 U
Aldrin	ug/Kg	41	< 1.8 U	< 1.9 U	< 1.9 U
alpha-Hexachlorocyclohexane	ug/Kg	110	< 1.8 U	< 1.9 U	< 1.9 U
beta-Hexachlorocyclohexane	ug/Kg	---	< 1.8 U	< 1.9 U	< 1.9 U
delta-Hexachlorocyclohexane	ug/Kg	300	< 1.8 U	< 1.9 U	< 1.9 U
Dieldrin	ug/Kg	44	< 3.6 U	< 3.8 U	< 3.8 U
Endosulfan I	ug/Kg	900	< 1.8 U	< 1.9 U	< 1.9 U
Endosulfan II	ug/Kg	900	< 3.6 U	< 3.8 U	< 3.8 U
Endosulfan sulfate	ug/Kg	1000	< 3.6 U	< 3.8 U	< 3.8 U
Endrin	ug/Kg	100	< 3.6 U	< 3.8 U	< 3.8 U
Endrin aldehyde	ug/Kg	---	< 3.6 U	< 3.8 U	< 3.8 R
Endrin ketone	ug/Kg	---	< 3.6 U	< 3.8 U	< 3.8 U
Gamma-Chlordane	ug/Kg	---	< 1.8 U	< 1.9 U	< 1.9 U
gamma-Hexachlorocyclohexane	ug/Kg	60	< 1.8 U	< 1.9 U	< 1.9 U
Heptachlor	ug/Kg	100	< 1.8 U	< 1.9 U	< 1.9 U
Heptachlor epoxide	ug/Kg	20	< 1.8 U	< 1.9 U	< 1.9 U
Methoxychlor	ug/Kg	---	< 18 U	< 19 U	< 19 U
Toxaphene	ug/Kg	---	< 180 U	< 190 U	< 190 U

Notes: U - not detected, J - estimated,

B - detected in associated blank, --- no action level,

P - greater than 25% difference on two GC columns.

Table J-12
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - PCBs Results

Depth Interval (ft)			0 - 1.3	0 - 2	2 - 2.9	0 - 1.6	2 - 3.4
Location ID			SB-OBG-03	SB-OBG-09	SB-OBG-11	SB-OBG-12	SB-OBG-13
Sample Date			10/24/2001	10/25/2001	10/24/2001	10/23/2001	10/25/2001
Sample ID			SB-OBG-03_10242001N-1	SB-OBG-09_10252001N-1	SB-OBG-11_10242001N-1	SB-OBG-12_10232001N-1	SB-OBG-13_10252001N-2
Chemical Name	Action Level	Unit					
Aroclor-1016	10000	ug/Kg	< 39 U	< 36 U	< 38 U	< 35 U	< 36 U
Aroclor-1221	10000	ug/Kg	< 77 U	< 72 U	< 75 U	< 71 U	< 72 U
Aroclor-1232	10000	ug/Kg	< 39 U	< 36 U	< 38 U	< 35 U	< 36 U
Aroclor-1242	10000	ug/Kg	< 39 U	< 36 U	< 38 U	< 35 U	< 36 U
Aroclor-1248	10000	ug/Kg	< 39 U	< 36 U	< 38 U	< 35 U	< 36 U
Aroclor-1254	10000	ug/Kg	< 39 U	< 36 U	< 38 U	< 35 U	< 36 U
Aroclor-1260	10000	ug/Kg	< 39 U	< 36 U	< 38 U	< 35 U	< 36 U

U - not detected

Table J-12
Revere Smelting and Refining
Walkill, New York
Subsurface Soil - PCBs Results

Depth Interval (ft)			2 - 3.4	1 - 1.5	2 - 3.7	0 - 1.9	0 - 1.5
Location ID			SB-OBG-13	SB-OBG-14	SB-OBG-16	SB-OBG-18	SS-OBG-14
Sample Date			10/25/2001	10/26/2001	10/25/2001	10/24/2001	10/26/2001
Sample ID			SB-OBG-13_10252001FD-2	SB-OBG-14_10262001FD-2	SB-OBG-16_10252001N-2	SB-OBG-18_10242001N-1	SS-OBG-14_10262001N-2
Chemical Name	Action Level	Unit					
Aroclor-1016	10000	ug/Kg	< 37 U	< 38 U	< 36 U	< 38 U	< 38 U
Aroclor-1221	10000	ug/Kg	< 73 U	< 75 U	< 72 U	< 76 U	< 76 U
Aroclor-1232	10000	ug/Kg	< 37 U	< 38 U	< 36 U	< 38 U	< 38 U
Aroclor-1242	10000	ug/Kg	< 37 U	< 38 U	< 36 U	< 38 U	< 38 U
Aroclor-1248	10000	ug/Kg	< 37 U	< 38 U	< 36 U	< 38 U	< 38 U
Aroclor-1254	10000	ug/Kg	< 37 U	< 38 U	< 36 U	< 38 U	< 38 U
Aroclor-1260	10000	ug/Kg	< 37 U	< 38 U	< 36 U	< 38 U	< 38 U

U - not detected

Table J-13
Revere Smelting and Refining
Walkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6
		Location ID	7/12/1991	7/12/1991	7/12/1991	7/12/1991	7/12/1991	7/12/1991
		Sample Date						
		Sample ID Action Level	SED-1_07121991N	SED-2_07121991N	SED-3_07121991N	SED-4_07121991N	SED-5_07121991N	SED-6_07121991N
Aluminum	mg/Kg	SB	---	---	---	---	---	---
Antimony	mg/Kg	SB	44	23	7.9	0.82 J	25	2.7
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---	---
Iron	mg/Kg	2,000 or SB	---	---	---	---	---	---
Lead	mg/kg	SB	1100	460	1800	92	840	180
Magnesium	mg/Kg	SB	---	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---	---
Mercury	mg/Kg	0.1	---	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---	---
pH	su	---	---	---	---	---	---	---
Total Organic Carbon, Filtered	mg/Kg	---	---	---	---	---	---	---

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-13
Revere Smelting and Refining
Walkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	SED-7	SED-7 (DUP)	SED-8	SED-9	0.5 - 1
		Location ID	7/12/1991	7/12/1991	7/12/1991	7/12/1991	SED-P1
		Sample Date	7/12/1991	7/12/1991	7/12/1991	7/12/1991	11/8/2001
		Sample ID Action Level	SED-7_07121991N	SED-7_07121991FD	SED-8_07121991N	SED-9_07121991N	SED-P1_11082001N-2
Aluminum	mg/Kg	SB	---	---	---	---	---
Antimony	mg/Kg	SB	80	63	57	16	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---
Iron	mg/Kg	2,000 or SB	---	---	---	---	---
Lead	mg/kg	SB	3300	3000	1900	1000	39.4 J*
Magnesium	mg/Kg	SB	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---
Mercury	mg/Kg	0.1	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---
pH	su	---	---	---	---	---	---
Total Organic Carbon, Filtered	mg/Kg	---	---	---	---	---	---

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-13
Revere Smelting and Refining
Walkkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	0.5 - 1	SEDRP-01 8/4/2003 SEDRP-01_08042003N
		Location ID	SED-P1	SED-P2	SED-P2	SED-P2	
		Sample Date	11/8/2001	11/8/2001	11/8/2001	11/8/2001	
		Sample ID Action Level	SED-P1_11082001N-1	SED-P2_11082001N-1	SED-P2_11082001FD-1	SED-P2_11082001N-2	
Aluminum	mg/Kg	SB	---	15300	13900	---	---
Antimony	mg/Kg	SB	---	22.9 JN	27.8 JN	---	---
Arsenic	mg/Kg	7.5 or SB	---	24.8	25.9	---	---
Barium	mg/Kg	300 or SB	---	60.6	67	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	0.80 J	0.80 J	---	---
Cadmium	mg/kg	1 or SB	---	1.7 J*	2.1 J*	---	---
Calcium Metal	mg/kg	SB	---	3900 J*	1830 J*	---	---
Chromium	mg/kg	10 or SB	---	22.2 JE	21.3 JE	---	---
Cobalt	mg/kg	30 or SB	---	14.2 JE	13.6 JE	---	---
Copper	mg/kg	25 or SB	---	36.0 JN*	39.0 JN*	---	---
Cyanide	mg/Kg	---	---	< .7 U	< .8 U	---	---
Iron	mg/Kg	2,000 or SB	---	33000	26000	---	---
Lead	mg/kg	SB	62.6 J*	1410 J*	1630 J*	1000 J*	1620
Magnesium	mg/Kg	SB	---	5880	4780	---	---
Manganese	mg/Kg	SB	---	408 JN	402 JN	---	---
Mercury	mg/Kg	0.1	---	< .11 U	< .12 U	---	---
Nickel	mg/Kg	13 or SB	---	32.3	28	---	---
Potassium	mg/kg	SB	---	1120 JE	1220 JE	---	---
Selenium	mg/Kg	2 or SB	---	3.9 JN	3.3 JN	---	---
Silver	mg/Kg	SB	---	< .29 U	< .31 U	---	---
Sodium	mg/Kg	SB	---	97.5 J	93.7 J	---	---
Thallium	mg/Kg	SB	---	< 1.5 U	2.0 J	---	---
Vanadium	mg/Kg	150 or SB	---	22.4	20	---	---
Zinc	mg/Kg	20 or SB	---	88.5	78.3	---	---
pH	su	---	---	---	---	---	---
Total Organic Carbon, Filtered	mg/Kg	---	---	---	---	---	---

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-13
Revere Smelting and Refining
Walkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	SEDRP-02	SEDRP-03	SEDRP-04	SEDRP-05	SEDRP-05
		Location ID Sample Date Sample ID Action Level	8/4/2003 SEDRP-02_08042003N	8/4/2003 SEDRP-03_08042003N	8/4/2003 SEDRP-04_08042003N	8/4/2003 SEDRP-05_08042003N	8/4/2003 SEDRP-05_08042003FD
Aluminum	mg/Kg	SB	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---
Iron	mg/Kg	2,000 or SB	---	---	---	---	---
Lead	mg/kg	SB	1770	621	2180	2240	2340
Magnesium	mg/Kg	SB	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---
Mercury	mg/Kg	0.1	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---
pH	su	---	---	---	---	---	---
Total Organic Carbon, Filtered	mg/Kg	---	---	---	---	---	---

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-13
Revere Smelting and Refining
Walkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	SEDRP-06	0 - 0.5	1 - 2	0 - 0.5	1 - 2
		Location ID	SEDRP-06	SED-S1	SED-S1	SED-S2	SED-S2
		Sample Date	8/4/2003	11/8/2001	11/8/2001	11/8/2001	11/8/2001
		Sample ID	SEDRP-06_08042003N	SED-S1_11082001N-1	SED-S1_11082001N-2	SED-S2_11082001N-1	SED-S2_11082001N-2
Chemical Name	Unit	Action Level					
Aluminum	mg/Kg	SB	---	16300	---	---	---
Antimony	mg/Kg	SB	---	40.8 JN	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	54.5	---	---	---
Barium	mg/Kg	300 or SB	---	57.7	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	1.3	---	---	---
Cadmium	mg/kg	1 or SB	---	11.2 J*	---	---	---
Calcium Metal	mg/kg	SB	---	1940 J*	---	---	---
Chromium	mg/kg	10 or SB	---	20.3 JE	---	---	---
Cobalt	mg/kg	30 or SB	---	53.2 JE	---	---	---
Copper	mg/kg	25 or SB	---	108 JN*	---	---	---
Cyanide	mg/Kg	---	---	< .6 U	---	---	---
Iron	mg/Kg	2,000 or SB	---	36000	---	---	---
Lead	mg/kg	SB	1740	2510 J*	12000 J*	1490 J*	421 J*
Magnesium	mg/Kg	SB	---	6580	---	---	---
Manganese	mg/Kg	SB	---	6290 JN	---	---	---
Mercury	mg/Kg	0.1	---	< .09 U	---	---	---
Nickel	mg/Kg	13 or SB	---	59.8	---	---	---
Potassium	mg/kg	SB	---	897 JE	---	---	---
Selenium	mg/Kg	2 or SB	---	5.6 JN	---	---	---
Silver	mg/Kg	SB	---	< .24 U	---	---	---
Sodium	mg/Kg	SB	---	210 J	---	---	---
Thallium	mg/Kg	SB	---	< 1.2 U	---	---	---
Vanadium	mg/Kg	150 or SB	---	19.3	---	---	---
Zinc	mg/Kg	20 or SB	---	157	---	---	---
pH	su	---	---	---	---	---	---
Total Organic Carbon, Filtered	mg/Kg	---	---	---	---	---	---

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-13
Revere Smelting and Refining
Walkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	1 - 2	0 - 0.5	SEDUS-01	SEDUS-02	SEDUS-03
		Location ID	SED-S3	SED-S3			
		Sample Date	11/8/2001	11/8/2001	8/5/2003	8/5/2003	8/5/2003
		Sample ID	SED-S3_11082001N-2	SED-S3_11082001N-1	SEDUS-01_08052003N	SEDUS-02_08052003N	SEDUS-03_08052003N
Chemical Name	Unit	Action Level					
Aluminum	mg/Kg	SB	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---
Iron	mg/Kg	2,000 or SB	---	---	---	---	---
Lead	mg/kg	SB	77.0 J*	245 J*	981	1140	1110
Magnesium	mg/Kg	SB	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---
Mercury	mg/Kg	0.1	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---
pH	su	---	---	---	---	---	---
Total Organic Carbon, Filtered	mg/Kg	---	---	---	---	---	---

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-13
Revere Smelting and Refining
Walkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	SEDUS-04	SEDUS-05	0 - 0 SEDUS-06	SEDUS-07	SEDUS-08
		Location ID	8/5/2003	8/5/2003	8/5/2003	8/5/2003	8/5/2003
		Sample Date					
		Sample ID Action Level	SEDUS-04_08052003N	SEDUS-05_08052003N	SEDUS-06_08052003N	SEDUS-07_08052003N	SEDUS-08_08052003N
Aluminum	mg/Kg	SB	---	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---	---
Iron	mg/Kg	2,000 or SB	---	---	---	---	---
Lead	mg/kg	SB	597	1150	860	198	94.9
Magnesium	mg/Kg	SB	---	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---	---
Mercury	mg/Kg	0.1	---	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---	---
pH	su	---	---	---	6.8	---	---
Total Organic Carbon, Filtered	mg/Kg	---	---	---	42000	---	---

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-13
Revere Smelting and Refining
Wallkill, New York
Sediment - Inorganic Results

Chemical Name	Unit	Depth Interval (ft)	SEDUS-09	SEDUS-10	SEDUS-11	0 - 0
		Location ID Sample Date Sample ID Action Level	8/5/2003 SEDUS-09_08052003N	8/5/2003 SEDUS-10_08052003N	8/5/2003 SEDUS-11_08052003N	SEDUS-12 8/5/2003 SEDUS-12_08052003N
Aluminum	mg/Kg	SB	---	---	---	---
Antimony	mg/Kg	SB	---	---	---	---
Arsenic	mg/Kg	7.5 or SB	---	---	---	---
Barium	mg/Kg	300 or SB	---	---	---	---
Beryllium	mg/Kg	0.16 (HEAST) or SB	---	---	---	---
Cadmium	mg/kg	1 or SB	---	---	---	---
Calcium Metal	mg/kg	SB	---	---	---	---
Chromium	mg/kg	10 or SB	---	---	---	---
Cobalt	mg/kg	30 or SB	---	---	---	---
Copper	mg/kg	25 or SB	---	---	---	---
Cyanide	mg/Kg	---	---	---	---	---
Iron	mg/Kg	2,000 or SB	---	---	---	---
Lead	mg/kg	SB	80	41.9	46.9	26.9
Magnesium	mg/Kg	SB	---	---	---	---
Manganese	mg/Kg	SB	---	---	---	---
Mercury	mg/Kg	0.1	---	---	---	---
Nickel	mg/Kg	13 or SB	---	---	---	---
Potassium	mg/kg	SB	---	---	---	---
Selenium	mg/Kg	2 or SB	---	---	---	---
Silver	mg/Kg	SB	---	---	---	---
Sodium	mg/Kg	SB	---	---	---	---
Thallium	mg/Kg	SB	---	---	---	---
Vanadium	mg/Kg	150 or SB	---	---	---	---
Zinc	mg/Kg	20 or SB	---	---	---	---
pH	su	---	---	---	---	7.1
Total Organic Carbon, Filtered	mg/Kg	---	---	---	---	31900

Values in bold indicate exceedances

U - not detected, J - estimated, N - matrix spike outside 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-14
 Revere Smelting and Refining
 Walkkill, New York
 Sediment - TCLP Lead Results

Location ID	Chemical Name	Lead	Lead
	Unit	mg/L	mg/L
Sample Date			
SED-1	7/12/1991	0.65	< 0.5 U
SED-2	7/12/1991	0.43 J	< 0.5 U
SED-3	7/12/1991	9.1	0.93
SED-4	7/12/1991	< 0.48 U	1.7
SED-5	7/12/1991	12	3.5
SED-6	7/12/1991	2.7	< 0.5 U
SED-7	7/12/1991	5.3	< 0.5 U
SED-7 (DUP)	7/12/1991	5.2	< 0.5 U
SED-8	7/12/1991	3.8	< 0.5 U
SED-9	7/12/1991	2.3	< 0.5 U

Notes: U - not detected, J - estimated.

Table J-15
Revere Smelting and Refining
Walkill, New York
Sediment - Volatile Organic Compounds Results

Depth Interval (ft)		0 - 0.5	0 - 0.5	0 - 0.5
Location ID		SED-P2	SED-P2	SED-S1
Sample Date		11/8/2001	11/8/2001	11/8/2001
Sample ID		SED-P2_11082001N-1	SED-P2_11082001FD-1	SED-S1_11082001N-1
Chemical Name	Unit			
1,1,1-Trichloroethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
1,1,2,2-Tetrachloroethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
1,1,2-Trichloroethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
1,1-Dichloroethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
1,1-Dichloroethene	ug/Kg	< 14 U	< 15 U	< 12 UJ
1,2-Dichloroethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
1,2-Dichloropropane	ug/Kg	< 14 U	< 15 U	< 12 UJ
2-Hexanone	ug/Kg	< 14 U	< 15 U	< 12 UJ
4-Methyl-2-pentanone	ug/Kg	< 14 U	< 15 U	< 12 UJ
Acetone	ug/Kg	18 J	34 J	< 12 UJ
Benzene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Bromodichloromethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
Bromoform	ug/Kg	< 14 U	< 15 U	< 12 UJ
Bromomethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
Carbon disulfide	ug/Kg	< 14 U	< 15.4 U	< 12 UJ
Carbon tetrachloride	ug/Kg	< 14 U	< 15 U	< 12 UJ
Chlorobenzene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Chloroethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
Chloroform	ug/Kg	< 14 U	< 15 U	< 12 UJ
cis-1,2-Dichloroethene	ug/Kg	< 14 U	< 15 U	< 12 UJ
cis-1,3-Dichloropropene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Dibromochloromethane	ug/Kg	< 14 U	< 15 U	< 12 UJ
Ethylbenzene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Methyl chloride	ug/Kg	< 14 U	< 15 U	< 12 UJ
Methyl ethyl ketone	ug/Kg	< 14 U	< 15 U	< 12 UJ
Methylene chloride	ug/Kg	< 14 U	< 15.4 U	< 12.0 UJ
Styrene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Tetrachloroethene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Toluene	ug/Kg	< 14 U	< 15 U	< 12 UJ
trans-1,2-Dichloroethene	ug/Kg	< 14 U	< 15 U	< 12 UJ
trans-1,3-Dichloropropene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Trichloroethene	ug/Kg	< 14 U	< 15 U	< 12 UJ
Vinyl chloride	ug/Kg	< 14 U	< 15 U	< 12 UJ
Xylenes, Total	ug/Kg	< 14 U	< 15 U	< 12 UJ

Notes: U - not detected, J - estimated.

Table J-16
Revere Smelting and Refining
Walkill, New York
Sediment - Semi-volatile Organic Compounds Results

Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5
Location ID	SED-P2	SED-P2	SED-S1
Sample Date	11/8/2001	11/8/2001	11/8/2001
Sample ID	SED-P2_11082001N-1	SED-P2_11082001FD-1	SED-S1_11082001N-1
Chemical Name	Unit		
2,4,5-Trichlorophenol	ug/Kg	< 1200 U	< 1000 U
2,4,6-Trichlorophenol	ug/Kg	< 480 U	< 400 U
2,4-Dichlorophenol	ug/Kg	< 480 U	< 400 U
2,4-Dimethylphenol	ug/Kg	< 480 U	< 400 U
2,4-Dinitrophenol	ug/Kg	< 1200 U	< 1000 U
2,4-Dinitrotoluene	ug/Kg	< 480 U	< 400 U
2,6-Dinitrotoluene	ug/Kg	< 480 U	< 400 U
2-Chloronaphthalene	ug/Kg	< 480 U	< 400 U
2-Chlorophenol	ug/Kg	< 480 U	< 400 U
2-Methylnaphthalene	ug/Kg	< 480 U	< 400 U
2-Methylphenol	ug/Kg	< 480 U	< 400 U
2-Nitroaniline	ug/Kg	< 1200 U	< 1000 U
2-Nitrophenol	ug/Kg	< 480 U	< 400 U
3,3'-Dichlorobenzidine	ug/Kg	< 480 U	< 400 U
3-Nitroaniline	ug/Kg	< 1200 U	< 1000 U
4,6-Dinitro-2-Methylphenol	ug/Kg	< 1200 U	< 1000 U
4-Bromophenylphenylether	ug/Kg	< 480 U	< 400 U
4-chloro-3-Methylphenol	ug/Kg	< 480 U	< 400 U
4-Chloroaniline	ug/Kg	< 480 U	< 400 U
4-Chlorophenyl phenyl ether	ug/Kg	< 480 U	< 400 U
4-Methylphenol	ug/Kg	< 480 U	< 400 U
4-Nitroaniline	ug/Kg	< 1200 U	< 1000 U
4-Nitrophenol	ug/Kg	< 1200 U	< 1000 U
Acenaphthene	ug/Kg	< 480 U	< 400 U
Acenaphthylene	ug/Kg	< 480 U	< 400 U
Anthracene	ug/Kg	< 480 U	< 400 U
Benz(a)anthracene	ug/Kg	< 480 U	150 J
Benzo(a)pyrene	ug/Kg	< 480 U	120 J
Benzo(b)fluoranthene	ug/Kg	< 480 U	290 J
Benzo(g,h,i)perylene	ug/Kg	< 480 U	45 J
Benzo(k)fluoranthene	ug/Kg	< 480 U	95 J
Bis(2-chloro-1-methylethyl)ether	ug/Kg	< 480 U	< 400 U
Bis(2-chloroethoxy)methane	ug/Kg	< 480 U	< 400 U
Bis(2-chloroethyl)ether	ug/Kg	< 480 U	< 400 U

Bold indicates exceedances, U - not detected, J - estimated.

Table J-16
Revere Smelting and Refining
Walkill, New York
Sediment - Semi-volatile Organic Compounds Results

Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5
Location ID	SED-P2	SED-P2	SED-S1
Sample Date	11/8/2001	11/8/2001	11/8/2001
Sample ID	SED-P2_11082001N-1	SED-P2_11082001FD-1	SED-S1_11082001N-1
Chemical Name	Unit		
Bis(2-ethylhexyl)phthalate	ug/Kg	< 480 U	65 J
Butyl benzyl phthalate	ug/Kg	< 480 U	< 510 U
Carbazole	ug/Kg	< 480 U	< 510 U
Chrysene	ug/Kg	< 480 U	73 J
Dibenz(a,h)anthracene	ug/Kg	< 480 U	< 510 U
Dibenzofuran	ug/Kg	< 480 U	< 510 U
Dichlorobenzenes (1,2-)	ug/Kg	< 480 U	< 510 U
Dichlorobenzenes (1,3-)	ug/Kg	< 480 U	< 510 U
Dichlorobenzenes (1,4-)	ug/Kg	< 480 U	< 510 U
Diethyl phthalate	ug/Kg	< 480 U	< 510 U
Dimethyl phthalate	ug/Kg	< 480 U	< 510 U
Di-n-butylphthalate	ug/Kg	< 480 U	< 510 U
Di-n-octyl phthalate	ug/Kg	< 480 U	< 510 U
Fluoranthene	ug/Kg	56 J	140 J
Fluorene	ug/Kg	< 480 U	< 510 U
Hexachlorobenzene	ug/Kg	< 480 U	< 510 U
Hexachlorobutadiene	ug/Kg	< 480 U	< 510 U
Hexachlorocyclopentadiene	ug/Kg	< 480 U	< 510 U
Hexachloroethane	ug/Kg	< 480 U	< 510 U
Indeno (1,2,3-cd)pyrene	ug/Kg	< 480 U	< 510 U
Isophorone	ug/Kg	< 480 U	< 510 U
Naphthalene	ug/Kg	< 480 U	< 510 U
Nitrobenzene	ug/Kg	< 480 U	< 510 U
N-Nitrosodiphenylamine	ug/Kg	< 480 U	< 510 U
N-Nitrosodipropylamine	ug/Kg	< 480 U	< 510 U
Pentachlorophenol	ug/Kg	< 1200 U	< 1300 U
Phenanthrene	ug/Kg	< 480 U	92 J
Phenol	ug/Kg	< 483 U	< 512 U
Pyrene	ug/Kg	51 J	140 J
Trichlorobenzenes (1,2,4-)	ug/Kg	< 480 U	< 510 U

Bold indicates exceedances, U - not detected, J - estimated.

Table J-17
Revere Smelting and Refining
Walkill, New York
Sediment - Pesticide Results

Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5	
Location ID	SED-P2	SED-P2	SED-S1	
Sample Date	11/8/2001	11/8/2001	11/8/2001	
Sample ID	SED-P2_11082001N-1	SED-P2_11082001FD-1	SED-S1_11082001N-1	
Chemical Name	Unit			
a-Chlordane	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
Aldrin	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
alpha-Hexachlorocyclohexane	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
beta-Hexachlorocyclohexane	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
delta-Hexachlorocyclohexane	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
Dieldrin	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
Endosulfan I	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
Endosulfan II	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
Endosulfan sulfate	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
Endrin	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
Endrin aldehyde	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
Endrin ketone	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
Gamma-Chlordane	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
gamma-Hexachlorocyclohexane	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
Heptachlor	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
Heptachlor epoxide	ug/Kg	< 2.4 U	< 2.6 U	< 2 U
Methoxychlor	ug/Kg	< 24 U	< 26 U	< 20 U
p,p'-DDD	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
p,p'-DDE	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
p,p'-DDT	ug/Kg	< 4.8 U	< 5.1 U	< 4 U
Toxaphene	ug/Kg	< 240 U	< 260 U	< 200 U

Notes: U - not detected.

Table J-18
Revere Smelting and Refining
Walkkill, New York
Sediment - PCBs Results

Chemical Name	Depth Interval (ft)	0 - 0.5	0 - 0.5	0 - 0.5
	Location ID	SED-P2	SED-P2 (DUP)	SED-S1
	Sample Date	11/8/2001	11/8/2001	11/8/2001
	Sample ID	SED-P2_11082001N-1	SED-P2_11082001FD-1	SED-S1_11082001N-1
	Unit			
Aroclor-1016	ug/Kg	< 48 U	< 51 U	< 40 U
Aroclor-1221	ug/Kg	< 97 U	< 100 U	< 81 U
Aroclor-1232	ug/Kg	< 48 U	< 51 U	< 40 U
Aroclor-1242	ug/Kg	< 48 U	< 51 U	< 40 U
Aroclor-1248	ug/Kg	< 48 U	< 51 U	< 40 U
Aroclor-1254	ug/Kg	< 48 U	< 51 U	< 40 U
Aroclor-1260	ug/Kg	< 48 U	< 51 U	< 40 U

Table J-19
Revere Smelting and Refining
Walkill, New York
Ground Water - Inorganic Results

Location ID Sample Date Sample ID			MW-13 11/16/2001 MW-13_11162001N	MW-23D 11/16/2001 MW-23D_11162001N	MW-23S 11/16/2001 MW-23S_11162001N	MW-24 11/15/2001 MW-24_11152001N	MW-25 11/15/2001 MW-25_11152001N	MW-26 11/16/2001 MW-26_11162001N	MW-26 (DUP) 11/16/2001 MW-26_11162001FD
Chemical Name	Unit	Criteria							
Aluminum	ug/L	---	207	85.8 J	906	5120	194 J	537	611
Antimony	ug/L	3	< .0021 U	< .0021 U	2.9 J	< .0021 U	< .0021 U	< .0021 U	< .0021 U
Arsenic	ug/L	25	3.1 J	2.6 J	3.3 J	2.9 J	4 J	3.1 J	3.6 J
Barium	ug/L	1000	15.3 JE	87.1 JE	72.4 JE	21.4 JE	44.4 JE	40.8 JE	40.1 JE
Beryllium	ug/L	3	0.24 J	0.15 J	0.22 J	2.2 J	0.21 J	0.25 J	0.23 J
Cadmium	ug/L	5	2.4 J	< .00037 U	0.46 J	92.8	1.4 J	0.94 J	0.51 J
Calcium Metal	ug/L	---	683000	584000	525000	396000	49200	107000	103000
Chromium	ug/L	50	2 J	6.7 J	5.1 J	6.3 J	2.6 J	4.7 J	3.1 J
Cobalt	ug/L	---	134	< .00072 U	7.6 J	169	6.2 J	50	46.7 J
Copper	ug/L	200	< .00046 U	3.1 J	6.6 J	87	1.4 J	2 J	1.5 J
Iron	ug/L	300	14500	247	1110	764	683	1590	1650
Lead	ug/L	25	3.1 J	< .0015 U	24.8	2.8 J	< .0015 U	3.3 J	4.2
Magnesium	ug/L	35000	153000	105000	92400	118000	9520	19300	18600 J
Manganese	ug/L	300	39300 D	1680	14300	31500 D	5800	21600 D	21000 D
Nickel	ug/L	100	252	3.4 J	10.6 J	308	10.4 J	20.4 J	19.7 J
Potassium	ug/L	---	3230 J	4020 J	5720	10000	2110 J	7960	7660
Selenium	ug/L	10	18.2 J	< .0022 U	6.6 J	19.3 J	3.7 J	10.4 J	10.4 J
Silver	ug/L	50	< .0010 U	< .0010 U	< .0010 U	< .0010 U	< .0010 U	< .0010 U	< .0010 U
Sodium	ug/L	20000	224000	105000	323000	705000	48400	142000	136000
Thallium	ug/L	0.5	5.2 J	< .0051 U	< .0051 U	12.2	< .0051 U	11.8	8.5 J
Vanadium	ug/L	---	< .00069 U	1.4 J	1.9 J	0.69 J	0.69 J	< .00069 U	1 J
Zinc	ug/L	2000	26.6	< .0014 U	10.7 J	496	10.8 J	6.9 J	6.2 J
Mercury	ug/L	0.7	< .00015 U	< .00015 U	< .00015 U	< .00015 U	< .00015 U	< .00015 U	< .00015 U
Cyanide	ug/L	200	< .01 U	< .01 U	< .01 U	< .01 U	< .01 U	< .01 U	< .01 U

Notes: U - not detected, J - estimated, D - Concentration from diluted sample, E - recovery greater than 10% for serial dilution

Table J-20
Revere Smelting and Refining
Walkill, New York
Ground Water - Volatile Organic Compounds Results

Chemical Name	Unit	Location ID	MW-13	MW-23D	MW-23S	MW-24	MW-25	MW-26	MW-26 (DUP)
		Sample Date	11/16/2001	11/16/2001	11/16/2001	11/15/2001	11/15/2001	11/16/2001	11/16/2001
		Sample ID	MW-13_11162001N	MW-23D_11162001N	MW-23S_11162001N	MW-24_11152001N	MW-25_11152001N	MW-26_11162001N	MW-26_11162001FD
Action Level									
1,1,1-Trichloroethane	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1,2,2-Tetrachloroethane	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1,2-Trichloroethane	ug/L	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1-Dichloroethane	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,1-Dichloroethene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichloroethane	ug/L	0.6	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
1,2-Dichloropropane	ug/L	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Hexanone	ug/L	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Methyl-2-pentanone	ug/L		< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Acetone	ug/L	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzene	ug/L	1	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromodichloromethane	ug/L	50	< 10 U	< 10 U	0.8 J	< 10 U	< 10 U	< 10 U	< 10 U
Bromoform	ug/L	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Bromomethane	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Carbon disulfide	ug/L	60	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Carbon tetrachloride	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chlorobenzene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloroethane	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Chloroform	ug/L	7	< 10 U	< 10 U	3 J	1 J	< 10 U	< 10 U	< 10 U
cis-1,2-Dichloroethene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
cis-1,3-Dichloropropene	ug/L	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibromochloromethane	ug/L	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Ethylbenzene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl chloride	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methyl ethyl ketone	ug/L	50	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Methylene chloride	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Styrene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Tetrachloroethene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Toluene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
trans-1,2-Dichloroethene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
trans-1,3-Dichloropropene	ug/L	0.4	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Trichloroethene	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Vinyl chloride	ug/L	2	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U
Xylenes, Total	ug/L	5	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U

Notes: U - not detected, J - estimated

Table J-21
Revere Smelting and Refining
Walkill, New York
Ground Water - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Location ID Sample Date Sample ID Action Level	MW-13	MW-23D	MW-23S	MW-24	MW-25	MW-26	MW-26 (DUP)
			11/16/2001 MW-13_11162001N	11/16/2001 MW-23D_11162001N	11/16/2001 MW-23S_11162001N	11/15/2001 MW-24_11152001N	11/15/2001 MW-25_11152001N	11/16/2001 MW-26_11162001N	11/16/2001 MW-26_11162001FD
2,4,5-Trichlorophenol	ug/L	1 (sum of Phenols)	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
2,4,6-Trichlorophenol	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dichlorophenol	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dimethylphenol	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2,4-Dinitrophenol	ug/L	10	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
2,4-Dinitrotoluene	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2,6-Dinitrotoluene	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chloronaphthalene	ug/L	10	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Chlorophenol	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methylnaphthalene	ug/L	---	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Methylphenol	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
2-Nitroaniline	ug/L	5	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
2-Nitrophenol	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
3,3'-Dichlorobenzidine	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
3-Nitroaniline	ug/L	5	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
4,6-Dinitro-2-Methylphenol	ug/L	1 (sum of Phenols)	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
4-Bromophenylphenylether	ug/L	Unregulated POC	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
4-chloro-3-Methylphenol	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chloroaniline	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Chlorophenyl phenyl ether	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Methylphenol	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
4-Nitroaniline	ug/L	5	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
4-Nitrophenol	ug/L	1 (sum of Phenols)	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
Acenaphthene	ug/L	20	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Acenaphthylene	ug/L	---	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Anthracene	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Benz(a)anthracene	ug/L	0.002	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(a)pyrene	ug/L	ND	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(b)fluoranthene	ug/L	0.002	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(g,h,i)perylene	ug/L	---	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Benzo(k)fluoranthene	ug/L	0.002	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Bis(2-chloro-1-methylethyl)ether	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Bis(2-chloroethoxy)methane	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Bis(2-chloroethyl)ether	ug/L	1	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Bis(2-ethylhexyl)phthalate	ug/L	5	< 10 U	< 10 U	1 J	< 10 U	< 10 U	< 10 U	< 10 U

U - not detected, J - estimated

Table J-21
Revere Smelting and Refining
Walkill, New York
Ground Water - Semi-volatile Organic Compounds Results

Chemical Name	Unit	Location ID Sample Date Sample ID Action Level	MW-13	MW-23D	MW-23S	MW-24	MW-25	MW-26	MW-26 (DUP)
			11/16/2001 MW-13_11162001N	11/16/2001 MW-23D_11162001N	11/16/2001 MW-23S_11162001N	11/15/2001 MW-24_11152001N	11/15/2001 MW-25_11152001N	11/16/2001 MW-26_11162001N	11/16/2001 MW-26_11162001FD
Butyl benzyl phthalate	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Carbazole	ug/L	---	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Chrysene	ug/L	0.002	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenz(a,h)anthracene	ug/L	---	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Dibenzofuran	ug/L	---	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Dichlorobenzenes (1,2-)	ug/L	3	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Dichlorobenzenes (1,3-)	ug/L	3	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Dichlorobenzenes (1,4-)	ug/L	3	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Diethyl phthalate	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Dimethyl phthalate	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-butylphthalate	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Di-n-octyl phthalate	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluoranthene	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Fluorene	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobenzene	ug/L	0.04	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorobutadiene	ug/L	0.5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachlorocyclopentadiene	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Hexachloroethane	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Indeno (1,2,3-cd)pyrene	ug/L	0.002	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Isophorone	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Naphthalene	ug/L	10	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Nitrobenzene	ug/L	0.4	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodiphenylamine	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
N-Nitrosodipropylamine	ug/L	---	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Pentachlorophenol	ug/L	1 (sum of Phenols)	< 25 U	< 25 U	< 27 U	< 25 U	< 26 U	< 25 U	< 25 U
Phenanthrene	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Phenol	ug/L	1 (sum of Phenols)	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Pyrene	ug/L	50	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U
Trichlorobenzenes (1,2,4-)	ug/L	5	< 10 U	< 10 U	< 11 U	< 10 U	< 10 U	< 10 U	< 10 U

U - not detected, J - estimated

Table J-22
Revere Smelting and Refining
Walkill, New York
Ground Water - Pesticide Results

Chemical Name	Location ID		MW-13	MW-23D	MW-23S	MW-24	MW-25	MW-26	MW-26 (DUP)
	Sample Date		11/16/2001	11/16/2001	11/16/2001	11/15/2001	11/15/2001	11/16/2001	11/16/2001
	Sample ID		MW-13_11162001N	MW-23D_11162001N	MW-23S_11162001N	MW-24_11152001N	MW-25_11152001N	MW-26_11162001N	MW-26_11162001FD
Chemical Name	Unit	Action Level							
a-Chlordane	ug/L	0.05	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
Aldrin	ug/L	ND	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
alpha-Hexachlorocyclohexane	ug/L	0.01	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
beta-Hexachlorocyclohexane	ug/L	0.04	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
delta-Hexachlorocyclohexane	ug/L	0.04	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
Dieldrin	ug/L	0.004	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endosulfan I	ug/L	---	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
Endosulfan II	ug/L	---	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endosulfan sulfate	ug/L	---	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endrin	ug/L	ND	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endrin aldehyde	ug/L	0.5	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Endrin ketone	ug/L	5	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Gamma-Chlordane	ug/L	0.05	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
gamma-Hexachlorocyclohexane	ug/L	0.05	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
Heptachlor	ug/L	0.04	< 0.05 U	< 0.051 U	0.033 BJ	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
Heptachlor epoxide	ug/L	0.03	< 0.05 U	< 0.051 U	< 0.052 U	< 0.05 U	< 0.051 U	< 0.051 U	< 0.051 U
Methoxychlor	ug/L	35	< 0.5 U	< 0.51 U	< 0.52 U	< 0.5 U	< 0.51 U	< 0.51 U	< 0.51 U
p,p'-DDD	ug/L	0.3	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
p,p'-DDE	ug/L	0.2	< 0.1 U	< 0.1 U	< 0.01 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
p,p'-DDT	ug/L	0.2	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Toxaphene	ug/L	0.09	< 5 U	< 5.1 U	< 5.2 U	< 5 U	< 5.1 U	< 5.1 U	< 5.1 U

Notes: U - not detected, B - detected in associated blank.

Table J-23
Revere Smelting and Refining
Walkill, New York
Ground Water - PCBs Results

Location ID			MW-13	MW-23D	MW-23S	MW-24	MW-25	MW-26	MW-26 (DUP)
Sample Date			11/16/2001	11/16/2001	11/16/2001	11/15/2001	11/15/2001	11/16/2001	11/16/2001
Sample ID			MW-13_11162001N	MW-23D_11162001N	MW-23S_11162001N	MW-24_11152001N	MW-25_11152001N	MW-26_11162001N	MW-26_11162001FD
Chemical Name	Unit	Action Level							
Aroclor-1016	ug/L	0.09	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Aroclor-1221	ug/L	0.09	< 2 U	< 2 U	< 2.1 U	< 2 U	< 2 U	< 2 U	< 2 U
Aroclor-1232	ug/L	0.09	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Aroclor-1242	ug/L	0.09	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Aroclor-1248	ug/L	0.09	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Aroclor-1254	ug/L	0.09	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U
Aroclor-1260	ug/L	0.09	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U

U - not detected.

Table J-24
 Revere Smelting and Refining
 Walkill, New York
 Ground Water - Alkalinity Results

Location ID	Chemical Name	Alkalinity (As CaCO ₃)
	Sample Date	mg/L
MW-13	11/16/2001	290
MW-23D	11/16/2001	210
MW-23S	11/16/2001	460
MW-24	11/15/2001	26
MW-25	11/15/2001	60
MW-26	11/16/2001	150
MW-26 (DUP)	11/16/2001	150

Table J-25
Revere Smelting and Refining
Walkill, New York
Sieve Analysis - Inorganic Results

Location ID Sample ID Sample Date Unit	Eastern USA Background mg/Kg	NYS TAGM Recommended Criteria mg/Kg	Sieve#1 - #60 Sieve1_11162001N-2 11/16/2001 mg/Kg	Sieve#1 + #60 Sieve1_11162001N-1 11/16/2001 mg/Kg	Sieve#2 - #60 Sieve2_11162001N-2 11/16/2001 mg/Kg	Sieve#2 + #60 Sieve2_11162001N-1 11/16/2001 mg/Kg	Sieve#2 + #60 DUP Sieve2_11162001FD-1 11/16/2001 mg/Kg
Chemical Name							
Aluminum (Fume Or Dust)	33,000	SB	14400	15100	12200	14400	14200
Antimony	N/A	SB	13.3	30.3	< 0.42 U	0.72 J	6.3 J
Arsenic	3 - 12 **	7.5 or SB	20.2	20.7	7.3	8.4	9.9
Barium	15 - 600	300 or SB	74.2	94.0	42.0	39.2 J	38.5 J
Beryllium	0 - 1.75	0.16 or SB	0.83 J	1.1	0.66 J	0.75 J	0.73 J
Cadmium	0.1 - 1	1 or SB	0.78 J	[1.8]	0.093 J	0.080 J	0.11 J
Calcium Metal	130 - 35,000	SB	3510	7970	1170	1270	1320
Chromium	1.5 - 40 **	10 or SB	20.1	22.0	15.3	19.2	18.8
Cobalt	2.5 - 60 **	30 or SB	14.2	13.9	9.5 J	11.4	12.1
Copper	1 - 50	25 or SB	[159]	42.0	[66.8]	43.9	42.1
Iron	2,000 - 550,000	2000 or SB	29700	32800	24900	30500	29800
Lead	****	SB ****	< 0.304 R	< 0.304 R	< 0.303 R	< 0.303 R	< 0.303 R
Magnesium	100 - 5,000	SB	[5080]	[6510]	4520	[6060]	[5950]
Manganese	50 - 5,000	SB	658	673	700	756	778
Nickel	0.2 - 25	13 or SB	[26.1]	[27.4]	19.9	24.4	23.5
Potassium	8,500 - 43,000 **	SB	1080	1140	992 J	1140	1030
Selenium	0.1 - 3.9	2 or SB	0.96 J	1.3	0.58 J	0.66 J	< 0.44 U
Silver	N/A	SB	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U	< 0.20 U
Sodium	6,000 - 8,000	SB	84.8 J	89.6 J	218 J	198 J	183 J
Thallium	N/A	SB	< 1.0 U	1.4 J	< 1.0 U	< 1.0 U	1.2 J
Vanadium (Fume Or Dust)	1 - 300	150 or SB	20.7	21.8	17.3	20.7	20.7
Zinc	9 - 50	20 or SB	[101]	[94.3]	[73.5]	[75.4]	[72.8]

Notes:

- Bold values exceed NYS TAGM Recommended Soil Cleanup Criteria.

