Appendix 6: Reclamation Liability Estimate

SUMMARY OF COSTS

CAPITAL COSTS

COMPONENT TYPE	COMPONENT NAME	TOTAL COST	LAND LIABILITY	WATER LIABILITY
OPEN PIT	0	\$0	\$0	\$0
UNDERGROUND MINE	0	\$413,921	\$0	\$413,921
TAILINGS	0	\$2,625,345	\$0	\$2,625,345
ROCK PILE	0	\$0	\$0	\$0
BUILDINGS AND EQUIPMENT	0	\$6,046,303	\$0	\$6,046,303
CHEMICALS AND SOIL MANAGEMENT		\$2,417,469	\$0	\$2,417,469
WATER MANAGEMENT		\$0	\$0	\$0
POST-CLOSUREMONITORING AND MAINTEI	NANCE	\$1,395,753	\$0	\$1,395,753
	SUBTOTAL	\$12,898,791	\$0	\$12,898,791
		PERCENTAGES	0%	100%
MOBILIZATION/DEMOBILIZATION		\$6,018,646	0	6,018,646
PROJECT MANAGEMENT Bonding	4% 0%	\$515,952 \$0	\$0 \$0	\$515,952 \$0
Taxes (GST on supplies) - est.	allowance	\$0	\$0	\$0
Insurance	0%	\$0	\$0	\$0
ENGINEERING	4%	\$515,952	\$0	\$515,952
CONTINGENCY	10%	\$1,289,879	\$0	\$1,289,879
Market Price Factor Adjustment	0%	\$0	\$0	\$0
GRAND TOTAL - CAPITAL COSTS		\$21,239,219	\$0	\$21,239,219

Underground Mine Name

UG Mine # <u>1</u>

1

ACTIVITY/MATERIAL	Unit	Qty	Cost Code	Unit Cost	Cost	% t Land	Land Cost		Water Cost
OBJECTIVE: CONTROL ACCESS		_							
Cap shaft - 5	each	5	SRS	82784	\$413,921			\$0	\$413,921
			S	ubtotal	\$413,921	0%)	\$0	\$413,921
						Pc Land	t I Total L	and	Total Water

COMMENTS:

Tailings Impoundment Name:

Pond # <u>1</u>

			Cost			Land		Water
ACTIVITY/MATERIAL	Units	Quantity	Code	Unit Cost	Cost 9	% Land Cost		Cost
OBJECTIVE: COVER TAILINGS			#N/A					
Soil cover	m3	375000	SB2S	7.00	\$2,625,345		\$0	\$2,625,345
				Subtotal	\$2,625,345	0%	\$0	\$2,625,345
						Pct		Total
						Land Total L	and	Water

Building / Equip Name:

Bldg / Equip #: <u>1</u>

Column C	ACTIVITY/MATERIAL	Unite	Cos Quantity Cod			/ Land	l and Cost	Water Cost
Seepers and Offices	ACTIVITY/MATERIAL	Units	Quantity Cou	e Cost	COSI	/o Lanu	Lanu Cost	Water Cost
Hoist Room and Travel Ways m2 463 BRS1S 139.09 \$64,398 \$0 \$64,398 \$174,277 \$0 \$174,277 \$174,277 \$10 \$174,277	OBJECTIVE: REMOVE BUILDINGS - MOTHBALL BUI	LDINGS	#N/A	4				
Shaft House	Sleepers and Offices	m2	7329 BRS1	3 139.09	\$1,019,375		\$0	\$1,019,375
Warehouse	Hoist Room and Travel Ways	m2	463 BRS1	3 139.09	\$64,398		\$0	\$64,398
Mill may be a compared to the action of the	Shaft House	m2	1253 BRS1	3 139.09	\$174,277		\$0	\$174,277
Powerhouse	Warehouse	m2	4671 BRS1	3 139.09	\$649,680		\$0	\$649,680
Headframe	Mill	m2	2864 BRS1	3 139.09	\$398,348		\$0	\$398,348
Airlock Building and Freshair Intake m2 366 BRS1S 139.09 \$50,906 \$0 \$50,906 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$44,950 \$0 \$140,201 \$0 \$140,20	Powerhouse	m2	1645 BRS1	3 139.09	\$228,800		\$0	\$228,800
Pastelli Plant m2 316 BRS1S 139.09 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$43,952 \$0 \$258,008 \$0 \$258,008 \$0 \$258,008 \$0 \$258,008 \$0 \$258,008 \$0 \$367,040 \$0 \$40,201 \$0 \$0 \$457,040 \$0 \$40,201 \$0 \$0 \$457,040 \$0 \$67,04	Headframe	m2	413 BRS1	3 139.09	\$57,443		\$0	\$57,443
Cold Storage 2 buildings	Airlock Building and Freshair Intake	m2	366 BRS1	3 139.09	\$50,906		\$0	\$50,906
Surface Mobile Shop m2 1008 BRS1S 139.09 \$140,201 \$0 \$140,201 \$0 \$40,201 \$0 \$70,404 \$0 \$67,040 \$0 \$	Pastefill Plant	m2	316 BRS1	3 139.09	\$43,952		\$0	\$43,952
Carpenter Shop m2 482 BRS1S 139.09 \$67,040 \$0 \$67,040 As Treatment Plant Building m2 177 BRS1S 139.09 \$24,619 \$0 \$24,619 \$0 \$24,619 \$0 \$24,619 \$0 \$24,619 \$0 \$24,619 \$0 \$24,619 \$0 \$24,619 \$0 \$24,619 \$0 \$10,233	Cold Storage 2 buildings	m2	1855 BRS1	3 139.09	\$258,008		\$0	\$258,008
As Treatment Plant Building m2 177 BRS1S 139.09 \$24,619 \$0 \$24,619 \$0 \$10,293	Surface Mobile Shop	m2	1008 BRS1	3 139.09	\$140,201		\$0	\$140,201
Pumphouse m2 74 BRS1S 139.09 \$10,293 \$0 \$10,293 Explosives Storage m2 412 BRS1S 139.09 \$57,304 \$0 \$57,304 Explosives Storage m2 412 BRS1S 139.09 \$57,304 \$0 \$57,304 Emergency Power House m2 31 BRS1S 139.09 \$4,312 \$0 \$4,312 Emergency Power House m2 117 BRS1S 139.09 \$16,273 \$0 \$16,273 Weather Station and Storage Buildings m2 566 BRS1S 139.09 \$78,724 \$0 \$78,724 Shop m2 379 BRS1S 139.09 \$52,714 \$0 \$78,724 Batch Plant m2 118 BRS1S 139.09 \$52,714 \$0 \$52,714 Batch Plant m2 118 BRS1S 139.09 \$16,412 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$23,923 OBJECTIVE:REMOVE TANKS /PIPES 3 - 360,000 gallon tanks m3 4098 BRS2S 24,658 \$101,050 \$0 \$101,050 3 - 187,000 gallon tanks m3 9275 BRS2S 24,658 \$228,706 \$0 \$228,706 3 - 187,000 gallon tanks m3 2124 BRS2S 24,658 \$52,374 \$0 \$52,374 6 - 14,000 gallon tanks m3 825 BRS2S 24,658 \$52,374 \$0 \$52,374 6 - 14,000 gallon tank m3 825 BRS2S 24,658 \$7,841 \$0 \$7,841 11 - 20,000 gallon tank m3 825 BRS2S 24,658 \$469 \$0 \$469 Piping m 1000 PPLS 55,409 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Brook Brook For DEMOLITION WASTE #N/A Brook Graph Properties was a substantial for the substantia	Carpenter Shop	m2	482 BRS1	3 139.09	\$67,040		\$0	\$67,040
Explosives Storage m2 412 BRS1S 139.09 \$57,304 \$0 \$57,304 Fire house m2 31 BRS1S 139.09 \$4,312 \$0 \$4,312 Emergency Power House m2 117 BRS1S 139.09 \$4,312 \$0 \$4,312 Weather Station and Storage Buildings m2 566 BRS1S 139.09 \$78,724 \$0 \$78,724 Shop m2 379 BRS1S 139.09 \$52,714 \$0 \$52,714 Batch Plant m2 118 BRS1S 139.09 \$52,714 \$0 \$52,714 Batch Plant m2 118 BRS1S 139.09 \$16,412 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$16,412 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$23,923 BUBLECTIVE:REMOVE TANKS /PIPES 3 - 360,000 gallon tanks m3 4098 BRS2S 24,658 \$101,050 \$0 \$101,050 7 - 350,000 gallon tanks m3 9275 BRS2S 24,658 \$228,706 \$0 \$228,706 3 - 187,000 gallon