TABLES

TABLE 1

SUMMARY OF SOIL BORING DATA

Acid Tar Pit (SWMUs 11 & 22) Investigation
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Location	Ground Elevation	Dates (May 2008)	Total Depth (fbgs)	Fill		Sand		Till Interval (fbgs)	Till Elevation	Depth Advacnced in Till (ft)	Maximum PID (ppm)	Depth to Water (fbgs)	Water Elevation
				interval (fbgs)	thickness (ft)	interval (fbgs)	thickness (ft)						
1122-SB-1	604.80	7	12	0-12	NA	NA	NA	NA		NA	NA	NA	
1122-SB-1A	604.87	7	14.5	0-14.5	NA	NA	NA	NA		NA	2050+ (12')	NA	
1122-SB-1B	601.44	12	12	0-12	NA	NA	NA	NA		NA	NA	NA	
1122-SB-1C	601.25	12	20	0-20	NA	NA	NA	NA		NA	NA	NA	
1122-SB-1D	600.96	12	13	0-13	NA	NA	NA	NA		NA	NA	NA	
1122-SB-1E	601.55	13	14	0-14	NA	NA	NA	NA		NA	NA	NA	
1122-SB-2	602.88	5 & 6	46	0-32	32	32-42	10	42-46	560.88	4	8.6 (42')	22	580.88
1122-SB-3	606.45	30	17.5	0-17.5	NA	NA	NA	NA		NA	NA	NA	
1122-SB-4	598.54	7 & 8	42	0-32	32	32-39	7	39-42	559.54	3		22	576.54
1122-SB-5	600.17	8 & 9	46					41-46	559.17	5		22	578.17
1122-SB-6	600.03	9	48					44-48	556.03	4		24	576.03
1122-SB-7	604.18	13	24	0-24	NA	NA	NA	NA		NA	NA	NA	
1122-SB-7A	604.21	13 & 14	21	0-21	NA	NA	NA	NA		NA	NA	NA	
1122-SB-7B	604.64	14	24	0-24	NA	NA	NA	NA		NA	NA	NA	
1122-SB-7C	603.93	29 & 30	54		38?		10?	48-54	555.93	6		18.5	585.43
1122-SB-8	603.60	14 &15	19	0-19	NA	NA	NA	NA		NA	NA	NA	
1122-SB-8A	603.49	15	8	0-8	NA	NA	NA	NA		NA	NA	NA	
1122-SB-8B	603.88	15	13	0-13	NA	NA	NA	NA		NA	NA	NA	
1122-SB-9	601.81	15	17	0-17	NA	NA	NA	NA		NA	NA	NA	
1122-SB-9A	601.76	15	13	0-13	NA	NA	NA	NA		NA	NA	NA	
1122-SB-9B	603.54	15 & 16	56					52-56	551.54	4		18	585.54
1122-SB-10	601.54	19 & 20	56					49-56	552.54	7		18	583.54
1122-SB-11	600.59	20 & 21	30	0-30	NA	NA	NA	NA		NA	NA	NA	
1122-SB-11A	600.86	21	21.5	0-21.5	NA	NA	NA	NA		NA	NA	NA	
1122-SB-11B	601.44	22	25	0-25	NA	NA	NA	NA		NA	NA	NA	
1122-SB-12	601.57	22	9	0-9	NA	NA	NA	NA		NA	NA	NA	
1122-SB-12A	601.06	22 & 23	48					42-48	559.06	6		27	574.06
1122-SB-13	597.85	23, 27& 28	42					38-42	559.85	3		11	586.85
1122-SB-14		NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	
1122-SB-15	603.63	28 & 29	46		32?		10?	42-46	561.63	4		18.5	585.13