- Values in brackets [##] exceed Eastern USA Background

** - New York State Background

**** - Background level for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm.

Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

U - not detected, J - estimated, R - rejected.

Table J-25
Revere Smelting and Refining
Walkill, New York
Sieve Analysis - Inorganic Results

Location ID Sample ID Depth Interval Sample Date Unit	Eastern USA Background mg/Kg	NYS TAGM Recommended Soil Cleanup Criteria mg/Kg	Sieve#3 - #60 Sieve3_11162001N-2 11/16/2001 mg/Kg	Sieve#3 + #60 Sieve3_11162001N-1 11/16/2001 mg/Kg	Sieve#4 - #60 Sieve4_11162001N-2 11/16/2001 mg/Kg	Sieve#4 + #60 Sieve4_11162001N-1 11/16/2001 mg/Kg
Chemical Name						
Aluminum (Fume Or Dust)	33000	SB	8770	11400	8870	9520
Antimony	N/A	SB	42.7	1490	791	1880
Arsenic	3 - 12 **	7.5 or SB	31.8	140	313	361
Barium	15 - 600	300 or SB	44.1	68.5	163	96.0
Beryllium	0 - 1.75	0.16 or SB	0.50 J	0.68 J	0.54 J	0.54 J
Cadmium	0.1 - 1	1 or SB	[1.7]	[2.4]	[10.4]	[16.9]
Calcium Metal	130 - 35,000	SB	1510	1910	25000	8980
Chromium	1.5 - 40 **	10 or SB	13.2	16.9	14.9	16.7
Cobalt	2.5 - 60 **	30 or SB	6.7 J	8.1 J	9.9 J	9.3 J
Copper	1 - 50	25 or SB	[65.1]	[74.4]	[191]	[114]
Iron	2,000 - 550,000	2000 or SB	20100	25900	22500	25600
Lead	****	SB ****	< .302 R	< .305 R	< .307 R	< .303 R
Magnesium	100 - 5,000	SB	3440	4260	3910	4840
Manganese	50 - 5,000	SB	360	428	706	648
Nickel	0.2 - 25	13 or SB	18.1	21.6	[29.3]	[38.3]
Potassium	8,500 - 43,000 **	SB	771 J	852 J	937 J	944 J
Selenium	0.1 - 3.9	2 or SB	0.91 J	0.96 J	0.99 J	0.99 J
Silver	N/A	SB	< .20 U	0.80 J	0.68 J	0.38 J
Sodium	6,000 - 8,000	SB	27.6 J	40.1 J	59.2 J	86.0 J
Thallium	N/A	SB	< 1.0 U	1.4 J	< 1.0 U	< 1.0 U
Vanadium (Fume Or Dust)	1 - 300	150 or SB	13.4	16.8	14.4	15.4
Zinc	9 - 50	20 or SB	[64.0]	[67.3]	[98.8]	[86.9]

Notes:

- Bold values exceed NYS TAGM Recommended Soil Cleanup Criteria.

- Values in brackets [##] exceed Eastern USA Background

** - New York State Background

**** - Background level for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm.

Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

U - not detected, J - estimated, R - rejected.

Table J-26
Revere Smelting and Refining
Walkill, New York
Excavation Area - Inorganic Results

	Unit	Location ID	EX-1	EX-1	EX-2	EX-2	SED-2	SED-2
		Sample Date	11/8/2001	11/8/2001	11/8/2001	11/8/2001	11/29/2005	11/29/2005
		Sample ID	EX-1_11082001N-2	EX-1_11082001N-1	EX-2_11082001N-2	EX-2_11082001N-1	SEDOBG2D_L	SEDOBG2_L
		Depth Interval (ft)	0.5 - 1.0	0.0 - 0.5	0.5 - 1.0	0.0 - 0.5		
Chemical Name		Action Level						
Aluminum (Fume Or Dust)	mg/Kg	SB	-	17200	-	-	12800 EJ	13100 EJ
Antimony	mg/Kg	SB	-	20.6 JN	-	-	746 NJ	370 NJ
Arsenic	mg/Kg	7.5 or SB	-	69.1	-	-	465 *EJ	332 *EJ
Barium	mg/Kg	300 or SB	-	85.6	-	-	147	149
Beryllium	mg/Kg	0.16 (HEAST) or SB	-	0.93 J	-	-	0.74 EJ	0.73 EJ
Cadmium	mg/Kg	1 or SB	-	6.0 J*	-	-	19.5 *J	17.2 *J
Calcium Metal	mg/Kg	SB	-	1530 J*	-	-	30600 *EJ	28700 EJ
Chromium	mg/Kg	10 or SB	-	22.6 JE	-	-	28 EJ	25.3 EJ
Cobalt	mg/Kg	30 or SB	-	13.4 JE	-	-	10.9 *EJ	10.3 *EJ
Copper	mg/Kg	25 or SB	-	156 JN*	-	-	449 EJ	399 EJ
Cyanide	mg/Kg	---	-	< .6 U	-	-	-	-
Iron	mg/Kg	2,000 or SB	-	25600	-	-	28600	31500
Lead	mg/Kg	SB ****	607 J*	1300 J*	306 J*	2130 J*	42300 *EJ	32800 *EJ
Magnesium	mg/Kg	SB	-	4610	-	-	3970 EJ	4200 EJ
Manganese	mg/Kg	SB	-	298 JN	-	-	463 *EJ	437 *ER
Mercury	mg/Kg	0.1	-	< .09 U	-	-	0.38	0.17
Nickel	mg/Kg	13 or SB	-	33	-	-	65 EJ	65.6 EJ
Potassium	mg/Kg	SB	-	1380 JE	-	-	954 EJ	959 EJ
Selenium	mg/Kg	2 or SB	-	2.0 JN	-	-	4.4	4.1
Silver	mg/Kg	SB	-	< .25 U	-	-	0.72 B	0.65 B
Sodium	mg/Kg	SB	-	389 J	-	-	292 *J	266 *J
Thallium	mg/Kg	SB	-	< 1.3 U	-	-	2.2	2.2
Vanadium (Fume Or Dust)	mg/Kg	150 or SB	-	25	-	-	28 EJ	25.9 EJ
Zinc	mg/Kg	20 or SB	-	102	-	-	130 EJ	111 EJ

Notes:

- Bold values exceed NYS TAGM Recommended Soil Cleanup Criteria.

**** - Background level for lead vary widely. Average levels in undeveloped, rural areas may range from 4-61 ppm.

Average background levels in metropolitan or suburban areas or near highways are much higher and typically range from 200-500 ppm.

U - not detected, J - estimated, R - rejected, N - matrix spike outside of 75-125% limit,

E - recovery greater than 10% for serial dilution, * - RPD greater than 20%.

Table J-27
Revere Smelting and Refining
Wallkill, New York
Excavation Area - TLCP Inorganic Results

Chemical Name	Location ID	SED-1	SED-1	SED-2	SED-3	SED-4
	Sample Date	11/29/2005	11/29/2005	11/29/2005	11/29/2005	11/29/2005
	Sample ID	SEDOBG1D_L	SEDOBG1_L	SEDOBG2_L	SEDOBG3_L	SEDOBG4_L
	Unit					
Arsenic	ug/L	149	267	-	-	-
Barium	ug/L	867	809	-	-	-
Cadmium	ug/L	98.3	124	-	-	-
Chromium	ug/L	2.1 B	2.2 B	-	-	-
Lead	ug/L	377000	399000	6080	8720	6100
Mercury	ug/L	< 0.071 U	< 0.068 U	-	-	-
Selenium	ug/L	19.3 B	16.9 B	-	-	-
Silver	ug/L	< 0.91 U	< 0.91 U	-	-	-

Table J-28
Revere Smelting and Refining
Wallkill, New York
Excavation Area - Volatile Organic Compounds Results

		Location ID	EX-1
		Sample Date	11/8/2001
		Sample ID	EX-1_11082001N-1
		Depth Interval (ft)	0.0 - 0.5
Chemical Name	Unit	Action Level	
1,1,1-Trichloroethane	ug/Kg	800	< 13 U
1,1,2,2-Tetrachloroethane	ug/Kg	600	< 13 UJ
1,1,2-Trichloroethane	ug/Kg	NA	< 13 U
1,1-Dichloroethane	ug/Kg	200	< 13 U
1,1-Dichloroethylene	ug/Kg	400	< 13 U
1,2-Dichloroethane	ug/Kg	100	< 13 U
1,2-Dichloropropane	ug/Kg	NA	< 13 U
2-Butanone (MEK)	ug/Kg	300	12 J
4-Methyl-2-Pentanone (MIBK)	ug/Kg	1000	< 13 UJ
Acetone	ug/Kg	200	37 J
Benzene	ug/Kg	60	< 13 U
Bromodichloromethane	ug/Kg	NA	< 13 U
Bromomethane	ug/Kg	NA	< 13 U
Carbon Disulfide	ug/Kg	2700	< 12.7 U
Carbon Tetrachloride	ug/Kg	600	< 13 U
Chlorobenzene	ug/Kg	1700	< 13 UJ
Chlorodibromomethane	ug/Kg	NA	< 13 U
Chloroethane	ug/Kg	1900	< 13 U
Chloroform	ug/Kg	300	< 13 U
Chloromethane	ug/Kg	NA	< 13 U
Cis-1,2-Dichloroethene	ug/Kg	NA	< 13 U
Cis-1,3-Dichloropropylene	ug/Kg	NA	< 13 U
Dichloromethane	ug/Kg	100	< 12.7 U
Ethylbenzene	ug/Kg	5500	< 13 UJ
Methyl N-Butyl Ketone	ug/Kg	NA	< 13 UJ
Methylbenzene	ug/Kg	1500	2 J
Styrene (Monomer)	ug/Kg	NA	< 13 UJ
Tetrachloroethene	ug/Kg	1400	< 13 UJ
Trans-1,2-Dichloroethene	ug/Kg	300	< 13 U
Trans-1,3-Dichloropropene	ug/Kg	NA	< 13 U
Tribromomethane	ug/Kg	NA	< 13 U
Trichloroethylene	ug/Kg	700	< 13 U
Vinyl Chloride	ug/Kg	200	< 13 U
Xylene (Total)	ug/Kg	1200	< 13 UJ

Notes: U - not detected, J - estimated.

Table J-29
Revere Smelting and Refining
Wallkill, New York
Excavation Area - Semi-Volatile Organic Compounds Results

			Location ID	EX-1
			Sample Date	11/8/2001
			Sample ID	EX-1_11082001N-1
			Depth Interval (ft)	0.0 - 0.5
Chemical Name	Unit	Action Level	Unit	
1,2,4-Trichlorobenzene	ug/Kg	3400	ug/Kg	< 420 U
1,2-Benzphenanthracene	ug/Kg	400	ug/Kg	< 420 U
1,2-Dichlorobenzene	ug/Kg	7900	ug/Kg	< 420 U
1,4-Dichlorobenzene	ug/Kg	8500	ug/Kg	< 420 U
2,4,5-Trichlorophenol	ug/Kg	100	ug/Kg	< 1100 U
2,4,6-Trichlorophenol	ug/Kg	NA	-	< 420 U
2,4-Dichlorophenol	ug/Kg	400	ug/Kg	< 420 U
2,4-Dimethylphenol	ug/Kg	NA	-	< 420 U
2,4-Dinitrophenol	ug/Kg	200 or MDL	ug/Kg	< 1100 U
2,4-Dinitrotoluene	ug/Kg	NA	-	< 420 U
2,6-Dinitrotoluene	ug/Kg	1000	ug/Kg	< 420 U
2-Chloronaphthalene	ug/Kg	NA	-	< 420 U
2-Chlorophenol	ug/Kg	800	ug/Kg	< 420 U
2-Methylnaphthalene	ug/Kg	36400	ug/Kg	< 420 U
2-Methylphenol	ug/Kg	100 or MDL	ug/Kg	< 420 U
2-Nitroaniline	ug/Kg	430 or MDL	ug/Kg	< 1100 U
2-Nitrophenol	ug/Kg	330 or MDL	ug/Kg	< 420 U
3,3'-Dichlorobenzidine	ug/Kg	NA	ug/Kg	< 420 U
3,5,5-Trimethyl-2-Cyclohexene-1-One	ug/Kg	4400	ug/Kg	< 420 U
3-Nitroaniline	ug/Kg	500 or MDL	ug/Kg	< 1100 U
4,6-Dinitro-2-Methylphenol	ug/Kg	NA	-	< 1100 U
4-Bromophenyl Phenyl Ether	ug/Kg	NA	-	< 420 U
4-Chloro-3-Methylphenol	ug/Kg	240 or MDL	ug/Kg	< 420 U
4-Chlorophenyl Phenyl Ether	ug/Kg	NA	-	< 420 U
4-Methylphenol	ug/Kg	900	ug/Kg	< 420 U
4-Nitrophenol	ug/Kg	100 or MDL	ug/Kg	< 1100 U
Acenaphthene	ug/Kg	50000 ***	ug/Kg	< 420 U
Acenaphthylene	ug/Kg	41000	ug/Kg	< 420 U
Anthracene	ug/Kg	50000 ***	ug/Kg	< 420 U
Benzo(a)Anthracene	ug/Kg	224 or MDL	ug/Kg	< 420 U
Benzo(b)Fluoranthene	ug/Kg	1100	ug/Kg	< 420 U
Benzo(ghi)Perylene	ug/Kg	50000 ***	ug/Kg	< 420 U
Benzo(k)Fluoranthene	ug/Kg	1100	ug/Kg	< 420 U
Benzo[a]Pyrene	ug/Kg	61 or MDL	ug/Kg	< 420 U
Benzyl Butyl Phthalate	ug/Kg	50000 ***	ug/Kg	< 420 U
Bis(2-Chloroethoxy)Methane	ug/Kg	NA	-	< 420 U
Bis(2-Chloroethyl)Ether	ug/Kg	NA	-	< 420 U
Bis(2-Chloroisopropyl) Ether	ug/Kg	NA	-	< 420 U
Bis(2-Ethylhexyl)Phthalate (BEHP)	ug/Kg	50000 ***	ug/Kg	49 J
Carbazole	ug/Kg	NA	-	< 420 U
Dibenzo(a,h)Anthracene	ug/Kg	14 or MDL	ug/Kg	< 420 U
Dibenzofuran	ug/Kg	6200	ug/Kg	< 420 U
Diethyl Phthalate	ug/Kg	7100	ug/Kg	< 420 U
Dimethyl Phthalate	ug/Kg	2000	ug/Kg	< 420 U
Di-N-Butyl Phthalate	ug/Kg	8100	ug/Kg	< 420 U
Di-N-Octyl Phthalate	ug/Kg	50000 ***	ug/Kg	< 420 U
Fluoranthene	ug/Kg	50000 ***	ug/Kg	< 420 U
Fluorene	ug/Kg	50000 ***	ug/Kg	< 420 U
Hexachloro-1,3-Butadiene	ug/Kg	NA	-	< 420 U
Hexachlorobenzene	ug/Kg	410	ug/Kg	< 420 U

Notes: U - not detected, J - estimated.

Table J-29
Revere Smelting and Refining
Wallkill, New York
Excavation Area - Semi-Volatile Organic Compounds Results

				Location ID	EX-1
				Sample Date	11/8/2001
				Sample ID	EX-1_11082001N-1
				Depth Interval (ft)	0.0 - 0.5
Chemical Name	Unit	Action Level	Unit		
Hexachlorocyclopentadiene	ug/Kg	NA	-	< 420 U	
Hexachloroethane	ug/Kg	NA	-	< 420 U	
Indeno(1,2,3-cd)Pyrene	ug/Kg	3200	ug/Kg	< 420 U	
M-Dichlorobenzene	ug/Kg	1600	ug/Kg	< 420 U	
Naphthalene	ug/Kg	13000	ug/Kg	< 420 U	
Nitrobenzene	ug/Kg	200 or MDL	ug/Kg	< 420 U	
N-Nitrosodiphenylamine	ug/Kg	NA	-	< 420 U	
N-Nitrosodipropylamine	ug/Kg	NA	-	< 420 U	
P-Chloroaniline	ug/Kg	220 or MDL	ug/Kg	< 420 U	
Pentachlorophenol	ug/Kg	1000 or MDL	ug/Kg	< 1100 U	
Phenanthrene	ug/Kg	50000 ***	ug/Kg	< 420 U	
Phenol	ug/Kg	30 or MDL	ug/Kg	< 422 U	
P-Nitroaniline	ug/Kg	NA	-	< 1100 U	
Pyrene	ug/Kg	50000 ***	ug/Kg	< 420 U	

Notes: U - not detected, J - estimated.

Table J-30
Revere Smelting and Refining
Walkill, New York
Excavation Area - Pesticide Results

		Location ID	EX-1
		Sample Date	11/8/2001
		Sample ID	EX-1_11082001N-1
		Depth Interval (ft)	0.0 - 0.5
Chemical Name	Unit	Action Level Text	
Methoxychlor	ug/Kg	***	< 21 U
4,4'-DDD	ug/Kg	2.9	3.8 J
4,4'-DDE	ug/Kg	2.1	19
4,4'-DDT	ug/Kg	2.1	< 4.2 U
A-Chlordane	ug/Kg	NA	< 2.1 U
Aldrin	ug/Kg	0.041	< 2.1 U
Alpha-BHC	ug/Kg	0.11	< 2.1 U
Beta-BHC	ug/Kg	NA	< 2.1 U
Camphechlor	ug/Kg	NA	< 210 U
Delta-Bhc	ug/Kg	0.3	< 2.1 U
Dieldrin	ug/Kg	0.044	< 4.2 U
Endosulfan I	ug/Kg	0.9	< 2.1 U
Endosulfan II	ug/Kg	0.9	< 4.2 U
Endosulfan Sulfate	ug/Kg	1	< 4.2 U
Endrin	ug/Kg	0.1	< 4.2 U
Endrin Aldehyde	ug/Kg	NA	< 4.2 U
Endrin Ketone	ug/Kg	NA	< 4.2 U
Gamma-BHC (Lindane)	ug/Kg	0.06	< 2.1 U
Gamma-Chlordane	ug/Kg	NA	< 2.1 U
Heptachlor	ug/Kg	0.1	< 2.1 U
Heptachlor Epoxide	ug/Kg	0.02	< 2.1 U

Values in bold are exceedances
U - not detected, J - estimated.

Table J-31
 Revere Smelting and Refining
 Wallkill, New York
 Excavation Area - PCBs Results

		Location ID	EX-1
		Sample Date	11/8/2001
		Sample ID	EX-1_11082001N-1
		Depth Interval (ft)	0.0 - 0.5
Chemical Name	Unit	Action Level	
Aroclor 1016	ug/Kg	10,000	< 42 U
Aroclor 1221	ug/Kg	10,000	< 84 U
Aroclor 1232	ug/Kg	10,000	< 42 U
Aroclor 1242	ug/Kg	10,000	< 42 U
Aroclor 1248	ug/Kg	10,000	< 42 U
Aroclor 1254	ug/Kg	10,000	< 42 U
Aroclor 1260	ug/Kg	10,000	< 42 U

U - not detected

Data validation Report

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Soil Lead Analyses

Samples Received October 17th through 20th, 2001

Sample Delivery Group: 0244

Laboratory Reference Numbers:

Received 10/17

SS-TP-2(1.3'-1.5'BS)	T3656
SS-TP-3(2.5'BS)	T3657
SS-TP-5(1.2'BS)	T3658
SS-TP-6(1.5'BS)	T3659

Received 10/19

SS-TP-7(2.2'BS)	T3835
SS-TP-8(3'BS)	T3836
SS-TP-9(1.4'BS)	T3837
SS-TP-9(1.4'BS)	T3837MS
SS-TP-9(1.4'BS)	T3837D
SS-TP-14(0.9'BS)	T3838
SS-TP-11(6.0'BS)	T3839
SS-TP-12(0.9'BS)	T3840
SS-X-1	T3841

Received 10/20

SS-OBG-35(0-2"BS)	T3935
SS-OBG-34(0-2"BS)	T3936
SS-OBG-34(0-2"BS)	T3936MS
SS-OBG-34(0-2"BS)	T3936D
SS-OBG-26(0-2"BS)	T3937
SS-OBG-27(0-2"BS)	T3938
SS-OBG-24(0-2"BS)	T3939
SS-OBG-25(0-2"BS)	T3940
SS-OBG-22(0-2"BS)	T3941
SS-OBG-23(0-2"BS)	T3942
SS-OBG-9(0-2"BS)	T3943
SS-OBG-8(0-2"BS)	T3944
SS-OBG-10(0-2"BS)	T3945
SS-X-2	T3946

Soil samples were received for total lead analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
- * - CRDL Standard
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
- * - Field Blanks
- * - Equipment Blanks
- * - Preparation Blanks
- * - Matrix Spike
 - Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

Severe problems were found with the precision data:

Samples SS-TP-9(1.4'BS) (Lab. #:T3837) and SS-OBG-34(0-2"BS) (Lab. #: T3936) were used as the two matrix duplicates. In both these cases, the RPDs were greater than 20% (190% and 60%).

The replicate values for sample SS-TP-9(1.4'BS) (Lab. #:T3837) were 2,600 mg/kg and 1,400 mg/kg.

The accuracy of these values is very questionable when the spiked sample result is examined (10,800 mg/kg). Since such a low matrix spike was added (4 mg/kg) the value for the spiked sample result should be considered to be another duplicate value. A range of concentrations from 1,400 mg/kg to 10,800 mg/kg results in the data being very questionable.

The replicate values for sample SS-OBG-34(0-2"BS) (Lab. #: T3936) were 1,400 mg/kg and 29 mg/kg.

The accuracy of these values is very questionable. The spiked sample result of 1,400 mg/kg supported the accuracy of the higher duplicate value. A range of concentration from 29 mg/kg to 1400 mg/kg results in the data being very questionable.

All of the lead data was flagged with the "R" qualifier and footnoted with #43 in the data validation summary table. These values should be examined in terms of the data quality objectives to determine the effect of the poor precision data.

No other problems were found which would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Lead was not detected in the preparation blanks at concentrations above the IDL (1.5 ug/l).

Calibration Blanks

Lead was not detected in the calibration blanks at concentrations above the IDL (1.5 ug/l).

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Two matrix spikes were analyzed with this sample delivery group.

Samples SS-TP-9(1.4'BS) (Lab. #:T3837) and SS-OBG-34(0-2"BS) (Lab. #: T3936) were used as the two matrix spikes.

In both these cases, the concentration of the lead spike added (4 mg/kg) was too low in relation to the sample lead concentrations (1370 mg/kg and 2590 mg/kg) to determine a meaningful recovery.

The problem with the recovery of sample SS-TP-9(1.4'BS) (Lab. #:T3837) should be noted. The sample concentration was reported as 2,600 mg/kg, but the spiked sample concentration was 10,800 mg/kg.

Duplicate Analysis

Two matrix duplicates were analyzed with this sample delivery group.

Samples SS-TP-9(1.4'BS) (Lab. #:T3837) and SS-OBG-34(0-2"BS) (Lab. #: T3936) were used as the two matrix duplicates.

In both these cases, the RPDs were greater than 20% (190% and 60%.

The replicate values for sample SS-TP-9(1.4'BS) (Lab. #:T3837) were 2,600 mg/kg and 1,400 mg/kg.

The accuracy of these values is very questionable when the spiked sample result is examined (10,800 mg/kg). Since such a low matrix spike was added (4 mg/kg) the value for the spiked sample result should be considered to be another duplicate value. Having a range of concentrations for this sample from 1400 mg/kg to 10,800 mg/kg results in the data being very questionable.

The replicate values for sample SS-OBG-34(0-2"BS) (Lab. #: T3936) were 1,400 mg/kg and 29 mg/kg.

The accuracy of these values is very questionable. The spiked sample result of 1,400 mg/kg supported the accuracy of the higher duplicate value.

Having a range of concentrations for this sample from 29 mg/kg to 1400 mg/kg results in the data being very questionable.

All of the lead data was flagged with the "R" qualifier and footnoted with #43 in the data validation summary table. These values should be examined in terms of the data quality objectives to determine the effect of the poor precision data.

Laboratory Control Sample

No problems were detected with the recoveries of the three LCS standards.

Serial Dilutions

Samples SB-OBG-17(0'-1.6'BS) (Lab. #: T4418), SB-OBG-28(0'-2'BS) (Lab. #: T4437) and SB-OBG-37(0'-0.2') (Lab. #: T4457) were also used for the serial dilutions. All % differences were less than 10% (2%, 3%)

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No other problems were detected with the samples.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Soil Lead Analyses

Samples Received October 24th through 25th, 2001

Sample Delivery Group: 0301

Laboratory Reference Numbers:

Received 10/24

SB-OBG-6(0'-1.4'BS)	T4145
SB-OBG-6(4.0'-5.7'BS)	T4146
SB-OBG-8(0'-1.5'BS)	T4147
SB-OBG-8(2.0'-2.6'BS)	T4148
SB-OBG-5(0'-0.9'BS)	T4149
SB-OBG-5(2-3.3BS)	T4150
SB-OBG-7(0'-1.2'BS)	T4151
SB-OBG-7(2-2.3'BS)	T4152
SB-OBG-10(0'-0.7'BS)	T4153
SB-OBG-10(4-4.8'BS)	T4154
SB-OBG-24(2'-2.6'BS)	T4155
SB-OBG-24(6-6.7'BS)	T4156
SB-OBG-12(8-9.6'BS)	T4157
SB-OBG-12(10-11.9'BS)	T4158
SB-OBG-12(10-11.9'BS)	T4158MS
SB-OBG-12(10-11.9'BS)	T4158D
SB-X-3	T4159

Received 10/25

SB-OBG-11(4'-4.9'BS)	T4265
SB-OBG-11(8.3-9.6'BS)	T4266
SB-OBG-4(0'-1.0'BS)	T4267
SB-OBG-4(4'-5.7'BS)	T4268
SB-OBG-3(0'-1.3'BS)	T4269
SB-OBG-3(2'-3.3'BS)	T4270
SB-OBG-18(0-1.9'BS)	T4271
SB-OBG-18(2-2.6'BS)	T4272
SB-OBG-19(0'-0.6'BS)	T4273
SB-OBG-19(2'-3.3'BS)	T4274
SB-OBG-19(2'-3.3'BS)	T4274MS
SB-OBG-19(2'-3.3'BS)	T4274D
SB-OBG-20(0'-1.5'BS)	T4275
SB-OBG-20(4.0-4.9'BS)	T4276
SB-OBG-1(0.5'-1'BS)	T4277
SB-OBG-2(0.5'-1'BS)	T4278
SB-X-4	T4279

Received 10/24

Soil samples were received for total lead analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
- * - CRDL Standard
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
 - Field Blanks
 - Equipment Blanks
- * - Preparation Blanks
- * - Matrix Spike
- * - Duplicate Analyses
- * - ICP Interference Check Sample
 - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

No problems were found which would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Lead was not detected in the preparation blanks at concentrations above the IDL (1.5 ug/l).

Calibration Blanks

Lead was not detected in the calibration blanks at concentrations above the IDL (1.5 ug/l).

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Samples SB-OBG-12(10-11.9'BS) (Lab. #: T4158) and SB-OBG-19(2'-3.3'BS) (Lab. #: T4274) were used as the two matrix spikes.

In both these cases, the concentration of the lead spike added (4 mg/kg) was too low in relation to the sample lead concentrations (104 mg/kg and 21 mg/kg) to determine a meaningful recovery.

Duplicate Analysis

Samples SB-OBG-12(10-11.9'BS) (Lab. #: T4158) and SB-OBG-19(2'-3.3'BS) (Lab. #: T4274) were used as the two matrix duplicates.

Both RPDs were less than the 20% quality assurance limit (12% and 8%).

Laboratory Control Sample

No problems were detected with the recoveries of the three LCS standards.

Serial Dilutions

Samples SB-OBG-12(10-11.9'BS) (Lab. #: T4158) and SB-OBG-19(2'-3.3'BS) (Lab. #: T4274) were also used for the serial dilutions. All % differences were less than 10% (1% & 2%)

Instrument Detection Limit

Instrument detection limits were not included with this sample delivery group. These have not been requested from the laboratory.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No problems were detected with the samples.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Soil Lead Analyses

Samples Received October 25th & 27th 2001

Sample Delivery Group: 0314

Laboratory Reference Numbers:

Received 10/25

SB-OBG-11(2-2.9'BS)	T4282
SB-OBG-3(0-1.3'BS)	T4283
SB-OBG-18(0-1.9'BS)	T4284

Received 10/27

SB-OBG-16(2-3.7'BS)	T4399
SB-OBG-13(2-3.4'BS)	T4400
SB-OBG-9(0-2.0'BS)	T4401
SB-OBG-12(0-1.6'BS)	T4402
SS-OBG-31(0-0.2'BS)	T4403
SS-OBG-32(0-0.2'BS)	T4404
SS-OBG-21(0-0.2'BS)	T4405
SS-OBG-2(0-0.2'BS)	T4406
SS-OBG-36(0-0.2'BS)	T4407
SS-OBG-36(0-0.2'BS)	T4407MS
SS-OBG-36(0-0.2'BS)	T4407D
SS-OBG-14(0-1.5'BS)	T4408
SSX-9	T4409
SB-X-5	T4410

Soil samples were received for total lead analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
- * - CRDL Standard
- * - Laboratory Control Sample
 - Serial Dilutions
- * - Laboratory Blanks
- * - Field Blanks
- * - Equipment Blanks
- * - Preparation Blanks
 - Matrix Spike
 - Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

Several problems were found with the quality assurance data:

Sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407) was used as the matrix spike, matrix duplicate and serial dilution.

All matrix spike recoveries were within the required quality assurance limits with the one exception of antimony (42%). The antimony data may have been underestimated and low concentrations may have been overlooked. All of the antimony data were flagged with the "J" qualifier and footnoted with #35 in the data usability summary table.

Thirteen analytes had RPD's greater than 20%: The data for these analytes were flagged with the "J" qualifier and footnoted with #45 in the data usability table. The concentrations reported for these analytes should be considered to be estimated values.

The ICP serial dilution analysis did not recover within acceptance range for potassium (25%). The potassium data was flagged with the "J" qualifier in the data usability summary table and footnoted with #51. The potassium data should be considered to be estimated values.

The sample, matrix spike, matrix duplicate and serial dilution were all redigested and reanalyzed. The sample data were qualified on the basis of the original recoveries.

If the problems with the original quality assurance data affect the usability of the data, all of the samples should be redigested and reanalyzed.

No other problems were found which would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

Three ICP runs were used for these analyses. The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits with the following exceptions in the third ICP run:

Analyte	Initial % R	Final %R
Lead	(ok)	125%
Manganese	67%	(ok)
Selenium	122%	(ok)

The third ICP run was only associated with the reanalysis of sample SS-OBG-36(0-0.2'BS) (Lab. #:T4407), its matrix spike, matrix spike duplicate and serial dilution. The problems with the CRDL standard recoveries do not affect the end use of the data and none of the sample data was qualified.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

No compounds were detected in the preparation blanks at concentrations above the CRDL. Several analytes were at concentrations between the CRDL and instrument detection limit. These very low concentrations are not qualified in the data validation summary table.

Calibration Blanks

Several analytes were found in the continuing calibration blanks at concentrations between the CRDL and instrument detection limit. These very low concentrations are not qualified in the data validation summary table.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407) was used as the matrix spike.

All recoveries were within the required quality assurance limits with the one exception of antimony (42%). The antimony data may have been underestimated and low concentrations may have been overlooked. All of the antimony data were flagged with the "J" qualifier and footnoted with #35 in the data usability summary table.

This matrix spike was reanalyzed and the recovery of antimony (74%) and arsenic (140%). The data remained qualified based upon the first matrix spike analysis.

Duplicate Analysis

Sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407) was also used as the matrix duplicate. Thirteen analytes had RPD's greater than 20%:

Analyte	RPD
Aluminum	41%
Arsenic	30%
Barium	48%
Calcium	28%
Chromium	33%
Copper	34%
Iron	47%
Magnesium	34%
Manganese	56%
Nickel	29%
Selenium	64%
Vanadium	45%
Zinc	32%

The data for these analytes were flagged with the "J" qualifier and footnoted with #45 in the data usability table. The concentrations reported for these analytes should be considered to be estimated values.

The sample and matrix duplicate were redigested and reanalyzed. All of the RPDs were within the required limits in the reanalysis. The data remained qualified based upon the first precision analysis. If the high RPDs present a problem with the usability of the data, all of the samples of this delivery group should be redigested and reanalyzed.

Laboratory Control Sample

No problems were detected with the recoveries of the LCS standards.

Serial Dilutions

The ICP serial dilution analysis of sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407) did not recover within acceptance range for potassium (25%).

The potassium data was flagged with the "J" qualifier in the data usability summary table and footnoted with #51. The potassium data should be considered to be estimated values.

The sample was redigested and reanalyzed with the serial dilution. All of the %Ds were within the required limits in the reanalysis. The data remained qualified based upon the first serial dilution analysis.

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No other problems were detected with the samples.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Soil Lead Analyses

Samples Received October 27, 2001

Sample Delivery Group: 0339

Laboratory Reference Numbers:

SB-OBG-17(0'-1.6'BS)	T4418
SB-OBG-17(0'-1.6'BS)	T4418MS
SB-OBG-17(0'-1.6'BS)	T4418D
SB-OBG-17(4.0'-4.6'BS)	T4419
SB-OBG-16(0'-1.3'BS)	T4420
SB-OBG-16(2'-3.7'BS)	T4421
SB-OBG-16(0'-0.9'BS)	T4422
SB-OBG-15(4'-4.6BS)	T4423
SB-OBG-13(0.4'-1.8'BS)	T4424
SB-OBG-13(6'-7.2'BS)	T4425
SB-OBG-14(0.4'-1.0'BS)	T4426
SB-OBG-14(6.0'-6.5'BS)	T4427
SB-OBG-9(0'-2.0'BS)	T4428
SB-OBG-9(2'-2.3'BS)	T4429
SB-OBG-31(0'-2'BS)	T4430
SB-OBG-31(0'-1.5'BS)	T4431
SB-OBG-30(0-0.2'BS)	T4432
SB-OBG-30(0'-1'BS)	T4433
SB-OBG-32(0'-.2'BS)	T4434
SB-OBG-32(0'-2.0BS)	T4435
SB-OBG-28(0'-1.0'BS)	T4436
SB-OBG-28(0'-2'BS)	T4437
SB-OBG-28(0'-2'BS)	T4437MS
SB-OBG-28(0'-2'BS)	T4437D
SB-OBG-29(0'-.2'BS)	T4438
SB-OBG-29-(0'-2.0BS)	T4439
SB-OBG-20(0'-0.2'BS)	T4440
SB-OBG-21(0'-0.2'BS)	T4441
SB-OBG-19(0'-0.2'BS)	T4442
SB-OBG-18(0'-0.2BS)	T4443
SB-OBG-17(0'-0.2'BS)	T4444
SB-OBG-38(0'-0.2'BS)	T4445
SB-OBG-1(0'-0.2'BS)	T4446
SB-OBG-2(0'-0.2'BS)	T4447
SB-OBG-3(0'-0.2'BS)	T4448
SB-OBG-4(0'-0.2'BS)	T4449
SB-OBG-5(0'-0.2'BS)	T4450
SB-OBG-36(0'-0.2'BS)	T4451
SB-OBG-36(0'-1.2'BS)	T4452
SB-OBG-7(0'-0.2'BS)	T4453
SB-OBG-7(0'-1.5'BS)	T4454
SB-OBG-6(0'-0.2'BS)	T4455
SB-OBG-6(0'-2.0'BS)	T4456
SB-OBG-37(0'-0.2')	T4457

SB-OBG-37(0'-0.2')MS	T4457MS
SB-OBG-37(0'-0.2')D	T4457D
SB-OBG-37(0'-2.0BS)	T4458
SB-OBG-39(0'-0.2'BS)	T4459
SB-OBG-39(0'-1.0'BS)	T4460
SB-OBG-40(0'-0.2'BS)	T4461
SB-OBG-40(0'-2.0'BS)	T4462
SB-OBG-16(0'-0.2'BS)	T4463
SB-OBG-16(0'-0.7'BS)	T4464
SB-OBG-16(0'-0.2'BS)	T4465
SB-OBG-15(0'-1.0'BS)	T4466
SB-OBG-14(0'-0.2'BS)	T4467
SB-OBG-14(0'-1.5'BS)	T4468
SB-OBG-13(0'-0.2'BS)	T4469
SB-OBG-13(0'-2.0'BS)	T4470
SB-OBG-12(0'-0.2'BS)	T4471
SB-OBG-12(0'-2.0'BS)	T4472
SB-OBG-11(0'-0.2'BS)	T4473
SB-OBG-11(0'-1.8'BS)	T4474
SS-X-6	T4475
SS-X-7	T4476

Soil samples were received for total lead analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
- * - CRDL Standard
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
- * - Field Blanks
- * - Equipment Blanks
- * - Preparation Blanks
- * - Matrix Spike
- * - Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

No problems were found which would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Lead was not detected in the preparation blanks at concentrations above the IDL (1.5 ug/l).

Calibration Blanks

Lead was not detected in the calibration blanks at concentrations above the IDL (1.5 ug/l).

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Three matrix spikes were analyzed with this sample delivery group.

Sample SB-OBG-17(0'-1.6'BS) (Lab. #: T4418) was used as the first matrix spike. The lead recovery (89%) was within the 75% to 125% quality assurance limits.

Samples SB-OBG-28(0'-2'BS) (Lab. #: T4437) and SB-OBG-37(0'-0.2') (Lab. #: T4457) were also used for matrix spikes. In both cases, the concentration of the spike added (4 mg/kg) was too low in relation to the sample lead concentrations (320 mg/kg and 1360 mg/kg) to determine a meaningful recovery.

Duplicate Analysis

Three matrix duplicates were analyzed with this sample delivery group.

Samples SB-OBG-17(0'-1.6'BS) (Lab. #: T4418), SB-OBG-28(0'-2'BS) (Lab. #: T4437) and SB-OBG-37(0'-0.2') (Lab. #: T4457) were also used for matrix duplicates. All RPDs were less than 20% (12%, 10% and 0.2%).

Laboratory Control Sample

No problems were detected with the recoveries of the three LCS standards.

Serial Dilutions

Samples SB-OBG-17(0'-1.6'BS) (Lab. #: T4418), SB-OBG-28(0'-2'BS) (Lab. #: T4437) and SB-OBG-37(0'-0.2') (Lab. #: T4457) were also used for the serial dilutions. All % differences were less than 10% (2%, 3%)

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No other problems were detected with the samples.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Soil TAL & Lead Analyses

Samples Received November 7th & 8th 2001

Sample Delivery Group: 0415

Laboratory Reference Numbers:

Received 11/7 – Lead Only

SS-BG-OBG-41(0'-0.2'BS)	T4826
SS-BG-OBG-41(0'-0.2'BS)	T4826MS
SS-BG-OBG-41(0'-0.2'BS)	T4826D
SS-BG-OBG-42(0'-0.2'BS)	T4827
SS-BG-OBG-43(0'-0.2'BS)	T4828
SS-BG-OBG-44(0'-0.2'BS)	T4829
SS-BG-OBG-45(0'-0.2'BS)	T4830
SS-BG-OBG-46(0'-0.2'BS)	T4831
SB-OBG-23(0'-1'BS)	T4832
SB-OBG-23(6'-7.1'BS)	T4833
SB-OBG-23(8'-9.3'BS)	T4834
SB-OBG-21(0'-1.5'BS)	T4835
SB-OBG-21(4'-5.1'BS)	T4836
SB-OBG-21(6'-6.5'BS)	T4837
SB-OBG-22(2'-3.1'BS)	T4838
SB-OBG-22(4'-5.3'BS)	T4839
SB-OBG-22(6'-7.8'BS)	T4840

Received 11/8 - TAL

SED-P2 (0-6")	T5004
SED-P2 (0-6")	T5004MS
SED-P2 (0-6")	T5004D
Blind Duplicate	T5005
EX-1 (0-6")	T5006
EX-1 (0-6")	T5006MS
EX-1 (0-6")	T5006D
SED-S1(0-6')	T5007
SED-S1(0-6')DL	T5007DL
Equipment Blank	T5023

Received 11/8 – Lead Only

SED-P2 (6-12")	T5008
SED-P1 (0-6")	T5009
SED-P1(6"-12")	T5010
EX-1 (6-12")	T5011
EX-2 (0-6")	T5012
EX-2 (6-12")	T5013
SED-S1 (12-24")	T5014
SED-S2 (0-6")	T5015
SED-S2 (12-24")	T5016
SED-S3 (0-6")	T5017
SED-S3 (12-24")	T5018
MW-25 (4'-5.1')	T5019
MW-24 (2-3.9')	T5020
MW-26 (8-8.7')	T5021
MW-23S (6-7.3')	T5022

Soil samples were received for total lead and TAL analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
 - Calibration Verification
 - CRDL Standard
- * - Laboratory Control Sample
 - Serial Dilutions
- * - Laboratory Blanks
 - Field Blanks
- * - Equipment Blanks
- * - Preparation Blanks
 - Matrix Spike
 - Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

The problems with the matrix spike, duplicate, serial dilution should be noted. These are noted in detail below. Antimony, cadmium, calcium, chromium, cobalt, copper, manganese, potassium, selenium and some of the lead data should be considered to be estimated values.