tanks m3 2124 BRS2S 24,658 \$223,74 \$0 \$52,374 6 - 14,000 gallon tanks m3 318 BRS2S 24,658 \$2,374 \$0 \$52,374 11 - 20,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$29,344 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$29,344 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 3- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 3- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 3- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 3- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 3- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 3- 5,000 gallon tanks m3 19 BRS2S 24,658 \$20,343 3- 5,000 gallon t	As Treatment Plant Building	m2	177 BRS1	3 139.09	\$24,619		\$0	\$24,619
Fire house m2 31 BRS1S 139.09 \$4,312 \$0 \$4,312 Emergency Power House m2 117 BRS1S 139.09 \$16,273 \$0 \$16,273 Weather Station and Storage Buildings m2 566 BRS1S 139.09 \$78,724 \$0 \$78,724 Shop m2 379 BRS1S 139.09 \$52,714 \$0 \$52,714 Batch Plant m2 118 BRS1S 139.09 \$16,412 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$16,412 ATV Building m3 4098 BRS2S 24,658 \$101,050 \$0 \$101,050 7 - 350,000 gallon tanks m3 9275 BRS2S 24,658 \$228,706 \$0 \$228,706 5 - 340,000 gallon tanks m3 9275 BRS2S 24,658 \$228,706 \$0 \$228,706 5 - 14,000 gallon tanks m3 2124 BRS2S 24,658 \$52,374 \$0 \$52,374 6 - 14,000 gallon tanks m3 318 BRS2S 24,658 \$7,841 \$0 \$7,841 11 - 20,000 gallon tank m3 825 BRS2S 24,658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24,658 \$469 \$0 \$409 Piping m 1000 PLS 55,409 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE Bolate Buildings (waste, water, glycol, sewer) m 2 24562 BDCS 12,21 \$299,836 \$0 \$299,836 OBJECTIVE: GRADE AND CONTOUR Grade/Contour Entire Mine Site Area m2 230000 BBCS 7.0342 \$175,854 Subtotal Subtotal	Pumphouse	m2	74 BRS1	3 139.09	\$10,293		\$0	\$10,293
Emergency Power House m2 117 BRS1S 139.09 \$16,273 \$0 \$16,273 Weather Station and Storage Buildings m2 566 BRS1S 139.09 \$78,724 \$0 \$78,724 Shop m2 379 BRS1S 139.09 \$52,714 \$0 \$52,714 Batch Plant m2 118 BRS1S 139.09 \$52,714 \$0 \$52,714 ATV Building m2 172 BRS1S 139.09 \$16,412 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$23,923 OBJECTIVE:REMOVE TANKS /PIPES 3 - 360,000 gallon tanks m3 4098 BRS2S 24.658 \$101,050 \$0 \$101,050 7 - 350,000 gallon tanks m3 9275 BRS2S 24.658 \$228,706 \$0 \$228,706 5 - 14,000 gallon tanks m3 2124 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tanks m3 318 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tank m3 825 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tank m3 825 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tank m3 825 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tank m3 825 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tank m3 825 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tank m3 825 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tank m3 825 BRS2S 24.658 \$52,343 \$0 \$20,343 2- 5,000 gallon tank m3 19 BRS2S 24.658 \$469 \$0 \$469 Piping m 1000 PPLS 55.409 \$55,409 \$0 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Bloolate Buildings (waste,water,glycol,sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	Explosives Storage	m2	412 BRS1	3 139.09	\$57,304		\$0	\$57,304
Weather Station and Storage Buildings m2 566 BRS1S 139.09 \$78,724 \$0 \$78,724 Shop m2 379 BRS1S 139.09 \$52,714 \$0 \$52,714 Batch Plant m2 118 BRS1S 139.09 \$16,412 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$23,923 OBJECTIVE:REMOVE TANKS /PIPES m2 172 BRS1S 139.09 \$23,923 \$0 \$23,923 3 - 360,000 gallon tanks m3 4098 BRS2S 24.658 \$101,050 \$0 \$101,050 7 - 350,000 gallon tanks m3 9275 BRS2S 24.658 \$228,706 \$0 \$228,706 3 - 187,000 gallon tanks m3 2124 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tanks m3 318 BRS2S 24.658 \$7,841 \$0 \$7,841 11 - 20,000 gallon tanks m3 19 BRS2S 24.658 \$20,343 \$0 \$20,343 2 - 5,000 gallon tanks	Fire house	m2	31 BRS1	3 139.09	\$4,312		\$0	\$4,312