TURNKEY ENVIRONMENTAL RESTORATION, LLC

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL DATA

Agitator Sludge (SWMU S-24) Investigation
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Parameter [1]	Monitoring Well Location, Stratigraphic Unit, & Sample Date									GWQS/ GV [2]
	MWN-24A			MWN-24B			MWN-44A			
	fill, clayey silt			till			fill			
	11/02/99	04/09/08		11/02/99	04/09/08		11/02/99	04/09/08		
Field Measurements (units as indicated)										
pH (units)	**6.48**	**6.44**	**6.37**	6.58	6.56	6.60	8.30	7.36	7.35	**6.5 - 8.5**
Temperature (°C)	13.4	10.3	10.7	12.6	12.2	12.3	11.4	9.8	10.1	**--**
Specific Conductance (uS)	2750	2203	2308	1860	1426	1430	2400	1488	1330	**--**
Turbidity (NTU)	112	41.5	472	125	43.5	38	1000	> 1000	> 1000	**--**
Dissolved Oxygen (ppm)	2.6	2.49	2.31	0.4	0.68	0.73	--	2.16	2.09	**--**
ORP (mV)	378	-76	-48	-138	-167	-165	-83	-211	-169	**--**
Volatile Organic Compounds (VOCs) - ug/L										
Acetone	--	24		--	ND		--	1.4 J		**50***
Benzene	ND	0.65 J		ND	ND		**270**	**13**		**1**
2-Butanone (Methyl ethyl ketone)	--	4.2 J		--	ND		--	ND		**50***
Carbon Disulfide	--	0.44 J		--	ND		--	ND		**--**
Ethylbenzene	ND	ND		ND	ND		**6.8 J**	1.6		**5**
Toluene	ND	ND		ND	ND		**53**	ND		**5**
Xylenes, total	ND	ND		ND	ND		**53**	ND		**15**
TOTAL VOCs (ug/L)	**0**	**29.29**		**0**	**0**		**382.8**	**16**		**--**
Base-Neutral Semi-Volatile Organic Compounds (SVOCs - Method 8270) - ug/L										
Acenaphthene	--	ND		--	ND		--	**22 J**		**20***
Acenaphthylene	ND	ND		ND	ND		50	ND		**--**
Acetophenone	--	2 J		--	ND		--	ND		**--**
Anthracene	ND	ND		ND	ND		ND	17 J		**50***
Benzo(a)anthracene	ND	ND		ND	ND		**85 J**	**21 J**		**0.002***
Benzo(k)fluoranthene	--	ND		--	ND		--	**140**		**0.002***
Benzo(a)pyrene	ND	ND		ND	ND		**65 J**	**180**		**ND**
Biphenyl	--	ND		--	ND		--	6 J		**--**
Carbazole	--	ND		--	ND		--	4 J		**--**

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL DATA

Agitator Sludge (SWMU S-24) Investigation
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Parameter [1]	Monitoring Well Location, Stratigraphic Unit, & Sample Date						GWQS/ GV [2]
	MWN-24A		MWN-24B		MWN-44A		
	fill, clayey silt		till		fill		
	11/02/99	04/09/08	11/02/99	04/09/08	11/02/99	04/09/08	
Chrysene	ND	ND	ND	ND	**75**	**10 J**	**0.002***
Dibenzofuran	--	ND	--	ND	--	32 J	**--**
Di-n-butyl phthalate	--	0.3 BJ	--	ND	--	ND	**50**
Fluoranthene	ND	ND	ND	ND	**310 DJ**	47 J	**50***
Fluorene	ND	ND	ND	ND	**440 D**	39 J	**50***
Indeno(1,2,3-cd) pyrene	--	ND	--	ND	--	**190**	**0.002***
Phenanthrene	ND	ND	ND	ND	**760 D**	19 J	**50***
Phenol	**4.8 J**	ND	ND	ND	**13 J**	ND	**1**
Pyrene	ND	0.6 J	ND	ND	**220 DJ**	39 J	**50***
Pyridine	ND	ND	ND	ND	**100 J**	ND	**50***
TOTAL SVOCs (ug/L)	**4.8**	**2.9**	**0**	**0**	**2118**	**766**	**--**

Notes:

1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. NYSDEC Class "GA" Groundwater Quality Standards/Guidance Values (GWQS/GV) as per 6 NYCRR Part 703.
3. B = Analyte is found in the associated blank, as well as in the sample.
4. D = Analysis at the secondary dilution factor.
5. J = Estimated value; result is less than the sample quantitation limit but greater than zero.
6. ND = parameter not detected above laboratory detection limit.
7. " * " = Groundwater Quality Guidance Value
8. " -- " = Not analyzed for this parameter or GWQS or GV does not exist for this compound

Color Scheme:

BOLD = value exceeds individual GWQS/GV concentration

TABLE 3

COST ESTIMATE FOR ALTERNATIVE 2

CONSTRUCT INDIVIDUAL IN-PLACE CONTAINMENT SYSTEMS

Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Cover Systems				
Acid Tar Pits:				
Clearing/Grubbing/Sub-Grade Preparation	4	Acre	$ 9,500	$ 38,000
Monitoring Well Extensions/Abandonment	12	Ea	$ 400	$ 4,800
6" Soil Layer (on top of waste)	3,200	CY	$ 22	$ 70,400
Geosynthetic Clay Liner	174,240	SF	$ 0.73	$ 127,195
Geosynthetic membrane	174,240	SF	$ 0.70	$ 121,968
Geocomposite (geonet and geotextile)	174,240	SF	$ 0.78	$ 135,907
18" Barrier Prot. Soil Layer	9,600	CY	$ 22	$ 211,200
6" Topsoil	3,200	CY	$ 28	$ 89,600
Seeding	4	Acre	$ 2,500	$ 10,000
Subtotal:				**$ 809,100**
Agitator Sludge Area:				
Clearing/Grubbing/Sub-Grade Preparation	1.1	Acre	$ 9,500	$ 10,450
Monitoring Well Extensions/Abandonment	4	EA	$ 400	$ 1,600
6" Soil Layer (on top of waste)	900	CY	$ 22	$ 19,800
Geosynthetic Clay Liner	47,916	SF	$ 0.73	$ 34,979
Geosynthetic membrane	47,916	SF	$ 0.70	$ 33,541
Geocomposite (geonet and geotextile)	47,916	SF	$ 0.78	$ 37,374
18" Barrier Prot. Soil Layer	2,700	CY	$ 22	$ 59,400
6" Topsoil	900	CY	$ 28	$ 25,200
Smokes Creek Stabilization (rip-rap)	550	LF	$ 225	$ 123,750
Seeding	1.1	Acre	$ 2,500	$ 2,750
Subtotal:				**$ 348,800**
Bentonite/Soil Slurry Wall				
Acid Tar Pits:				
Soil Borings (design phase)	15	Ea	$ 500	$ 7,500
Slurry-wall supplies & installation	67,200	SF	$ 7.5	$ 504,000
Subtotal:				**$ 511,500**
Agitator Sludge Area:				
Soil Borings (design phase)	10	Ea	$ 500	$ 5,000
Slurry- Wall Supplies & installation	38,500	SF	$ 7.5	$ 288,750
Excavate Wall Trench	914	LF	$ 150	$ 137,100
Off-site Borrow Soil	4,000	CY	$ 22	$ 88,000
Bentonite	80	CY	$ 100	$ 8,000
Placing and Compacting	4,000	CY	$ 10	$ 40,000
Subtotal:				**$ 566,900**