The specific quality assurance problems are noted in detail below.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

Three ICP CRDL standards were analyzed with one ICP run. The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits with the following exceptions in the third ICP run:

Analyte	Initial % R	Final %R
Manganese	67%	(ok)
Selenium	122%	(ok)
Lead		(132%)

The concentrations of these three analytes were too high in all of the soil samples to be affected by the poor CRDL recoveries.

Manganese was not detected in the equipment blank and it is possible that low concentrations of this analyte were overlooked. The manganese data was flagged with the "J" qualifier and footnoted with #21 in the data validation summary table.

Selenium and lead were not detected in the equipment blank and the high recoveries of the CRDL standards do not affect the end use of the data.

Initial and Continuing Calibrations

The percent recoveries of antimony (113%), arsenic (114), selenium (112%) and silver (114%) were above the 110% quality assurance limit in the final two continuing calibration standards.

All of the samples were analyzed before these continuing calibration standards. The problems with the CRDL standard recoveries do not affect the end use of the data and none of the sample data was qualified.

No other problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

No compounds were detected in the preparation blanks at concentrations above the CRDL. Several analytes were at concentrations between the CRDL and instrument

detection limit. These very low concentrations are not qualified in the data validation summary table.

Calibration Blanks

Several analytes were found in the continuing calibration blanks at concentrations between the CRDL and instrument detection limit. These very low concentrations are not qualified in the data validation summary table.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

No compounds were detected in the equipment blank at concentrations above the CRDL. Several analytes were at concentrations between the CRDL and instrument detection limit. These very low concentrations are not qualified in the data validation summary table.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Samples SED-P2 (0-6") (Lab. #: T5004) and EX-1 (0-6") (Lab. #: T5006) were used as the matrix spike for the full TAL list.

The recoveries of antimony (47%), manganese (162%) and selenium (71%) were outside of the 75% - 125% quality assurance limits in sample SED-P2 (0-6") (Lab. #: T5004),

The recoveries of antimony (41%) and copper (13%) were outside of the 75% - 125% quality assurance limits in sample EX-1 (0-6") (Lab. #: T5006).

Antimony, selenium and copper data were flagged with the "J" qualifier and footnoted with #35. The data for these analytes may have been underestimated and low concentrations may have been overlooked.

The manganese data were flagged with the "J" qualifier and footnoted with #37. The magnesium data may have been overestimated.

All of the post digestion spike recoveries were within the required limits.

Sample SS-BG-OBG-41(0'-0.2'BS) (Lab. #: T4826) was used for the lead matrix spike. The concentration of spike added (5 mg/kg) was too low in relation to the sample concentration (110 mg/kg) to provide meaning data on the sample matrix.

Duplicate Analysis

Samples SED-P2 (0-6") (Lab. #: T5004) and EX-1 (0-6") (Lab. #: T5006) were used as the matrix duplicate for the full TAL list.

The RPD of calcium (77%) was above the 20% quality assurance limit in sample SED-P2 (0-6") (Lab. #: T5004).

The RPDs of cadmium (51%), copper (28%) and lead (60%) were above the 20% quality assurance limit in sample EX-1 (0-6") (Lab. #: T5006).

Cadmium, calcium, copper and lead data were flagged with the "J" qualifier and footnoted with #45. The data for these analytes should be considered to be estimated values.

Sample SS-BG-OBG-41(0'-0.2'BS) (Lab. #: T4826) was used for the lead matrix duplicate for the samples received on 11/7. The RPD (1%) was within the quality assurance limit.

The laboratory qualified the lead data for all of the samples received on 11/8 on the basis of the poor precision data for sample EX-1 (0-6") (Lab. #: T5006).

Laboratory Control Sample

No problems were detected with the recoveries of the LCS standards.

Serial Dilutions

Sample SED-P2 (0-6") (Lab. #: T5004) was used as the serial dilution for the lead analyses as well as the full TAL list.

The %D of chromium (21%), cobalt (20%) and potassium (13%) were above the 10% quality assurance limit in sample SED-P2 (0-6") (Lab. #: T5004).

The chromium, cobalt and potassium data were flagged with the "J" qualifier and footnoted with #51. The data for these analytes should be considered to be estimated values.

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No other problems were detected with the samples.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Water Metals Analyses

Samples Received November 17, 2001

Sample Delivery Group: 0517

Laboratory Reference Numbers:

MW-23D	T5537
MW-13	T5538
MW-23S	T5539
MW-25	T5540
MW-25	T5540MS
MW-25	T5540D
MW-24	T5541
MW-26	T5542
X-1-GW	T5543

Water samples were received for total lead and TAL analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
 - CRDL Standard
- * - Laboratory Control Sample
 - Serial Dilutions
- * - Laboratory Blanks
 - Field Blanks
 - Equipment Blanks
- * - Preparation Blanks
- * - Matrix Spike
- * - Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

Most of these samples were reanalyzed at a 5X dilution due to manganese concentrations above the linear range of the analyses (10,000 mg/l). Values reported from the dilutions are noted in the data usability table.

The problem with the barium serial dilution should be noted. The barium data should be considered to be estimated values.

No other problems were detected with this sample delivery group.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits with the following exceptions:

Analyte	Initial % R	Final %R
Manganese	67%	(ok)
Selenium	122%	(ok)
Lead		(132%)

Low concentration of selenium (<20 ug/l) and lead (<12 ug/l) were flagged with the "J" qualifier and footnoted with #21 in the data usability summary table. These low concentrations may have been overestimated.

These compounds were not qualified if they were not detected in a sample.

All of the manganese concentrations were too high to be affected by the low manganese CRDL standard recovery.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

No compounds were detected in the preparation blanks at concentrations above the CRDL. Several analytes were at concentrations between the CRDL and instrument detection limit. These very low concentrations are not qualified in the data validation summary table.

Calibration Blanks

Several analytes were found in the continuing calibration blanks at concentrations between the CRDL and instrument detection limit. These very low concentrations are not qualified in the data validation summary table.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Sample MW-25 (Lab. #: T5540) was used as the matrix spike for the full TAL list. All of the spike recoveries were within the required limits.

Duplicate Analysis

Sample MW-25 (Lab. #: T5540) was used as the matrix spike for the full TAL list. All of the % Differences were within the required limits.

Laboratory Control Sample

No problems were detected with the recoveries of the LCS standards.

Serial Dilutions

Sample MW-25 (Lab. #: T5540) was used as the serial dilution for the full TAL list.

The %D of barium (16%) was above the 10% quality assurance limit. The barium data were flagged with the "J" qualifier and footnoted with #51. The data for this analytes should be considered to be estimated values.

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No other problems were detected with the samples.

**For Revere Smelting Site
Wallkill, NY**

Sulfate and Total Alkalinity

Samples Collected November 15th & 16th 2001

Samples Received November 17, 2001

Sample Delivery Group: 0518

Laboratory Reference Numbers:

MW-23	T5545
MW-13	T5546
MW-23	T5547
MW-25	T5548
MW-25MD	T5548MD
MW-25MS	T5548MS
MW-24	T5549
MW-26	T5550
X-1-GW	T5551

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- * - Holding Times
- * - Calibrations
- * - Laboratory Blanks
 - Field Blank
 - Storage Blank
- * - Matrix
- * - Matrix Duplicate
- * - Laboratory Control Sample
- * - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

No significant problems were detected with this data package that would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding time.

Calibrations

No problems were detected with the calibrations

Matrix Spike

Sample MW-25 (Lab. #: T5548) was used as the matrix spike. Both recoveries were within the required limits.

Matrix Duplicate

Sample MW-25 (Lab. #: T5548) was used as the matrix duplicate. All RPDs were within the required limits.

Laboratory Control Sample

All recoveries were within the required quality assurance limits

Method Blanks

No compounds were detected in the method blanks.

Equipment Blank

An equipment blank was not analyzed.

Field Blank

A field blank was not analyzed with this sample delivery group.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

SUMMARY OF THE ANALYTICAL DATA USABILITY
Revere Smelting Site
Walkill, NY

Soil Semivolatile Organic Analyses – Method 95-2

Samples Collected October 23rd & 24th 2001

Samples Received October 25, 2001

Sample Delivery Group: 0314

Laboratory Reference Numbers:

SB-OBG-11(2-2.9'BS)	T4282	Collected 10/24
SB-OBG-11(2-2.9'BS)RE	T4282RE	Collected 10/24
SB-OBG-3(0-1.3'BS)	T4283	Collected 10/24
SB-OBG-18(0-1.9'BS)	T4284	Collected 10/24

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- * - Calibrations
 - Laboratory Blanks
- * - Field Blank
- * - Equipment Blank
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
 - Laboratory Control Sample
- * - Instrument Detection Limits
- * - Compound Identification
- * - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

The problems with the internal standard recoveries in sample SB-OBG-11(2-2.9'BS)(Lab. #: T4282) should be noted. These are described in detail below.

No other significant problems were found which would affect the usability of the data. Minor issues that could affect the use of the data are discussed in detail below.

Holding Times

All samples were extracted and analyzed within the required holding time.

Tunes

EPA DFTPP criteria were reported on the tune summary form (FORM V) as opposed to those of the NYS DEC ASP program. All of the more stringent NYS DEC ASP requirements were met for all of the tunes of this sample delivery group.

Surrogate Compound Recoveries

All surrogate recoveries were within the required quality control limits.

Calibrations

No problems were detected with the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

A matrix spike was not analyzed with this sample delivery group.

Blank Spike

A blank spike was not analyzed with this sample delivery group.

Laboratory Control Sample

All recoveries were within the 50% - 150% quality assurance limits in the 11/6 laboratory control sample with the exception of 4-chloroaniline (46%).

This LCS was reanalyzed and all recoveries were within the 50% - 150% quality assurance limits in the 11/7 laboratory control sample with the following exceptions:

4-Chloroaniline (36%) and hexachlorocyclopentadiene (44%) were less than the quality assurance limit.

The low recoveries of these compounds would not significantly affect the end use of the data. Neither of these compounds was detected in any of the samples. If these compounds were present, they would be detected at a concentration significantly below the CRDL. It may be possible that very low concentrations were overlooked, but these would not be expected to affect the data usability.

Method Blanks

Phenol (150J ug/kg), di-n-butyl phthalate (1,100 ug/kg) and six non-target compounds were detected in the one method blank associated with all of the samples of this delivery group.

Low concentrations of phenol, below the CRDL were detected in a few of the samples of this delivery group. These were reported at the CRDL and with the "U" qualifier according to EPA data validation protocols. The data for this compound were footnoted with #32.

Several of the non-target compounds were also detected in the samples, but the laboratory did not flag the data with the "B" qualifier as required in the NYS DEC

ASP protocols. This was added in the data usability summary table. These non-target data were rejected and footnoted with #35 in the data usability summary table.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An Equipment Blank was not analyzed with this sample delivery group.

Internal Standard Areas and Retention Times

The recovery of the perylene-d12 internal standard (42%) was less than the 50% quality assurance limit in the original analysis of sample SB-OBG-11(2-2.9'BS) (Lab. #: T4282). This was reanalyzed according to the NYS DEC ASP protocols and the recovery of this internal standard was 22%.

The compounds that were quantitated against this internal standard in the above samples were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

No other problems were found with the internal standard recoveries.

Instrument Detection Limits

No problems were found with the reporting of the instrument detection limits. They were analyzed slightly beyond the 6-month time limit.

Sample Results

Sample SB-OBG-11(2-2.9'BS) (Lab. #: T4282)

The recovery of the perylene-d12 internal standard (42%) was less than the 50% quality assurance limit in the original analysis of sample SB-OBG-11(2-2.9'BS) (Lab. #: T4282). This was reanalyzed according to the NYS DEC ASP protocols and the recovery of this internal standard was 22%.

The compounds that were quantitated against this internal standard in the initial analysis were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

The compounds that were quantitated against this internal standard in the initial analysis were flagged with the "R" qualifier and footnoted with #71 in the data validation summary table. The data would be technically rejected since the internal standard recovery was less than 25%.

No other problems were found that would affect the end use of the data.

SUMMARY OF THE ANALYTICAL DATA USABILITY
Revere Smelting Site
Wallkill, NY

Soil Semivolatile Organic Analyses – Method 95-2
Samples Collected October 25th and 26th, 2001
Samples Received October 27th 2001
Sample Delivery Group: 0337
Laboratory Reference Numbers:

SB-OBG-16(2-3.7'BS)	T4399
SB-OBG-13(2-3.4'BS)	T4400
SB-OBG-13(2-3.4'BS)RE	T4400RE
SB-OBG-9(0-2.0'BS)	T4401
SB-OBG-12(0-1.6'BS)	T4402
SS-OBG-31(0-0.2'BS)	T4403
SS-OBG-32(0-0.2'BS)	T4404
SS-OBG-21(0-0.2'BS)	T4405
SS-OBG-2(0-0.2'BS)	T4406
SS-OBG-2(0-0.2'BS)RE	T4406RE
SS-OBG-36(0-0.2'BS)	T4407
SS-OBG-36(0-0.2'BS)MS	T4407MS
SS-OBG-36(0-0.2'BS)MSD	T4407MSD
SS-OBG-14(0-1.5'BS)	T4408
SSX-9	T4409
SB-X-5	T4410

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
 - GC/MS Tuning
- * - Holding Times
- * - Calibrations
 - Laboratory Blanks
 - Field Blank
 - Equipment Blank
- * - Surrogate Compound Recoveries
 - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
 - Laboratory Control Sample
- * - Instrument Detection Limits
 - Compound Identification
 - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

The problems with the internal standard recoveries in samples SB-OBG-13(2-3.4'BS) (Lab. #: T4400), SS-OBG-2(0-0.2'BS) (Lab. #: T4406) and SS-OBG-36(0-0.2'BS) (Lab. #: T4407) should be noted. These are described in detail below.

No other significant problems were found which would affect the usability of the data. Minor issues that could affect the use of the data are discussed in detail below.

Holding Times

All samples were extracted and analyzed within the required holding time.

Tunes

EPA DFTPP criteria were reported on the tune summary form (FORM V) as opposed to those of the NYS DEC ASP program. All of the more stringent NYS DEC ASP requirements were met for all of the tunes of this sample delivery group.

Surrogate Compound Recoveries

All surrogate recoveries were within the required quality control limits.

Calibrations

No problems were detected with the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Sample SS-OBG-36(0-0.2'BS) (Lab. #:T4407) of this sample delivery group was used as the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Laboratory Control Sample

All recoveries were within the 50% - 150% quality assurance limits in the 11/6 laboratory control sample with the following exception:

The recovery of 4-chloroaniline was 46%.

This LCS was reanalyzed and all recoveries were within the 50% - 150% quality assurance limits in the 11/7 laboratory control sample with the following exceptions:

4-Chloroaniline (36%) and hexachlorocyclopentadiene (44%) were less than the quality assurance limit.

The low recoveries of these compounds would not significantly affect the end use of the data. Neither of these compounds was detected in any of the samples. If these compounds were present, they would be detected at a concentration significantly below the CRDL. It may be possible that very low concentrations were overlooked, but these would not be expected to affect the data usability.

Method Blanks

Phenol (150J ug/kg), di-n-butyl phthalate (1,100 ug/kg) and six non-target compounds were detected in the one method blank associated with all of the samples of this delivery group.

Low concentrations of phenol, below the CRDL were detected in a few of the samples of this delivery group. These were reported at the CRDL and with the "U" qualifier according to EPA data validation protocols. The data for this compound were footnoted with #32.

Several of the non-target compounds were also detected in the samples, but the laboratory did not flag the data with the "B" qualifier as required in the NYS DEC ASP protocols. This was added in the data usability summary table. These non-target data were rejected and footnoted with #35 in the data usability summary table.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An Equipment Blank was not analyzed with this sample delivery group.

Internal Standard Areas and Retention Times

The recovery of the perylene-d12 internal standard (41%) was less than the 50% quality assurance limit in the original analysis of sample SB-OBG-13(2-3.4'BS)(Lab. #:T4400). This was reanalyzed according to the NYS DEC ASP protocols and the recovery of this internal standard was 42%.

The recovery of the perylene-d12 internal standard (36%) was less than the 50% quality assurance limit in the analysis of sample SS-OBG-2(0-0.2'BS) (Lab. #: T4406). This was reanalyzed according to the NYS DEC ASP protocols and the recovery of this internal standard was again 36%.

The recovery of the perylene-d12 internal standard (32%) was less than the 50% quality assurance limit in the analysis of sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407). The recovery of this internal standard in its matrix spike (29%) and matrix spike duplicate (27%).

The compounds that were quantitated against this internal standard in the above samples were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

No other problems were found with the internal standard recoveries.

Instrument Detection Limits

No problems were found with the reporting of the instrument detection limits. They were analyzed slightly beyond the 6-month time limit.

Sample Results

Sample SB-OBG-13(2-3.4'BS) (Lab. #: T4400)

The recovery of the perylene-d12 internal standard (41%) was less than the 50% quality assurance limit in the original analysis of sample SB-OBG-13(2-3.4'BS) (Lab. #:T4400). This was reanalyzed according to the NYS DEC ASP protocols and the recovery of this internal standard was 42%.

The compounds that were quantitated against this internal standard in the reanalysis were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

It is recommended that the data from the initial analysis be used for the final reporting. There were no significant differences in the data between the first and reanalysis.

Sample SS-OBG-2(0-0.2'BS) (Lab. #: T4406)

The recovery of the perylene-d12 internal standard (36%) was less than the 50% quality assurance limit in the analysis of sample SS-OBG-2(0-0.2'BS) (Lab. #: T4406). This was reanalyzed according to the NYS DEC ASP protocols and the recovery of this internal standard was again 36%.

The compounds that were quantitated against this internal standard in the reanalysis were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

It is recommended that the data from the initial analysis be used for the final reporting. There were no significant differences in the data between the first and reanalysis.

Sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407)

The recovery of the perylene-d12 internal standard (32%) was less than the 50% quality assurance limit in the analysis of sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407). The recovery of this internal standard in its matrix spike (29%) and matrix spike duplicate (27%).

The compounds that were quantitated against this internal standard in the above samples were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

No other problems were found that would affect the end use of the data.

SUMMARY OF THE ANALYTICAL DATA USABILITY
Revere Smelting Site
Wallkill, NY

Soil Semivolatile Organic Analyses – Method 95-2

Samples Collected November 8, 2001

Samples Received November 8, 2001

Sample Delivery Group: 0442

Laboratory Reference Numbers:

Equipment Blank	T5023
SED-P2 (0-6")	T5004
SED-P2 (0-6")MS	T5004MS
SED-P2 (0-6")MSD	T5004MSD
Blind Duplicate	T5005
EX-1 (0-6")	T5006
EX-1 (0-6")MS	T5006MS
EX-1 (0-6")MSD	T5006MSD
SED-S1(0-6')	T5007

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- * - Calibrations
 - Laboratory Blanks
 - Field Blank
 - Equipment Blank
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
 - Blank Spike
- * - Laboratory Control Sample
- * - Instrument Detection Limits
- * - Compound Identification
- * - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

No significant problems were found which would affect the usability of the data.
Minor issues that could affect the use of the data are discussed in detail below.

Holding Times

All samples were extracted and analyzed within the required holding time.

Tunes

EPA DFTPP criteria were reported on the tune summary form (FORM V) as opposed to those of the NYS DEC ASP program. All of the more stringent NYS DEC ASP requirements were met for all of the tunes of this sample delivery group.

Surrogate Compound Recoveries

All surrogate recoveries were within the required quality control limits.

Calibrations

No problems were detected with the initial or continuing calibrations.

Matrix Spike / Matrix Spike Duplicate

Samples SED-P2 (0-6") (Lab. #: T5004) and EX-1 (0-6") (Lab. #: T5006) of this sample delivery group was used as the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits.

Blank Spike

All blank spike recoveries were within the required limits with the one exception of 2,4-dinitrotoluene (94%). This was above the 89% quality assurance limit.

The high recovery is most likely due to increased extraction efficiency. The high recovery does not affect the end use of the data.

Laboratory Control Sample

Two soil and two water laboratory control samples were analyzed with this sample delivery group.

All recoveries were within the 50% - 150% quality assurance limits.

Method Blanks

A soil and water blank were analyzed with this sample delivery group:

Phenol (45J ug/kg) and four non-target compounds were detected in the one method blank associated with all of the samples of this delivery group.

Low concentrations of phenol, below the CRDL were detected in a few of the samples of this delivery group. These were reported at the CRDL and with the "U" qualifier according to EPA data validation protocols. The data for this compound were footnoted with #32.

Several of the non-target compounds were also detected in the samples, but the laboratory did not flag the data with the "B" qualifier as required in the NYS DEC ASP protocols. This was added in the data usability summary table. These non-target data were rejected and footnoted with #35 in the data usability summary table.

No compounds were detected in the water method blank.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

Seven non-target compounds were detected in the equipment blank. None of these were detected in any of the samples.

Internal Standard Areas and Retention Times

No problems were found with the internal standard recoveries.

Instrument Detection Limits

No problems were found with the reporting of the instrument detection limits. They were analyzed slightly beyond the 6-month time limit.

Sample Results

No problems were found that would affect the end use of the data.

SUMMARY OF THE ANALYTICAL DATA USABILITY
Revere Smelting Site
Wallkill, NY

Water Semivolatile Organic Analyses – Method 95-2
Samples Collected November 15th and 16th, 2001
Samples Received November 17, 2001
Sample Delivery Group: 0517
Laboratory Reference Numbers:

MW-23D	T5537
MW-13	T5538
MW-23S	T5539
MW-25	T5540
MW-25MS	T5540MS
MW-25MSD	T5540MSD
MW-24	T5541
MW-26	T5542
X-1-GW	T5543

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- GC/MS Tuning
- * - Holding Times
- ** - Calibrations
- * - Laboratory Blanks
- * - Field Blank
- * - Equipment Blank
- * - Surrogate Compound Recoveries
- * - Internal Standard Recoveries
 - Matrix Spike / Matrix Spike Duplicate
 - Blank Spike
- * - Laboratory Control Sample
- * - Instrument Detection Limits
- * - Compound Identification
- * - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

No significant problems were found which would affect the usability of the data. Minor issues that could affect the use of the data are discussed in detail below.

Holding Times

All samples were extracted and analyzed within the required holding time.

Tunes

EPA DFTPP criteria were reported on the tune summary form (FORM V) as opposed to those of the NYS DEC ASP program. All of the more stringent NYS DEC ASP requirements were met for all of the tunes of this sample delivery group.

Surrogate Compound Recoveries

All surrogate recoveries were within the required quality control limits.

Calibrations

No problems were detected with the initial calibration.

The percent differences of 2,2'-oxybis(1-chloropropane) (38%), 2-methylphenol (37%), N-nitroso-di-n-propylamine (28%), and the 2,4,6-tribromophenol (40%) had percent differences greater than 25%.

None of these compounds were detected in any of the samples and the data were not qualified since all of the percent differences were less than 50%. The high percent differences do not affect the end use of the data.

Matrix Spike / Matrix Spike Duplicate

Sample MW-25 (Lab. #: T5540) of this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required limits with the following exceptions:

Compound	MS %Rec	MSD %Rec	QC Limits	RPD	Limits
Phenol			12 - 110		42
2-Chlorophenol			27 - 123		40
1,4-Dichlorobenzene			37 - 97		28
N-Nitroso-di-n-prop.			41 - 116		38
1,2,4-Trichlorobenzene			39 - 98		28
4-Chloro-3-methylphenol			23 - 97		42
Acenaphthene			46 - 118		31
4-Nitrophenol	94%	91%	10 - 80		50
2,4-Dinitrotoluene			24 - 96		38
Pentachlorophenol	106%	104%	9 - 103		50
Pyrene			26 - 127		31

The high recoveries are most likely due to increased extraction efficiency and do not affect the end use of the data.

Blank Spike

All blank spike recoveries were within the required limits with the following exceptions:

Compound	MS %Rec	QC Limits
Phenol		12 - 110
2-Chlorophenol		27 - 123
1,4-Dichlorobenzene		37 - 97
N-Nitroso-di-n-prop.		41 - 116
1,2,4-Trichlorobenzene		39 - 98
4-Chloro-3-methylphenol		23 - 97
Acenaphthene		46 - 118
4-Nitrophenol	99%	10 - 80
2,4-Dinitrotoluene	98%	24 - 96
Pentachlorophenol		9 - 103
Pyrene		26 - 127

The high recoveries are most likely due to increased extraction efficiency and do not affect the end use of the data.

Laboratory Control Sample

All recoveries were within the 50% - 150% quality assurance limits.

Method Blanks

No compounds were detected in the method blank.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An Equipment Blank was not analyzed with this sample delivery group.

Internal Standard Areas and Retention Times

No problems were found with the internal standard recoveries.

Instrument Detection Limits

No problems were found with the reporting of the instrument detection limits. They were analyzed slightly beyond the 6-month time limit.

Sample Results

No problems were found that would affect the end use of the data.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Water Lead Analyses

Samples Received October 19, 2001

Sample Delivery Group: 1054

Laboratory Reference Numbers:

SS-TP-7 (2.2'BS)	T9184
SS-TP-8 (3'BS)	T9185
SS-TP-9 (1.4'BS)	T9186
SS-TP-9 (1.4'BS)MS	T9186MS
SS-TP-9 (1.4'BS)D	T9186D
SS-TP-2 (1.3'-1.5'BS)	T9189
SS-TP-5 (1.2'BS)	T9190

Water samples were received for total lead analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
- * - CRDL Standard
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
- * - Field Blanks
- * - Equipment Blanks
- * - Preparation Blanks
- * - Matrix Spike
- * - Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

No problems were found which would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Lead was not detected in the preparation blanks at concentrations above the CRDL.

Calibration Blanks

Lead was not detected in the calibration blanks at concentrations above the CRDL.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Sample SS-TP-9 (1.4'BS) (Lab. #: T9186) was used as the matrix spike.

The lead spike recovery was within the required limits.

Duplicate Analysis

Sample SS-TP-9 (1.4'BS) (Lab. #: T9186) was used as the matrix duplicate.

The RPD (1%) was less than the required limit.

Laboratory Control Sample

No problems were detected with the recoveries of the three LCS standards.

Serial Dilutions

Sample SS-TP-9 (1.4'BS) (Lab. #: T9186) was used for the serial dilution.

The % difference was less than 10% (3%).

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No problems were detected with the samples.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Wallkill, NY

Water Lead Analyses

Samples Received March 4, 2002

Sample Delivery Group: 1418

Laboratory Reference Numbers:

SS-OBG-10 (0-2"BS)	U1356
SS-OBG-12 (8-9.6'BS)	U1357
SS-OBG-11 (2-2.9'BS)	U1359
SS-OBG-12 (0-1.6'BS)	U1360
SS-OBG-12 (0-1.6'BS)MS	U1360MS
SS-OBG-12 (0-1.6'BS)D	U1360D
SS-OBG-21 (4'-5.1'BS)	U1361

Water samples were received for total lead analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
- * - CRDL Standard
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
- * - Field Blanks
- * - Equipment Blanks
- * - Preparation Blanks
- * - Matrix Spike
- * - Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- * - Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

No problems were found which would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Lead was not detected in the preparation blanks at concentrations above the CRDL.

Calibration Blanks

Lead was not detected in the calibration blanks at concentrations above the CRDL.

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Sample SS-OBG-12 (0-1.6'BS) (Lab. #: U1360) was used as the matrix spike.

The lead spike recovery was within the required limits.

Duplicate Analysis

Sample SS-OBG-12 (0-1.6'BS) (Lab. #: U1360) was used as the matrix duplicate.

The RPD (2%) was less than the required limit.

Laboratory Control Sample

No problems were detected with the recoveries of the three LCS standards.

Serial Dilutions

Sample SS-OBG-12 (0-1.6'BS) (Lab. #: U1360) was used for the serial dilution.

The % difference was less than 10% (2%).

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

No problems were detected with the samples.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
Revere Smelting Site
Wallkill, NY

Soil Pesticide and PCB Analyses – Method 95-3

Samples Collected October 24, 2001

Samples Received October 25, 2001

Sample Delivery Group: 0314

Laboratory Reference Numbers:

SB-OBG-11(2-2.9'BS)	T4282
SB-OBG-3(0-1.3'BS)	T4283
SB-OBG-18(0-1.9'BS)	T4284

Soil samples were received for analyses of the pesticide and PCB TCL analyte list by US EPA Region II protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
 - * - Holding Times
 - Laboratory Blanks
 - Field Blanks
 - Equipment Blanks
 - * - Surrogate Recoveries and Retention Times
 - Matrix Spike / Matrix Spike Duplicate
 - * - Blank Spike
 - * - Calibrations
 - * - Method Blanks
 - * - Analyte Resolutions
 - * - Performance Evaluation Mixtures
 - * - IND A and IND B Standards
 - * - Florisil Cartridge Check
 - GPC Calibration
 - * - Compound Identification
 - * - Method Detection Limit
- Sample Results

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

The retention times in the raw data only include those compounds identified by the laboratory as positive hits. Raw data for all of the peaks should be included.

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was reported in the data usability summary table at concentrations greater than ½ of the CRDL.

The chromatograms of sample SB-OBG-11(2-2.9'BS) (Lab. #: T4282) contained many peaks and were not easy to review for interferences. These should be resubmitted in a more readable form.

Minor problems with method blank and GPC are noted below.

Holding Times

All extractions and analyses were performed within the required holding times.

Surrogate Recoveries

All surrogate recoveries were within the required quality assurance limits.

Matrix Spike

A matrix spike was not analyzed with this sample delivery group.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Initial Calibration

No problems were detected with the initial calibration.

Analyte Resolution

All percent resolutions were greater than 60% on both the RT-CLP and RTX-35 columns for both calibrations.

Continuing Calibrations

All percent resolutions were greater than 90%.

No problems were detected with any of the PEM or INDA and INDB standards that affected the end use of the data.

Florisil Cartridge Check

All recoveries were within the 80% - 120% quality assurance limits.

GPC Calibration

The laboratory's case narrative notes:

"The percent recovery for Endrin exceeded the upper control limit for the GPC check from the GPC calibration performed on 10/31/01/ The matrix spike solution used for the GPC check was checked and met the criteria for matrix

spike recovery, but was higher than the tighter GPC check criteria, (80-110%.) A new matrix spike solution was prepared for future samples. No further corrective action was taken."

This did not affect the end use of the data.

No other problems were detected with the GPC cleanup.

Method Blanks

A low concentration of gamma-chlordane (0.026JP ug/l) was detected in the method blank PBKL01. This concentration was less than one half of the CRDL and does not affect the end use of the data.

The laboratory flagged the compound found in the blank with the "B" qualifier. The compounds detected in a method blank should never be flagged with this notation. The reason for this was not clear.

Calibration Blanks

No problems were detected with the calibration blanks associated with this sample delivery group.

Field Blanks

A field blank was not analyzed with this sample delivery group.

Sample Results

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was only reported in the data usability summary table to concentrations greater than 1/2 of the CRDL. These compounds were reported at the CRDL and footnoted with #90.

Many of the percent differences of identified compounds were greater than 25%. The pesticide data were qualified in the data usability summary table as follows:

% Difference	Qualifier	Footnote
25 - 70%	"J"	91
70 - 100%	"JN"	92
> 100%	"R"	93
100 - 200% (Interference detected)	"JN"	94
> 50% (< CRDL, but > 1/2 CRDL)	"U"	95

Sample SB-OBG-11(2-2.9'BS) (Lab. #: T4282)

The chromatograms of this sample contained many peaks and were not easy to review for interferences. These should be resubmitted in a more readable form.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
Revere Smelting Site
Wallkill, NY

Soil Pesticide and PCB Analyses
Samples Collected October 25th and 26th, 2001
Samples Received October 27th 2001
Sample Delivery Group: 0337
Laboratory Reference Numbers:

SB-OBG-16(2-3.7'BS)	T4399
SB-OBG-13(2-3.4'BS)	T4400
SB-OBG-9(0-2.0'BS)	T4401
SB-OBG-12(0-1.6'BS)	T4402
SS-OBG-31(0-0.2'BS)	T4403
SS-OBG-32(0-0.2'BS)	T4404
SS-OBG-21(0-0.2'BS)	T4405
SS-OBG-2(0-0.2'BS)	T4406
SS-OBG-36(0-0.2'BS)	T4407
SS-OBG-36(0-0.2'BS)MS	T4407MS
SS-OBG-36(0-0.2'BS)MSD	T4407MSD
SS-OBG-14(0-1.5'BS)	T4408
SSX-9	T4409
SB-X-5	T4410

Soil samples were received for analyses of the pesticide and PCB TCL analyte list by US EPA Region II protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
 - Laboratory Blanks
 - Field Blanks
 - Equipment Blanks
 - Surrogate Recoveries and Retention Times
 - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
 - Calibrations
- * - Method Blanks
- * - Analyte Resolutions
- * - Performance Evaluation Mixtures
- * - IND A and IND B Standards
- * - Florisil Cartridge Check
 - GPC Calibration
- * - Compound Identification
- * - Method Detection Limit
 - Sample Results

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

The laboratory's case narrative states:

The initial calibration for the DB1701 column performed on 11/29/01 exceeded the 30% RSD criteria for alpha-BHC. The %RSD for alpha-BHC was 30.3%. The instrument conditions were optimized to provide the maximum linearity for alpha-BHC. Alpha-BHC was not detected above the CRQL in any samples. No further corrective action was taken."

"The surrogates were not added to the AR1660 standard used for the initial calibration performed on 11/06/01 when it was prepared. This will not affect quantitation since the surrogates are calibrated from the mid point INDA standard. No further corrective action was taken."

The percent recovery for Endrin exceeded the upper control limit for the GPC check from the GPC calibration performed on 10/31/01. The matrix spike solution used for the GPC check was checked and met the criteria for matrix spike recovery, but was higher than the tighter GPC check criteria, (80-110%). A new matrix spike solution was prepared for future samples. No further corrective action was taken."

The retention time for DCBP in the resolution check analyzed on the DB608 column for the initial calibration performed on 11/29/01 was outside the retention time window. All subsequent surrogate and standard compounds were within the established retention time windows. No further corrective action was taken."

The laboratory reports two separate method blank summaries. Both of these are labeled PBLK01, but the extraction dates are not filled in. The laboratory should complete the missing data.

The retention time windows of both TCX and DCB were outside of the quality control limits in the analysis of PBLK01. There should be no reason for problems with surrogate recoveries in a method blank.

The retention times in the raw data only include those compounds identified by the laboratory as positive hits. Raw data for all of the peaks should be included.

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was only reported in the data usability summary table at concentrations greater than 1/2 of the CRDL.

Minor problems with surrogate, spikes and sample data are noted below.

Holding Times

All extractions and analyses were performed within the required holding times.

Surrogate Recoveries

All surrogate recoveries were within the required quality assurance limits with the following exceptions:

	TCX 1	TCX 2	DCB 1	DCB 2	#
SB-OBG-13(2-3.4'BS)				155%	
SS-OBG-36(0-0.2'BS)MS				151%	
SS-OBG-36(0-0.2'BS)MSD				192%	

All of the surrogate recoveries of sample SB-OBG-13(2-3.4'BS) were within the required limits. The high surrogate recoveries for the matrix spike and matrix spike duplicate do not affect the end use of the data.

The sample data were not qualified since the recovery of only one surrogate was above the quality assurance limit.

The laboratory's case narrative states:

"The surrogates were not added to the AR1660 standard used for the initial calibration performed on 11/06/01 when it was prepared. This will not affect quantitation since the surrogates are calibrated from the mid point INDA standard. No further corrective action was taken."

Surrogate Retention Times

The laboratory's case narrative states:

The retention time for DCBP in the resolution check analyzed on the DB608 column for the initial calibration performed on 11/29/01 was outside the retention time window. All subsequent surrogate and standard compounds were within the established retention time windows. No further corrective action was taken."

The retention time windows of both TCX and DCB were outside of the quality control limits in the analysis of PBLK01. There should be no reason for problems with surrogate recoveries in a method blank.

Matrix Spike

Sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407) was used as first matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Initial Calibrations

The laboratory's case narrative states:

The initial calibration for the DB1701 column performed on 11/29/01 exceeded the 30% RSD criteria for alpha-BHC. The %RSD for alpha-BHC was 30.3%. The instrument conditions were optimized to provide the maximum linearity for alpha-BHC. Alpha-BHC was not detected above the CRQL in any samples. No further corrective action was taken."

This did not affect the end use of the data and the data were not qualified for the problems with the calibrations.

No other problems were detected with any of the initial calibrations.

Analyte Resolution

All percent resolutions were greater than 60% on both the RT-CLP and RTX-35 columns for both calibrations.

Continuing Calibrations

All percent resolutions were greater than 90%.

No problems were detected with any of the PEM or INDA and INDB standards that affected the end use of the data.

Florisil Cartridge Check

All recoveries were within the 80% - 120% quality assurance limits.

GPC Calibration

The percent recovery for Endrin exceeded the upper control limit for the GPC check from the GPC calibration performed on 10/31/01. The matrix spike solution used for the GPC check was checked and met the criteria for matrix spike recovery, but was higher than the tighter GPC check criteria, (80-110%). A new matrix spike solution was prepared for future samples. No further corrective action was taken."

No other problems were detected with any of the GPC calibrations.

Method Blanks

The retention time windows of both TCX and DCB were outside of the quality control limits in the analysis of PBLK01. There should be no reason for problems with surrogate recoveries in a method blank.

A low concentration of gamma-chlordane (0.026JP ug/l) was detected in the method blank PBKL01. This concentration was less than one half of the CRDL and does not affect the end use of the data.

The laboratory flagged the compound found in the blank with the "B" qualifier. The compounds detected in a method blank should never be flagged with this notation. The reason for this was not clear.

The laboratory reports two separate method blank summaries. Both of these are labeled PBLK01, but the extraction dates are not filled in. The laboratory should complete the missing data.

No other compounds were detected in the method blank.

Calibration Blanks

No problems were detected with the calibration blanks associated with this sample delivery group.

Field Blanks

A field blank was not analyzed with this sample delivery group.

Sample Results

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was only reported in the data usability summary table to concentrations greater than 1/2 of the CRDL. These compounds were reported at the CRDL and footnoted with #90.

Many of the percent differences of identified compounds were greater than 25%. The pesticide data were qualified in the data usability summary table as follows:

% Difference	Qualifier	Footnote
25 - 70%	"J"	91
70 - 100%	"JN"	92
> 100%	"R"	93
100 - 200% (Interference detected)	"JN"	94
> 50% (< CRDL, but > 1/2 CRDL)	"U"	95

SUMMARY OF THE ANALYTICAL DATA VALIDATION
Revere Smelting Site
Wallkill, NY

Soil Pesticide and PCB Analyses

Samples Collected November 8, 2001

Samples Received November 8, 2001

Sample Delivery Group: 0442

Laboratory Reference Numbers:

Equipment Blank	T5023
SED-P2 (0-6")	T5004
SED-P2 (0-6")MS	T5004MS
SED-P2 (0-6")MSD	T5004MSD
Blind Duplicate	T5005
EX-1 (0-6")	T5006
EX-1 (0-6")MS	T5006MS
EX-1 (0-6")MSD	T5006MSD
SED-S1(0-6')	T5007

Soil samples were received for analyses of the pesticide and PCB TCL analyte list by US EPA Region II protocols. A complete analytical validation was performed based upon the following parameters:

- * - Data Completeness
 - * - Holding Times
 - * - Laboratory Blanks
 - Field Blanks
 - Equipment Blanks
 - Surrogate Recoveries and Retention Times
 - Matrix Spike / Matrix Spike Duplicate
 - * - Blank Spike
 - * - Calibrations
 - * - Method Blanks
 - * - Analyte Resolutions
 - * - Performance Evaluation Mixtures
 - * - IND A and IND B Standards
 - * - Florisil Cartridge Check
 - * - GPC Calibration
 - * - Compound Identification
 - * - Method Detection Limit
- Sample Results

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

The retention times in the raw data only include those compounds identified by the laboratory as positive hits. Raw data for all of the peaks should be included.

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was only reported in the data usability summary table at concentrations greater than ½ of the CRDL.

Minor problems with surrogate, spikes and sample data are noted below.

Holding Times

All extractions and analyses were performed within the required holding times.

Surrogate Recoveries

All surrogate recoveries were within the required quality assurance limits with the following exception:

	TCX 1	TCX 2	DCB 1	DCB 2	#
Equipment Blank			20%	22%	26

The equipment blank data were flagged with the "J" qualifier and footnoted with #26 in the data validation summary table. There should not be a problem with recovery of surrogates from an equipment blank.

All of the soil surrogate recoveries were within the required limits.

Matrix Spike

Two matrix spikes were analyzed with this sample delivery group.

Sample SED-P2 (0-6") (Lab. #: T5004) was used as the first matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits with the following exceptions:

Compound	MS %Rec	MSD %Rec	QC Limits	RPD	Limits
gamma-BHC			46 - 127		50
heptachlor	32%		35 - 130	44%	31
aldrin			34 - 132		43
dieldrin			31 - 134		38
endrin			42 - 139		45
DDT			23 - 134		50

The matrix spike recovery of heptachlor was just below the 35% quality assurance limit. It is possible that very low concentrations of some early eluting pesticides were overlooked.

Sample EX-1 (0-6") (Lab. #: T5006) was used as the second matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits.

Blank Spike

Two blank spikes were analyzed with this sample delivery group. All blank spike recoveries were within the required quality assurance limits.

Initial Calibrations

No problems were detected with any of the initial calibrations.

Analyte Resolution

All percent resolutions were greater than 60% on both the RT-CLP and RTX-35 columns for both calibrations.

Continuing Calibrations

All percent resolutions were greater than 90%.

No problems were detected with any of the PEM or INDA and INDB standards that affected the end use of the data.

Florisil Cartridge Check

All recoveries were within the 80% - 120% quality assurance limits.

GPC Calibration

No problems were detected with any of the GPC calibrations.

Method Blanks

No compounds were detected in either the soil or aqueous method blanks

Calibration Blanks

No problems were detected with the calibration blanks associated with this sample delivery group.

Field Blanks

A field blank was not analyzed with this sample delivery group.

Sample Results

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was only reported in the data usability summary table to concentrations greater than ½ of the CRDL. These compounds were reported at the CRDL and footnoted with #90.

SUMMARY OF THE ANALYTICAL DATA VALIDATION
Revere Smelting Site
Wallkill, NY

Water Pesticides and PCB Organic Analyses – Method 95-3

Samples Collected November 15th and 16th, 2001

Samples Received November 17, 2001

Sample Delivery Group: 0517

Laboratory Reference Numbers:

MW-23D	T5537
MW-13	T5538
MW-23S	T5539
MW-25	T5540
MW-25MS	T5540MS
MW-25MSD	T5540MSD
MW-24	T5541
MW-26	T5542
X-1-GW	T5543

Water samples were received for analyses of the pesticide and PCB TCL analyte list by US EPA Region II protocols. A complete analytical validation was performed based upon the following parameters:

- Data Completeness
- * - Holding Times
- Laboratory Blanks
- Field Blanks
- Equipment Blanks
- Surrogate Recoveries and Retention Times
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- Calibrations
- * - Method Blanks
- * - Analyte Resolutions
- * - Performance Evaluation Mixtures
- * - IND A and IND B Standards
- * - Florisil Cartridge Check
- * - GPC Calibration
- * - Compound Identification
- * - Method Detection Limit
- Sample Results

* - Indicates that all criteria were met for this parameter.

DATA VALIDATION SUMMARY

Data for sample MW-25 (Lab. #: T5540) was not found in the copy of the analytical report submitted for validation.

Pages 492 to 515 were found out of order in the copy of the analytical report submitted for validation.

The retention times in the raw data only include those compounds identified by the laboratory as positive hits. Raw data for all of the peaks should be included.

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was reported in the data usability summary table at concentrations greater than ½ of the CRDL.

Minor problems with surrogates, blanks and retention times are noted below.

Holding Times

All extractions and analyses were performed within the required holding times.

Surrogate Recoveries

All surrogate recoveries were within the required quality assurance limits with the following exception:

	TCX 1	TCX 2	DCB 1	DCB 2
PBLK01	15%	18%	11%	12%

The laboratory's case narrative noted "the extract for this blank was spilled during concentration. Another prep blank was prepared on 11/21/01 and met criteria. No further corrective action was taken."

All of the other sample and blank surrogate recoveries were within the required limits.

Matrix Spike

Sample MW-25 (Lab. #: T5540) was used as the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality assurance limits.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Initial Calibrations

The laboratory's case narrative states:

"The initial calibration for the DB1701 column performed on 11/29/01 exceeded the 30% RSD criteria for alpha-BHC. The % RSD for alpha-BHC was 30.3%. Alpha-BHC was not detected above the CRQL in any samples. No further corrective action was taken."

The minor problem with the initial calibration did not affect the end use of the data.

Analyte Resolution

All percent resolutions were greater than 60% on both the RT-CLP and RTX-35 columns for both calibrations.

Continuing Calibrations

All percent resolutions were greater than 90%.

The retention times of the early PEM standards were at their lower retention time limit in PEM01 and close to their lower retention time limit in the other PEM continuing calibration standards. This standard was analyzed on 11/29 and the samples were analyzed on 12/06. The problems with the retention times did not directly affect the analyses of the samples.

The laboratory's case narrative states:

"The retention time for DCB in the resolution check analyzed on the DB608 column for the initial calibration was performed on 11/29/01 and PIBLK02 analyzed on 12/06/01 was outside the retention time window, as was TCMX in the PIBLK02 analyzed on 12/06/01 on the DB1701 column. All subsequent surrogate and standard compounds were within the established retention time windows. No other corrective action was taken."

This did not directly affect the usability of the sample data and the data were not qualified.

No other problems were detected with any of the PEM or INDA and INDB standards that affected the end use of the data.

Florisil Cartridge Check

All recoveries were within the 80% - 120% quality assurance limits.

GPC Calibration

A GPC cleanup was not done.

Method Blanks

An additional method blank was analyzed after the first one was spilled. Low concentrations of heptachlor (0.0037JP ug/l), DDD (0.013 JP ug/l) and endosulfan sulfate (0.0033 JP ug/l) were detected in the original method blank PBKL01. A low concentration of heptachlor (0.0041JP ug/l) was detected in the second method blank, PBLK02.

All of these concentrations are less than one half of the CRDL and did not affect the end use of the data.

The laboratory flagged all of the compounds found in the blank with the "B" qualifier. The compounds detected in a method blank should never be flagged with this notation. The reason for this was not clear.

Calibration Blanks

No problems were detected with the calibration blanks associated with this sample delivery group.

Field Blanks

A field blank was not analyzed with this sample delivery group.

Sample Results

Sample MW-25 (Lab. #: T5540)

The sample data for this sample was not found in the Pesticide and PCB section of this report. A copy of the FORM I for this sample was found in the sample summary package and a FORM 10A for this sample was found in the section on pesticides and PCBs.

The laboratory should submit the missing data.

The laboratory reported pesticides to concentrations near 1/100 of the CRDL. Such low concentrations may easily be false positives. Data was only reported in the data usability summary table to concentrations greater than 1/2 of the CRDL. These compounds were reported at the CRDL and footnoted with #90.

SUMMARY OF THE ANALYTICAL DATA USABILITY
For Revere Smelting Site
Walkill, NY

Soil Lead Analyses

Samples Received December 10, 2001

Sample Delivery Group: 0700

Laboratory Reference Numbers:

Sieve #1 + #60	T6682
Sieve #1 - #60	T6683
Sieve #2 + #60	T6684
Sieve #2 + #60RE	T6684RE
Sieve #2 - #60	T6685
Sieve #2 - #60MS	T6685MS
Sieve #2 - #60D	T6685D
Sieve #3 + #60	T6686
Sieve #3 - #60	T6687
Sieve #4 + #60	T6688
Sieve #4 - #60	T6689
Sieve #2 + #60 Blind Duplicate	T6695
Sieve #2 + #60 Blind Duplicate RE	T6695RE

Soil samples were received for total lead analyses by NYS DEC ASP protocols. A data usability was performed based upon the following parameters:

- * - Data Completeness
- * - Holding Times
- * - Calibration Verification
- * - CRDL Standard
- * - Laboratory Control Sample
- * - Serial Dilutions
- * - Laboratory Blanks
- * - Field Blanks
- * - Equipment Blanks
- * - Preparation Blanks
- * - Matrix Spike
- Duplicate Analyses
- * - ICP Interference Check Sample
- * - Detection Limit Results
- * - Linear Range
- Sample Results

* - Indicates that all criteria were met for this parameter.

Data Validation Summary

Samples Sieve #2 + #60 (Lab. #: T6684) and Sieve #2 + #60 Blind Duplicate (Lab. #: T6695) were both reanalyzed, but the reason for the reanalysis was not noted.

The two values for sample Sieve #2 + #60 (Lab. #: T6684) were 51.5 mg/kg and 78.6 mg/kg. This resulted in an RPD of 42%.

The two values for sample Sieve #2 + #60 Blind Duplicate (Lab. #: T6695) were 625 mg/kg and 68.1 mg/kg. This resulted in an RPD of 160%.

All of the data are rejected until the laboratory details the reasons for the reanalysis and discrepancies.

It is recommended that all of the samples of this delivery group be redigested and reanalyzed.

No other problems were found which would affect the end use of the data.

Holding Times

All samples were analyzed within the required holding times.

CRDL Standards

The recoveries of all CRDL standards were within the 80% to 120% quality assurance limits.

Initial and Continuing Calibrations

No problems were detected with any of the calibrations associated with this sample delivery group.

Preparation Blank

Lead was not detected in the preparation blanks at concentrations above the IDL (0.3 ug/kg).

Calibration Blanks

Lead was not detected in the calibration blanks at concentrations above the IDL (1.5 ug/l).

Field Blank

A field blank was not analyzed with this sample delivery group.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

ICP Interference Check Sample

No problems were detected with the reported ICP Interference Check Sample recoveries.

Matrix Spike Recovery

Sample Sieve #2 - #60 (Lab. #: T6685) was used as the matrix spike.

The concentration of spike added was too low (4 mg/kg) in relation to the concentration of the sample (66 mg/kg) for an accurate recovery.

Duplicate Analysis

Sample Sieve #2 - #60 (Lab. #: T6685) was used as the matrix duplicate.

The RPD (9%) was less than the required limit.

Laboratory Control Sample

No problems were detected with the recoveries of the three LCS standards.

Serial Dilutions

Sample Sieve #2 - #60 (Lab. #: T6685) was used for the serial dilution.

The % difference was less than 10% (1%).

Instrument Detection Limit

No problems were found with the instrument detection limits.

ICP Linear Range

No problems were detected with the linear ranges. The reported concentrations of all samples in this delivery group were within their linear range for each analyte.

Sample Results

Samples Sieve #2 + #60 (Lab. #: T6684) and Sieve #2 + #60 Blind Duplicate (Lab. #: T6695) were both reanalyzed, but the reason for the reanalysis was not noted.

The two values for sample Sieve #2 + #60 (Lab. #: T6684) were 51.5 mg/kg and 78.6 mg/kg. This resulted in an RPD of 42%.

The two values for sample Sieve #2 + #60 Blind Duplicate (Lab. #: T6695) were 625 mg/kg and 68.1 mg/kg. This resulted in an RPD of 160%.

All of the data are rejected until the laboratory details the reasons for the reanalysis and discrepancies.

No other problems were detected with the samples.

**For Revere Smelting Site
Wallkill, NY**

Soil Volatile Organic Analyses – Method 95-1

Samples Collected October 23rd & 24th 2001

Samples Received October 25, 2001

Sample Delivery Group: 0314

Laboratory Reference Numbers:

Received 10/25

QC Trip Blank	T4285	Collected 10/24
Storage Blank	T4298	
SB-OBG-12(0-1.6'BS)	T4281	Collected 10/23
SB-OBG-11(2-2.9'BS)	T4282	Collected 10/24
SB-OBG-3(0-1.3'BS)	T4283	Collected 10/24
SB-OBG-18(0-1.9'BS)	T4284	Collected 10/24

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blank
 - Trip Blanks
- * - Storage Blank
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Laboratory Control Sample
- * - Instrument Detection Limits
- * - Compound Identification
- * - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

The problems with methylene chloride contamination all blanks should be noted. Only low concentrations of methylene chloride were detected in the samples. Methylene chloride was detected in the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table.

No significant problems were detected with this data package that would affect the end use of the data.

Holding Times

All samples were initially analyzed within the required holding time.

Tunes

EPA bromofluorobenzene criteria were reported on the tune summary form (FORM V) as opposed to those of the NYS DEC ASP program. The more stringent NYS DEC ASP requirements were met for all of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the required quality assurance limits.

Calibrations

No problems were detected with the one initial calibration. All percent differences were less than 30 %.

The percent difference of chloromethane (35%) was above the 25% quality assurance limit. This compound was not detected in any of the samples and the data were not qualified since the %D was less than 50%.

Matrix Spike / Matrix Spike Duplicate

A matrix spike was not analyzed with this sample delivery group.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Laboratory Control Sample

Two solid laboratory control samples were analyzed with this sample delivery group. All recoveries were within the required quality assurance limits

Method Blanks

Low concentrations of bromomethane (1J ug/kg) and methylene chloride (4J ug/kg) were detected in the one method blank.

Bromomethane was not detected in any of the samples.

Methylene chloride was detected in all of the samples at concentrations less than the CRDL. These were reported as 11U in the data usability summary table and footnoted with #32.

Trip Blanks

A low concentration of methylene chloride (3JB ug/l) and an unknown non-target compound eluting at 6.57 minutes were detected in the trip blank.

Methylene chloride was also detected in the method blank.

Methylene chloride was detected in all of the samples at concentrations less than the CRDL. These were reported as 11U in the data usability summary table and footnoted with #38.

Equipment Blank

No compounds were detected in the equipment blank.

Field Blank

A field blank was not analyzed with this sample delivery group.

Storage Blank

A low concentration of methylene chloride (6JB ug/l) was detected in the storage blank.

Methylene chloride was also detected in the method blank and trip blank.

Methylene chloride was detected in all of the samples at concentrations less than the CRDL. These were reported as 11U in the data usability summary table and footnoted with #38.

Internal Standard Areas and Retention Times

All internal standard recoveries and retention times were within the required quality assurance limits.

Instrument Detection Limits

No problems were found with the instrument detection limits.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

**For Revere Smelting Site
Walkill, NY**

**Soil Volatile Organic Analyses – Method 95-1
Samples Collected October 25th and 26th, 2001
Samples Received October 27th 2001
Sample Delivery Group: 0337
Laboratory Reference Numbers:**

QC Trip Blank	T4411
Storage Blank	T4479
SB-OBG-16(2-3.7'BS)	T4399
SB-OBG-13(2-3.4'BS)	T4400
SB-OBG-9(0-2.0'BS)	T4401
SS-OBG-31(0-0.2'BS)	T4403
SS-OBG-32(0-0.2'BS)	T4404
SS-OBG-21(0-0.2'BS)	T4405
SS-OBG-2(0-0.2'BS)	T4406
SS-OBG-36(0-0.2'BS)	T4407
SS-OBG-36(0-0.2'BS)MS	T4407MS
SS-OBG-36(0-0.2'BS)MSD	T4407MSD
SS-OBG-14(0-1.5'BS)	T4408
SSX-9	T4409
SB-X-5	T4410

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- * - Calibrations
 - Laboratory Blanks
 - Field Blank
- * - Trip Blanks
- * - Storage Blank
- * - System Monitoring Compound Recoveries
 - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Laboratory Control Sample
- * - Instrument Detection Limits
- * - Compound Identification
- * - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

No significant problems were detected with this data package that would affect the end use of the data.

Holding Times

All samples were initially analyzed within the required holding time.

Tunes

EPA bromofluorobenzene criteria were reported on the tune summary form (FORM V) as opposed to those of the NYS DEC ASP program. The more stringent NYS DEC ASP requirements were met for all of the tunes of this sample delivery group.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the required quality assurance limits.

Calibrations

No problems were detected with the one initial calibration. All percent differences were less than 30 %.

The percent difference of chloromethane (35%) was above the 25% quality assurance limit in the continuing calibration associated with the initial analyses of all soil samples of this delivery group (M5640.D, analyzed 10/29). This compound was not detected in any of the samples and the data were not qualified since the %D was less than 50%.

No problems were detected with the second continuing calibration (M5658.D, analyzed 10/30) associated with the analyses of all of the Trip Blank, Storage Blank and the reanalysis of sample T4406.

Matrix Spike / Matrix Spike Duplicate

Sample SS-OBG-36(0-0.2'BS) (Lab. #: T4407) of this sample delivery group was used as the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required quality control limits.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Laboratory Control Sample

Three solid laboratory control samples were analyzed with this sample delivery group. All recoveries were within the required quality assurance limits

Method Blanks

Low concentrations of bromomethane (1J ug/kg) methylene chloride (4J ug/kg) and an unknown non-target compound eluting at 6.96 were detected in the first of the two method blanks, VBLK01, analyzed on 10/29.

This method blank was associated with the initial analyses of all of the solid samples.

Bromomethane was not detected in any of the samples.

When the non-target compound was detected in a sample it were rejected and flagged with the "R" qualifier and footnoted with #35 in the data usability summary table.

A low concentration of methylene chloride (1J ug/kg) was detected in the second method blank, VBLK02, analyzed on 10/30.

This method blank was associated with the analyses of all of the Trip Blank, Storage Blank and the reanalysis of sample T4406.

Bromomethane was not detected in any of the samples.

Methylene chloride was detected in all of the samples. These were reported at the CRDL with the "U" in the data usability summary table and footnoted with #32 when it was present at concentrations less than the CRDL.

If the sample concentration is greater than the CRDL but less than 10 times the method blank value, the sample data was flagged with a "U" qualifier and footnoted with #30.

Trip Blanks

No compounds were detected in the trip blank.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

Field Blank

A field blank was not analyzed with this sample delivery group.

Storage Blank

No compounds were detected in the storage blank.

Internal Standard Areas and Retention Times

All internal standard recoveries and retention times were within the required quality assurance limits with the one exception of sample SS-OBG-2(0-0.2'BS) (Lab. #:T4406).

The chlorobenzene-d5 internal standard recovery (48%) was less than the 50% quality assurance limit in the analysis of this sample.

The sample was reanalyzed and the recovery of the chlorobenzene-d5 internal standard (36%) was again less than the 50% quality assurance limit.

There were no significant differences between the results of the two analyses of this sample. It is recommended that the data from the first analysis be used for the final reporting since the recoveries of the internal standards were slightly higher.

The data for the compounds affected by the low internal standard recoveries were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

Instrument Detection Limits

No problems were found with the instrument detection limits.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

**For Revere Smelting Site
Wallkill, NY**

Soil Volatile Organic Analyses – Method 95-1

Samples Collected November 8, 2001

Samples Received November 8, 2001

Sample Delivery Group: 0442

Laboratory Reference Numbers:

Storage Blank	T5023
Equipment Blank	T5024
Trip Blank	T5025
SED-P2 (0-6")	T5004
SED-P2 (0-6")MS	T5004MS
SED-P2 (0-6")MSD	T5004MSD
Blind Duplicate	T5005
EX-1 (0-6")	T5006
EX-1 (0-6")MS	T5006MS
EX-1 (0-6")MSD	T5006MSD
SED-S1(0-6')	T5007
SED-S1(0-6')RE	T5007RE

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
 - Calibrations
 - Laboratory Blanks
 - Field Blank
 - Trip Blanks
 - Storage Blank
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
 - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Laboratory Control Sample
- * - Instrument Detection Limits
 - Compound Identification
 - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

The problems with methylene chloride contamination of the blanks should be noted. Only low concentrations of methylene chloride were detected in the samples. . Methylene chloride was detected in the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table.

The problems with the internal standard recoveries in samples EX-1 (0-6") (Lab. #: T5006) and SED-S1(0-6") (Lab. #: T5007) should be noted.

A low concentration of xylene (1J ug/l) was found in the raw data for sample EX-1 (0-6") (Lab. #: T5006), but this was not included in the laboratory's summary form. This was added in the data usability summary table.

Additional minor problems with blank contamination, matrix spike recoveries and the continuing calibration should be noted.

These are all described in detail below.

Holding Times

All samples were analyzed within the required holding time.

Tunes

No problems were detected with the tunes.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the required quality assurance limits.

Calibrations

No problems were detected with the one initial calibration. All percent differences were less than 30 %.

The percent difference of acetone (30%) and 2-butanone (33%) were above the 25% quality assurance limit.

If these compounds were detected in a sample the data was flagged with a "J" qualifier and footnoted with #41 in the data usability summary table.

If this compound were not detected in a samples and the data were not qualified since the %D was less than 50%.

Matrix Spike / Matrix Spike Duplicate

Samples SED-P2 (0-6") (Lab. #: T5004) and EX-1 (0-6") (Lab. #: T5006) from this sample delivery group were used for the two matrix spike and matrix spike duplicates.

All recoveries and RPDs of sample SED-P2 (0-6") (Lab. #: T5004) were within the required limits.

All recoveries and RPDs of sample EX-1 (0-6") (Lab. #: T5006) were within the required limits with the exceptions of the recovery of the toluene matrix spike duplicate (141)%. This was just above the quality assurance limit of 139%. The RPD of this compound (21%) was at the 21% quality assurance limit.

The data were not qualified for the high toluene recovery and RPD since it did not significantly affect the end use of the data.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Laboratory Control Sample

All recoveries were within the required quality assurance limits

Method Blanks

A low concentration of methylene chloride (1J ug/kg) was detected in the one method blank.

Methylene chloride was detected in many of the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table and footnoted with #32.

Trip Blanks

A low concentration of methylene chloride (1JB ug/kg) was detected in the trip blank.

Methylene chloride was also detected in the method blank and storage blank.

Methylene chloride was detected in most of the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table and footnoted with #38.

Equipment Blank

A low concentration of carbon disulfide (7J ug/l) and two non-target compounds were detected in the equipment blank.

When carbon disulfide was detected a sample at a concentration less than the CRDL, the data was reported at the CRDL in the data usability summary table and footnoted with #38.

When either of the non-target compounds was detected in a sample they were rejected and flagged with the "R" qualifier and footnoted with #35 in the data usability summary table.

Field Blank

A field blank was not analyzed with this sample delivery group.

Storage Blank

A low concentration of methylene chloride (2JB ug/l) and two non-target compounds were detected in the storage blank.

Methylene chloride was also detected in the method blank and trip blank.

Methylene chloride was detected in many of the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table and footnoted with #38.

When either of the non-target compounds was detected in a sample they were rejected and flagged with the "R" qualifier and footnoted with #35 in the data usability summary table.

Internal Standard Areas and Retention Times

All internal standard recoveries and retention times were within the required quality assurance limits with the following exceptions:

The chlorobenzene-d5 internal standard recovery (45%) was less than the 50% quality assurance limit in the analysis of sample EX-1 (0-6") (Lab. #: T5006).

This sample was used as a matrix spike and matrix spike duplicate. All of the internal standard recoveries were within the required limits in the matrix spike analysis, but the recovery of the chlorobenzene-d5 internal standard in the matrix spike duplicate (42%) was also less than the QC limit.

The recoveries of the 1,4-difluorobenzene (47%) and chlorobenzene-d5 (34%) internal standards were less than the 50% quality assurance limits in the analysis of sample SED-S1(0-6') (Lab. #: T5007).

The sample was reanalyzed and only the recovery of the chlorobenzene-d5 internal standard (47%) was less than the 50% quality assurance limit.

There were no significant differences between the results of the two analyses of this sample. It is recommended that the data from the first analysis be used for the final reporting since the recoveries of the internal standards were slightly higher.

The data for the compounds affected by the low internal standard recoveries were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

Instrument Detection Limits

No problems were found with the instrument detection limits.

Sample Results**Sample EX-1 (0-6") (Lab. #: T5006)**

A low concentration of xylene (1J ug/l) was found in the raw data, but was not included on the laboratory's summary form. This was added in the data usability summary table.

Sample SED-S1(0-6') (Lab. #: T5007)

The recoveries of the 1,4-difluorobenzene (47%) and chlorobenzene-d5 (34%) internal standards were less than the 50% quality assurance limits in the analysis of sample SED-S1(0-6') (Lab. #: T5007).

The sample was reanalyzed and only the recovery of the chlorobenzene-d5 internal standard (47%) was less than the 50% quality assurance limit.

There were no significant differences between the results of the two analyses. It is recommended that the data from the first analysis be used for the final reporting since the recoveries of the internal standards were slightly higher.

The data for the compounds affected by the low internal standard recoveries were flagged with the "J" qualifier and footnoted with #70 in the data validation summary table.

No other problems were found with the reported results of any of the samples of this delivery group.

**For Revere Smelting Site
Wallkill, NY**

Water Volatile Organic Analyses – Method 95-1
Samples Collected November 15th and 16th, 2001
Samples Received November 17, 2001
Sample Delivery Group: 0517
Laboratory Reference Numbers:

QC Trip Blank	T5544
Storage Blank	T5564
MW-23D	T5537
MW-13	T5538
MW-23S	T5539
MW-25	T5540
MW-25MS	T5540MS
MW-25MSD	T5540MSD
MW-24	T5541
MW-26	T5542
X-1-GW	T5543

Data were reviewed for usability according to the following criteria:

- * - Data Completeness
- * - GC/MS Tuning
- * - Holding Times
- Calibrations
- Laboratory Blanks
- Field Blank
- Trip Blanks
- Storage Blank
- * - System Monitoring Compound Recoveries
- * - Internal Standard Recoveries
- * - Matrix Spike / Matrix Spike Duplicate
- * - Blank Spike
- * - Laboratory Control Sample
- * - Instrument Detection Limits
- * - Compound Identification
- * - Compound Quantitation

* - Indicates that all criteria were met for this parameter.

DATA USABILITY SUMMARY

The minor problem with the omission of continuing calibration data should be noted.

The problems with methylene chloride contamination of the blanks should be noted.
Only low concentrations of methylene chloride were detected in the samples.
Methylene chloride was detected at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table.

Holding Times

All samples were analyzed within the required holding time.

Tunes

No problems were detected with the tunes.

System Monitoring Compound Recoveries

All system monitoring compound recoveries were within the required quality assurance limits.

Calibrations

No problems were detected with the one initial calibration. All percent differences were less than 30 %.

All of the samples were analyzed directly after the analyses of the initial calibration. When this is done, a continuing calibration form is also included that compared the RFs of the 50 PPB standard with the mean RF of the initial calibration. This was not done.

This omission does not significantly affect the data usability.

Matrix Spike / Matrix Spike Duplicate

Sample MW-25 (Lab. #: T5540) from this sample delivery group was used for the matrix spike and matrix spike duplicate. All recoveries and RPDs were within the required limits.

Blank Spike

All blank spike recoveries were within the required quality assurance limits.

Laboratory Control Sample

All recoveries were within the required quality assurance limits

Method Blanks

A low concentration of methylene chloride (1J ug/kg) was detected in the one method blank.

Methylene chloride was detected in many of the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table and footnoted with #32.

Trip Blanks

A low concentration of methylene chloride (1JB ug/kg) was detected in the trip blank.

Methylene chloride was also detected in the method blank and storage blank.

Methylene chloride was detected in most of the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table and footnoted with #38.

Equipment Blank

An equipment blank was not analyzed with this sample delivery group.

Field Blank

A field blank was not analyzed with this sample delivery group.

Storage Blank

A low concentration of methylene chloride (1JB ug/l) was detected in the storage blank.

Methylene chloride was also detected in the method blank and trip blank.

Methylene chloride was detected in many of the samples at concentrations less than the CRDL. These were reported at the CRDL in the data usability summary table and footnoted with #38.

Internal Standard Areas and Retention Times

All internal standard recoveries and retention times were within the required quality assurance limits.

Instrument Detection Limits

No problems were found with the instrument detection limits.

Sample Results

No problems were found with the reported results of any of the samples of this delivery group.

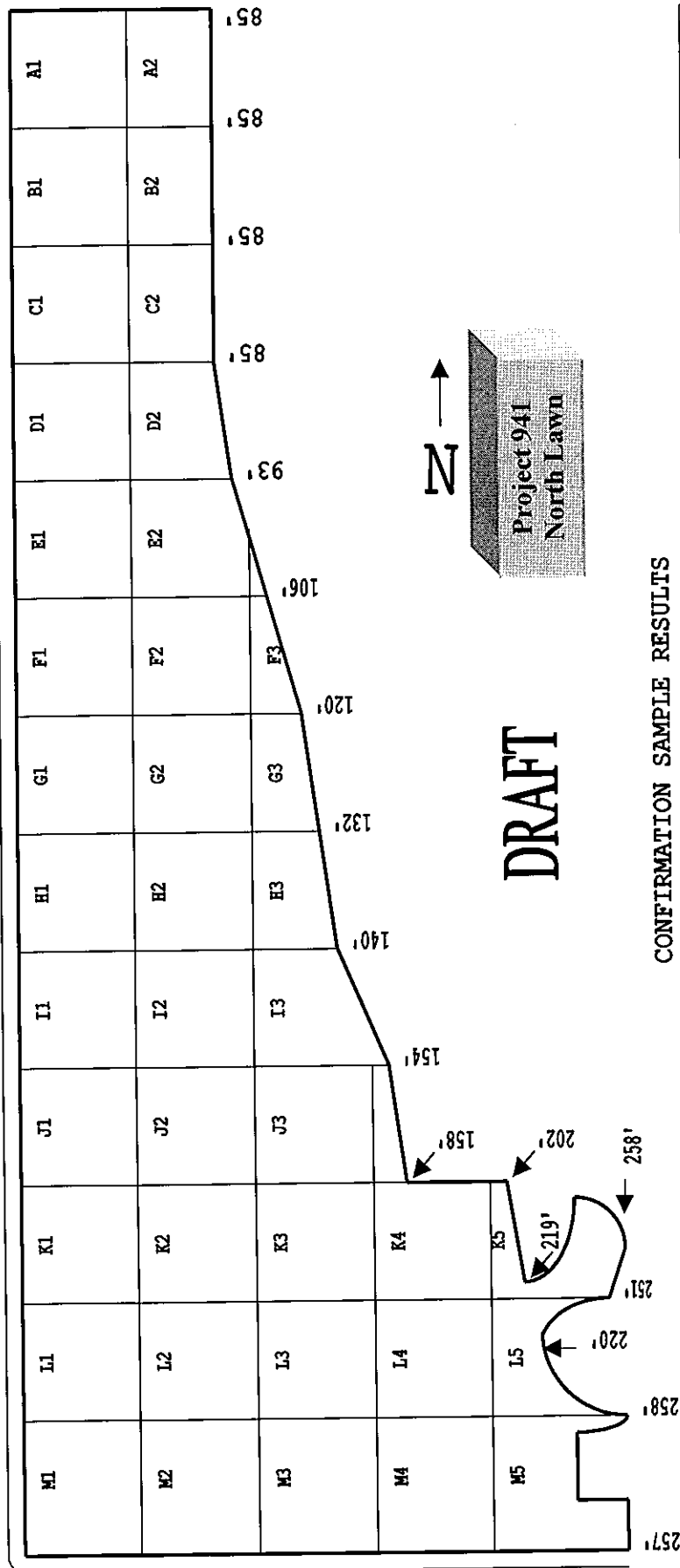


Front Lawn Excavation Information

BALLARD ROAD

WETLANDS

DRIVEWAY



CONFIRMATION SAMPLE RESULTS

M1 CSF-151 CSWS-805 CSWW-136	L1 CSF-819 2U CSF-1,090 3U CSF-21.7 CSWW-1231	K1 CSF-23.3 CSWW- 5,734	J1 CSF-65.0 CSWW- 3,821	I1 CSF-50.9 CSWW- 1,894	H1 CSF-51.2 CSWW- 3,289	G1 CSF-300 CSWW- 21,831	F1 CSF-176 CSWW- 32,256	E1 CSF-437 CSWW- 4,403	D1 CSF-379 CSWW- 2,351/2456	C1 CSF-31.3 CSWW- 1,375	B1 CSF-172 CSWW- 8,648	A1 CSF-176 CSWN-3,248 CSWW- 10,128
M2 CSF-56.9 CSWS-641	L2 CSF-183	K2 CSF-110	J2 CSF-179	I2 CSF-64.9	H2 CSF-22.3	G2 CSF-147	F2 CSF-55.9	E2 CSF-73.4 CSWE-49.5 /32.5	D2 CSF-26.6 CSWE-47.4	C2 CSF-25.6 CSWE-66.7	B2 CSF-81.8 CSWE-42.6	A2 CSF-68.4 CSWN-272 CSWE-58.9
M3 CSF-278 CSWS-3,400 2M4 CSF-1,020 /576	L3 CSF-85.8	K3 CSF-54.6	J3 CSF-28.1 CSWE-44.2	I3 CSF-93.7 CSWE-69.1	H3 CSF-159 CSWE-64.7	G3 CSF-74.8 CSWE-89.2 /96.7	F3 CSF-23.4 CSWE-40.2					
M4 CSF-1,390 CSWS- 1,770	L4 CSF-68.3	K4 CSF-41.7 /50.3 CSWN-139										
M5 CSF-92 CSWS-893 CSWE-883	L5 CSF-176 CSWE-147	K5 CSF-116 CSWE-260										

* For detailed data refer to ESC field notes dated 10/07/98-11/17/98 and laboratory analytical reports.

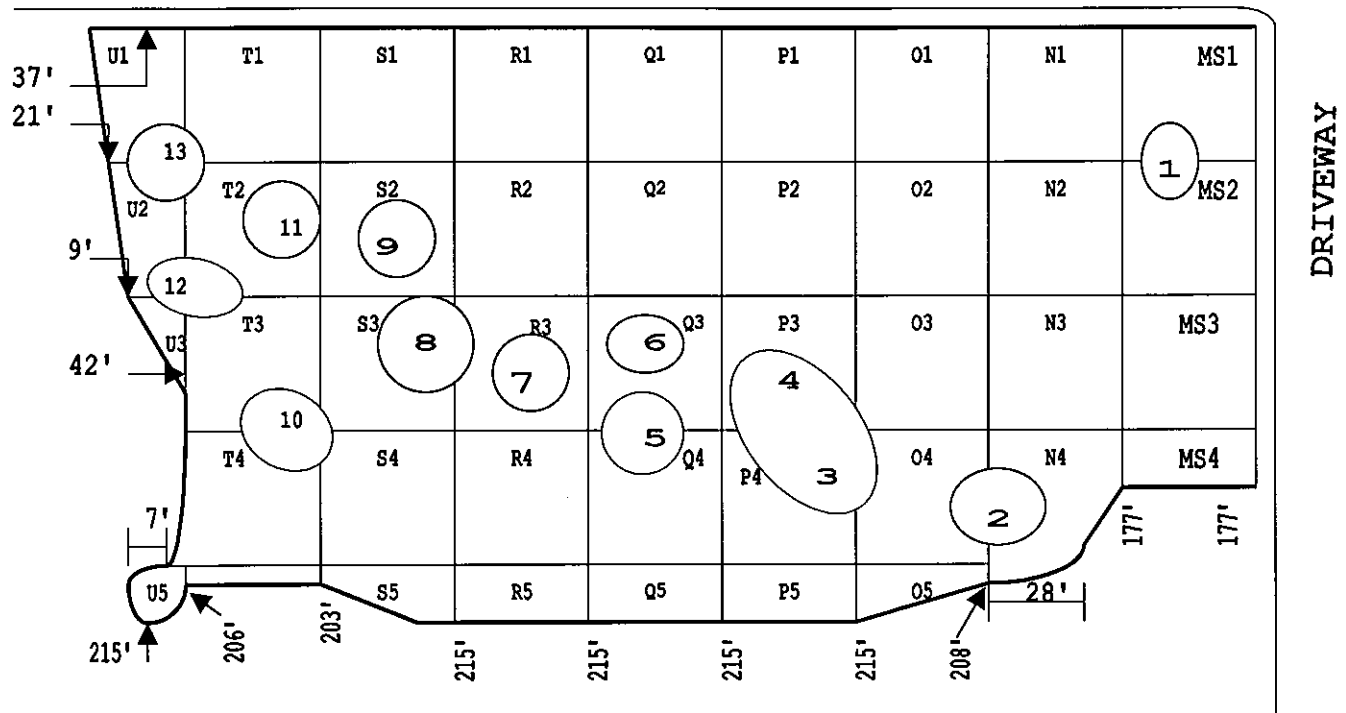
* Grid units are 50' x 50' unless otherwise noted.

* CSF = Confirmation Sample Floor, CSW = Confirmation Sample Wall (the letter after CSW denotes cardinal point).

* All soil results are in mg/kg total lead; "r" denotes duplicate sample result.

* Numbers preceding grid units (i.e. 2M4) denote additional excavation events at greater depths.

BALLARD ROAD



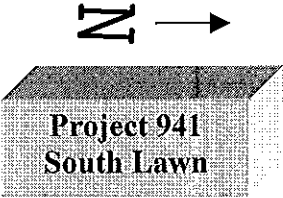
DR ^

CONFIRMATION SAMPLE RESULTS

U1 CSF-111 CSWW-926 CSWS-821	T1 CSF-268 CSWW-214	S1 CSF-47.3 CSWW-1,180	R1 CSF-35.0 CSWW-2,900	Q1 CSF-40.1 CSWW-108	P1 CSF-104 CSWW-115	O1 CSF-233 CSWW-7,340	N1 CSF-26.2 CSWW-111	MS1 CSF-30.9 CSWN-5420 CSWW-2,000
U2 CSF-75.8 CSWS-294	T2 CSF-32.6	S2 CSF-43.3	R2 CSF-35.5	Q2 CSF-37.4	P2 CSF-169	O2 CSF-161 /128	N2 CSF-91.5	MS2 CSF-38.0 CSWN-770
U3 CSF-34.5 CSWS-225	T3 CSF-63.1	S3 CSF-2,460 2S3 CSF-49.4	R3 CSF-17,300 2R3 CSF-26.2 /26.5	Q3 CSF-80.6	P3 CSF-220	O3 CSF-33.0	N3 CSF-42.1	MS3 CSF-48.3 CSWN-3,100
	T4 CSF-109 CSWE-177 CSWS-936	S4 CSF-2,380 2S4 CSF-24.6	R4 CSF-61.1 /39.3	Q4 CSF-52.0	P4 CSF-36.4	O4 CSF-28.9	N4 CSF-81.1 CSWE-448	MS4 CSF-15.2 CSWN-22,400 CSWE-624
U5 CSF-101 CSWE-1,201 CSWS-643		S5 CSF-194 CSWE-371	R5 CSF-26.2 CSWE-30.8	Q5 CSF-30.7 CSWE-369	P5 CSF-19.5 CSWE-152	O5 CSF-89.3 CSWE-634		

- * **FOR GRAPHIC PURPOSES ONLY.** For detailed data refer to ESC field notes dated 11/18/98–12/10/98 and laboratory analytical reports.
- * Grid units are 50' x 50' unless otherwise noted; circles within grid units represent “tree islands” – islands 1, 5, 7, 8, 9, & 10 were removed.
- * CSF = Confirmation Sample Floor, CSW = Confirmation Sample Wall (the letter after CSW denotes cardinal point).
- * All soil results are in mg/kg total lead unless otherwise noted; “P” denotes duplicate sample result.
- * Numbers preceding grid units (i.e. 2M4) denote additional excavation events at greater depths.

"Tree Island" Sample Results (TRS = Tree, South lawn)	
TRS1 - 728 ¹ , 3.51 ² , 19.3 ³	TRS8 - 5,750 ¹ , 52.7 ² , 73.0 ³
TRS2 - 369 ¹	TRS9 - 1,570 ¹ , 7.85 ² , 22.0 ³
TRS3 - 62.7 ¹	TRS10 - 3,430 ¹ , 23.1 ² , 53.6 ³
TRS4 - 44.3 ¹	TRS11 - 282/246 ¹
TRS5 - 1,790 ¹ , 9.95 ² , 36.4 ³	TRS12 - 716 ¹ , 0.919 ²
TRS6 - 191 ¹	TRS13 - 261 ¹
TRS7 - 11,600 ¹ , 279 ² , 50.1 ³	
¹ Total Pb, mg/kg, 5 point composite around tree island/drip line	
² TCLP Pb, mg/l, 5 point composite around tree island/drip line	
³ Total Pb, mg/kg, 5 point composite of footprint <u>after tree removal</u>	



AFT

②

10/07/98

0900 - MEET WAYNE AND NICK
TO EXCAVATION AREA
DRESSED IN LEVEL C.

- FULL FACE RESP.

- TYVEK

- RUBBER BOOTS

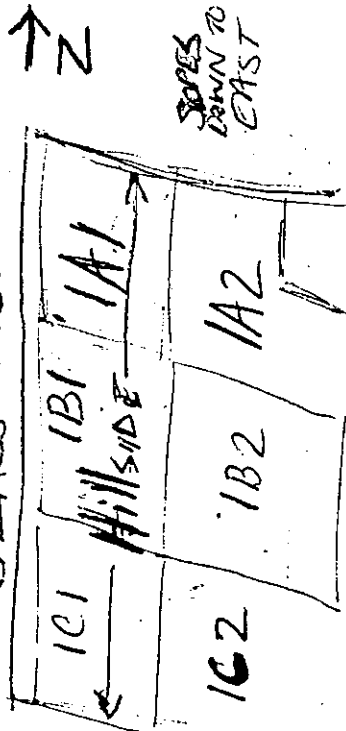
- GLOVES

- HARD HAT + STEEL TOE BOOTS.

910 - DISCUSS SAMPLE AREAS

AND PROCEDURE WITH WAYNE

PALLARD RD.



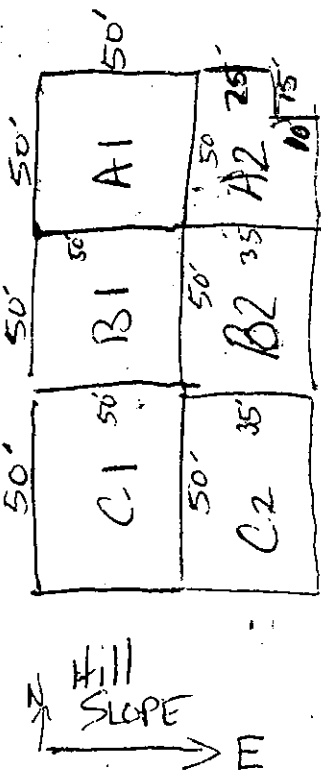
SAMPLE GRID IS LAIN OUT WITH
THE ABOVE DESIGNATIONS.

THE FIRST NUMBER WHICH IS
A 1 (ONE) IS USED TO DESIGNATE
THIS EXCAVATION TO BE THE
FIRST OR UPPERMOST LAYER

3

10/07/98

EXCAVATED. EACH CONSECUTIVE
SURFACE LAYER WILL INCREASE
BY ONE. THE FIRST LAYER
EXCAVATED WAS GENERALLY A
ONE FOOT DEEP AREA OF SOIL
REMOVED FROM SECTIONS A1, A2,
B1, B2, C1, AND C2. THE
DIMENSIONS OF THE SECTIONS
ARE PLOTTED BELOW, AND ARE
GENERALLY TO BE 50' x 50' SECTIONS.



A1 = 50' x 50'
A2 = 50' x 35' WITH AN UNDER AREA OF 20' x 15'
B1 = 50' x 50'
B2 = 50' x 35'
C1 = 50' x 50'
C2 = 50' x 35'

(4)

10/07/98

ALL SAMPLES COLLECTED WILL BE COMPOSITE SAMPLES

CSF = CONFIRMATION SAMPLE FLOOR

CSW = CONFIRMATION SAMPLE WALL

WALL SAMPLES WILL BE FOLLOWED

BY A DIRECTIONAL LETTER

(N, S, E, or W) SO THAT

THE WALL OF THE SECT. IS CLAR.

9915 - COLLECT COMP. SAMP - (5 on a Die)

1A1 - CSF - 100798

AND DUPLICATE SAMPLE

1A1A - CSF - 100798

(THE SECOND A DENOTES A DUPLICATE)

9920 - COLLECT COMP. SAMP (5 on a Die)

1A2 - CSF - 100798

9930 - COLLECT COMP. SAMP (5 on a Die)

1B1 - CSF - 100798

9940 - COLLECT COMP. SAMP (5 on a Die)

1B2 - CSF - 100798 ~~1B2~~ MS/MSD

9950 - COLLECT COMP. SAMP (5 on a Die)

1C1 - CSF - 100798

COLLECT COMP. SAMP

1C2 - CSF - 100798

NOTE - MS/MSD EXTRA TAG TAKEN

FOR 1B2 + CSF - 100798 AT OTHER S.