TABLE 3

COST ESTIMATE FOR ALTERNATIVE 2

CONSTRUCT INDIVIDUAL IN-PLACE CONTAINMENT SYSTEMS

Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Groundwater Collection System				
Acid Tar Pits:				
Collection & Conveyance System Installation	750	LF	$ 150	$ 112,500
Pumps & wells	5	LS	$ 20,000	$ 100,000
Leachate Groundwater Pre-Treatment	1	LS	$ 250,000	$ 250,000
Subtotal:				**$ 462,500**
Agitator Sludge Area:				
Collection & Conveyance System Installation	450	LF	$ 150	$ 67,500
Pumps & wells	3	LS	$ 20,000	$ 60,000
Leachate Groundwater Pre-Treatment Facility	1	LS	$ 250,000	$ 250,000
Subtotal:				**$ 377,500**
Subtotal Capital Cost				**$ 3,076,300**
Contractor Mobilization/Demobilization (5%)				$ 153,815
Health and Safety (2%)				$ 61,526
Engineering/Contingency (35%)				$ 1,076,705
Total Capital Cost				**$ 4,368,000**
Annual Operation Maintenance & Monitoring (OM&M):				
Cover System Inspection, Maintenance, & Mowing	1	Yr	$ 5,000	$ 5,000
Groundwater/Leachate Collection System	1	Yr	$ 25,000	$ 25,000
Groundwater/Leachate Pre-treatment System	1	Yr	$ 110,000	$ 110,000
Groundwater Sampling/Reporting	1	Event	$ 15,000	$ 15,000
Total Annual OM&M Cost				**$ 155,000**
Number of Years (n):				30
Interest Rate (i):				5%
p/A value:				15.3725
OM&M Present Worth (PW):				**$ 2,383,000**
Total Present Worth (PW): Capital Cost + OM&M PW				**$ 6,751,000**

TABLE 4

COST ESTIMATE FOR ALTERNATIVE 3

EXCAVATE AND DISPOSE AGITATOR SLUDGE OFF-SITE AND CONTAIN IN-PLACE ACID TAR PITS

Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Agitator Sludge Removal				
Clearing/Grubbing	1	Acre	$ 4,500	$ 4,500
Excavating & Hauling [1]	35,000	CY	$ 7	$ 245,000
Verification Sampling	1	LS	$ 12,000	$ 12,000
Subtotal:				**$ 261,500**
Restoration of Agitator Sludge Area				
Imported Soil	1,613	CY	$ 22	$ 35,486
Backfill (place/compact) (slag)	32,587	CY	$ 8	$ 244,403
6" Topsoil	800	CY	$ 28	$ 22,400
Seeding	1	Acre	$ 2,500	$ 2,500
Subtotal:				**$ 304,800**
Ex-Situ Stabilization				
Bench/Pilot Testing	1	LS	$ 20,000	$ 20,000
Additional Sample Analyses	15	Ea	$ 25	$ 375
Temporary Utilities	1	LS	$ 5,000	$ 5,000
Processing [2]	7,000	CY	$ 75	$ 525,000
Subtotal:				**$ 550,400**
Transportation and Disposal of HW to TSDF				
Transportation of HW to TSDF [3]	38,500	CY	$ 50	$ 1,925,000
Disposal of HW to TSDF	57,750	Ton	$ 90	$ 5,197,500
Subtotal:				**$ 7,122,500**
Cover Systems				
Acid Tar Pits:				
Clearing/Grubbing/Sub-Grade Preparation	4	Acre	$ 9,500	$ 38,000
Monitoring Well Extensions/Abandonment	12	Ea	$ 400	$ 4,800
Backfill (place/compact) (slag)	35,000	CY	$ 8	$ 280,000
6" Soil Layer (on top of waste)	3,200	CY	$ 22	$ 70,400
Geosynthetic Clay Liner	174,238	SF	$ 0.73	$ 127,194
Geosynthetic membrane	174,238	SF	$ 0.70	$ 121,967
Geocomposite (geonet and geotextile)	174,238	SF	$ 0.78	$ 135,906
18" Barrier Prot. Soil Layer	9,700	CY	$ 22	$ 213,400
6" Topsoil	3,200	CY	$ 28	$ 89,600
Seeding	4	Acre	$ 2,500	$ 10,000
Subtotal:				**$ 1,091,300**
Bentonite/Soil Slurry Wall				
Acid Tar Pits:				
Soil Borings (design phase)	15	Ea	$ 500	$ 7,500
Slurry-wall supplies & installation	67,200	SF	$ 7.5	$ 504,000
Subtotal:				**$ 511,500**
Groundwater Collection System				
Acid Tar Pits:				
Collection & Conveyance System Installation	750	LF	$ 150	$ 112,500
Pumps & wells	5	LS	$ 20,000	$ 100,000
Leachate Groundwater Pre-Treatment Facility	1	LS	$ 250,000	$ 250,000
Subtotal:				**$ 462,500**

TABLE 4

COST ESTIMATE FOR ALTERNATIVE 3

EXCAVATE AND DISPOSE AGITATOR SLUDGE OFF-SITE AND CONTAIN IN-PLACE ACID TAR PITS

Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Subtotal Capital Cost				**$ 10,304,500**
Contractor Mobilization/Demobilization (5%)				$ 515,225
Health and Safety (2%)				$ 206,090
Engineering/Contingency (35%)				$ 3,606,575
Total Capital Cost				**$ 14,632,000**
Annual Operation Maintenance & Monitoring (OM&M):				
Cover System Inspection, Maintenance, & Mowing	1	Yr	$ 5,000	$ 5,000
Groundwater/Leachate Collection System	1	Yr	$ 25,000	$ 25,000
Groundwater/Leachate Pre-treatment System	1	Yr	$ 110,000	$ 110,000
Groundwater Sampling/Reporting	1	Event	$ 15,000	$ 15,000
Total Annual OM&M Cost				**$ 155,000**
Number of Years (n):				30
Interest Rate (i):				5%
p/A value:				15.3725
OM&M Present Worth (PW):				**$ 2,383,000**
Total Present Worth (PW): Capital Cost + OM&M PW				**$ 17,015,000**

Notes:

[1] Estimate of waste in SWMU S-24 is 23,000 CY; the 35,000 CY allows for the possibility of 12,000 CY of impacted native soil.

[2] Assumes 20% of excavated waste would require physical and/or chemical stabilization.

[3] Assumes volume of stabilized waste would increase by 50%.

TABLE 5

COST ESTIMATE FOR ALTERNATIVE 4
EXCAVATE SWMU S-24, CONSOLIDATE, AND CONSTRUCT COMBINED IN-PLACE ATP CONTAINMENT SYSTEM
Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Agitator Sludge Removal				
Clearing/Grubbing	1	Acre	$ 4,500	$ 4,500
Excavating & Hauling [1]	35,000	CY	$ 7	$ 245,000
Verification Sampling	1	LS	$ 12,000	$ 12,000
Subtotal:				**$ 261,500**
Restoration of Agitator Sludge Area				
Imported Soil	1,613	CY	$ 22	$ 35,486
Backfill (place/compact) (slag)	32,581	CY	$ 8	$ 244,358
6" Topsoil	800	CY	$ 28	$ 22,400
Seeding	1	Acres	$ 2,500	$ 2,500
Subtotal:				**$ 304,700**
Cover System				
Clearing/Grubbing/Sub-Grade Preparation	4	Acre	$ 9,500	$ 38,000
Monitoring Well Extensions/Abandonment	12	Ea	$ 400	$ 4,800
6" Soil Layer (on top of waste)	3,200	CY	$ 22	$ 70,400
Geosynthetic Clay Liner	174,238	SF	$ 0.73	$ 127,194
Geosynthetic membrane	174,238	SF	$ 0.70	$ 121,967
Geocomposite (geonet and geotextile)	174,238	SF	$ 0.78	$ 135,906
18" Barrier Prot. Soil Layer	9,700	CY	$ 22	$ 213,400
6" Topsoil	3,200	CY	$ 28	$ 89,600
Seeding	4	Acre	$ 2,500	$ 10,000
Subtotal:				**$ 811,300**
Bentonite/Soil Slurry Wall				
Soil Borings (design phase)	15	Ea	$ 500	$ 7,500
Excavate Wall Trench	1,600	LF	$ 150	$ 240,000
Off-site Borrow Soil	7,500	CY	$ 22	$ 165,000
Bentonite	150	CY	$ 100	$ 15,000
Placing and Compacting	7,500	CY	$ 10	$ 75,000
Subtotal:				**$ 502,500**
Groundwater Collection System				
Collection System Installation	750	LF	$ 150	$ 112,500
Pumps & wells	5	LS	$ 20,000	$ 100,000
Pre-Treatment System	1	LS	$ 250,000	$ 250,000
Subtotal:				**$ 462,500**
Subtotal Capital Cost				**$ 2,342,500**
Contractor Mobilization/Demobilization (5%)				$ 117,125
Health and Safety (2%)				$ 46,850
Engineering/Contingency (35%)				$ 819,875
Total Capital Cost				**$ 3,326,000**