(5)

10/07/98

1020 - COLLECT COMP. SAMP IN WALL TO NORTH OF 1A1 - REMOVED

LOSE SOIL TO EXPOSE THE "TRUE WALL" OF THE EXCAVATION AND COMPOSITED 5 SAMPLES FROM THE WALL FOR

1A1 - CSW/N - 100798

1030 - COLLECTED COMP. SAMP IN WALL NORTH OF A2 FROM "TRUE WALL"

1A2 - CSW/N - 100798

1040 - COLLECTED COMP. SAMP IN WALL TO EAST OF C2 FROM "TRUE WALL"

1C2 - CSW/E - 100798

1050 - COLLECTED COMP. SAMP IN WALL TO EAST OF B2 FROM "TRUE WALL"

1B2 - CSW/E - 100798

1100 - COLLECTED COMP. SAMP IN WALL TO EAST OF A2 FROM TRUE WALL

1A2 - CSW/E - 100798

1115 - LEAVE EXCAVATION AREA THROUGH DECONTAMINATION AREA

10/07/98

(6)

1140] Collect equipment blank w/ dist. water.
1140] Discuss work M. Higgins
on phone - and Wayne

at Pavilion

2201] Pick up FedEx coolers

at RSR office

- Mob to site

- Unpack gear -

- Organize shed

2401] Mob to excavation area
for photos.

HOTOS

- 1A1 + 1A2 facing west to balance

RD. 1A2 is closer - notice

orange pipes marking 50' intervals

- 1B1 + 1B2 facing west

- 1C1 + 1C2 facing west

- Eastern wall of 1C2 + 1B2

facing south

- North wall of 1A1 + 1A2

facing to the west

20] offsite with all samples

mob to Stony Ford

sand and gravel

to meet with Art

Weston (914) 692-2558

(7)

10/7/98

1330] Arrive at Stony Ford

Sand + Gravel

1345] locate Art Weston

- Art takes me on tour

of borrow area which

ESC has previously

sampled.

- Art - using many "explorative"

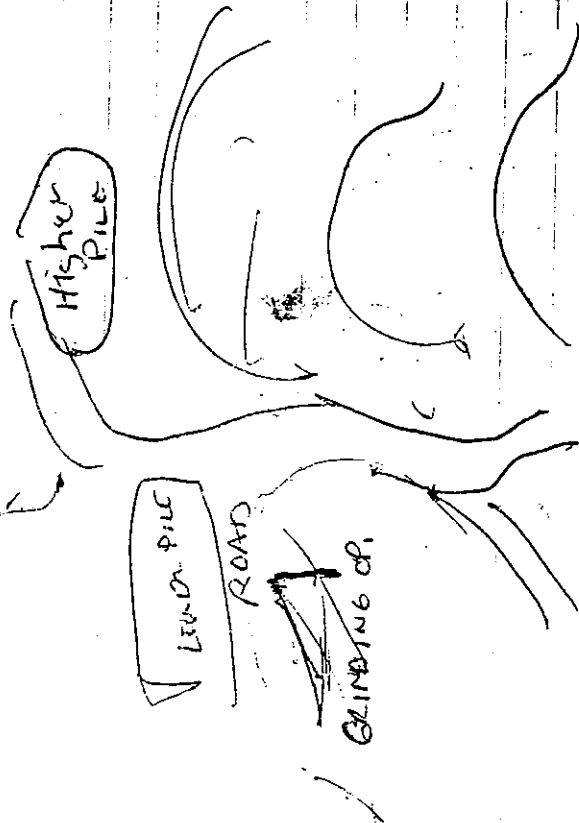
assured me that there

two areas the "lower pile"

and the "higher pile" are

the same piles previously

sampled.



(8)

10/07/88

THERE IS VEGETATION AND VISUAL EVIDENCE THAT THESE PILES ARE NOT NEWLY DEPOSITED AND SEEM TO BE THE SAME PILES DESCRIBED BY JIM SOBERT OF ESC. - ART WELTON HOWEVER DOES NOT GUARANTEE THAT THOSE PILES WILL BE AVAILABLE MUCH LONGER. CHECK TOP SOIL PILE.

TOP SOIL IS GOOD - BUT NUMEROUS COBLES ARE PRESENT - NOT SCREENED BUT DIRECT CHIPS -

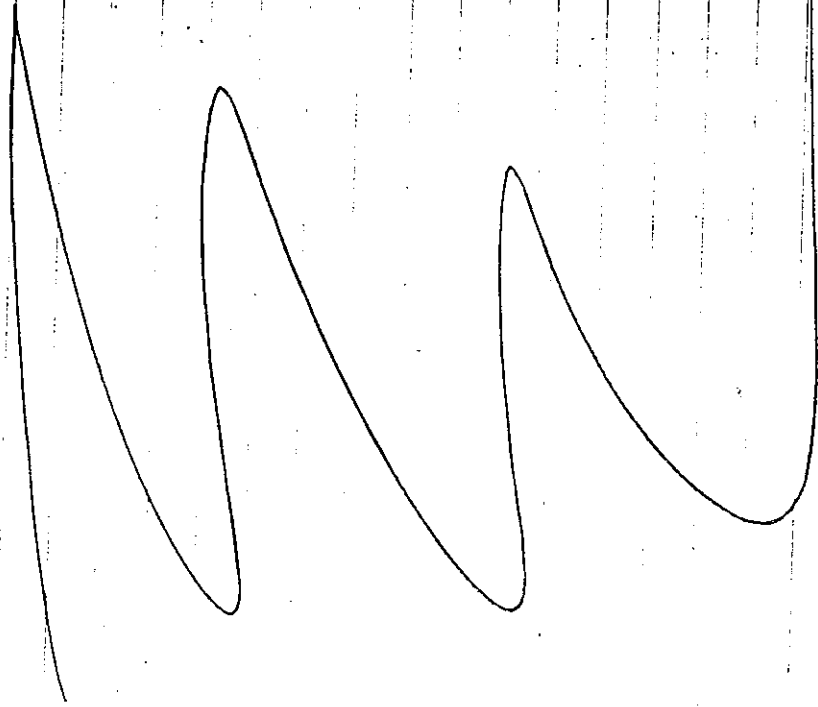
ART CLAIMS THAT HAS BEEN USED ON 4 RECENT STATE JOBS - AND YOU KNOW WHAT THEY SAY - good enough for the -
THE TOP SOIL SHOULD BE OK.

1115 / BED LEAVES SEEN FORD STG. MOB TO OFFICE TO PAK COOL FILL OUT C.O.R.

(9)

10/07/88

1530 / MEET FOP EX WITH COOLIN OF EXCAVATION CONF. SAMP. - C.O.C. DENOTES 24 HOUR TURNAROUND - ALL SAMPLES TAKEN ARE BEING ANALYZED FOR TOTAL LEAD - 6010



(10)

10/15/98

0900 RETURNED CALL TO WAYNE CRAN AT RSR - HE INFORMS ME THAT 3 SAMPLING EVENTS WERE NEEDED TO BE DONE AT RSR.

1015 LEAVE FOR RSR.
1050 SIGN AT RSR GATE

MEET W/ WAYNE CRAN
- DISCUSS COMPOSITE SAMPLING TO REPRESENT 1500 YDS OF PILE WHICH WAS REMOVED FROM SECTIONS A1-C2 LAST WEEK. APPARENTLY THIS PILE IS THE "HOTTEST" IN TERMS OF POTENTIAL LEAD CONTAMINATION.
- WAYNE AND I DECIDE ON 3 COMPOSITE SAMPLES.

1130 AT SHEDS TO MOB GEAR
- HANO AVERN
- HANO TRENCH
- SAMPLED CONTAINERS.
- CLEAN OUT SHED

NEED Auger ROLLS
Mob to Wayne

215 COLLECT WT-1 SAMPLE
WATER TANK SAMPLE

(11)

10/15/98

FIRST FILLING H₂O SAMPLE
COLLECTED FROM TRAP OF
WATER TANK TRUCK

- TRUCK WILL BE EMPTIED
AND REFILLED AND
SAMPLED AGAIN - 3 TIMES.

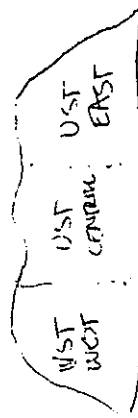
1220 STW - (STORM TANK ~~WEST~~)

SAMPLE COLLECTED FROM WESTERN
MOST STORM TANK - OUT FLOW
VALVE WAS OPENED FOR APPROX.
1 MINUTE TO FLUSH OUT
PRIOR TO SAMPLE COLLECTION.

- WAIT FOR WATER TANK TRUCK TO
REFILL

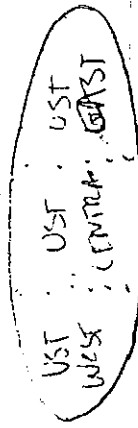
1230 CHANGE INTO LEVEL C PPE

- MOVS TO SOIL PILE FROM
EXCAVATION.



SIDE
VIEW

PILE IS APPROX 1500 YDS.



TOP
VIEW

DIVIDE INTO 3 500 YD BY GYE FOR SAMPLING

(12)

10/15/98

1315 | COLLECTED A COMPOSITE
SAMPLE OF EASTERN THIRD
OF UNTREATED SOIL PILE
APPROX 500 sq yd.

DESIGNATED UTS - EAST

- SILTY WITH SOME GRAVEL + THREE
CLAY + VEG. MATERIAL

- DEZONED SHOVEL

- LIQUINOX + H₂O - SCRUB
- Nitric Rinse
- H₂O Rinse
- Distilled Rinse

1320 | - BEGIN COMPOSITE
UTS - CENTRAL

1330 | COLLECTED UTS - CENTRAL
FROM FIVE SPOTS - COMPOSITE
VARYING DEPTHS - RANDOM

LOCATIONS - TO BE

ANALYZED FOR TOTAL + TELP

Pb, As, Sb, Cr, Cd, + Ni.
- SILT WITH SOME GRAVEL - VEG.
+ CLAY.

1335 | DEZON SHOVEL

- LIQUINOX + DIS. SCRUB
- Nitric Rinse
- D.I. Rinse
- D.I. Rinse

(13)

10/15/98

1340 | COLLECT UTS - WEST
COMPOSITE OF FIVE SPOTS
AND DUPLICATE UTS - WEST

NOTE - DUPLICATE TIME FOR

C.O.C. IS 1355 FOR

BURNS SAMPLE PURPOSE -

SOIL FOR UTS - WEST SILTY

WITH SOME SAND + GRAVEL

THREE CLAY + VEG - MOIST

TO BE ANALYZED FOR

TOTAL + TELP - Pb, As, Sb, Cd, Cr, Ni.

PHOTOS -

1- UTS WEST LOCATION

2- UTS CENTRAL LOCATION

3- UTS EAST LOCATION

ALL PHOTOS ARE OF NORTH SIDE
OF PILE - (BOX FACING SOUTH).

1350 | DEZONED SHOVEL

- LIQUINOX + H₂O - SCRUB
- Nitric Rinse
- D.I. - Rinse
- D.I. - Rinse

1400 | COLLECT EA BL - 10-15-98

FROM SHOVEL - D.I. H₂O USED.

ANALYZE FOR TELP - TOTAL Pb, As, Sb, Cr, Cd, Ni.

(14)

10/15/78

1400 | SCRUB PPE - BOOTS, TUCK
AND DOWN SELF BEFORE
LEAVING EXCLUSION ZONE

1410 | MOB TO WATER TRUCK.

1415 | COLLECTED WT-2

WT-2 IS AN AQUEOUS SAMPLE
TAKEN AFTER THE 2ND RINSING
OF THE WATER TRUCK.

THE TRUCK HAS A 2,000 GAL
STORAGE CAPACITY. TO RINSE
THE TANK ENTIRE IS FILLING
THE TANK WITH 300 TO 400
GALLONS OF FORTHLE WATER

AND THEN AGITATING THE
TANK - TO STIR UP THE
SEDIMENT USING THE TANK'S
AGITATOR. - AFTER AGITATION
THE SAMPLE IS COLLECTED

THROUGH A VALVE AT
THE SIDE OF THE TRUCK.
PRIOR TO SAMPLE COLLECTION
VALVE WAS OPENED TO 'BLEED' OUT
THE LINE - APPROX 2 GALS WERE

REMOVED BEFORE COLLECTING SAMPLE.
THIS PROCEDURE WAS USED FOR WT-1
AND WILL BE USED FOR OTHER
WATER TRUCK SAMPLES

(15)

10/15/78

1425 | COLLECTED WT-3

- SAMPLED FROM TRUCK TANK

WITH 300 GALS - AFTER BLEEDING

VALVE - 2 GALS - SAMPLE

WAS COLLECTED - TO BE

ANALYZED FOR TOTAL Pb

- NOTE - WATER FOR WT-3 -

OR AFTER THIRD RINSE IS

NOTICEABLE MORE CLEAR

THAN WT-1 AND WT-2.

- WT-4 WILL BE COLLECTED

WITH A FULL 2000 GAL

TANK OF WATER.

1450 | COLLECTED WT-4 AND

DUPLICATE WTA-4 - (INSS WAS

USED FOR A TIME ON WTA-4 - TO

HAVE A BLIND DUPLICATE.

WT-4 IS THE 4TH RINSE AND

WAS TAKEN THIS TIME AT

FULL TANK - 2000 GALS.

AFTER RINSE LINE.

Photo #4 - VALVE WITH WATER
WAS COLLECTED FOR WT
SAMPLES.

(16)

10/15/98

Photo #5 - SAMPLE LOCATION
FOR ~~STW~~

STW - (STORM TANK WEST)

530 BED OPPOSITE

6000 SAMPLES PACKED FOR
PERD EX

(17)

10/19/98

1500 CALL FROM WAYNE AT

SUNSHINE ST. RSR NEEDS

TO SAMPLE WATER TRUCK

WATER AGAIN - FOR

TRIPLE RINSE - LAST SAMPLES

WT 1-4 WERE NOT BELIEVED

TO BE DUE TO SAMPLE

PORT BEING CLOGGED

WITH SEDIMENT - NEED

TO HAVE SAMPLES COLLECTED

FROM TOP OF TANK BY

SUBMERGING A SAMPLER

1515 CALL E.M. RIGGINS

1530 Home for keys

1600 BOO ON SITE

- MOB GOING FROM SITE

1620 - HEAT WITH WAYNE

DISCUSSES PROCEDURE

1630 SAMPLERS WATER TANK BY

SUBMERGING STERILE PLASTIC

500 ml BOTTLE AND TRANSFERRING

TO PRESERVED SAMPLE BOTTLES

w/ HNO₃

COLLECTED WTS -

WATER CLEAR -

20

$$\begin{array}{r} 10198 \\ \times 10198 \\ \hline \end{array}$$

10/1/10
TALK TO WAYNE ASK HOW
LONG WATER IN TANK.
HAS BEEN SETTING - HE
WAS UNSURE - I
SUGGESTED THAT THEY
USE THE AGITATOR AND
WE COLLECT A SECOND
SAMPLE AFTER AGITATION.

- Wayne Access

11640 | LEAVE SITE FOR ICE
IN AN ATTEMPT TO
MAKE 5:00 PM PHOTO X
RETURN TO SITE

1650
RETURN TO CITY
3-20-44

- Anter is still mixing when

1700 | TANK. WTS 11+00 FOR
APPROX. 10 MW -

WT-6 collector immediately following Agitation of water - TANK - WTS

715 / Pack on 60000
3/4 full £ 1500000

X
3
0
7
d
f
t

2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399 2400 2401 2402 2403 2404 2405 2406 2407 2408 2409 2410 2411 2412 2413 2414 2415 2416 2417 2418 2419 2420 2421 2422 2423 2424 2425 2426 2427 2428 2429 2430 2431 2432 2433 2434 2435 2436 2437 2438 2439 2440 2441 2442 2443 2444 2445 2446 2447 2448 2449 2450 2451 2452 2453 2454 2455 2456 2457 2458 2459 2460 2461 2462 2463 2464 2465 2466 2467 2468 2469 2470 2471 2472 2473 2474 2475 2476 2477 2478 2479 2480 2481 2482 2483 2484 2485 2486 2487 2488 2489 2490 2491 2492 2493 2494 2495 2496 2497 2498 2499 2500 2501 2502 2503 2504 2505 2506 2507 2508 2509 2510 2511 2512 2513 2514 2515 2516 2517 2518 2519 2520 2521 2522 2523 2524 2525 2526 2527 2528 2529 2530 2531 2532 2533 2534 2535 2536 2537 2538 2539 2540 2541 2542 2543 2544 2545 2546 2547 2548 2549 2550 2551 2552 2553 2554 2555 2556 2557 2558 2559 2560 2561 2562 2563 2564 2565 2566 2567 2568 2569 2570 2571 2572 2573 2574 2575 2576 2577 2578 2579 2580 2581 2582 2583 2584 2585 2586 2587 2588 2589 2590 2591 2592 2593 2594 2595 2596 2597 2598 2599 2600 2601 2602 2603 2604 2605 2606 2607 2608 2609 2610 2611 2612 2613 2614 2615 2616 2617 2618 2619 2620 2621 2622 2623 2624 2625 2626 2627 2628 2629 2630 2631 2632 2633 2634 2635 2636 2637 2638 2639 2640 2641 2642 2643 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2658 2659 2660 2661 2662 2663 2664 2665 2666 2667 2668 2669 2670 2671 2672 2673 2674 2675 2676 2677 2678 2679 2680 2681 2682 2683 2684 2685 2686 2687 2688 2689 2690 2691 2692 2693 2694 2695 2696 2697 2698 2699 2700 2701 2702 2703 2704 2705 2706 2707 2708 2709 2710 2711 2712 2713 2714 2715 2716 2717 2718 2719 2720 2721 2722 2723 2724 2725 2726 2727 2728 2729 2730 2731 2732 2733 2734 2735 2736 2737 2738 2739 2740 2741 2742 2743 2744 2745 2746 2747 2748 2749 2750 2751 2752 2753 2754 2755 2756 2757 2758 2759 2760 2761 2762 2763 2764 2765 2766 2767 2768 2769 2770 2771 2772 2773 2774 2775 2776 2777 2778 2779 2780 2781 2782 2783 2784 2785 2786 2787 2788 2789 2790 2791 2792 2793 2794 2795 2796 2797 2798 2799 2800 2801 2802 2803 2804 2805 2806 2807 2808 2809 2810 2811 2812 2813 2814 2815 2816 2817 2818

61

102098

1030/Ben/ON 5115

DECON-HAND TRAVELS

1408 G0A2

0930 / CONFAT M. Riggins d. ESC

0545 / Med - w Wayne

10007 Mob to Excavation Area

For confirmation

Experiments.

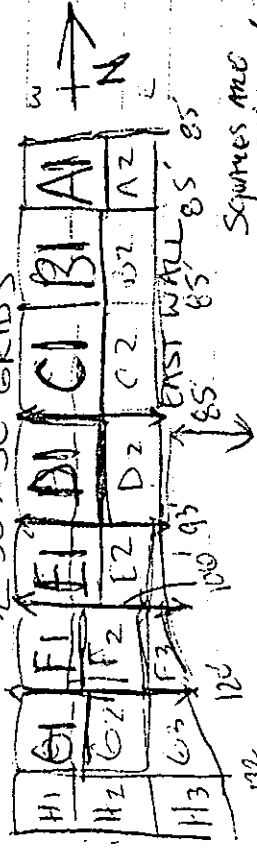
STARTING IN D-1 CARD

WILL SAMPLE FLOOR BY COMPOSITE

OF FIVE ON A D.C. FLOOR

Sample 0-3'

22 50' x 50' GRIDS



A Nubia I ~~disturbance~~ 50
used in front of

6210. Designation is used

16. DENOTE THE FIRST

Clayton removed from

EX. CAVATION \approx HOI LAM

Barata D-CSE-

(20)

10/20/98

COLLECT 1D2-CSF-102098
FOR TOTAL Pb - 6010 METHOD
35 COLLECT 1D2-CSWE-102098
FOR TOTAL Pb (6010) -

THIS IS A WALL SAMPLE 5 SPOT
COMPOSITE OF THE EASTERN
WALL OF D2

445 COLLECT 1E1-CSF-102098
FOR TOTAL Pb (6010) FROM

FLOOR OF E1 50'x50' GRID COMP. 50010

50 COLLECT 1E2-CSF-1020-98

FOR TOTAL Pb (6010) FROM

FLOOR OF E2 50'x50' GRID - COMP
5 ON A DIE

60 COLLECT 1E2-CSWE-102098
FOR TOTAL Pb (6010) FROM EAST

WALL OF E2 - 5 SAMPLE COMP ON
WALL APPROX 1' DEEP - CARE WAS
TAKEN TO REMOVE OUTSIDE OF
WALL WHERE SOIL WOULD LIKELY
PUSHED FROM THE FLOOR TO
EXAM ACCESS TO "TRUE WALL
SAMPLE - TAKEN 2-4" IN WALL

NOTE DUPLICATE TAKEN OF
1E2-CSWE-102098 LABELED

1E2A-CSWE-102098 WITH A TINY
OF 1105.

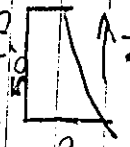
10/20/98

(21)

1115 COLLECTED 1F1-CSF-102098
FOR TOTAL Pb (6010) FROM

F1 FLOOR 50'x50' COMP 50010 DIE
1120 COLLECT 1F2-CSF-102098
FOR TOTAL Pb (6010) FROM

F2 FLOOR 50'x50' COMP 50010 DIE
1130 COLLECTED 1F3-CSF-102098
FOR TOTAL Pb (6010) FROM

F3 FLOOR 20'x6' 5 ON A
DIE COMP. 

1140 COLLECTED 1F3-CSWE-102098
FOR TOTAL Pb (6010) FROM

F3 EAST WALL - 5 SAMPLE COMP.
- CARE WAS TAKEN TO REMOVE
"TRUE WALL" SAMPLE.

1200 DECON EQ (TRIMERS) AT ESC STATION
1215 EQUIPMENT BLANK TAKEN
BY COLLECTION OF H2O OFF
OF CLEANED HAND TRUCK

1225 BAD OFFSITE

1300 CONVERSATION WITH MIKE RIGGS
- HANDMADE COC.
etc.

(24)

10/22/98

1120 DRESS IN LEVEL C
- MOB TO EXCAVATION

1140 AT EXCAVATION - WILL START

AT G1 GRID

1145 COLLECT 161 - CSF - 102298

FOR TOTAL Pb FROM COMP. SONADIE

DIE FROM G1 GRID 50'x50' (1ST EXC.)

1150 COLLECT 162 - CSF - 102298

AND 162 - CSF - 102298 MS/MSD

(NATICK SPIKE) FOR TOTAL Pb

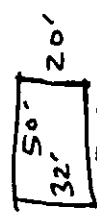
FROM COMP. SONADIE FROM

G2 GRID 50'x50' (1ST EXC.)

100 COLLECT 163 - CSF - 102298

FOR TOTAL Pb FROM COMP. SONADIE

OF G3 GRID



1ST EXCAVATION

15 COLLECT 163 - CSWE - 102298

AND DUPLICATE 163A - CSWE - 102298

(NOTE TIME ON DUPLICATE IS 1220 TO DISGUISE

SAMPLE.) BOTH SAMPLES COLLECTED

FOR TOTAL Pb FROM COMP. SONADIE

FROM THE EASTERN WALL OF THE

G3 GRID - NOTE CARE WAS

TAKEN TO COLLECT A 'TRUE WALL'

SAMPLE.

(25)

10/22/98

1220 COLLECT 1H1 - CSF - 102298

FOR TOTAL Pb FROM COMP SONADIE

OF H1 GRID, 50'x50', 1ST EXCAV.

1225 COLLECT 1H2 - CSF - 102298

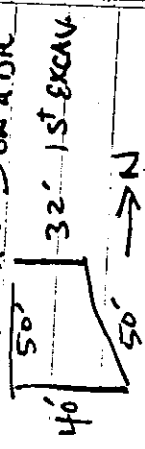
FOR TOTAL Pb FROM COMP SONADIE

OF H2 GRID, 50'x50', 1ST EXCAV.

1230 COLLECT 1H3 - CSF - 102298

FOR TOTAL Pb FROM COMP. SONADIE

OF H3 GRID



1235 COLLECT 1H3 - CSWE - 102298

FOR TOTAL Pb FROM COMP. SAMPLE

FROM WALL (EASTERN) OF H3 GRID.

'TRUE WALL' SAMPLE OBTAINED.

1240 COLLECT 1I1 - CSF - 102298

FOR TOTAL Pb FROM COMP OF SONADIE

OF I1 GRID 50'x50', 1ST EXCAV.

1245 COLLECT 1I2 - CSF - 102298

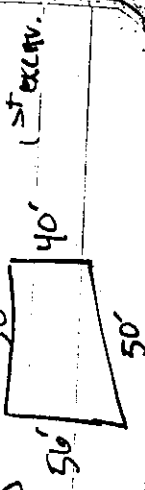
FOR TOTAL Pb FROM COMP OF SONADIE

OF I2 GRID 50'x50', 1ST EXC.

1250 COLLECT 1I3 - CSF - 102298

FOR TOTAL Pb FROM COMP OF SONADIE

OF I3 GRID



10/22/98

(26)

1255 Collect 1I3-CSWE-102298

For total Pb (6010) From compo of Eastern wall of

Grid I3 - "True Wall" Collected

305 Collect 1J1-CSF-102298

For total Pb (6010) From

Comp. 5 on Die of J1 grid 50'x50' 1st Exc.

310 Collect 1J2-CSF-102298

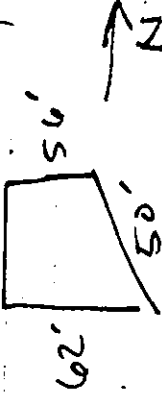
For total Pb (6010) From

Comp 5 on Die of J2 grid 50'x50' 1st Exc.

315 Collect 1J3-CSF-102298

For total Pb (6010) From

Comp 5 on Die of J3 grid 50'x50' 1st Excav.



20 Collect 1J3-CSWE-102298

For total Pb (6010) From compo of the Eastern wall of

Grid J3 - "True Wall"

Sample obtained.

10/22/98

(27)

1400 LEAVE EXCAVATION AREA

AFTER DECONING PPE - AND

REMOVING LAYER (GEM)

1405 MGR TO SHEN

- DECON HAND TROWELS

- D.I. LIQUINOX SCRUB

- D.I. Rinse

- NITRIC Rinse

- D.I. Rinse

- D.I. spray.

1415 Collect EQ. B. 102298

By pouring distilled

water over a cleaned

hand trowel and collecting

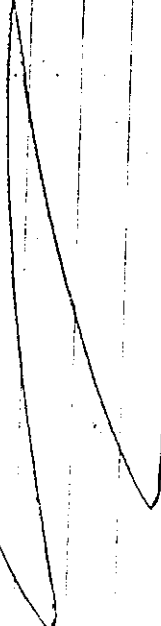
the water.

1445 Pack Cooler

1515 For EX pickup

of cooler

- PATR DAVID



10/28/98

0935	Bcd	ON SITE
------	-----	---------

35 | Bed on site
Decon Hand Towels

- DIST. H_2O + LIQUINOX SEKUB
- DIST- H_2O Rinse
- Nitric Acid Rinse
- DIST H_2O Rinse

1015 | Convert Equipment Bank
EQ. BL. 102793

for the Pb - by converting
stone bought Distilled H_2O
After pouring H_2O over Deionized
Hand towel

1025 | Pack year

1045 Mon to Thru on P
Meet w/ WAYNE.

- WAYNE IS ON PHONE - WAIT TILL HE IS FREE TO PLAN TODAY'S SAMPLING.

1125 MOB TO EXCAVATION
DRESSED IN LEVEL C.

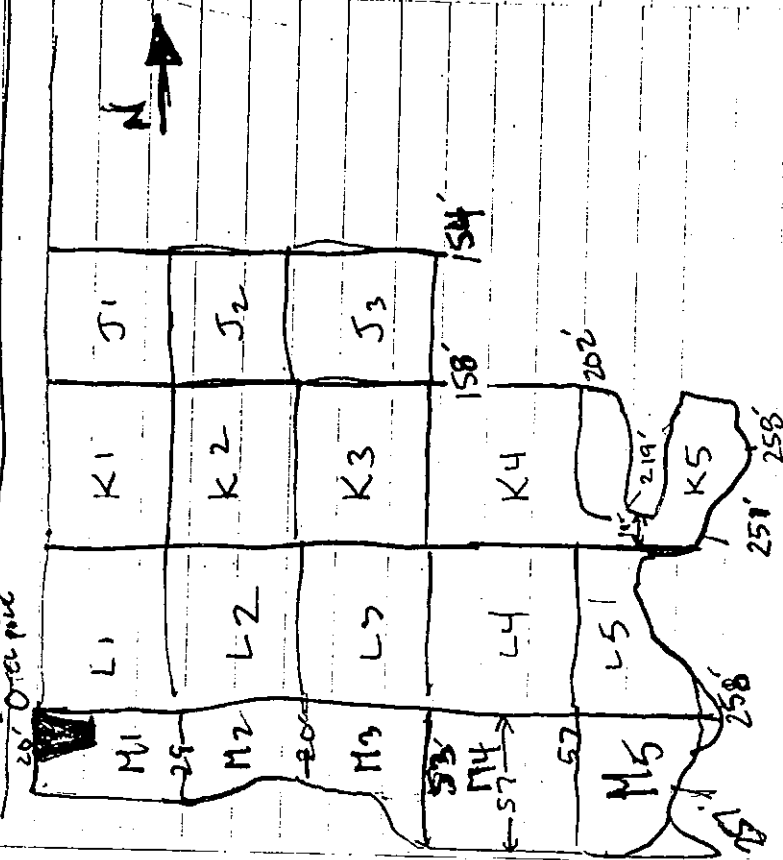
BOOK MEASUREMENTS

OF. EXCAVATION -
MARKED ON 50' x 50'
SECTIONS.

10/28/90

2A

Bureau 20.



1210
Collect 1K1-CSF-102798 for
Total Pb from 50'x50'K1-6x10
5 samp. comp.

1215 COURT 1K2-CSF-102798 FOR
TERR P6 FROM 50'x50' K2 0010
5 SPARE COMP.

30

10/28/98

1220 Collect 1K3-CSF-102798
For total Pb from 50'x50' K3 GRID
5 SAMP. COMP.

1225 Collect 1K4-CSF-102798 AND
DUPLICATE 1K4A-CSF-102798

NOTE: DUPLICATE TIME 1230 - COLLECTED
FOR TOTAL Pb FROM K4 GRID
50'x50' ~~SAMP~~ 5 SAMP COMP.

235 Collect 1K5-CSF-102798
For total Pb FROM
K5 GRID - 5 SAMP COMP



240 Collect 1K4-CSWN-102798
For total Pb FROM NORTHERN
WALL OF K4 AND SOME OF K5
5 SAMP COMP.

50 Collect 1K5-CSWE-102798
For total Pb FROM EASTERN
MOST WALL OF K5 - 5 SAMP
COMP OF "TRUE WALL"

5 Collect 1L1-CSF-102798
For total Pb FROM 50'x50' L1
GRID 5 SAMP COMP.

10/28/98

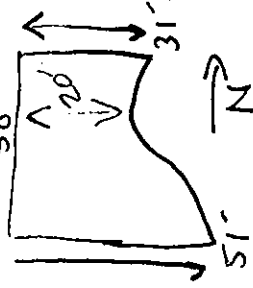
31

1300 Collect 1L2-CSF-102798
For total Pb FROM 50'x50'
L2 GRID 5 SAMP COMP.

1305 Collect 1L3-CSF-102798
For total Pb FROM 50'x50'
L3 GRID 5 SAMP COMP.

1310 Collect 1L4-CSF-102798
AND 1L4-CSF-102798 MS/MSD
Matrix Spiker + Duplicate for
total Pb FROM L4 50'x50' GRID
5 SAMP COMP.

1320 Collect 1L5-CSF-102798
For total Pb FROM L5 GRID

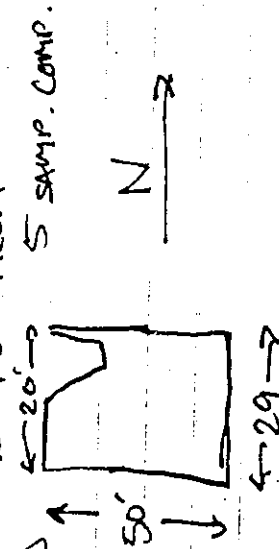


1325 Collect 1L5-CSWE-102798
For total Pb FROM L5
EASTERN WALL - TRUE WALL
5 SAMP COMP.

32

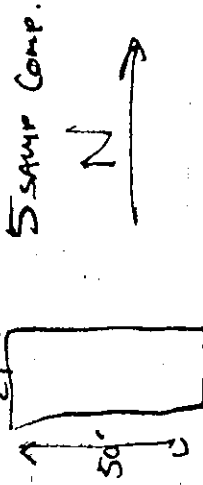
10/28/98

1330 Collected IM1 - CSF - 102798
For Total Pb From
M1 GRID



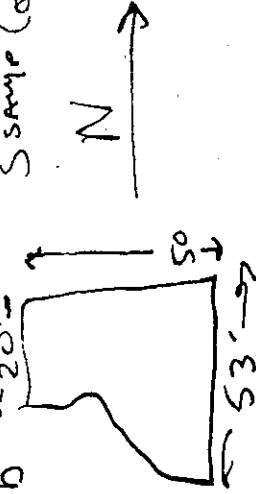
1335 Collected IM2 - CSF - 102798

For Total Pb From
M2 GRID



1340 Collected IM3 - CSF - 102798

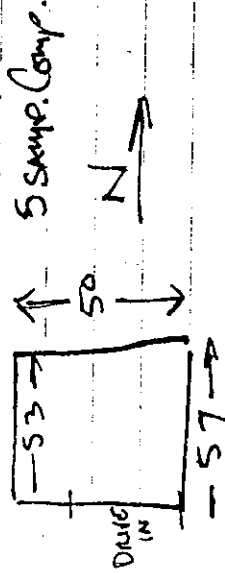
For Total Pb From
M3 GRID



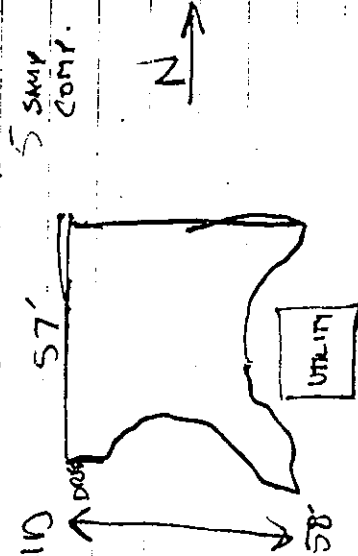
33

10/28/98

1345 Collected IM4 - CSF - 102798
For Total Pb From
M4 GRID



1350 Collected IM5 - CSF - 102798
For Total Pb From
M5 GRID



1355 Collected IM1 - CSWS - 102798

For Total Pb From Southern
Wall of M1
"True Wall"

1400 Collected IM2 - CSWS - 102798

For Total Pb From Southern
Wall of M2
"True Wall"

(34)

10/28/98

1405 Collected IM3 - CSWS - 102798
For Total Pb From Southern
Wall of M3 5 samp. comp. of
"True Wall"

1410 Collected IM4 - CSWS - 102798
For Total Pb From Southern
Wall of M4 5 samp. comp. of
"True Wall"

415 Collected IM5 - CSWS - 102798
For Total Pb From Southern
Wall of M5 5 samp. comp.
of "True Wall"

420 Collected IM5 - CSWE - 102798
For Total Pb From
Eastern Wall of M5 - 5
samp. comp. of "True Wall"

Photos

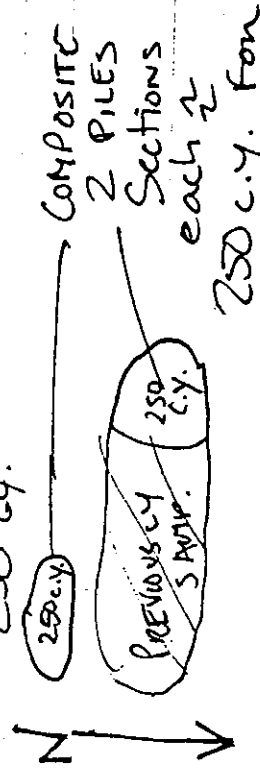
- 1 corner of J3 (southeast)
- 2 K4 and K5 bars in background
M1 and L1 grids facing
West - shows peninsula for
pole guide wires were
NO EXCAVATION, SPLITS L1 + M1.
- 3 K5 to left M5 and Right Snidder

10/28/98

(35)

1450 LEAVE EXCAVATION AREA
to Collect Sample
OF UNTREATED SOIL PILE
Behind RSR Facility - UNT. Soil.
PILE HAS BEEN SAMPLED PREVIOUSLY
BUT SOIL HAS BEEN ADDED -

Approx 250 cubic yards HAVE
BEEN DEPOSITED ON WESTERN
SIDE OF PILE WHICH CONSISTED
OF 1500 cy. PREVIOUSLY AND
A SEPARATE PILE TO THE
SOUTH EAST OF THE 1750 cy.
PILE WHICH CONSISTS OF
250 cy.



A TOTAL OF 1 SAMPLE FOR
500 C.Y. OF UNTREATED SOIL.
5 SAMP. COMP.

1515 Collected UTS - 2000 - 102798
FOR TOTAL Pb, As, Sb, Cd, Cu, Ni, Cr + Ph
AND TELUR

10/28/98

1530 Meet with Wayne
DISCUSS PARAMETERS OF
UTS - SAMPLE - R INFORMED
WAYNE THAT WE SHOULD
USE SIMILAR ANALYSIS AS
LAST UTS SAMPLE

1605 Bed opposite

for ice to pack

cooler

730 Cooler dropped for
FED EX

- EQUIPMENT PACKED
AWAY

1800 Bed signs

NOTE - DATES ON SAMPLES
WERE WRONG AS IS ON
TOP OF PROGS - SAMPLES
ARE LIST AS WRITTEN
- DATES ON TOP OF PROGS
COLLECTED FROM
10/27 to 10/28 - THE
correct date.

11/03/98

37

1300 receive call from Wayne
re: gear of KSR

- NEED TO SAMPLE IN GRIDS
L1 AND M4 - PREVIOUS
SAMPLES WERE "HOT"
2ND LAYER OF EXCAVATION
HAS BEEN TAKEN IN THESE
AREAS.

1415 LEAVE FOR FIELD GEAR
AND SUPPLIES

- WALMART FOR

- DISTILLED WATER

- SMALL COOLER

- ICE

1530 Arrive at RSR

MOB TO SHEDS

DECON HAND TROWELS

- DISTILLED WATER - LIQUINOR SCUB

- NITRIC RINSE

- DISTILLED WATER RINSE

- SPRAY RINSE

gear in truck

1600 Collect EQUIPMENT - Bunk

EQ. BL. 110398 using

DISTILLED WATER AND HAND TROWEL

(38)

11/03/98

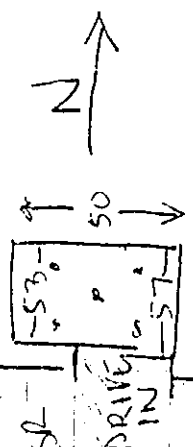
16055 CONFIRM WITH WAYNE
AT TRAILER - THE
SAMPLE LOCATIONS -
L1 + M4 -

DRESSED IN LAYER C MOB
TO EXCAVATION SITE

16030 AFTER MEASURING OUT
L1 GRID COLLECTION
5 on a die composite
SAMPLE 2L1-CSF-110398

THIS IS THE 2ND EXCAVATION
LAYER TAKEN IN L1 THUS
THE "2" PRECEDING THE
SAMPLE LOCATION "L1".
SAMPLE TO BE ANALYZED FOR
TOTAL Pb (6010).

16010 MEASURE OUT M4 GRID,



(39)

11/03/98

1045 COLLECT 2M4-CSF-110398
AND DUPLICATE 2M4A-CSF-110398
DUPLICATE SAMPLE WAS MARKED
WITH A TIME OF 1650.

SAMPLES TO BE ANALYZED
FOR TOTAL Pb (6010)

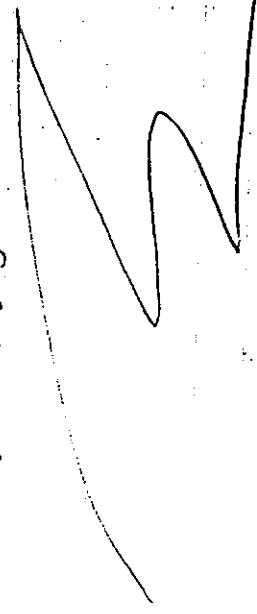
5 SAMPLE COMPOSITE 5 on
A DIE. THIS IS THE
2ND EXCAVATION LEVEL
IN THE M4 GRID.

1700 REMOVE LAYER C GEAR

MOB TO SITE -
PAX COVER - DROP
OFF FIELD EQUIPMENT

1730 PROP OFF COCAIN
- 10 FOR EX.

- 24 HAS TURNED OVER FOR
SAMPLES
4 SAMPLES



(40)

11/11/98

1110 | LEAVE FOR RSR

- FOR CONFIRM. SAMP. IN GRID

L1 + M4 - 3RD EXCAVATION

1130 | ARRIVE ON SITE

- M4 IS CORROSION STILL
BEING EXCAVATED

- SEEK WAYNE CRAN

TO SEE WHAT TIMOTHY AND

M4 EXCAVATION IS

1200 | LOCATE WAYNE IN CONTACT TRAILER

- MOB TO WAYNE'S

TRAILER

1230 | EFFUSE - WILL RETURN

AT 1500 TO MOB TO
GR. FOR M4 + L1 SAMPLES.

530 | BOB ARRIVES ON SITE

- PREPARE SAMPLING GEAR

- DECON HAND TROWELS

- P.I. FLUQUINOX SERON

- P.I. RINSE

- NITRIC RINSE

- D.I. RINSE

1300 | Collect Ea. Be. 11/11/98

BY TROWING DIST. H₂O OVER
HAND TROWEL.

(41)

11/11/98

- MOB TO TRAILER TO DISCUSS

SAMP. W WAYNE

- CONTACT HAS REMOVED THIRD

EXCAVATION LAYER FROM

M1 TO M5 AND L1.

EXCAVATION IS APPROX. 2 FEET

BELOW ORIGINAL GRADE SURFACE

IN THESE AREAS. 10" WAS

REMOVED IN LAST EXCAVATION.

1610 | DRESSED IN LEVEL C

AND MOB TO EXCAVATION SITE

- MARK OUT L1 + M4 GRIDS.

1645 | Collect 3L1-CSF-111198

FROM 50' x 50' L3 GRID (FLOOR)

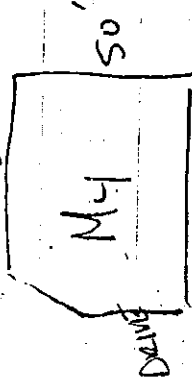
COMP. SAMP. 5 ON A DIE

1655 | Collect 3M4-CSF-111198

FROM M4 GRID (FLOOR)

53' 5 SAMP COMP.