TABLE 5

COST ESTIMATE FOR ALTERNATIVE 4
EXCAVATE SWMU S-24, CONSOLIDATE, AND CONSTRUCT COMBINED IN-PLACE ATP CONTAINMENT SYSTEM
Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Annual Operation Maintenance & Monitoring (OM&M):				
Cover System Inspection, Maintenance, & Mowing	1	Yr	$ 10,000	$ 10,000
Groundwater/Leachate Collection System	1	Yr	$ 25,000.0	$ 25,000
Groundwater/Leachate Pre-treatment System	1	Yr	$ 90,000.0	$ 90,000
Groundwater Sampling/Reporting	1	Event	$ 15,000	$ 15,000
Total Annual OM&M Cost				**$ 140,000**
Number of Years (n):				30
Interest Rate (i):				5%
p/A value:				15.3725
OM&M Present Worth (PW):				**$ 2,152,000**

Total Present Worth (PW): Capital Cost + OM&M PW	**$ 5,478,000**

Notes:
[1] Estimate of waste in SWMU S-24 is 23,000 CY; the 35,000 CY allows for the possibility of 12,000 CY of impacted native soil.

TABLE 6

COST ESTIMATE FOR ALTERNATIVE 5
EXCAVATE SWMUs S-11, S-22, & S-24, AND CONSOLIDATE IN ON-SITE HAZARDOUS WASTE CAMU
Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Slag and Soil/Fill Removal				
Excavating & Hauling to Stabilization Unit/CAMU	200,000	CY	$ 7	$ 1,400,000
Verification Sampling	1	LS	$ 50,000	$ 50,000
Subtotal:				**$ 1,450,000**
Restoration of Excavated SWMUs				
Backfill (place/compact) (slag)	188,000	CY	$ 8	$ 1,410,000
Imported Backfill (place/compact) (non-slag)	8,000	CY	$ 22	$ 176,000
6" Topsoil	4,000	CY	$ 28	$ 112,000
Seeding	5	Acres	$ 2,500	$ 12,500
Subtotal:				**$ 1,710,500**
Ex-Situ Stabilization				
Bench/Pilot Testing	1	LS	$ 20,000	$ 20,000
Additional Sample Analyses	15	Ea	$ 25	$ 375
Temporary Utilities	1	LS	$ 5,000	$ 5,000
Processing [1]	40,000	CY	$ 75	$ 3,000,000
Subtotal:				**$ 3,025,400**
Construction of HW CAMU				
Composite Liner System	217,800	SF	$ 0.75	$ 163,350
Leachate Collection System	1,800	LF	$ 75	$ 135,000
Gas Venting System	217,800	SF	$ 4	$ 871,200
Groundwater Monitoring System	15	EA	$ 1,000	$ 15,000
6" Soil Layer (on top of waste)	4,000	CY	$ 22	$ 88,000
Geosynthetic Clay Liner	217,800	SF	$ 0.73	$ 158,994
Geomembrane Barrier Layer (geosynthetic membrane)	217,800	SF	$ 0.78	$ 169,884
Geocomposite (geonet and geotextile)	217,800	SF	$ 0.78	$ 169,884
18" Barrier Protection Soil Layer	12,000	CY	$ 22	$ 264,000
6" Topsoil	4,000	CY	$ 28	$ 112,000
Seeding	5	Acre	$ 2,500	$ 12,500
Subtotal:				**$ 2,159,800**
Consolidation in HW CAMU				
Hauling from Stabilization Unit [2]	60,000	CY	$ 3	$ 180,000
Place and Compact Material	198,000	CY	$ 3	$ 594,000
Subtotal:				**$ 774,000**
Subtotal Capital Cost				**$ 9,119,700**
Contractor Mobilization/Demobilization (5%)				$ 455,985
Health and Safety (2%)				$ 182,394
Engineering/Contingency (35%)				$ 3,191,895
Total Capital Cost				**$ 12,950,000**