50' A DIE.



1705 | OFF SITE TO ROAD EX.

(42)

COLD-RAIN-ALL
DAY-45⁺

11/17/98

0720] BUS LEAVE OFFICE TO GET
SUPPLIES

- Wal-Mart

- PE PANS

- WATER

- TAPE

0830] Sign in on site RSR
Mobs to shed

Decon HAND TROWERS

- LIQUINOX + D.T. SCRUB

- DI RINSE

- Nitric Spray

- DI SPRAY

- DI RINSE

Wear in Fall

0900] Collect E2. Pl 111798

BY PACKING STONE BOUGHT

SPRING WATER OVER DECARD

- Hand Trowel

- Dress in Level C

Mobs to trailer to

GET WARMER AND DISCUSS

Sampling for TOXIN

0930] AT EXCAVATION - Fill out

SAMPLE LABELS AND MARK OUT

COLD RAINY
45°F - Light
to heavy wind.

11/17/98

(43)

SAMPLE LOCATIONS

1000] Collect 1A1-CSNW-111798

FOR TOTAL Pb FROM WESTERN WALL

OF A1 GRID - JUST WEST OF BATTERY

RO - Comp. of 50' ~~RO~~ SECTIONOF A1 WESTERN WALL - S. SAMP.
comp.

1005] Collect 1B1-CSNW-111798

TRUE WALL" comp samp(s) OF

B1 WESTERN WALL - FOR TOTAL Pb.

A NOTE ~~FOR~~ BATTERY CASING FOUND IN B1 WALL.

NOTE SAMPLE TIMES FOR

FOLLOWING SAMPLES (1A1-CSNW

THROUGH 1M1-CSNW) ARE

NOT ACTUAL SAMPLE COLLECTION

TIMES - THEY WERE PRELIMINARY

ESTIMATED TIMES - DUE TO

INCLEMENT WEATHER - ~~BE~~

SAMPLE TIMES. A STARTED

AT 1000 AND ACTUALLY ENDED

AT 1200.

1010] Collect 1C1-CSNW-111798

TRUE WALL comp samp (s) OF

C1 WESTERN WALL - FOR TOTAL Pb

1015] Collect 1D1-CSNW-111798

TRUE WALL comp samp(s) OF

D1 WESTERN WALL - FOR TOTAL Pb

(44)

11/17/98

1020 DUPLICATE TIME LOCATION

F012 ID1A - CSNW - 111798 -

SAMPLE ACTUALLY TAKEN ALONG

WITH ID1 SAMPLE -

1025 COLLECTED IE1 - CSNW - 111798

FROM TRUE WALL OF IE1 WESTERN
WALL - FOR TOTAL Pb

1030 COLLECTED IF1 - CSNW - 111798

FROM TRUE WALL OF F1 WESTERN
WALL - FOR TOTAL Pb

1035 COLLECTED IG1 - CSNW - 111798

FROM TRUE WALL OF G1 WESTERN
WALL - FOR TOTAL Pb

1040 COLLECTED IH1 - CSNW - 111798

FROM TRUE WALL OF H1 WESTERN
WALL - FOR TOTAL Pb

1045 COLLECTED II1 - CSNW - 111798

FROM TRUE WALL OF I1 WESTERN
WALL - FOR TOTAL Pb

1050 COLLECTED IJ1 - CSNW - 111798

FROM TRUE WALL OF J1 WESTERN
WALL - FOR TOTAL Pb

1055 COLLECTED IK1 - CSNW - 111798

FROM TRUE WALL OF K1 WESTERN
WALL - FOR TOTAL Pb

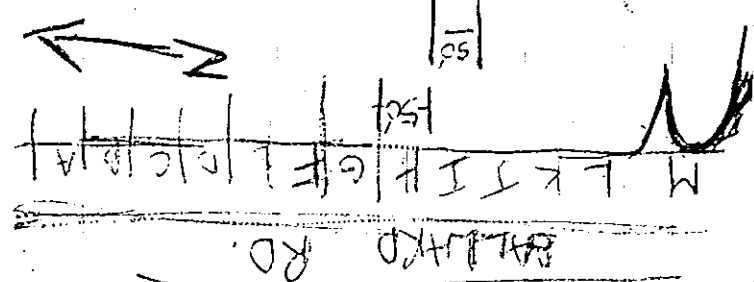
(45)

11/17/98

FROM TRUE WALL OF L1
WESTERN WALL - FOR TOTAL Pb

1105 COLLECTED IM1 - CSNW - 111798

AND JM1 - CSNW - 111798 MS/MSD

FROM TRUE WALL OF M1
WESTERN WALL - FOR TOTAL PbNOTE: M1 WESTERN WALL IS
NOT A STRAIGHT WALL SAMPLE
AS A-THROUGH L - SEE
DIAGRAM BELOW.A-L ARE APPROX.
50' WALL SECTIONS
(WESTERN WALL OF
EXCAVATION)M AND L ARE SEPARATED
BY A PENINSULA
OF UNEXCAVATED
SOIL DUE TO
GUIDE WIRE OF
TELEPHONE POLE.

(46)

11/17/95

1200 Actual Completion
TIME OF SAMPLING
A-1 western wall
through M1 western
wall

1215 Decon - TYVEK AND
BOOTS - REMOVE LEVEL
C CLOTHING.

NOTE: AGAIN - BATTERY
CASINS ~~WAS~~ FOUND IN B1
WESTERN WALL COMP
SAMPLING. - WALL SAMPLE
COMPOSITES WERE COLLECTED
SO THAT DIFFERENT SOIL
STATAS WERE COLLECTED

TOP SOIL
CLAY ENTER - PERCOL
SANDY SILT - w/ some gravel

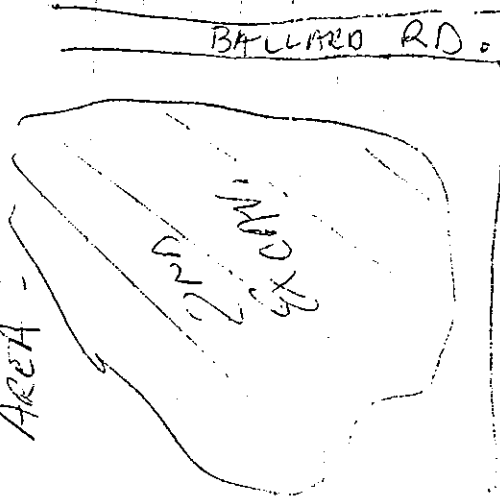
EXCAVATION DEPTH OF
WALL RANGED FROM 1' BGS
AT A1 TO APPROX 2' BGS
AT M1 - SOIL BECAME
MORE SILTY AND SANDY

(47)

11/17/95

WITH DEPTH AND CLOSER
TO M1 - TOWARD A-1
MORE CLAY SILT &
GRAVEL.

1230 MOB TO FINE WAYNE
TO DISCUSS SAMPLING
SOUTH OF DRIVEWAY INTO
PLANT - 2ND EXCAVATION
AREA -



KSP DRIVEWAY

15' EXCAV.
1330 BGS OFFSITE
TO PICK COOLER

48 11/18/98 Cold - Clear
Lightwind 45°F

0800 Sign in at RSR
- MOB TO SITE
DEAN HAND TROWELS

- LIO Sieves
- H₂O Rinse
- Nitric Rinse
- H₂O Spray
- H₂O Rinse

0840 Collect Eq B 11/18/98
FOR TOTAL Pb - Preservation
w/ HNO₃

- CLEAN OUT SHEDS AND
PACK EQ FOR DAY IN TRUCK
- MOB TO MEET WAYNE

0900 Talk to WAYNE ABOUT
- 13 FRAG FOUND YESTERDAY
- M NOMENCLATURE
- WALL SAMPLES OF NEW
AREA (AREA #2 SOUTH
OF RSR ENTRANCE
DRIVEWAY.)

- How to SAMPLE "ISLANDS"
OF UNEXCAVATED MATERIAL
SURROUNDING TREES.
DIFFERENT NOMENCLATURE?

11/18/98

49

0930 Dress in Level C -
AS WAYNE IS ON PHONE - WAIT
TO DO A FIELD WALK OF
NEW EXCAVATION TO
DISCUSS - ITEMS ON PREV
PAGE.

1040 COMPLETE EXCAVATION
WALK WITH WAYNE CRAN AND
ROBERT ^W ENTACT

- WILL MAP OUT ENTIRE AREA
BEFORE SAMPLING
- DECISIONS

- M SECTION SOUTH OF RSR
DRIVEWAY WILL BE MS IN
AN EFFORT TO SAVE HIM FOR
FUTURE EXCAVATIONS.

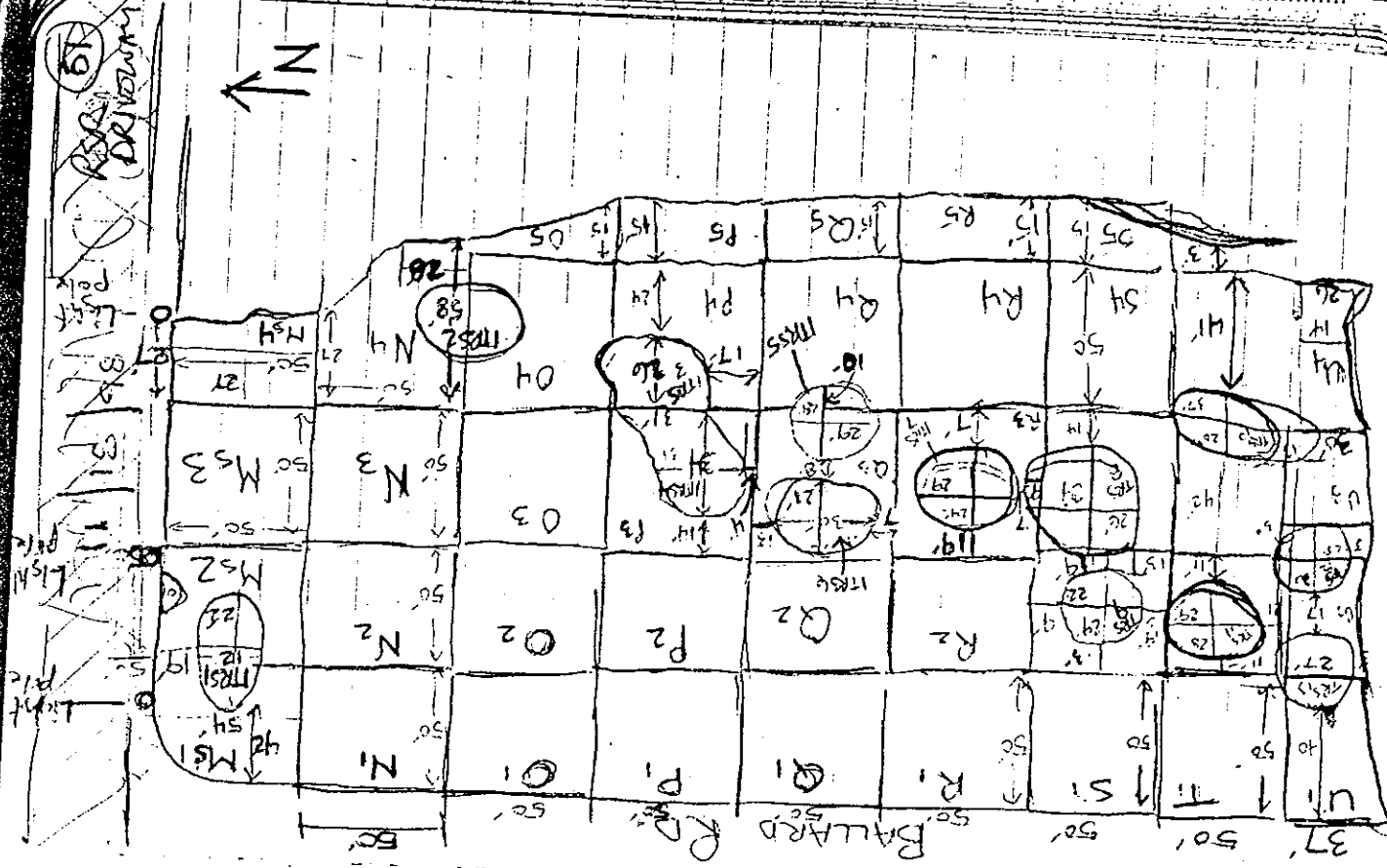
- "ISLANDS" SURROUNDING
THE TREES (UNEXCAVATED SOIL
SURROUNDING TREES) WILL
BE CALLED AS TRS - THE
TR FOR TREE THE S IS
FOR SOUTH OF DRIVEWAY

NURSEL DESIGNATIONS FOR THESE
SAMPLES WILL BE ASSIGNED AS FOLLOWS.
THE FIRST # AS IN THE FLOOR
EXCAVATIONS WILL BE USED TO

(50)

11/18/98

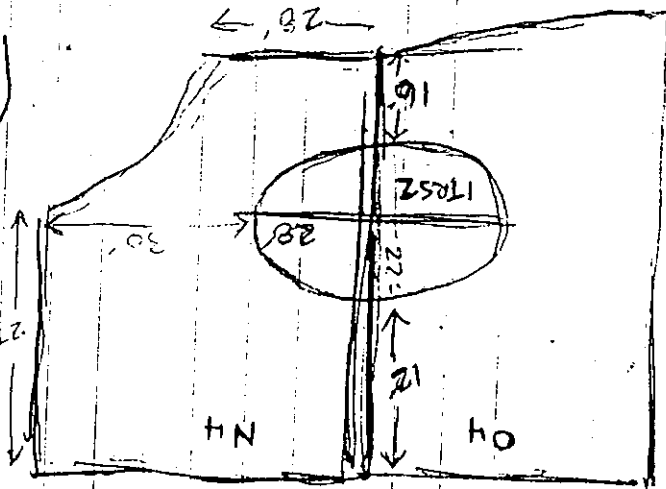
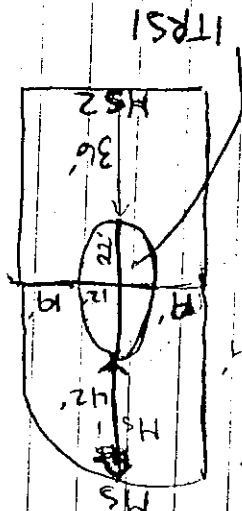
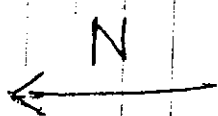
DESIGNATE THE LEVEL OF
 EXCAVATION, THE SECOND
 # WILL DESIGNATE WHICH
 "ISLAND" THE SAMPLE
 IS, STARTING WITH THE
 ISLAND SURROUNDING THE
 RSR SIGN AND SITRUSS
 AND NUMBERING FROM
 NORTH TO SOUTH AND
 EAST TO WEST.
 SO, THE RSR SIGN WILL BE
 KNOWN AS ITRSI - 111898
 THE NEXT ISLAND (AGAIN GOING FROM
 NORTH TO SOUTH AND EAST TO WEST)
 WILL BE ITRSI2 - 111898. THIS
 "ISLAND" IS SEPARATED BY
 THE GRID LINE THAT SEPARATES
 GRID N4 AND O4.
 FOR COMPLETE LOCATION AND
 DESIGNATION LETTER "N"
 SEE THE MAPS AND DRAWINGS
 ON THE FOLLOWING PAGES.



52

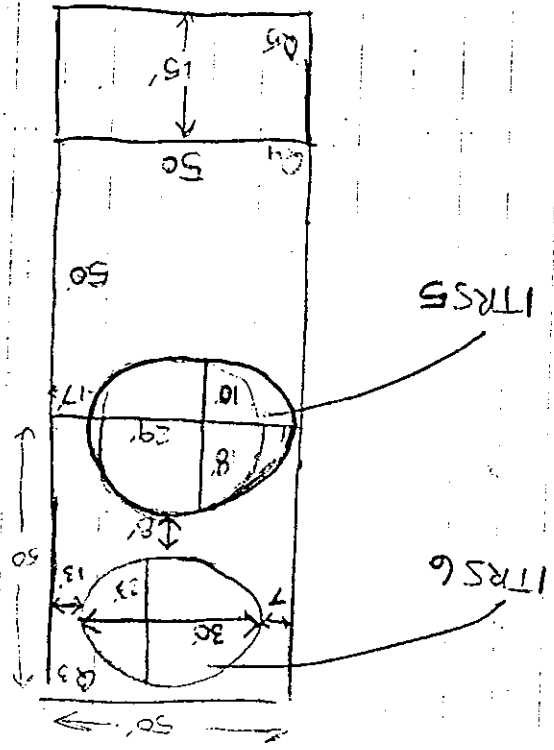
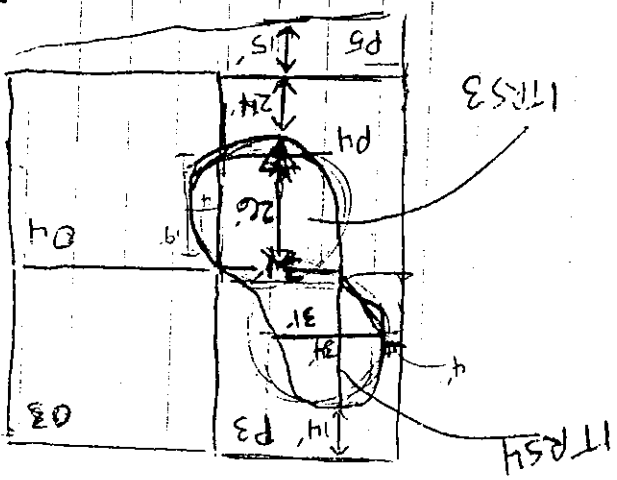
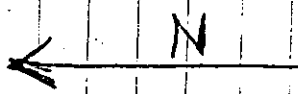
11/18/98

TRs LOCATIONS + DECLINATIONS

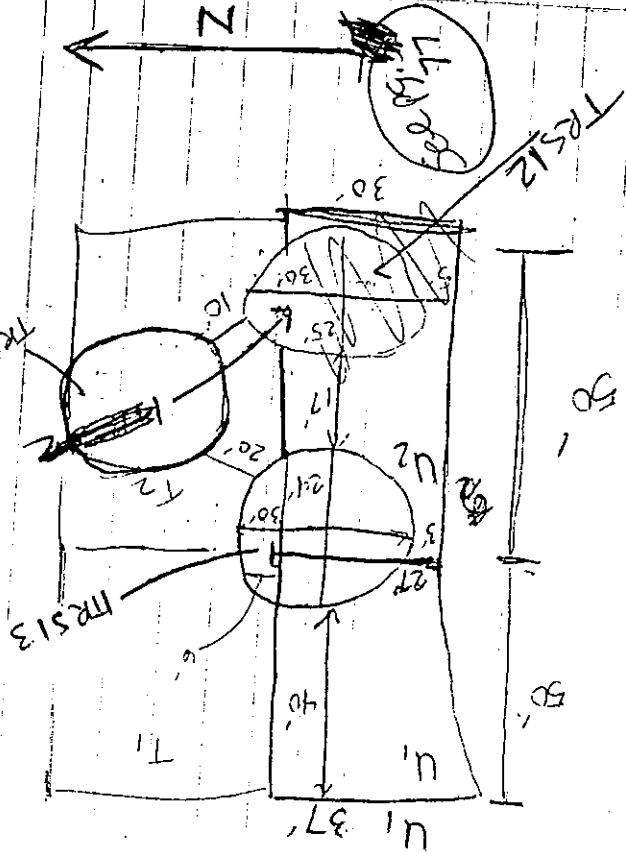
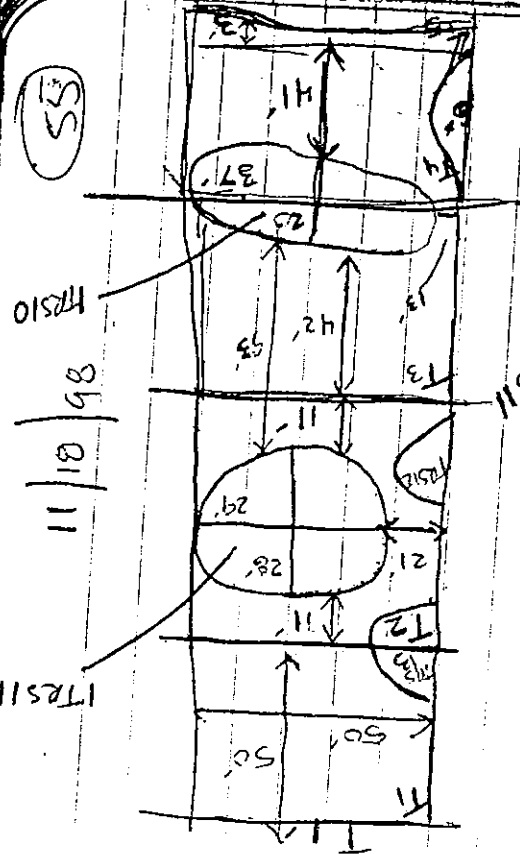


53

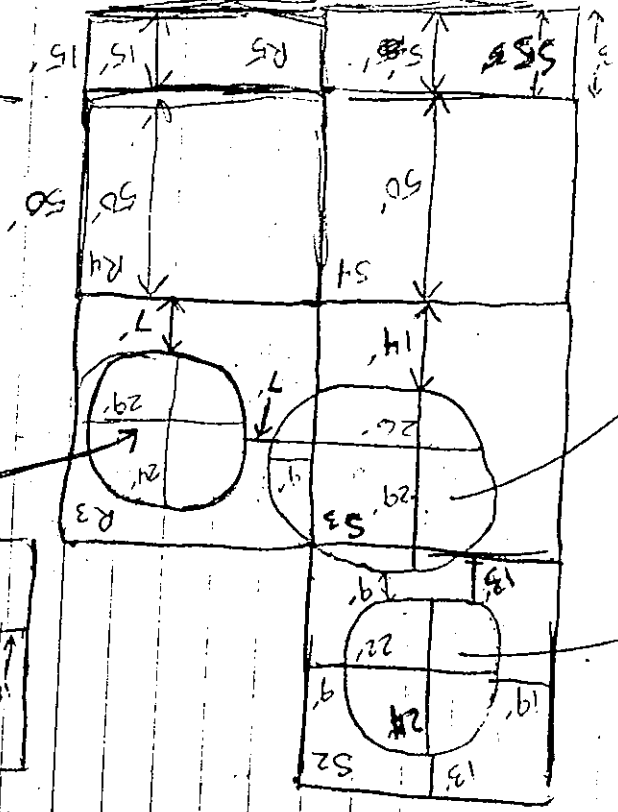
11/18/98



53



N



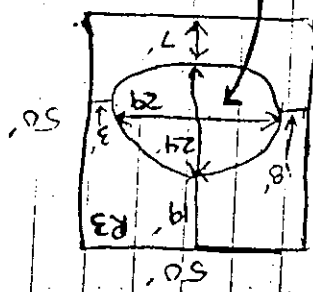
TR514

TR513

TR512

TR511

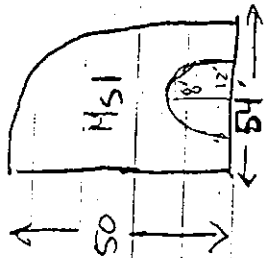
54



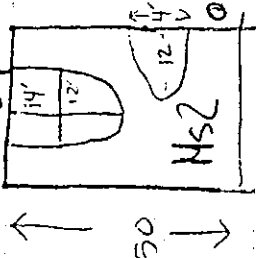
(56)

11/18/98

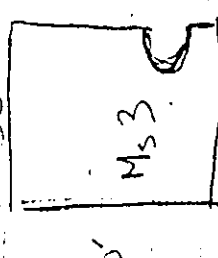
1400 COMPLETED MAPPING OF
AREA #2 EXCAVATION.
410 COLLECT M51 - CSF - 111898
FROM M51 GRID - 5 SAMP COMP
FOR TOTAL Pb



120 COLLECT M52 - CSF - 111898
FROM GRID M52
- 5 SAMP COMP
- FOR TOTAL Pb.



130 COLLECT M53 - CSF - 111898
FROM GRID M53
- 5 SAMP COMP
- FOR TOTAL Pb

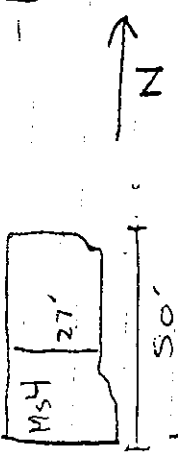


N

(57)

11/18/98

1445 COLLECT M54 - CSF - 111898
FROM M54 GRID - 5 SAMP COMP
- FOR TOTAL Pb



1455 COLLECT M51 - CSWN - 111898
FROM WESTERN WALL OF M51
- 5 SAMP COMP - FOR TOTAL Pb
FROM "TRUE WALL"

1500 COLLECT M51 - CSWN - 111898
FROM NORTHERN WALL OF M51
- 5 SAMP COMP - FOR TOTAL Pb
FROM "TRUE WALL"

1505 COLLECT M52 - CSWN - 111898
FROM NORTHERN WALL OF M52
- 5 SAMP COMP - FOR TOTAL Pb
FROM "TRUE WALL"

1510 COLLECT M53 - CSWN - 111898
FROM NORTHERN WALL OF M53
- 5 SAMP COMP - FOR TOTAL Pb
FROM TRUE WALL

1515 COLLECT M54 - CSWN - 111898
FROM NORTHERN WALL OF M54 (27' SECT)
- 5 SAMP COMP - FOR TOTAL Pb

NOTE - WALL - UNDERLIES OF DRIVEWAY - GRAY STAINING

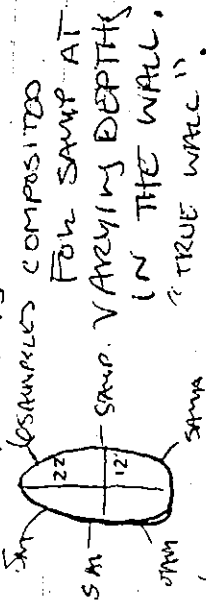
(58)

11/18/98

1525 Collect IMs4-CSWE-111898
FROM EASTERN WALL OF MS4
5 SAMP. COMP. FOR TOTAL Pb
FROM "TRUE WALL"

530 Collect ITRS1-111898
FROM THE WALLS OF THE "ISLAND"
OF UNEXCAVATED SOIL SURROUNDING
THE RSR SIGN - SEE PREVIOUS
NOTES FROM TODAY ON
DELINOTATION AND LOCATION
OF THE "ISLAND" SAMPLES.

ITRS1 - IS LOCATED BETWEEN
GRID IMs1 + IMs2



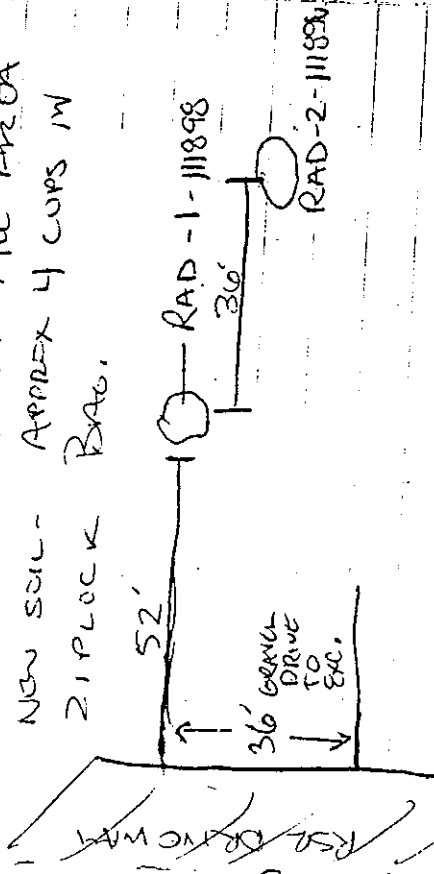
40 - WAYNE - NEEDS RADON
SAMPLES TAKEN FROM NEW
FILL BEING PLACED IN AREA #1
EXCAVATION - APPARENTLY RADON
ALARM'S WERE SET OFF TODAY
DURING FILL OPERATIONS.

45 Collect RAD-1-111898
APPROX 4 CUPS IN ZIPLOCK

11/18/98

(59)

1550 Collect RAD-2-111898
FOR RADON - FROM FILL AREA
NEW SOIL - APPROX 4 CUPS IN
ZIPLOCK BAG.



1600 Rouven to Area #2 Exc.
1610 Collect IN1-CSWN-111898
FROM WESTERN WALL OF N1
5 SAMP. COMP. FOR TOTAL Pb
OF "TRUE WALL"

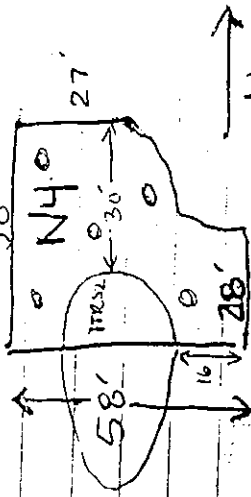
1615 Collect IN1-CSF-111898
FROM 50'x50' N1 GRID 5 SAMP.
COMP. FOR TOTAL Pb

1620 Collect IN2-CSF-111898
FROM 50'x50' N2 GRID 5 SAMP.
COMP. FOR TOTAL Pb

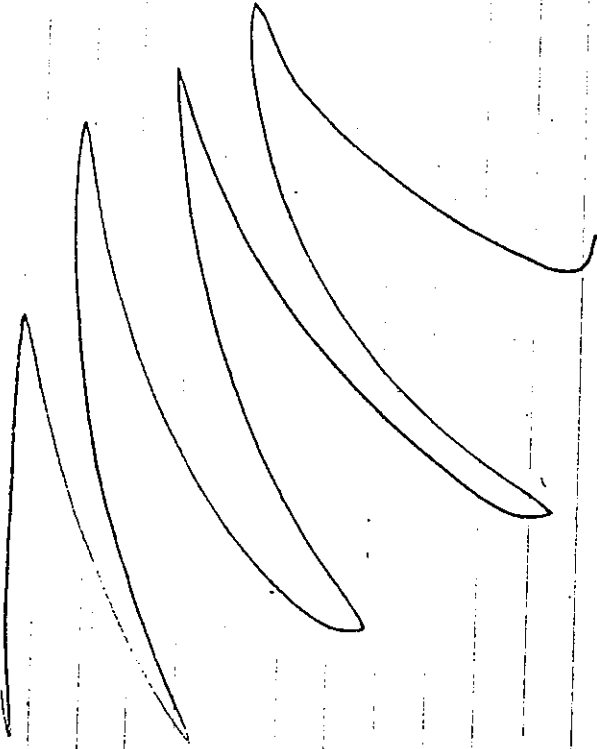
1630 Collect IN3-CSF-111898
FROM 50'x50' N3 GRID 5 SAMP.
COMP. FOR TOTAL Pb

600 11/18/98

1640 Collect IN4-CSF-111898
FROM N4 GRID 5 SAMPLE COMP
FROM CIRCLED
AREAS FOR
TOTAL Pb.



- MOB TO SITE TO PACK AWAY
FIELD EQUIPMENT
700 BED OFF SITE
- FILL OUT CHAIN
OF CUSTODY FORMS



11/19/98 Cold, Cloudy GI
Slight WIND 40°F

0915 Bed only SITE RSR

- MOB TO SITE
- PACK GEAR
- DECON HAND TRAWLS
- LAUREN H2O SCRUBS
- H2O Rinse
- Nitric Rinse
- H2O Rinse
- H2O Spray

1000 MOB TO EXCAVATION
DRESS IN Level C
1020 Collect IN4-CSWE-111998
FROM EASTERN WALL OF N4 -

5 SAMPLE COMPOSITE OF "TRUE WALL"
FOR TOTAL Pb.

1030 Collect TRS2-111998
FROM TRS2 "ISLAND" 5 SAMPLE
COMP OF WALL OF UNEXCAVATED
SOIL SURROUNDING TREET #2
LOCATED IN THE N4 AND O4
GRIDS.

1040 Collect 101-CSWW-111998
FROM WESTERN WALL OF O1 GRID 2
5 SAMPLE COMP. OF "TRUE WALL" FOR
TOTAL Pb.

(62)

11/19/98

1050/ Collect 101-CSF-111998
For total Pb. From 50' x 50'

01 GRID - 5 samp. comp.

1160/ Collect 102-CSF-111998

AND DUPLICATE

1105/ 102A-CSF-111998 - FOR

INSURE PURPOSE OF DUP. SAMPLE.

A SAMPLE. TIME OF 1105 WILL

BE USED FOR THE DUP.

SAMPLES WERE HOMOGENIZED IN PAN
FROM THE 02 GRID 1st EXC.

50' x 50' GRID - FOR

TOTAL Pb - 5 samp. comp.

1110/ Collect 103-CSF-111998

For total Pb. From 03 50' x 50'

GRID - 5 samp. comp.

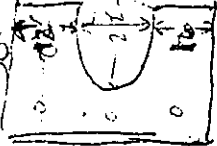
120/ Collect 104-CSF-111998

For total Pb. FROM THE

04 GRID

5 samp.

comp.



N

(63)

11/19/98

1130/ Collect 105-CSF-111998

From 05 GRID 5 samp.

15' 0 0 0 0 8' comp

For total

Pb

1140/ Collect 105-CSWE-111998

For total Pb. From Eastern wall

OF 05 GRID - 5 samp. comp.

1150/ Collect 101-CSNW-111998

From 50' wall sect - Western

wall OF P1 - 5 samp. comp.

For total Pb

1200/ Collect 101-CSF-111998

From 50' x 50' P1 GRID

5 samp. comp. For total Pb

1210/ Collect 102-CSF-111998

From 50' x 50' P2 GRID

5 samp. comp. For total Pb

Note: concrete wall slightly protruding

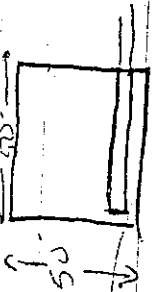
from 6 surface wall identified

in GRID P1 running NADIS

Also - P1 Western

is approx. 3' - highest

wall in excavation

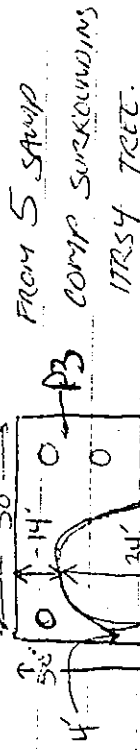


N

(64)

11/19/98

1215/ Collect IP3 - CSF - 11/1998
FROM P3 GRID FOR TORN Pb



N

220/ Collect ITR54 - 11/1998

FROM THE WALLS TO THE NORTH,
WEST, AND SOUTH OF TREE #4 -
SINCE TRS3 IS CONNECTED

TO TRS4 TO THE EAST -
NO EASTERN WALL SAMPLE

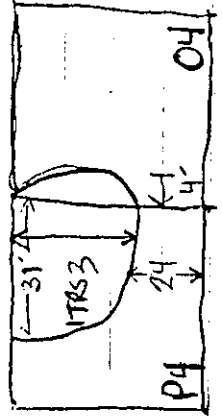
COULD BE COLLECTED FOR
TRS4. THE EASTERN
BOUNDARY LINE OF THE P3

GRID SEPARATES THE ISLAND
WHICH INCLUDES TRS4 TO THE
WEST AND TRS3 TO THE EAST.

230/ Collect ITR53 - 11/1998

WHICH LIES MOSTLY
IN THE P4 GRID
BUT SOME IN THE

P4 GRID -
A 5 SAMP. COMP.



N

(65)

11/19/98

WAS TAKEN FROM THE WALLS
TO THE NORTH, EAST, AND
SOUTH OF TREE #3 -

SINCE TREE #4 ISLAND IS CONNECTED
TO THE WEST OF TREE #3
ISLAND - NO SAMPLE CAN

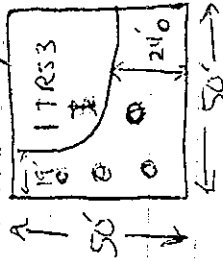
BE COLLECTED FROM THE
WESTERN WALL OF TREE #3

"ISLAND" KNOWN AS ITR53.

1240/ Collect IP4 - CSF - 11/1998

FROM P4 GRID - 5 SAMP COMP

FOR TORN Pb,



N

1250/ Collect IP5 - CSF - 11/1998

FROM P5 GRID

5 SAMP. COMP

FOR TORN Pb.

1300/ Collect IP5 - CSWE - 11/1998

FROM EASTERN WALL OF P5 -

5 SAMP. COMP. FOR TORN Pb.

FOR TORN Pb.

(66)

11/19/98

1310 Collect IQ1-CSNN-111998

FROM 50' SET WESTERN WALL OF
Q1 GRID. 5 SAMP. COMP.
FOR TOTAL Pb.

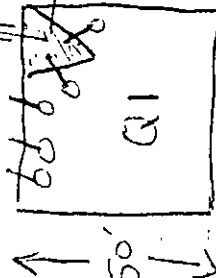
1315 Collect IQ1-CSF-111998

FROM 50' x 50' Q1 GRID.
5 SAMP. COMP. FOR TOTAL Pb.

1320 Collect IQ2-CSF-111998

FROM 50' x 50' Q2 GRID.
5 SAMP. COMP. FOR TOTAL Pb.

NOTE: Q1 GRID IS AS SHOWN
BELOW



GUIDE LINE FROM TREE POLE
FOR Q1 - WESTERN
WALL SAMPLES - (IQ1-CSNN)
SOME SAMPLES WERE

TAKEN FROM THE PENINSULA
OF UNEXCAVATED MATERIAL

ALONG THE PLANE POLE GUIDE
LINE + Q1 WESTERN WALL
5 SPOTS MARKED ON

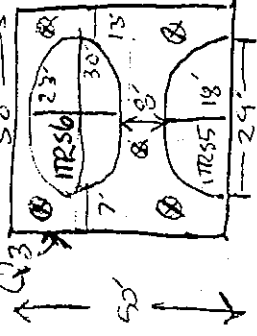
FIGURE ABOVE WITH
MARKING.

(67)

11/19/98

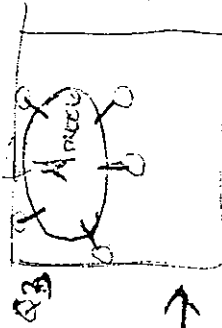
1330 Collect IQ3-CSF-111998

FROM Q3 GRID 5 SAMP. COMP.
COLLECTED FROM
9 POINTS SURROUNDING
ITRS6 + ITRS5
FOR TOTAL Pb.



1340 Collect ITRS6-111998

FROM WALL OF TREE #6 "ISLAND"
WHICH LIES IN Q3 GRID



5 SAMP. COMP.
COLLECTED SURROUNDING
TREE FROM 9
LOCATIONS FOR
TOTAL Pb.

1350 Collect ITRS5-111998

FROM WALL OF TREE #5 "ISLAND"

WHICH LIES IN Q3 + Q4 GRIDS.

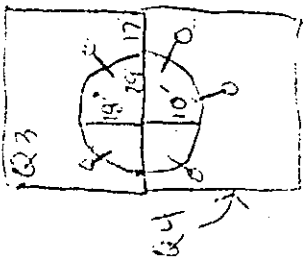
A 5 SAMP. COMP.

WAS COLLECTED

FROM 9 POINTS

SURROUNDING TREE.

FOR TOTAL Pb.

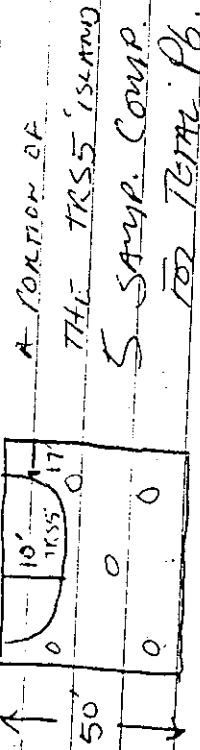


(68)

11/19/98

1400/ Collect 1Q4-CSF-111998

FROM Q4 GRID WHICH CONTAINS



50' →

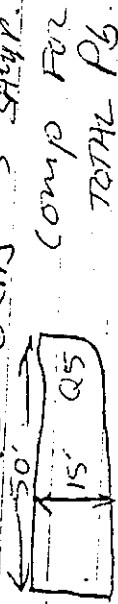
N →

NOTE: SOUTHERN WALL OF TRSS CONTAINS
 PIECE OF OLD ROADWAY (BLACKTOP)
 APPROX 1'-6" BELOW ORIGINAL
 GROUND SURFACE IMBEDDED IN

WALL OF TREE #5 ISLAND.

1410/ Collect 1Q5-CSF-111998

FROM Q5 GRID 5 SAMP.



N →

1415/ Collect 1Q5-CSWE-111998

FROM EASTERN WALL OF Q5

50' sect 5 samp. comp.

FOR TOTAL P6. - Q5 CSF

WALL IS THE DEEPEST EXPOSED

WALL AT APPROX 2' BGS.

11/19/98 (69)

1430/ Collect 1R1-CSWN-111998

AND MS/1750 - 1R1-CSWN-111998 MS

FROM WESTERN WALL 50' SECT.

OF R1 GRID 5 SAMP. COMP.

FOR TOTAL P6.

1440/ Collect 1R1-CSF-111998

FROM 50' x 50' R1 GRID

FROM 5 SAMP. COMP. FOR

TOTAL P6.

1445/ Collect 1R2-CSF-111998

FROM 50' x 50' R2 GRID

FROM 5 SAMP. COMP. FOR

TOTAL P6.

1500/ OUT OF EXCAVATION AREA

- DECON BOOTS - DRESS

OUT OF LOWER C AT

EXCLUSION ZONE

1570/ TALK WITH WAYNE ABOUT

DAILY SAMPLING EVENT.

- WAYNE NEEDS TWO

WATER SAMPLES TAKEN

1 - IN THE OPEN HOLE

APPROXIMATELY 12 FEET TO

THE NORTH OF THE

GATZ HOUSE.

(70)

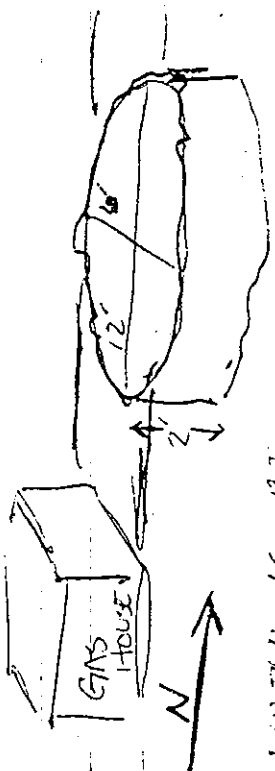
11/19/98

THIS HOLE IS TO BE ASSOCIATED WITH THE 1998

WATER IN HOLE WITH ISLAND - CALL SAMPLE

BW-1 - 11/1998

- HOLE IS APPROX. 12' x 6' x 2' DEEP



WATER IS AT 2' DEEP AND IS ONLY 1-6" DEEP.

ALSO NEED TO COLLECT A WATER SAMPLE FROM POLY TANK THAT CONTAINS H₂O PUMPED FROM THE BARRIER WALL EXCAVATION. THE TANK IS A SOGCAL POLY TANK AND CONTAINS LOTS OF GAS.

11/19/98 (71)

WATER FROM THE EXCAVATION. 1520] COLLECT BW-1 - 11/1998 FOR SOME Ph (Ag.) FROM

H₂O IN POLY TANK THAT CONTAINS H₂O FROM THE BARRIER WALL EXCAVATION.

1545] M03 TO SHED - UNPACK CONT

1600] - COLLECT EQ. BL. 11/1998 FROM DECONED HAND

TRAWLER USING STONE ENOUGH SPRING WATER TO COLLECT FOR JAMES Ph.

1620] LEAVE SITE. TAKE PHOTO #1

BARRIER WALL EXCAVATION OPEN HOLE - POLY TANK AND GAS HOUSE - PHOTO TAKEN FACING SOUTH.

1630] BED OPPOSITE TO PARK COLLECT + FULL OUT CAMP OF CAMP.

(72)

11/20/98

OVERCAST - DRIZZLE
50°F

0745 LEAVE FOR HOME DEPOT

FOR SUPPLIES

- HOME DEPOT

- PORTLAND CEMENT

- GRAVEL

- SAND

- GLOVES

- BUCKETS

- PRICE CHOPPER

- PANS

- WATER (DISTILLED)

- ICE

0910 SIGN IN AT RSL

WORDS TO SHED

- MIX - CEMENT, SAND, & GRAVEL
TO FILL IN OPEN BOREHOLE

THAT WAS IDENTIFIED BY

BED - per WAYNE'S REQUEST

BED - FILLS BOREHOLE - LOCATED

SOUTH WEST APPROX 6' FROM

ESC STATION - HOLE IS APOX

TO APPROX. 2.5' BES APPARENTLY

SETTLED OUT BOREHOLE FROM

RECENT EXPLORATION

SAMPLING BY ESC.

11/20/98

11/20/98 (73)

0930 FILLS CEMENT MIXTURE

IN OPEN BOREHOLE

- DECON HAND TROWELS

- LIQUID H₂O SCRUB- RINSE H₂O

- NITRIC RINSE (SPRY)

- RINSE H₂O- SPRING H₂O

1000 COLLECT EGGS - 112098

FOR TOTAL Pb.

- PACK EGGS + GUM FOR EKS

1015 DRESS IN LEAD C

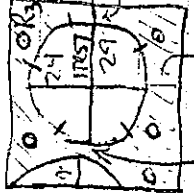
AT EXCAVATION AREA #2

- MOBS SAMPLING GEAR INTO

EXCAVATION AREA

1030 COLLECT IR3 - CSF - 112098

FROM R3 GRIDS - (SURROUNDED)



FOR TOTAL Pb.

1040 COLLECT IR37 - 112098

FROM LIMBS OF TREE #7 'ISLAND'

WHICH IS LOCATED IN GRID R3 AS SEEN ABOVE

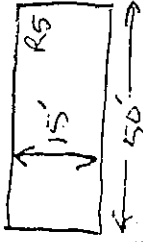
5 Samp. Comp. FOR TOTAL Pb.

74 11/20/98

1050 Collect 1R4-CSF-112098
FROM 50'x50' GRID 5 samp
comp. for total Pb.
AND DUPLICATE 1R4A-CSF-112098
FROM R4 50'x50' GRID.

5 samp. was homogenized and
split - 1055/LAB TIME
used to DISPOSE DUPLICATE.

1100 Collect 1R5-CSF-112098
FROM R5 GRID 5 samp. comp.
FOR TOTAL Pb.



1110 Collect 1R5-CSW-112098
FROM EXTREME N.W. OF R5 GRID
50'x50' - 5 samp. comp.
FOR TOTAL Pb.

NOTE - BLACKTIE ROCKWATER FRAGMENTS
FOUND IN NORTH + WEST WALLS
OF TREE #7 ISLAND AT APPROX
1'-1.5' BES.

1120 Collect 1S1-CSWN-112098
AND 1S1-CSWN-112098 MS/MSD
- FROM 50'x50' WESTERN WALL OF S1
- 5 samp. comp. homogenized and
split - FOR TOTAL Pb.

1130 Collect - 1S1-CSF-112098
FROM 50'x50' S1 GRID.

5 samp. comp. FOR TOTAL Pb.

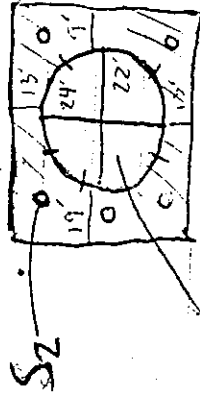
1140 Collect - 1S2-CSF-112098

FROM S2 GRID - (SUCCEEDING)

1 TRS9 (TREE #9)

5 samp. comp.

FOR TOTAL Pb.



1 TRS9

1150 Collect 1TRS9-112098

FROM WALLS OF TREE #9 "ISLAND"

5 samp. comp. FOR TOTAL Pb.

NOTE BLACKTIE ROCK DEBRIS FOUND IN

EASTERN WALLS OF TRS9 ISLAND.

0'-1' BES. TRS9 HAS IN S2 GRID

1200 Collect 1TRS8-112098

FROM WALLS OF TREE #8 "ISLAND"

5 samp. comp. FOR TOTAL Pb.

NOTE BLACKTIE DEBRIS IN SOUTHERN +

EASTERN WALLS OF TREE #8 ISL.

AT 1'-2' BES. TRS8 IS

MOSTLY IN GRID S3 BUT ALSO

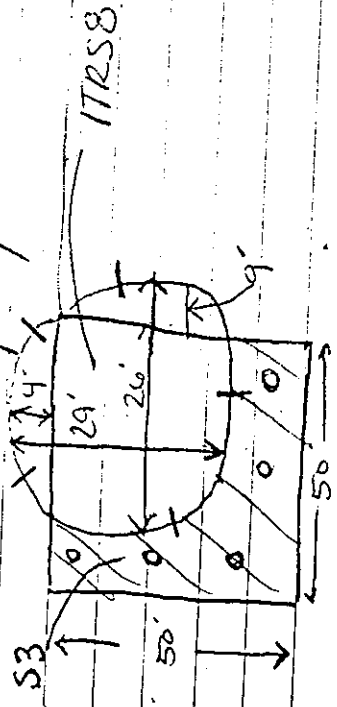
CROSSES INTO S2 + R3 TO THE

EAST AND TO THE NORTH, RESP.

SEE DRAWINGS ON NEXT PAGE.

76

11/20/98



1210 Collect 1S3-CSF-112098

FROM GRID S3 AS SEEN

ABOVE - 5 SAND COMP IN

GRID S3 SOUTH AND EAST OF

17RS8 - FOR TOTAL Pb.

1220 Collect 1S4-CSF-112098

FROM 50' x 50' S4 GRID 5 SAND

COMP. FOR TOTAL Pb.

1230 Collect 1S5-CSF-112098

FROM S5 GRID 5 SAND.

COMP. FOR TOTAL Pb.



1240 Collect 1S5-CSWE-112098

FROM EASTERN WALL OF S5

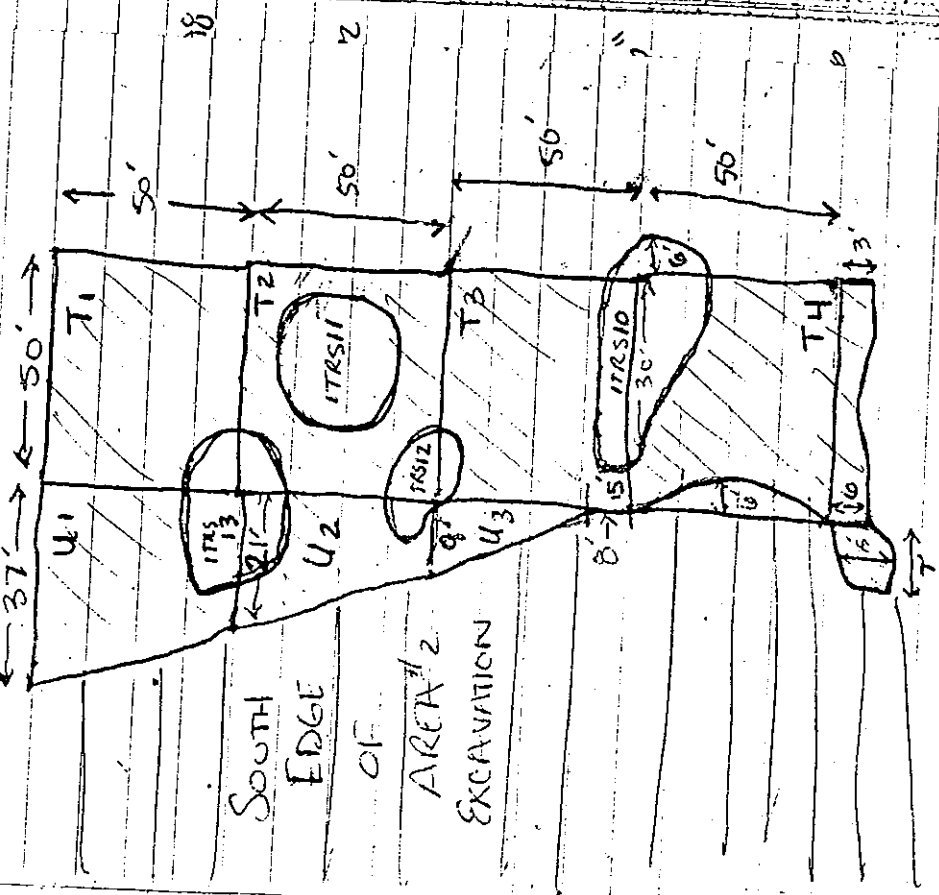
50' SECT. BETWEEN 1.5' AND 3' BOS

(WALL'S DEPTH) 5 SAND COMP.

77

11/20/98

BLOW-UP - UPDATED MAP OF
T+U SECTIONS



SOUTH
EDGE
OF

AREA #2
EXCAVATION

D

11/20/98

(78)

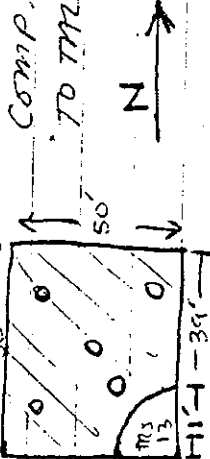
1330 Collect IT1-CSNW-112098

FROM 50' SE of WESTERN WALL OF T1 - 5 samp. comp.

FOR TOTAL Pb.

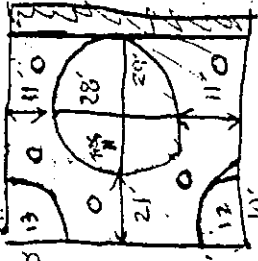
1340 Collect IT1-CSF-112098

FROM T1 GRID 5 samp. comp. FOR TOTAL Pb.



1350 Collect IT2-CSF-112098

FROM T2 GRID WHICH HAS ALL OF TRS11 AND PARTS OF TRS12 + TRS13 WITHIN THE T2 GRID 5 samp comp



SURROUNDING TRS11 TO WEST, SOUTH, AND EAST. - FOR TOTAL Pb.

1400 Collect ITRS11-112098 FROM

TRC #11 "ISLAND" 5 samp. comp. FOR TOTAL Pb.

SPLIT SAMPLE FOR DUPLICATE

11/20/98

(79)

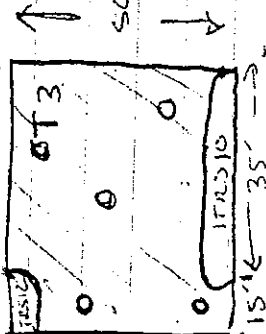
1405 DISCUSSED TIME FOR DUPLICATE

ITRS11A-112098 WHICH WAS A HOMOGENIZED SPLIT OF

ITRS11-112098 - FROM TREE #11.

1415 Collect ITR3-CSF-112098

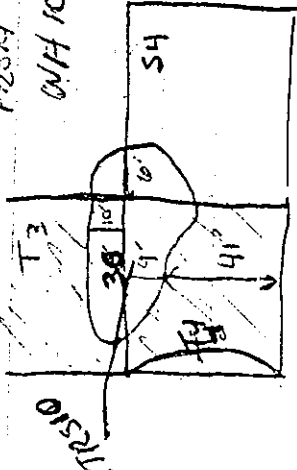
FROM T3 GRID 5 samp. comp. FOR TOTAL Pb.



1425 Collect ITRS10-112098

FROM TREE #10 "ISLAND" WHICH PARTLY IN T3, T4, AND S4 GRIDS.

5 samp. comp TAKEN FROM THE WALLS



OF ISLAND. SAMPLE SPLIT FOR ITRS10-112098 MSD MATRIX SPIKE & MATRIX SOL. Duplicate

(80)

11/20/98

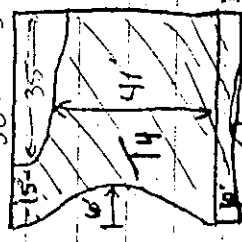
1440 Collect 1T4-CSF-112098

FROM T4 GRID 5 samp.

comp.

FOR TOTAL Pb.

50 T4 ALSO INCLUDES 3' to 6' NARROW STRIP WHICH COULD BE TS - BUT EXCLUDE T4.



1450 Collect ~~1T4-CSF-112098~~

1T4-CSWS-112098

FROM CURVED SOUTHERN WALL OF T4 5 samp. comp. FOR TOTAL Pb.

1500 Collect 1T4-CSWE-112098

FROM EASTERN WALL OF T4

GRID 50' SECT - 5 samp.

comp - FOR TOTAL Pb.

1515 Collect 1U1-CSWW-112098

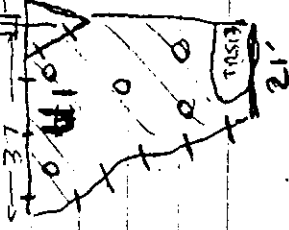
FROM 37' SECT WESTERN WALL

AND 10' PENINSULA WHICH

SEPARATES T1 + U1

RECEIVING PILE + WIRE

N



(81)

11/20/98

1520 Collect 1U1-CSF-112098

FROM GRID ~~U1~~ U1 - SEE pg 80

FROM 5 samp. comp. FOR TOTAL Pb.

1530 Collect ~~1U1-CSF-112098~~

Collect 1U1-CSWS-112098

FROM SOUTHERN WALL OF U1

GRID 50' ANGLED SECT.

5 samp. comp.

FOR TOTAL Pb.

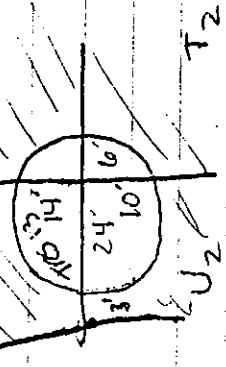
1540 Collect 1TRS13-112098

FROM TREE #13 "ISLAND" WALLS

5 samp comp FOR TOTAL Pb.

TRS13 LIES IN U1, U2, T1, AND T2

GRIDS U1, T1, U2, T2

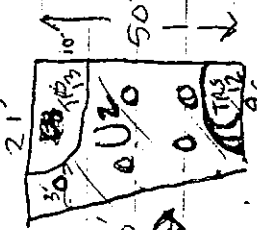


1550 Collect 1U2-CSF-112098

FROM U2 GRID

5 samp. comp.

FOR TOTAL Pb.

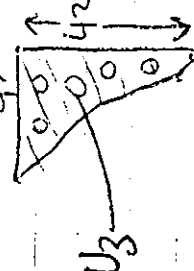


RAINING
45°F 11/20/98

1600 Collect U2-CSWS-112098
FROM SOUTHERN WALL OF
U2 GRID - 5 SAMP.
Comp. For Total Pb.

1610 - OUT OF HAND TROWERS
HAB TO SHED
TO DECON ENOUGH TO
FINISH - EXCAVATION
AREA

1640 Collect U3-CSF 112098
FROM U3 GRID
5 SAMP. Comp.
For Total Pb.



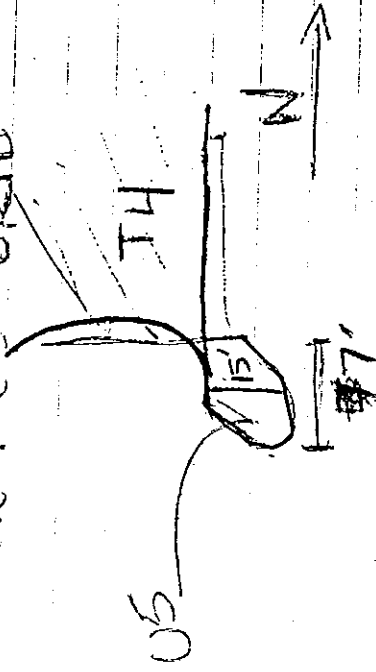
1650 Collect U3-CSWS-112098
FROM SOUTHERN WALL
OF U3 GRID 5 SAMP.
Comp. For Total Pb.

1655 Collect TRS12-112098
FROM TREE #12 "ISLAND"
WALLS 5 SAMP. Comp.
For Total Pb.

(83)

Note TRS12 UES IN
U2, U3 AND U3 SECTIONS
SOE P. 77 AND 55

1700 Collect U5-CSF-112098
FROM U5 GRID



1705 Collect U5-CSWE-112098
FROM EASTERN WALL OF
U5 5 SAMP. Comp.

1710 Collect U5-CSWS-112098
FROM SOUTHERN WALL
OF U5 5 SAMP. Comp.
For Total Pb.

1720 Leave Excavation
Dress out of
Level C through

84

11/20/98

1730 Fall out!

Citizen of Cuzzoboy's

Pack ecocor
- OFFSITE

1840 Leave for Fox Ex
to Newburg

1930 Drop off ecocor
at Fox Ex

39 soil samples

1 Ag samples
for total Pb
Saturday Deliveries
to Clinic

Sunny
50°F

11/23/98

85

1120 sign in at RSR

Mob to shed

Clean boots

Clean hand towels

- Liquidinox scrub

- H₂O Rinse

Organize equipment

- inventory

NEEDS

- H₂O - (distilled)

- Latex gloves (Need several boxes)

- Soil jars

- Sample labels

- Ziplock bags

- Approx 20 die plates left.

1140 Dress in Level C

Mob to excavation area

#2 too take photos

of recent contamination

Sampling activity locations.

- Check cement fill in

Boring by shed -

Good seal.

26

11/23/93

PHOTOS: EXCAVATION AREA #12

#1 TRS1 - M4 GRID - FACING WEST (TRS1 = RSR SIGN)
 #2 M54 NORTH WALL - RSR DRAINAGE - GRAVEL - 1.5' WITH FACING NORTH

#3 M54 EAST WALL ± 2.2' GRAVEL SILT + CLAY FACING EAST

#4 - JAGGED WALL OF M54-N4 EAST WALL DISTANT SHOT, FACING SOUTHEAST FROM M54 GRID - TRS2 IN RIGHT BACKGROUND OF PHOTO

#5 - N1-N2 N3 GRIDS LONG SHOT OPEN EXC. N1 WEST WALL AT 150'

#6 N1 WALL (WESTERN) FACING WEST. 2' OF EXCAVATION 1' OF PUSHED EXCAVATION SOIL ON TOP - GIVES SOME AN APPROPRIATE OR APPROX. 3' IN HEIGHT.

NOTICE - GRAVEL ROAD INCLUSION 6" BELOW ORIG. GROUND SURFACE.

87

#7 FACING SOUTH 0 AND 8 WESTERN WALLS W/ PENINSULA FOR PIONEER CABLE

WHICH SEPARATES PANORAMA ± 8 STANDING ON WALL IN FLORIDA WALL SURFACE FLUSH

AT NORTHERN END PROTRUDES 1.5' AT SOUTHERN END. RUNNING NORTH + SOUTH

SEE PG. 63
 #9 - LARGE HOLE IN P1 GRID JUST WEST BY < 1' OF WALL

IN P1 GRID ± 2.5' DEEP #10 - CLOSE UP SOUTHERN END OF WALL IN P1 GRID

1.5'-2' IN DEPTH - FACING EAST.

#11 - Q1 WITH (WESTERN) WITH CABLE PENINSULA AT 40' FACING WEST

#12 - CLOSE UP Q1 WESTERN WALL SEE GRASS ORIGINAL GROUND SURFACE - WITH APPROX 1.5'-2' OF POSITION SOIL ON TOP.

#13 LARGE HOLE IN P2 GRID WITH TRS3+4 IN BACKGROUND

TR34 IS CLOSER. TR4 ARE CONNECTED

11/23/98

88

13 CONT. - PHOTO TAKEN

FACING EAST

#14 - CLOSE UP OF TRS4 "ISLAND"
(TREE #4) 1.5' HIGH WALS.

FACING SOUTH-SOUTHEAST

#15 - TRS3 - TREE #3 WHICH

IS CONNECTED TO TREE #14

3 1.25' HIGH WALS FACING

SOUTH-SOUTH EAST TREE 4

3 IS TO THE NORTHEAST

OF TREE #4 AND IS

CONNECTED TO FORM

1 ISLAND.

#16 TRS2 TREE #2 FACING

EAST, WALS OF < 1 to 1.5'

IN HEIGHT

#17 OS EASTERN WALS.

- SHALLOW EX. 2' - to 1.25'

TREE #5 IN FOREGROUND

TREE #6 TO THE RIGHT AND

BEHIND

TREE #7 ISLAND WITH TWO TREES

IN BACK GROUND.

#19 P.Q. DIVIDER EXCAVATION

GETS MUCH DEEPER ON

11/23

89

EASTERN WALL OF Q

PHOTO TAKEN FACING EAST

#20 DEPTH OF EXCAVATION CHANGE

Q5 EASTERN WALL ALONG

BLACK SILT FENCE WALL

ON LEFT OF PHOTO IS

THE CHANGE IN DEPTH OF

EX.

#21 'KS3 + 4 FACING WEST

NORTH WEST FROM Q4

#22 TRS5 - FACING WEST 2.5-3'

WALS.

#23 KS EASTERN WALL 3-3.5'

DEEP.

#24 TRS7 TREE ISLAND #7

HAS TWO TREES - PINE

AND MAPLE? FACING WEST

#25 CLOSE UP TRS6 TREE #6

FACING WEST.

NEW CAMERA

#1 TRS8 - FACING WEST - DARK

BARK - DARK BURG. LEAVES

1-2' WALS

#2 SYGARD SS EASTERN WALL

LARGE EX. HOLE IN SY

2-3' WALL (SAND) SY

(90)

11/23/58

#3 T4 GRID 4 U5 FACING
SOUTHEAST.

#4 T4 EAST WALL ~~1-2'~~
2' to 5' E.C.

WALL NORTH TO SOUTH

#5 FACING EAST

U5 GRID AND WALLS
SOUTH & EAST SHALLOW
EXCAVATION - CLOSE UP
PHOTO TAKEN FACING
SOUTH SOUTHEAST

#10 TRS 10. FACING WEST

TWO TREE ISLAND - PINES

SHALLOW WALLS - 1' - .05'

#7 TRS 9 - FACING WEST 1-2'

#8 TRS 11 - FACING WEST 1-2'

#9 TRS 12 - TREE #12 ISLAND
FACING WEST WITH

ISLAND OF TREE #13
IN BACKGROUND.

TREE #13 NOT VISIBLE

#12 IS BLOCKING THE VIEW

#10 TRS 13 WITH U1 WEST WALL
IN BACKGROUND - FACING
WEST.

11/23/58

(91)

#11 - ANGLED E SOUTHERN
WALL OF U GRIDS WITH
GRID TO BE T SOUTHERN
WALL IN GRID 3-4

PHOTO TAKEN FACING EAST.

#12 - TELEPHONE POLE CABLE
PENINSULA DIVIDES T1

AND U1, WESTERN WALLS.

#13 - OPEN GRIDS - T1 TO

M51 - LONG SHOT FACING
NORTH.

#14 - S WEST WALL

#15 - S1 WEST WALL CLOSE UP

1' OF EXCA. AT WATER

SLOPE'S STEEP AREA

#16 - R1 WEST WALL CLOSE UP

#17 - TRS 6 to left 7 to right
TRs 5 IN BACKGROUND

FACING EAST TO RSR
PLANT.

#18 - ~~TRs~~ TRS 8 + 9 FACING
SOUTH.

#19 - SOUTHEAST WALL OF TRS 5

FORMER ROADWAY IN CAUTION

IDENTIFIED IN SEVERAL TREE ISLANDS

(92)

11/23/98

#20 - EASTERN WALL OF

TLS9 - ROADWAY INCLUS

#21 - SOUTHERN WALL OF

TLS9 - ROADWAY INCLUS

2' BGS,

#22 - AREA BETWEEN TLS9

AND TLS11 - FACING WEST

1-1' X 13' BETWEEN 150-

DEER EXC, LARGE

BOLDERS - ROAD FACING

IN NORTHWARD

OF TLS11

#23 - SAME AREA AS PHOTO

#22 - FACING EAST

(opposite direction)

#24 - LONG SHOT EX. FACING

SOUTH - TREES' 4-13

#25 - LONG SHOT - EXC. FACING

SOUTH - TREES - 2-13

#26 - ROAD TREE - FACING SOUTH

#27 - Same

1330 OUT OF GORE - C

1345 - OF SIDE

[Signature]

WARM-SUNNY-60°F

FRIDAY, DECEMBER 4 1998 (95)

0850 | LEAVE OFFICE FOR RSR

0925 | SIGN IN AT RSR

MOB TO SITES

- ORGANIZE SUPPLIES

- DECON - HAND TRUCKS FOR
TRUCKS, SAMPLING EVENT

(R3, S3, AND S4) 2ND

EXCAVATION DUE TO ABOVE

STATE LIMIT TOTAL Pb LEVELS

IN THESE GRIDS IN 15% EX.

1000- | COLLECT EQ BL 120498

BY DRINKING STORE BOUGHT

DISTILLED H₂O OVER HAND

TRUCK - FOR TOTAL Pb

1005 | DRESS IN LEVEL C

MOB TO EXCAVATION AREA

#2 (SOUTH OF RSR DRIVEWAY)

1030 | COLLECT 2R3-CSF-120498

AND DUPLICATE SAMPLE

2R3A-CSF-120498

(WITH A DISCISE SAMPLE TIME OF

1035) FROM A 5 SAMPLE

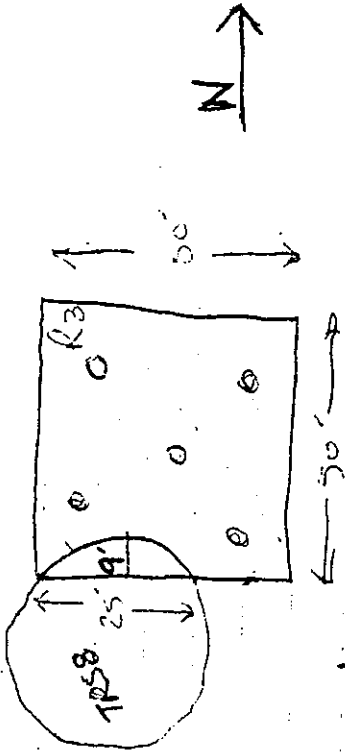
COMPOSITE FROM THE R3

GRID SECOND EXCAVATION

96

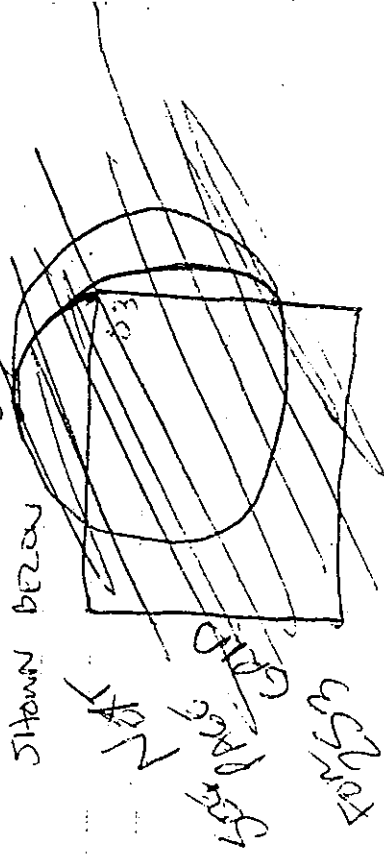
12/04/98

TR57 (TREE #7 ISLAND) WAS EXCAVATED AND REMOVED FROM THE CENTER OF GRID R3 DUE TO HIGH TOTAL Pb READINGS FROM THE 1st EXCAVATION. R3 GRID NOW APPEARS AS SHOWN BELOW.



1045 | Collect 2S3 - CSF-120498

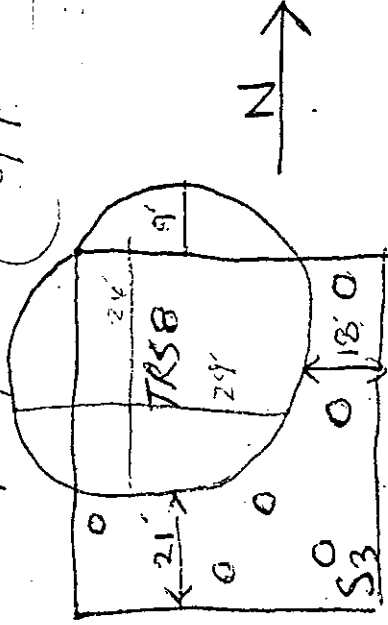
FROM A 5 SAMP. COMP. OF GRID S3 (2ND EXCAVATION) FOR TOTAL Pb S3 GRID IS AS SHOWN BELOW



50' x 50' GRID

12/04/98

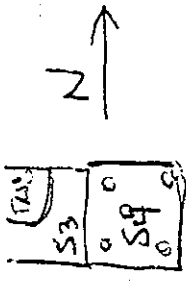
97



S3 GRID 2ND EXC.

- NOTE TO OBTAIN BETTER COVERAGE OF S3 GRID A 6 SAMP. COMP WAS TAKEN FROM 0 MARKED IN ABOVE DRAWING.

1100 | Collect 2S4 - CSF-120498 AND 2S4-CSF-120498 MS/MS (MATRIX SPIKE AND MATRIX SPIKE DUPLICATE.) - 5 SAMP. COMP. COLLECTED FROM S4 GRID 50' x 50' FOR TOTAL Pb.



1115 | TAKE PHOTOS OF 2ND EXCAVATION IN AREAS R3, S3, AND S4.

98

12/04/98

PHOTOS

01 - TREES FROM TRS7 ISLAND WHICH WERE REMOVED FROM R3 GRID - NOW LYING IN R2 GRID - PHOTO TAKEN FACING WEST.

02 - R3 GRID FACING EAST - WALL OF TRS8 ISLAND IS ON RIGHT OF PHOTO - MARKING THE SOUTHERN BOUNDARY OF GRID R3.

03 - S3 GRID FACING EAST WALL OF TRS8 ISLAND ON LEFT OF PHOTO MARKS NORTHERN BOUNDARY OF S3 - (TRS8 LIES IN NORTHWEST CORNER OF S3 GRID).

04 - S3 GRID FACING WEST

WALL OF TRS8 ISLAND IS THE EASTERN WALL OF TRS8 S3 GRID SURROUNDS TRS8 ISLAND TO THE EAST AND THE SOUTH AS SEEN IN THIS PHOTO.

05 - S4 GRID FACING EAST WATER LYING IN EASTERN PORTION OF

99

12/04/98

99

S4 GRID AND IN S5 GRID S5 - IS THIN SECTION BETWEEN

S4 AND WALL (S5 EASTERN WALL)

06 - R3 GRID FACING WEST

07 - DEPTH CHANGE BETWEEN R4 AND S4 (2ND EXCAVATION)

08 - CLOSE UP OF WALL SHOWING CHANGE OF DEPTH BETWEEN

R4 (15 EX.) AND S4 (2ND EX.)

FACING NORTH

- NOTICE GRAY CLAY SILT

IN RIGHT - OF PHOTO IS

NE CORNER OF S4 GRID.

09 - PHOTO OF HANOI AND SAMPLES TO BE SENT

OUT TODAY 12/04/98

(USED TO MARK PLACE IN ROLL OF FILM)

AREA DRESS OUT OF LEVEE C.C.

PACK COOLER

RETURN BOAT TO SITE

TALK TO WAYNE

CRAW ABOUT TODAY'S

SAMPLING

100 12/04/98

WAYNE BOYING'S EXCAVATION IN
R3, S3, AND S4 (200) WAS
APPROX 8" BELOW 1ST EXCAVATION
GRADE SURFACE.

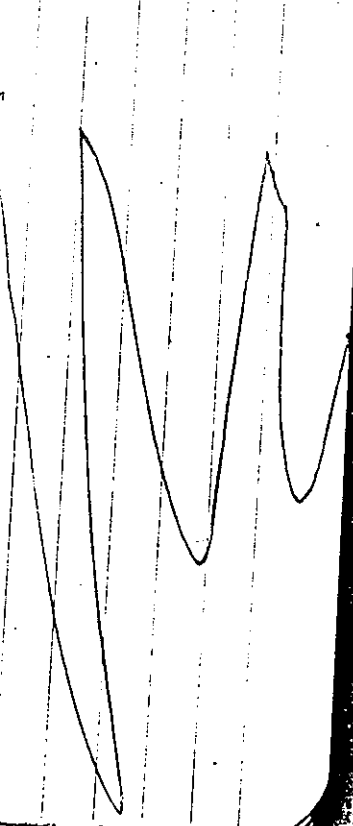
SEE PHOTO 7+8 TODAY -
APPROX 8"-12" EXCAVATION
CHANCE APPARENT BETWEEN
R4 AND S4.

-WAYNE BOYING'S MORE TREE
ISLANDS WILL NEED TO BE
REMOVED - WILL CALL
THIS WEEKEND WITH DETAILS.

1230 / BED OFF SITE

1300 / FILL OUT CHAIN OF
CUSTODY - 5 SOIL SAMPLE
THRS AND 1 AIR BOTTLE

TO BE SENT OUT TODAY
PRIORITY SHIP. DEC. 100 EX.
1600 / SAND OUT FOR EX.



101

SUNNY - WARM

MONDAY 12/07/98 65°F

1040 / LEAVE FOR SUPPLIES
KMAAT

D.I. WATER

PAPER TOWELS

BAGGIES

ICE

COOLERS (SMALL)

1150 / ARRIVE ON SITE RSR

MOB TO ESC SITE

TO DERON AUGENS (HANG TROVER)

FOR WHAT'S SAMPLING OF
THE FORMER LOCATION OF

TREE ISLANDS S (TRSS), 8

(TRSS) AND 10 (TRSL0) - 9

MIGHT ALSO BE ADDED IF IT
HAS BEEN REMOVED. ALL

TREE ISLAND SAMPLES WILL BE
PRECEDED BY THE NUMBER

"2" TO DENOTE THAT THIS
IS THE SECOND CONFIRMATION

SAMPLE BOUNDS ASSOCIATED
WITH THE TREE ISLAND.

1ST EXCAVATION LEFT THE "TREE ISLANDS"

INTACT, THE 2ND EXCAVATION IS

THE REMOVAL OF SOME OF THESE

TREE ISLANDS DUE TO THE

(102)

12/07/98

High Pb Readings Found in the Composite Samples from the Wall Samples of the Particular Islands Being Removed.

1220 Denon Handmovers

1230 Collect EQ Bl 120798

Equipment Blank Poured off of Handmover.

1240 Drops in Level C Mon to Excavation

TR59 Has NOT BEEN REMOVED so there will be no samples from TR59.

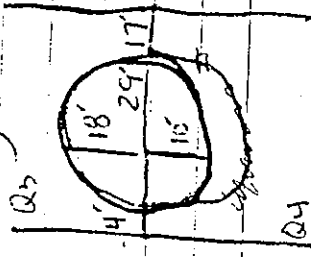
2TR55, 2TR58, and 2TR510 will be collected

1300 Collect 2TR55-120798

For total Pb from S samp comp of area excavation from

the former location of tree island #5 (TR55) which used to lie in

expos Q3 + Q4 as shown.



(103)

12/07/98

NOTE - AREA WHERE TR55 WAS EXCAVATED
GROUND SURFACE IS APPROX. 1-1.5'
BELOW SURROUNDING GROUND SURFACE
- VARIED DUE TO LARGE BOUNDS
AND ROOTS OF TREE - MOST LIKELY.

PHOTOS TAKEN OF TR55
#1 - FORMER LOCATION OF 2TR55

#2 - FACING NORTH - TR54 + 3 IN BACKGROUND

#3 - BOUNDS AND TREE FRAGS. ASSOCIATED WITH TR55 EXCAV.

#4 - FACING NORTH - LOCATION IN GRID 4
#5 - 2TR55 EXCAV. FACING WEST - TR56
IN BACKGROUND.

1310 Collect 2TR58-120798

FROM S SAMP COMP OF

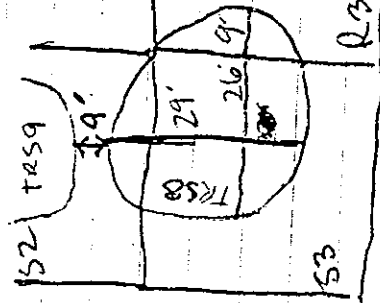
AREA EXCAVATED THE FORMER LOCATION
OF TREE ISLAND #8 WHICH USED TO

LIE IN GRIDS

S3, S2 + R3

AS SHOWN

(9' TO THE WEST
OF TR59)



(64)

12/07/98

PHOTOS TAKEN OF TRS8 FORMER LOCATION.

#4 EXCAV. AREA FACING EAST S3 + S4 GRIDS.

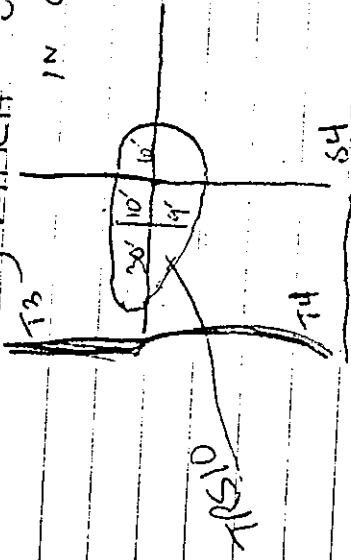
#5 EXCAV. AREA FACING WEST WITH TRS9 IN BACKGROUND

— (TRS8 WAS 9' EAST OF TRS9)
#6 FACING WEST TRS8 LOCATION
WOULD EXIST JUST SOUTH OF MOUNDEN AREA IN PHOTO TRS9 AND S WEST WALL IN BACKGR.

1340 | CORR 2 TRS10-120798

FOR TOTAL P6 FROM 5 SAME COMP. OF AREA EXCAVATED FROM THE FORMER LOCATION OF TRS ISLAND #10.

(TRS10) WHICH USED TO LIE IN GRIDS T3, T4, + S4 AS SHOWN.



12/07/98

(105)

PHOTOS TAKEN OF TRS10 FORMER LOC. #7 EXCAV. AREA OF TRS10 FACING SOUTH T3 + T4 GRIDS.

#8 EXCAV. AREA OF TRS10 FACING EAST T3 + T4 GRIDS. NOTE EX. DEPTH CHANGE OF 1-1.5' IN PHOTO.

#9 EXCAV. AREA OF TRS10 AND TRS8 CAN BE SEEN IN THIS PHOTO

FACING NORTH WITH TRS10, 4, AND 3 IN BACKGROUND OF PHOTO AS WELL AS

THE EXCAVATION AREA OF TRS5.