TABLE 6

COST ESTIMATE FOR ALTERNATIVE 5
EXCAVATE SWMUs S-11, S-22, & S-24, AND CONSOLIDATE IN ON-SITE HAZARDOUS WASTE CAMU
Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Annual Operation Maintenance & Monitoring (OM&M):				
Groundwater Sampling / Reporting	1	Event	$ 15,000	$ 15,000
Leachate Collection System	1	Yr	$ 75,000	$ 75,000
Cover System Inspection, Maintenance, & Mowing	1	Yr	$ 10,000	$ 10,000
Total Annual OM&M Cost				**$ 100,000**
Number of Years (n):				30
Interest Rate (i):				5%
p/A value:				15.3725
OM&M Present Worth (PW):				**$ 1,537,000**

Total Present Worth (PW): Capital Cost + OM&M PW	**$ 14,487,000**

Notes:
[1] Assumes 20% of excavated waste would require physical and/or chemical stabilization.
[2] Assumes volume of stabilized waste would increase by 50%.

TABLE 7

COST ESTIMATE FOR ALTERNATIVE 6
EXCAVATE SWMUs S-11, S-22, & S-24, STABILIZE, DISPOSE OFF-SITE
Acid Tar Pits and Agitator Sludge Area
ArcelorMittal Tecumseh Redevelopment, Inc.
Lackawanna, New York

Item	Quantity	Units	Unit Cost	Total Cost
Slag and Soil/Fill Removal				
Excavating	200,000	CY	$ 5	$ 1,000,000
Hauling to Stabilization Unit [1]	40,000	CY	$ 2	$ 80,000
Verification Sampling	1	LS	$ 50,000	$ 50,000
Subtotal:				**$ 1,130,000**
Restoration of Excavated SWMUs				
Backfill (place/compact) (slag)	188,000	CY	$ 8	$ 1,410,000
Imported Backfill (place/compact) (non-slag)	8,000	CY	$ 22	$ 176,000
6" Topsoil	4,000	CY	$ 28	$ 112,000
Seeding	5	Acres	$ 2,500	$ 12,500
Subtotal:				**$ 1,710,500**
Ex-Situ Stabilization				
Bench/Pilot Testing	1	LS	$ 20,000	$ 20,000
Additional Sample Analyses	15	Ea	$ 25	$ 375
Temporary Utilities	1	LS	$ 5,000	$ 5,000
Processing [1]	40,000	CY	$ 75	$ 3,000,000
Subtotal:				**$ 3,025,400**
Transportation and Disposal of HW to TSDF				
Transportation of HW to TSDF [2]	168,000	CY	$ 50	$ 8,400,000
Disposal of HW to TSDF	252,000	Ton	$ 90	$ 22,680,000
Subtotal:				**$ 31,080,000**
Subtotal Capital Cost				**$ 36,945,900**
Contractor Mobilization/Demobilization (5%)				$ 1,847,295
Health and Safety (2%)				$ 738,918
Engineering/Contingency (35%)				$ 12,931,065
Total Capital Cost				**$ 52,463,000**
Annual Operation Maintenance & Monitoring (OM&M):				
Groundwater Sampling / Reporting	1	Event	$ 15,000	$ 15,000
Total Annual OM&M Cost				**$ 15,000**
Number of Years (n):				30
Interest Rate (i):				5%
p/A value:				15.3725
OM&M Present Worth (PW):				**$ 231,000**
Total Present Worth (PW): Capital Cost + OM&M PW				**$ 52,694,000**

Notes:
[1] Assumes 20% of excavated waste would require physical and/or chemical stabilization.
[2] Assumes volume of stabilized waste would increase by 50%.