1400 | MORE TO BE EXCAVATED
1415 | MORE TO BE DRESSED OUT OF LEVEL

PACK COOLER

FILL OUT COC

1500 | FILL EX DRESS OFF

3 SOILS

1 A2

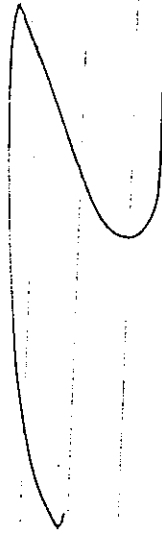


Exhibit 2

RCRA ground water quality data

Revere Smelting & Refining
Summary - Total Lead In Groundwater (ppb)

Well	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06	
RSR Well	5	5	18.5	5	17.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-07	5	5	6	5	7	5	5	5	7.3	3.9	5	1.7	5.0	5.0	10.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
MW-08	5	5	36	30	8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-08R	X	X	X	X	X	5	5	5	2.1	1.7	1.75	1.7	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
MW-09	5	5	93	8	5	5	5	5	5.2	8.4	8.4	10.8	19.2	5.0	5.0	X	8.5	5.0	6.7	5.7	11.9	5.0	5.0	10.5	5.3	5.0	5.0	11.2	5.0	5.0	5.0	5.0	5.0	5.1	5.0	23.5
MW-13(A)	5	5	5	6	5	5	5	5	14.2	6.0	5.1	12.0	5.0	5.0	5.2	3.1	5.0	7.7	8.9	5.0	8.8	6.4	7.6	20.0	7.7	5.0	5.0	5.0	6.2	5.3	0.0	5.0	5.0	6.5	5.0	
MW-14	5	5	7	8	5	5	5	5	2	3.9	1.7	1.7	5.0	5.0	5.9	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
MW-15(A)	5	5	5	5	5	5	5	5	3.8	1.6	1.7	1.7	5.0	5.0	87.6	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
MW-16	5	5	10	5	5	5	5	5	4.1	1.5	2.2	1.7	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
MW-17(A)	5	5	5	5	5	5	5	5	4.9	1.8	2.9	1.7	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		
MW-18	5	5	5	23	5	5	5	5	1.9	1.5	1.7	1.7	5.0	5.0	27.1	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	X	5.0	5.0	5.0	5.0	9.7	16.6	10.7	5.4	5.0	6.3	5.4	5.5	5.0	5.5	5.0	5.0	5.0	5.0		
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	17.1	20.1	X	19.9	22.1	20.0	19.6	31.7	24.4	17.4	16.9	22.6	14.1	13.9	17.7	18.9	20.7	20.4	13.2	26.0	16.5	12.2	
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	X	5.0	20.7	171.0	5.0	5.8	5.0	5.0	5.0	5.2	5.5	31.2	6.1	5.0	5.0	5.0	5.0	7.4	5.0	5.0	
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	24.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	X	
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	X	
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	X	
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14.9	X	
MW-13B	5	5	5	5	6	5	5	5	6	5.0	7.8	6.8	5.0	5.0	10.1	X	5.0	6.2	6.2	5.0	5.0	5.0	5.0	6.7	9.2	5.0	5.0	8.3	5.0	8.9	8.5	8.5	5.5	7.8	5.0	
MW-14B	X	X	X	X	X	X	5	5	3.2	1.5	1.7	1.7	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	8.3	5.0	5.0	5.0	5.0	5.0	
MW-15B	X	X	X	X	X	X	5	5	2.2	1.8	1.7	1.7	5.0	5.0	5.0	X	5.0	5.0	5.5	5.0	5.0	5.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	17.5	5.0	5.0	
MW-18B	X	X	X	X	X	X	15	7	7.8	5.6	3.1	2.4	5.0	5.0	5.0	X	5.0	10.5	5.0	5.0	8.2	5.0	5.0	5.1	6.4	5.0	10.1	5.0	5.0	5.0	5.0	5.0	10.9	5.0	5.0	
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	12.1	28.1	X	36.0	22.7	26.8	5.4	18.4	9.6	5.0	16.7	14.2	17.0	35.1	5.0	5.3	13.4	6.6	5.0	22.5	16.5	5.0	
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	X	
SW-1	10	22	9	39	20	7	23	45	13	153	11.6	15.4	5.0	15.8	5.0	X	22.7	26.5	14.6	30.0	11.4	9.0	15.8	10.7	8.1	7.8	51.0	7.1	36.7	6.3	5.0	35.7	8.92	12.0	25.9	
SW-5	16	63	45	59	83	18	78	79	36	9.8	28.5	8.1	29.6	5.0	97.0	X	5.0	10.0	18.5	40.7	15.0	159.0	8.2	5.0	8.6	15.6	6.6	24.0	14.9	17.4	10.2	10.2	19.0	6.9	16.5	
Sed-1	1340	18	936	611	921	587	634	1110	707	824	946	1570.0	2490.0	758.0	1150.0	X	717.0	716.0	1030.0	1270.0	815.0	3060.0	820.0	912.0	599.0	977.0	1230.0	1200.0	1210.0	477.0	924	924	8730.0	8700.0	1050.0	

NYS Class GA Standard for Lead = 25 ppb

NYS Class A Standard for Lead = 50 ppb

X = No Data

Bold = Non-Detect

Italic = Estimated

Exceeds TOGS Standard

Constituent of concern at this location

Revere Smelting & Refining
Summary - Total Antimony In Groundwater (ppb)

Well	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06	
RSR Well	50	50	50	50	50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-07	50	50	50	50	50	50	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	20.0	7.6	9.3	
MW-08	50	50	50	50	50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-08R	X	X	X	X	X	50	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	20.0	7.6	9.3	
MW-09	50	50	50	50	50	50	50	50	6.8	10.0	11.0	8.0	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	13.2	10.0	17.8	51.9	10.0	13.6	35	10.0	15.4	15.3	47.3
MW-13(A)	50	50	50	50	50	50	50	50	10.2	10.2	16.5	11.0	10.0	60.0	60.0	2.1	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	B	60.0	7.6	9.3	
MW-14	50	50	50	50	50	50	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	60.0	7.6	9.3	
MW-15(A)	50	50	50	50	50	50	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	7.67	7.6	9.3	
MW-16	50	50	50	50	50	50	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	4.67	7.6	9.3	
MW-17(A)	50	50	50	50	50	50	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	8.6	7.6	9.3	
MW-18	50	50	50	50	50	50	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	13.2	7.6	9.3	
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	12.1	10.0	10.0	10.0	B	12.9	7.6	9.3
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	20.0	7.6	9.3	
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	4.73	7.6	9.3	
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7.6	X	
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7.6	X	
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7.6	X	
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7.6	X	
MW-13B	50	50	50	50	50	50	50	50	6.8	7.2	11.0	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	B	20.0	7.6	9.3	
MW-14B	X	X	X	X	X	X	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	B	20.0	7.6	9.3	
MW-15B	X	X	X	X	X	X	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	4.69	7.6	9.3	
MW-18B	X	X	X	X	X	X	50	50	3.4	3.4	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	3.72	7.6	9.3	
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	10.2	7.6	9.3		
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7.6	X	
SW-1	50	50	50	50	50	50	50	50	3.4	6.7	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10	20.0	7.6	9.3		
SW-5	50	50	50	50	50	50	50	50	4.1	5.8	5.5	5.5	10.0	60.0	60.0	X	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	10.0	10.0	10.0	10.0	10.0	10.0	B	9.74	7.6	9.3	
Sed-1	21	18	15	24	14	18	24	43	11.1	10.8	15.3	31.3	43.0	11.0	19.8	X	7.8	11.9	22.2	30.4	23.8	169.0	17.1	21.3	22.0	18.4	25.6	20.1	21.7	13.9	19.4	60.7	86.9	211.0	24.9	

NYS Class GA Standard for Antimony = 3 ppb

NYS Class A Standard for Antimony = 3 ppb

X = No Data

Bold = Non-Detect

Italic = Estimated

Exceeds TOGS Standard

Constituent of concern at this location

Revere Smelting & Refining
Summary - Total Cadmium In Groundwater

Well	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06
RSR Well	10	10	10	10	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-07	10	10	10	10	10	10	10	10	0.6	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-08	10	10	10	10	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-08R	X	X	X	X	X	10	10	10	0.4	0.45	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-09	134.5	107.5	101	188	77	70	60	78	151	109	49.2	76.8	132.0	75.6	71.4	X	90.6	56.2	48.6	73.5	66.0	45.0	75.4	50.0	31.5	35.5	33.0	39.0	18.7	27.8	30.9	43.7	46.5	38.2	35.3
MW-13	10	10	10	10	10	10	10	10	1.2	1.2	9.3	6.2	5.0	5.0	5.0	2.4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-14	10	10	10	10	10	10	10	10	0.4	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-15	10	10	10	10	10	10	10	10	1.5	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-16	10	10	10	10	10	10	10	10	1.2	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-17	10	10	10	10	10	10	10	10	5.4	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-18	10	10	10	10	10	10	10	10	0.4	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	91.7	90.9	X	90.2	95.9	83.2	77.8	75.4	72.9	72.3	66.0	67.5	66.1	63.9	63.0	63.6	60.2	57.4	59.6	57.2	54.2	51.8
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	X	5.0	5.0	13.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0.46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	X
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	92.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	37.1	X
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1.4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	X
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0.94	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	X
MW-13B	10	10	10	10	10	10	10	10	0.9	0.8	6.2	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-14B	X	X	X	X	X	X	10	10	0.4	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-15B	X	X	X	X	X	X	10	10	0.4	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-18B	X	X	X	X	X	X	10	10	0.5	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	10.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0.37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SW-1	10	10	10	10	10	10	10	10	0.8	1.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
SW-5	10	10	10	10	10	10	10	10	2.0	0.4	3.1	3.1	5.0	5.0	5.0	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.3	5.0	5.0	5.0	5.0	5.0
Sed-1	6	6.0	1.0	1.0	2.0	2.8	3.0	6.0	6.7	4.1	7.6	10.6	2.5	2.4	3.1	X	5.4	6.7	2.6	10.6	1.3	1.7	2.1	7.1	1.0	1.9	2.9	0.83	3.10	0.82	1.7	5.5	4.63	6.70	2.40

NYS Class GA Standard for Cadmium = 5 ppb
NYS Class A Standard for Lead = 5 ppb
X = No Data
Bold = Non-Detect
Italic = Estimated
Exceeds TOGS Standard
Constituent of concern at this location

Revere Smelting & Refining
Summary - Total Chromium In Groundwater (ppb)

Well	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06
RSR Well	10	10	10	20	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-07	10	10	10	20	10	10	10	10	0.5	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-08	10	10	14	20	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-08R	X	X	X	X	X	10	10	10	0.5	0.5	0.9	1.1	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-09	10	10	39	21	10	10	10	10	3.0	2.8	1.8	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	14.3	10.0	10.0	10.0	10.0	10.0	
MW-13(A)	21	10	14	20	10	10	10	10	1.5	1.5	2.7	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-14	10	10	10	20	10	10	10	10	0.5	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-15(A)	10	10	10	20	10	10	10	10	1.1	0.5	0.9	0.9	10.0	10.0	133.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-16	10	10	15	20	10	10	10	10	1.3	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-17(A)	10	10	10	20	10	10	10	10	0.5	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-18	10	10	10	20	10	10	10	10	0.5	0.5	0.9	0.9	10.0	10.0	18.8	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	10.0	X	10.0	14.7	182.0	10.0	10.0	10.0	10.0	10.0	10.0	11.8	42.2	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-13B	10	10	10	20	10	10	10	10	1.0	1.0	1.8	1.8	10.0	10.0	14.5	X	10.0	10.0	10.0	10.0	20.2	10.4	10.0	10.0	11.6	11.8	10.0	15.3	10.0	10.0	19.1	19.1	19.1	11.8	15.7
MW-14B	X	X	X	X	X	X	10	10	0.5	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	19.3	10.0
MW-15B	X	X	X	X	X	X	10	10	0.5	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	11.2	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-18B	X	X	X	X	X	X	10	10	0.5	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	19.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	20.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.9	10.0	10.0	10.0	10.0	10.0	
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
SW-1	10	10	10	10	10	10	10	10	0.5	8.3	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
SW-5	10	10	10	10	10	10	10	10	0.5	0.5	0.9	0.9	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Sed-1	17	27	20	17	16	18	19	16	17.8	21	13.1	23.7	22.0	13.1	18.3	X	17.2	11.8	17.4	17.2	19.6	12.5	19.2	20.2	20.1	20.5	25.8	21.7	18.2	20.6	19.0	24.9	22.7	24.6	22.1

NYS Class GA Standard for Chromium = 50 ppb

NYS Class A Standard for Chromium = 50 ppb

X = No Data

Bold = Non-Detect

Italic = Estimated

Exceeds TOGS Standard

Constituent of concern at this location

Revere Smelting & Refining
Summary - Total Arsenic In Groundwater(ppb)

Well	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06	
RSR Well	10	10	10	10	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-07	10	10	10	10	10	10	10	10	2.6	2.6	5.3	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-08	10	10	11	10	10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MW-08R	X	X	X	X	X	10	10	10	2.6	2.6	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-09	10	10	210	10	10	10	10	10	5.2	5.2	3.6	1.9	10.0	10.1	10.0	X	10.0	10.0	10.0	10.0	10.0	11.1	10.0	10.0	11.5	10.0	10.0	10.0	68.1	10.0	10.0	10.2	22.1	10.0	10.0	10.0
MW-13(A)	10	10	10	10	10	10	10	10	7.8	7.8	5.4	3.6	10.0	20.0	10.0	3.1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	11.4	10.0	10.0	10.0	10.0	10.0	
MW-14	10	10	10	10	10	10	10	10	2.6	2.6	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-15(A)	10	10	10	10	10	10	10	10	2.6	2.6	1.8	1.8	10.0	10.0	37.5	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-16	10	10	10	10	10	10	10	10	2.6	2.6	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-17(A)	10	10	10	10	10	10	10	10	2.6	2.6	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-18	10	10	10	10	10	10	10	10	2.6	2.4	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	10.0	X	10.0	10.0	10.0	10.0	14.5	20.1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	10.0	X	14.1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	10.0	X	10.0	10.0	158.0	10.0	10.0	10.0	21.3	10.0	10.0	10.0	29.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3.3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3.4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
MW-13B	10	10	10	10	10	10	10	10	5.2	5.2	3.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	16.2	10.0	10.0	10.0	10.0	10.0	10.0	
MW-14B	X	X	X	X	X	X	10	10	2.6	2.6	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.3	10.0	10.0	10.0	10.0	10.0	10.0	
MW-15B	X	X	X	X	X	X	10	10	2.6	2.6	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	12.8	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
MW-18B	X	X	X	X	X	X	10	10	2.6	2.6	1.8	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	17.9	X	19.9	12.1	21.9	21.9	15.1	17.0	10.0	18.8	22.1	15.3	10.7	19.0	17.5	10.0	28.1	50.8	46.8	21.3	14.5	
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2.6	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	10.0	X	
SW-1	10	10	10	10	10	10	10	10	2.6	6.3	2.6	1.8	10.0	10.0	10.0	X	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
SW-5	10	10	10	10	10	10	10	10	2.6	4.0	5.5	2.2	10.0	10.0	10.0	X	13.1	10.0	10.0	10.1	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
Sed-1	25	20	45	38	27	30.3	31	41	27.4	35.6	31.3	55.5	81.9	26.9	28.6	X	34.1	11.8	27.2	44.7	33.4	151.0	30.9	20.8	34.8	26.8	44.9	19.1	28.9	20.5	25.5	79.7	49.4	54.9	30.2	

NYS Class GA Standard for Arsenic = 25 ppb
NYS Class A Standard for Arsenic = 50 ppb
X = No Data
Bold = Non-Detect
Italic = Estimated
Exceeds TOGS Standard
Constituent of concern at this location

Revere Smelting & Refining
Summary - Dissolved Lead In Groundwater(ppb)

Well	M-98	M-98	J-98	J-98	S-98	S-98	D-98	D-98	M-99	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03
RSR Well	5	8	5	5	5	5	5	5	5	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-07	5	5	5	5	5	5	5	5	5	7	5	5	5	1.7	1.5	1.7	2.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-08	5	8	5	5	5	22	5	8	5	7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-08R	X	X	X	X	X	X	X	X	X	X	5	5	5	2.3	1.5	2.5	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-09	5	6	5	5	18	20	7	7	6	5	5	5	5	26.7	7.8	11.3	6.6	5.0	5.0	5.0	5.0	5.0	10.9	5.0	5.0	5.0	5.0
MW-13(A)	5	5	5	5	5	5	5	5	5	5	5	5	5	8.6	10.5	7.5	8.2	5.0	5.0	5.0	5.0	5.6	8.7	5.0	6.6	8.7	5.5
MW-14	5	5	5	5	5	5	5	5	5	5	5	5	5	1.5	1.5	1.7	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-15(A)	5	5	5	5	5	5	5	5	5	5	5	5	5	1.5	1.5	1.7	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-16	5	5	5	5	5	5	5	5	5	5	5	5	5	28.1	1.5	2.1	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-17(A)	5	5	5	5	5	5	5	5	5	5	5	5	5	1.5	1.6	4.2	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-18	5	5	5	5	5	5	5	5	5	5	5	5	5	1.5	1.5	1.7	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	6.7
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12.7	29.5	20.8	20.2	18.7	18.6	21.3	21.1	11.0
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	5.0	5.0	8.1	5.0	5.0	5.0	5.0
MW-13B	5	5	5	5	5	5	5	5	5	5	5	5	5	3	5.6	4.1	6.6	5.0	5.0	5.0	5.0	5.0	5.0	16.6	5.0	5.0	5.0
MW-14B	X	X	X	X	X	X	X	X	X	X	X	5	5	2.3	1.5	1.7	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-15B	X	X	X	X	X	X	X	X	X	X	X	5	5	1.5	1.8	2.4	1.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-18B	X	X	X	X	X	X	X	X	X	X	X	5	5	7.5	3.8	2.3	3.4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.0	5.0	5.0	36.2	5.0	5.0	32.7	5.0	16.5
SW-1	6	8	5	9	5	8	20	28	12	63	7	14	22	7.0	4.8	5.2	6.9	5.0	5.0	5.0	20.7	12.9	5.1	16.0	9.4	5.0	7.0
SW-5	8	14	33	39	11	14	46	47	27	42	5	41	5	4.5	1.5	1.7	2.9	25.7	5.0	5.0	5.0	5.0	5.0	5.0	5.4	61.6	5.0
Sed-1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Filter	0.45 m	10 m	0.45 m	10 m	0.45 m	10 m	0.45 m	10 m	0.45 m	10 m	0.45 m	0.45 m	0.45 m	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NYS Class GA Standard for Lead = 25 ppb

NYS Class A Standard for Lead = 50 ppb

X = No Data

Bold = Non-Detect

Italic = Estimated

Exceeds TOGS Standard

Constituent of concern at this location

Revere Smelting & Refining
Summary - Alkalinity In Groundwater (ppm)

Well	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06	
RSR Well	191.0	216.0	197.0	215.0	219.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-07	80.7	119.0	199.0	228.0	36.6	179.0	208.0	96.5	37.5	214.0	151.0	190.0	77.3	218.0	220.0	X	201.0	167.0	154.0	231.0	129.0	39.8	90.7	165.0	132.0	86.0	210.0	200.0	82.0	48.4	232.0	235.0	650.0	48.0	128.0	
MW-08	80.5	81.9	97.5	111.0	123.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MW-08R	X	X	X	X	X	110.5	157.0	129.5	134.0	122.5	168.0	140.0	139.0	203.0	221.0	X	144.0	153.5	174.0	230.0	179.0	113.0	146.0	130.0	114.0	172.0	175.0	188.0	178.0	110.0	128.0	195.0	112.0	109.0	176.0	
MW-09	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	5.0	5.0	5.0	5.0	2.0	2.0	2.0	X	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	2.0	2.0	2.0	2.0	49.0	2.0	2.0	83.7	5.0	6.0	75.2	
MW-13(A)	122.0	132.0	191.0	220.0	156.0	229.0	212.0	207.0	175.0	236.0	236.0	208.0	163.0	273.0	307.0	290.0	310.0	225.0	202.0	288.0	203.0	187.0	202.0	230.0	196.0	179.0	260.0	220.0	132.0	188.0	294.0	300.0	208.0	118.0	172.0	
MW-14	183.0	173.0	186.0	208.0	202.0	178.0	206.0	194.0	163.0	204.0	204.0	180.0	200.0	193.0	194.0	X	184.0	200.0	205.0	200.0	210.0	207.0	195.0	190.0	188.0	189.0	192.0	190.0	192.0	190.0	184.0	192.0	180.0	183.0	180.0	
MW-15(A)	65.1	52.0	52.7	74.1	46.2	30.5	61.5	60.9	65.0	89.9	89.9	72.5	73.3	74.3	61.4	X	52.4	50.6	74.1	61.0	64.3	69.7	86.7	93.3	87.2	88.0	90.0	86.7	116.0	94.3	78.0	63.2	70.0	69.7	75.0	
MW-16	22.7	36.0	82.9	42.5	23.5	25.5	25.5	28.1	22.5	34.0	34.0	31.4	28.0	32.2	26.9	X	29.3	32.6	33.0	29.7	36.4	41.2	49.6	50.2	42.4	47.0	46.0	58.8	47.1	40.0	50.0	46.2	46.8	36.0	44.2	
MW-17(A)	94.0	144.0	218.0	119.0	33.8	186.0	109.0	164.0	158.0	177.0	177.0	147.0	173.0	182.0	241.0	X	153.0	171.0	157.0	141.0	166.0	184.0	173.0	193.0	172.0	175.0	235.0	251.0	190.0	168.0	240.0	256.0	130.0	129.0	151.0	
MW-18	8.7	6.2	6.3	12.3	6.1	5.5	25.0	11.0	10.0	5.0	5.0	7.8	14.0	4.5	3.9	X	36.7	17.2	4.6	53.0	10.8	5.5	4.7	4.7	6.0	7.0	4.0	6.0	7.3	6.6	4.2	5.9	7.8	7.7	4.8	
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	179.0	195.0	X	187.0	175.0	154.0	176.0	189.0	160.0	166.0	197.5	188.0	192.0	180.0	225.0	192.0	177.5	148.0	153.0	191.5	146.0	162.0	
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	21.9	6.4	X	5.4	2.0	2.2	5.8	12.0	8.0	9.6	8.8	11.0	20.0	10.5	17.0	16.1	21.0	11.0	10.3	21.1	11.3	23.1	
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	299.0	290.0	X	288.0	288.0	290.0	294.0	300.0	300.0	232.0	295.0	300.0	313.0	310.0	310.0	320.0	330.0	312.0	300.0	270.0	316.0	296.0	
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	460.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	271.0	X
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	26.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	55.8	X	
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	60.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	30.1	X	
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	150.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	150.0	X	
MW-13B	225.0	207.0	229.0	232.0	232.0	217.0	246.0	250.0	248.0	296.0	296.0	245.0	257.0	262.0	211.0	X	256.0	277.0	274.0	279.0	252.0	265.0	272.0	265.0	268.0	263.0	260.0	260.0	218.0	260.0	244.0	250.0	260.0	300.0	343.0	
MW-14B	X	X	X	X	X	X	131.0	136.0	103.0	136.0	136.0	137.0	6.3	158.0	154.0	X	179.0	160.0	125.0	167.0	141.0	102.0	112.0	128.0	108.0	117.0	152.0	140.0	128.0	120.0	138.0	171.0	112.0	120.0	121.0	
MW-15B	X	X	X	X	X	X	208.0	210.0	198.0	231.0	231.0	192.0	210.0	209.0	202.0	X	195.0	209.0	210.0	206.0	203.0	202.0	220.0	220.0	212.0	204.0	220.0	210.0	394.0	210.0	210.0	209.0	200.0	197.0	187.0	
MW-18B	X	X	X	X	X	X	85.0	102.0	103.0	165.0	165.0	167.0	190.0	186.0	180.0	X	162.0	154.0	153.0	164.0	160.0	164.0	180.0	173.0	172.0	135.0	165.0	170.0	170.0	170.0	168.0	162.0	162.0	169.0	161.0	
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	270.0	250.0	X	282.0	281.0	230.0	242.0	266.0	237.5	307.0	270.0	276.0	275.0	270.0	270.0	266.0	270.0	270.0	250.0	270.0	274.0	257.0	
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	210.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	168.0	X	
SW-1	66.3	64.6	104.0	102.0	38.7	73.0	80.8	71.2	55.0	51.0	138.0	99.9	64.0	100.0	102.0	X	104.0	83.2	100.0	97.0	88.0	43.0	92.0	106.0	88.0	76.7	105.0	118.0	51.3	85.0	104.0	114.0	72.4	68.5	103.0	
SW-5	26.2	29.7	57.2	55.4	32.5	27.0	69.0	48.8	52.5	53.5	77.0	74.5	38.0	71.7	120.0	X	110.0	101.0	54.0	95.7	76.0	12.3	52.8	68.6	56.0	65.7	71.7	80.0	60.6	30.3	64.0	93.3	41.8	54.3	61.6	
Sed-1	973.0	1420.0	191.0	X	112.0	X	270.0	256.0	2000.0	656.0	18000.0	16000.0	855.0	253.0	550.0	X	270.0	241.0	258.0	444.0	367.0	316.0	271.0	626.0	258.0	506.0	1880.0	310.0	885.0	252.0	599.0	256.0	316.0	746.0	902.0	

X = No Data
Bold = Non-Detect
Italic = Estimated

Revere Smelting & Refining
Summary - pH In Groundwater

Well	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06	Average
RSR Well	6.53	6.55	6.56	6.41	6.47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.50
MW-07	6.19	6.51	6.90	6.98	6.14	7.22	6.88	6.56	5.80	7.0	7.0	7.2	6.57	7.09	7.27	X	7.05	7.05	6.68	7.00	6.57	6.28	6.41	6.75	6.63	6.46	6.92	6.91	6.32	6.13	6.85	7.01	6.16	6.00	6.42	6.67
MW-08	5.99	6.17	6.20	6.48	6.50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.27
MW-08R	X	X	X	X	X	6.87	6.83	6.72	6.20	6.6	6.5	6.8	6.31	6.42	6.55	X	6.84	6.81	6.67	6.59	6.35	6.68	6.42	6.15	6.31	6.37	6.34	6.39	6.37	6.32	6.07	6.28	6.19	6.24	6.48	6.47
MW-09	3.90	3.89	3.84	3.97	4.15	4.03	3.79	4.48	4.20	4.0	4.2	5.0	4.05	4.50	4.62	X	4.55	4.34	4.13	4.30	4.06	4.69	4.14	4.09	4.30	4.36	4.59	5.14	4.38	4.58	6.40	6.91	4.66	4.81	5.95	4.50
MW-13(A)	6.17	6.26	6.34	6.25	6.11	6.59	6.61	6.45	6.40	6.6	6.6	6.4	6.37	6.37	6.58	6.61	6.50	6.27	6.34	6.49	6.55	6.13	6.43	6.29	6.08	6.34	7.55	6.39	6.50	6.37	6.33	6.40	6.32	6.23	6.22	6.41
MW-14	6.98	7.35	7.32	7.25	7.18	7.55	7.81	7.44	6.90	7.5	7.5	7.6	7.40	7.46	7.55	X	7.55	7.44	7.47	7.44	7.40	7.44	7.38	7.45	7.23	7.52	7.52	7.55	7.66	7.55	7.52	7.31	7.44	7.44	7.46	7.43
MW-15(A)	6.35	6.34	6.17	5.83	6.11	6.43	6.08	6.17	6.30	6.7	6.7	6.5	6.39	6.67	6.38	X	6.17	6.21	6.67	6.26	6.29	6.43	6.80	6.42	6.40	6.07	6.52	6.48	6.58	6.45	6.32	6.23	6.29	6.48	6.44	6.37
MW-16	5.96	5.95	5.98	5.45	5.70	5.83	5.72	5.88	6.10	6.2	6.2	6.1	6.00	6.00	5.71	X	5.73	5.87	6.18	5.59	5.81	6.27	6.41	6.03	6.15	6.36	6.33	6.15	6.35	6.26	6.14	5.89	6.10	6.24	6.14	6.02
MW-17(A)	6.84	6.90	6.88	6.74	6.79	7.11	6.72	7.21	6.80	7.0	7.0	7.0	7.04	6.95	7.09	X	6.98	7.14	7.12	6.85	6.85	6.94	7.05	6.80	6.82	7.02	6.90	6.82	6.98	6.98	6.66	6.99	6.86	6.89	7.14	6.94
MW-18	5.35	5.08	5.28	5.31	4.99	5.45	5.77	5.35	5.00	5.5	5.5	5.3	5.43	5.32	5.23	X	5.76	5.74	5.40	5.78	5.03	5.50	5.42	5.48	5.39	5.64	5.53	5.24	5.28	5.43	5.24	5.20	5.48	5.38	5.40	5.39
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	6.78	6.90	X	6.80	6.64	6.60	6.66	6.70	6.78	6.85	6.83	6.90	6.82	6.76	6.84	6.98	6.92	6.66	6.62	6.84	6.83	7.13	6.80
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	4.79	4.90	X	4.88	4.77	4.93	4.86	4.88	4.91	4.63	4.86	5.05	5.06	4.98	5.22	4.98	4.94	4.97	4.98	4.87	4.98	4.98	4.92
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	6.66	6.70	X	6.64	6.52	6.74	6.47	6.52	7.00	6.55	6.71	6.62	6.63	6.58	6.57	6.51	6.61	6.55	6.53	7.46	6.69	6.65	
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.79	X	6.75
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	5.71	X	5.59
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.11	X	6.21
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	6.03	X	6.16
MW-13B	7.04	7.35	7.13	7.14	7.21	7.31	7.64	7.30	6.90	7.3	7.3	7.4	7.22	7.27	7.31	X	7.28	7.09	7.23	7.27	7.15	7.16	7.27	7.16	7.32	7.47	7.24	7.28	7.46	7.31	7.25	7.27	7.22	7.27	7.36	7.26
MW-14B	X	X	X	X	X	X	6.44	6.47	6.10	6.7	6.7	6.8	6.28	6.78	6.70	X	6.92	6.57	6.42	6.79	6.33	6.30	6.44	6.74	6.37	6.41	6.70	6.50	6.36	6.42	6.34	6.67	6.41	6.37	6.48	6.52
MW-15B	X	X	X	X	X	X	7.19	7.15	7.30	7.4	7.4	7.3	7.23	7.31	7.57	X	7.18	7.20	7.42	7.35	7.19	7.17	7.26	7.22	7.36	7.08	7.15	7.24	7.54	7.07	7.11	7.26	7.09	7.21	7.22	7.26
MW-18B	X	X	X	X	X	X	8.08	7.58	7.10	7.4	7.4	7.4	7.32	7.39	7.32	X	7.38	7.21	7.37	7.42	7.16	7.27	7.31	7.50	7.34	7.35	7.36	7.46	7.40	7.30	7.32	7.31	7.34	7.33	7.40	7.38
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	7.36	7.33	X	7.41	7.25	7.40	7.12	7.16	7.16	6.36	7.27	7.21	7.36	7.31	7.16	7.28	7.20	7.11	7.09	7.11	7.22	7.22	7.19
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7.24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7.67	X	7.46
SW-1	7.78	7.64	7.87	7.87	7.12	7.81	7.36	7.67	7.10	7.2	7.9	8.1	7.77	7.63	7.85	X	7.83	7.71	7.90	7.79	7.61	7.43	7.69	7.99	7.74	7.92	7.84	7.94	7.51	7.90	7.78	7.84	7.78	7.66	7.89	7.72
SW-5	6.98	6.57	6.98	7.16	6.68	7.08	7.04	7.42	6.50	7.1	6.8	7.4	6.79	7.12	7.00	X	7.54	7.61	9.56	6.91	7.01	6.20	7.51	6.68	7.05	6.92	7.14	6.62	7.02	6.39	7.08	6.77	6.81	7.13	7.06	7.05
Sed-1	7.38	7.10	7.95	X	6.91	X	7.56	7.40	7.10	7.4	7.4	7.8	7.21	7.45	7.03	X	7.81	7.93	7.46	7.53	7.10	5.69	7.56	7.41	7.94	7.47	7.52	7.58	7.28	7.35	7.50	7.85	7.02	7.09	7.65	7.39

NYS Class GA Standard for pH = 6.5 to 8.5

NYS Class A Standard for pH = 6.5 to 8.5

X = No Data

Exceeds TOGS Standard

Constituent of concern at this location

Revere Smelting & Refining
Summary - Sulfate In Groundwater (ppm)

	M-98	J-98	S-98	D-98	M-99	J-99	S-99	D-99	M-00	J-00	S-00	D-00	M-01	J-01	S-01	N-01	D-01	M-02	J-02	S-02	D-02	M-03	J-03	S-03	D-03	M-04	J-04	O-04	D-04	M-05	J-05	S-05	D-05	M-06	J-06
RSR Well	255.0	278.0	193.0	151.0	178.5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-07	17.5	33.8	41.7	73.8	22.8	76.5	67.2	36.8	17.5	84.0	68.0	88.0	22.2	83.8	78.4	X	78.3	76.9	46.3	52.5	43.1	13.2	17.6	70.5	45.7	23.4	76.5	72.2	20.8	13.3	66.5	43.5	13.8	12.1	29.8
MW-08	38.4	60.4	53.8	38.2	42.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MW-08R	X	X	X	X	X	51.4	65.6	37.6	40.7	49.0	47.0	32.0	53.1	63.1	62.8	X	39.0	41.0	54.8	55.2	58.6	56.2	57.1	52.3	53.5	56.6	51.3	56.7	52.0	29.3	44.2	56.6	42.1	38.4	46.7
MW-09	2635.0	4260.0	3580.0	2730.0	2670.0	3540.0	3220.0	1840.0	3470.0	3300.0	2500.0	1480.0	3070.0	3700.0	2070.0	X	1450.0	2460.0	4420.0	1710.0	3600.0	3320.0	2890.0	3100.0	2730.0	2950.0	2500.0	2570.0	2660.0	2660.0	2380.0	1580.0	2940.0	2600.0	2820.0
MW-13(A)	1640.0	1850.0	2170.0	1920.0	1890.0	1890.0	1900.0	1830.0	1750.0	1900.0	1900.0	1200.0	1770.0	2050.0	2110.0	2300.0	1930.0	2240.0	2100.0	2100.0	2160.0	1920.0	1880.0	1920.0	1810.0	1700.0	1890.0	1910.0	1870.0	1630.0	1940.0	2110.0	2040.0	1690.0	1480.0
MW-14	55.9	56.0	60.3	56.6	66.9	178.0	58.6	45.2	45.6	46.0	46.0	40.0	50.7	51.5	46.1	X	43.2	51.0	50.8	50.6	49.2	51.4	49.9	47.8	48.1	48.4	46.4	49.8	49.9	47.6	48.3	49.1	51.0	48.9	47.4
MW-15(A)	90.8	91.1	151.0	150.0	117.0	30.5	178.0	134.0	108.0	100.0	100.0	76.0	84.6	131.0	144.0	X	172.0	121.0	99.8	162.0	125.0	102.0	104.0	108.0	99.7	94.7	106.0	126.0	84.6	94.1	98.2	114.0	104.0	82.3	104.0
MW-16	72.1	156.0	439.0	297.0	130.0	25.5	477.0	170.0	98.0	96.0	96.0	72.0	85.2	124.0	366.0	X	438.0	239.0	123.0	402.0	170.0	99.2	113.0	99.3	80.3	76.0	91.4	106.0	71.5	66.4	85.3	170.0	101.0	117.0	143.0
MW-17(A)	32.2	57.3	76.5	68.4	15.4	186.0	74.7	62.3	48.0	49.0	49.0	32.0	50.0	67.0	70.9	X	70.8	67.0	50.6	113.0	59.8	63.0	50.8	53.3	42.6	42.7	62.2	48.5	37.7	32.6	54.1	74.8	34.3	34.6	37.5
MW-18	27.1	25.0	29.6	27.4	31.3	5.5	26.9	31.0	33.2	15.0	15.0	16.0	31.4	22.2	32.6	X	38.4	38.6	30.9	39.0	77.0	30.2	20.4	22.9	24.6	25.5	21.0	20.2	24.2	25.4	22.4	26.4	27.7	21.5	21.9
MW-19	X	X	X	X	X	X	X	X	X	X	X	X	X	112.0	293.0	X	354.0	359.0	178.0	180.0	123.0	96.2	93.4	84.9	85.2	102.0	99.6	94.1	82.6	80.0	92.2	142.0	80.0	75.7	72.6
MW-20	X	X	X	X	X	X	X	X	X	X	X	X	X	3240.0	3400.0	X	3290.0	3500.0	3360.0	3320.0	3050.0	3040.0	2925.0	2970.0	2820.0	2990.0	2745.0	2645.0	2615.0	2670.0	2650.0	2800.0	2820.0	2660.0	2770.0
PZ-13	X	X	X	X	X	X	X	X	X	X	X	X	X	866.0	880.0	X	839.0	894.0	831.0	869.0	855.0	843.0	2540.0	856.0	850.0	901.0	842.0	852.0	817.0	797.0	828.0	784.0	845.0	854.0	832.0
MW-23(S)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1500.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	515.0	X
MW-24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2500.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1790.0	X
MW-25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	50.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	48.6	X
MW-26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	330.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	307.0	X
MW-13B	1120.0	1510.0	1420.0	1290.0	1240.0	1140.0	25.5	966.0	930.0	900.0	900.0	920.0	959.0	995.0	1160.0	X	983.0	967.0	918.0	928.0	731.0	834.0	774.0	800.0	747.0	634.0	579.0	617.0	547.0	532.0	524.0	593.0	580.0	849.0	1210.0
MW-14B	X	X	X	X	X	X	57.1	53.0	39.4	38.0	38.0	42.0	41.7	50.3	47.8	X	51.2	53.0	46.7	52.2	46.3	40.8	42.1	42.6	40.0	42.2	43.8	44.7	41.5	40.8	44.4	49.2	43.7	42.7	44.0
MW-15B	X	X	X	X	X	X	154.0	137.0	140.0	130.0	130.0	84.0	120.0	129.0	130.0	X	170.0	144.0	137.0	170.0	162.0	161.0	149.0	152.0	146.0	144.0	142.0	152.0	145.0	125.0	131.0	141.0	146.0	121.0	132.0
MW-18B	X	X	X	X	X	X	82.3	63.7	55.2	52.0	52.0	46.0	67.9	84.7	85.3	X	88.4	87.3	79.5	75.6	40.1	78.9	77.0	73.9	77.1	77.0	74.5	76.8	73.9	74.1	75.6	76.8	76.4	72.7	65.0
MW-21B	X	X	X	X	X	X	X	X	X	X	X	X	X	1590.0	3410.0	X	1080.0	966.0	1640.0	4140.0	1320.0	1315.0	855.0	919.0	1040.0	958.5	676.0	1140.0	779.0	596.0	5100.0	5990.0	7350.0	1750.0	1160.0
MW-23(D)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1300.0	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	501.0	X
SW-1	36.4	26.0	45.5	64.5	31.1	28.9	88.6	66.3	29.1	28.0	9.0	36.0	29.1	40.6	33.1	X	61.3	67.0	34.2	73.8	55.3	20.8	25.2	26.4	29.8	27.4	28.4	30.6	24.4	29.9	28.7	29.4	33.7	37.8	29.0
SW-5	56.2	30.4	20.8	49.4	57.3	53.7	95.7	104.0	86.5	78.0	88.0	56.0	66.2	90.9	78.0	X	93.1	111.0	94.1	90.9	102.0	25.0	78.6	61.9	66.3	86.2	70.1	59.3	63.4	58.2	77.4	79.0	94.1	156.0	121.0
Sed-1	199.0	253.0	135.0	X	171.0	X	126.0	118.0	121.0	154.0	3498.0	28000.0	42.7	38.0	41.3	X	82.0	36.1	38.7	49.4	44.0	169.0	40.6	46.9	38.8	37.0	80.4	80.8	4210.0	3780.0	571.0	25.6	412.0	71.8	368.0

NYS Class GA Standard for Sulfate = 250 ppm
NYS Class A Standard for Sulfate = 250 ppm
X = No Data
Bold = Non-Detect
Italic = Estimated
Exceeds TOGS Standard
Constituent of concern at this location

Revere Smelting & Refining
Summary - Total Appendix 33 Inorganics ppm) in MW-13

Constituent	GW Standard	Dec-98	Dec-99	Dec-00	Nov-01	Dec-01	Dec-02	Dec-03	Dec-04	Dec-05
Aluminum	.1 (S)	X	X	ND	0.207	0.137	4.54	0.100	0.001	0.100
Barium	1	0.028	0.012	0.0132	0.0153	0.020	0.0686	0.02	0.02	0.0204
Beryllium	.003 (G)	X	X	0.0004	0.00024	0.005	0.005	0.005	0.005	0.005
Boron	1	X	X	ND	X	0.282	0.281	0.259	0.268	0.229
Calcium	--	X	X	ND	683.0	625.0	551.0	487.0	455.0	536.0
Cobalt	.005 (S)	0.053	0.047	0.068	0.134	0.104	0.077	0.072	0.0576	0.0619
Copper	0.2	X	X	0.0042	0.00046	0.020	0.020	0.020	0.020	0.020
Iron	0.3	X	X	ND	14.5	8.72	32.6	6.42	4.96	5.12
Magnesium	35	X	X	ND	153.0	139	130.0	116.0	112.0	120.0
Manganese	0.3	X	X	ND	39.3	35.4	30.1	29.0	29.5	31.0
Mercury	0.0007	X	X	ND	0.00015	0.0002	0.0002	0.0002	0.0002	0.0002
Nickel	0.1	0.064	0.051	0.0819	0.252	0.177	0.102	0.096	0.0657	0.0913
Potassium	--	X	X	ND	3.23	4.0	0.478	3.49	0.0186	3.50
Selenium	0.01	0.019	0.016	ND	0.0182	0.0161	0.005	0.015	0.015	0.0138
Silver	0.05	X	X	0.0103	0.0001	0.010	0.050	0.010	0.010	0.010
Sodium	20	X	X	ND	224.0	245.0	314.0	284.0	296.0	315.0
Thallium	0.0005	X	X	ND	0.0052	0.010	0.010	0.010	0.010	0.010
Tin	--	X	0.200	ND	X	0.939	0.500	0.500	0.500	0.670
Vanadium	.014 (S)	X	X	ND	0.00069	0.050	0.050	0.050	0.050	0.050
Zinc	2	0.02	X	0.0204	0.0266	0.0235	0.0289	0.020	0.021	0.0215
Acetone	0.05	0.061	0.010	X	X	X	X	X	X	X

X = No Data

Bold = Non-Detect

Italic = Estimated

Exceeds TOGS Standard

Constituent of concern at this location

Revere Smelting & Refining
Summary - Total Appendix 33 Inorganics (ppm) in MW-14

Constituent	GW Standard	Dec-98	Dec-99	Dec-00	Dec-01	Dec-02	Dec-03	Dec-04	Dec-05
Aluminum	.1 (S)	X	X	ND	0.100	0.100	0.100	0.100	0.100
Barium	1	0.012	0.082	<i>0.0867</i>	0.0846	0.0834	0.101	0.091	0.0872
Beryllium	.003 (G)	X	X	<i>0.00043</i>	0.005	0.005	0.005	0.005	0.005
Boron	1	X	X	ND	0.200	0.200	0.200	0.200	0.200
Calcium	--	X	X	ND	91.2	104.0	88.9	92.8	86.2
Cobalt	.005 (S)	0.02	1.02	0.00019	0.050	0.050	0.050	0.050	0.050
Copper	0.2	X	X	<i>0.0052</i>	0.020	0.020	0.020	0.020	0.020
Iron	0.3	X	X	ND	0.100	0.100	0.13	0.100	0.100
Magnesium	35	X	X	ND	10.8	13.4	11.3	11.2	11.2
Manganese	0.3	X	X	ND	0.321	0.345	0.827	0.337	0.297
Mercury	0.0007	X	X	ND	0.0002	0.0002	0.0002	0.0002	0.0002
Nickel	0.1	0.04	1.04	0.0021	0.040	0.040	0.040	0.040	0.040
Potassium	--	X	X	ND	1.12	2.00	2.00	2.00	2.00
Selenium	0.01	0.01	1.01	ND	0.005	0.005	0.005	0.005	0.010
Silver	0.05	X	X	0.003	0.010	0.010	0.010	0.010	0.010
Sodium	20	X	X	ND	12.1	14.6	13.3	14.3	12.8
Thallium	0.0005	X	X	ND	0.010	0.010	0.010	0.010	0.020
Tin	--	X	0.01	ND	0.500	0.500	0.500	0.500	0.500
Vanadium	.014 (S)	X	X	ND	0.050	0.050	0.050	0.050	0.050
Zinc	2	0.02	X	0.0061	0.020	0.020	0.020	0.020	0.020
Acetone	0.05	0.024	<i>0.0155</i>	X	X	X	X	X	X

X = No Data

Bold = Non-Detect

Italic = Estimated

Exceeds TOGS Standard

Constituent of concern at this location