Shop	Emergency Power House	m2	117 BRS1	3 139.09	\$16,273		\$0	\$16,273
Shop	Weather Station and Storage Buildings	m2	566 BRS1	3 139.09	\$78,724		\$0	\$78,724
Batch Plant m2 118 BRS1S 139.09 \$16,412 \$0 \$16,412 ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$228,706 \$0 \$228,706	Shop	m2	379 BRS1	3 139.09	\$52,714		\$0	\$52,714
ATV Building m2 172 BRS1S 139.09 \$23,923 \$0 \$23,923 OBJECTIVE:REMOVE TANKS /PIPES 3 - 360,000 gallon tanks m3 4098 BRS2S 24.658 \$101,050 \$0 \$101,050 7-350,000 gallon tanks m3 9275 BRS2S 24.658 \$228,706 \$0 \$228,706 3-187,000 gallon tanks m3 2124 BRS2S 24.658 \$52,374 \$0 \$52,374 6-14,000 gallon tanks m3 318 BRS2S 24.658 \$7,841 \$0 \$7,841 1-20,000 gallon tank m3 825 BRS2S 24.658 \$20,343 \$0 \$7,841 1-20,000 gallon tank m3 825 BRS2S 24.658 \$20,343 \$0 \$20,343 2-5,000 gallon tank m3 19 BRS2S 24.658 \$469 \$0 \$0 \$469 Piping m 1000 PPLS 55.409 \$55,409 \$0 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Isolate Buildings (waste, water, glycol, sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$283,494 \$0 \$0 \$28	Batch Plant	m2	118 BRS1	3 139.09			\$0	
3 - 360,000 gallon tanks	ATV Building	m2			. ,		\$0	\$23,923
7 - 350,000 gallon tanks m3 9275 BRS2S 24.658 \$228,706 \$0 \$228,706 3 - 187,000 gallon tanks m3 2124 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tanks m3 318 BRS2S 24.658 \$7,841 \$0 \$7,841 11 - 20,000 gallon tank m3 825 BRS2S 24.658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24.658 \$469 \$0 \$469 Piping m 1000 PPLS 55.409 \$55,409 \$0 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Isolate Buildings (waste, water, glycol, sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal \$6,046,303 0% \$0 \$6,046,303	OBJECTIVE:REMOVE TANKS /PIPES							
3 - 187,000 gallon tanks m3 2124 BRS2S 24.658 \$52,374 \$0 \$52,374 6- 14,000 gallon tanks m3 318 BRS2S 24.658 \$7,841 \$0 \$7,841 11 - 20,000 gallon tank m3 825 BRS2S 24.658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24.658 \$469 \$0 \$469 Piping m 1000 PPLS 55.409 \$55,409 \$0 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Isolate Buildings (waste, water, glycol, sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal \$0 \$6,046,303 \$0 \$0 \$6,046,303	3 - 360,000 gallon tanks	m3	4098 BRS2	3 24.658	\$101,050		\$0	\$101,050
6-14,000 gallon tanks m3 318 BRS2S 24.658 \$7,841 \$0 \$7,841 \$1-20,000 gallon tank m3 825 BRS2S 24.658 \$20,343 \$0 \$20,343 \$0 \$20,343 \$0 \$20,343 \$0 \$20,343 \$0 \$469 \$0 \$0 \$469 \$0 \$0 \$469 \$0 \$0 \$469 \$0 \$0 \$55,409 \$0 \$0 \$55,409 \$0 \$0 \$55,409 \$0 \$0 \$55,409 \$0 \$55,409 \$0 \$0 \$55,409 \$0 \$0 \$55,409 \$0 \$0 \$0 \$55,409 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	7 - 350,000 gallon tanks	m3	9275 BRS2	3 24.658	\$228,706		\$0	\$228,706
11 - 20,000 gallon tank m3 825 BRS2S 24.658 \$20,343 \$0 \$20,343 2- 5,000 gallon tanks m3 19 BRS2S 24.658 \$469 \$0 \$469 Piping m 1000 PPLS 55.409 \$55,409 \$0 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Isolate Buildings (waste,water,glycol,sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal \$6,046,303 0% \$0 \$6,046,303	3 - 187,000 gallon tanks	m3	2124 BRS2	3 24.658	\$52,374		\$0	\$52,374
2- 5,000 gallon tanks m3 19 BRS2S 24.658 \$469 \$0 \$469 Piping m 1000 PPLS 55.409 \$55,409 \$0 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Isolate Buildings (waste,water,glycol,sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854	6- 14,000 gallon tanks	m3	318 BRS2	3 24.658	\$7,841		\$0	\$7,841
Piping m 1000 PPLS 55.409 \$55,409 \$0 \$55,409 OBJECTIVE: LANDFILL FOR DEMOLITION WASTE #N/A Isolate Buildings (waste,water,glycol,sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	11 - 20,000 gallon tank	m3	825 BRS2	3 24.658	\$20,343		\$0	\$20,343
OBJECTIVE: LANDFILL FOR DEMOLITION WASTE Isolate Buildings (waste,water,glycol,sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	2- 5,000 gallon tanks	m3	19 BRS2	3 24.658	\$469		\$0	\$469
Solate Buildings (waste,water,glycol,sewer) m2 24562 BDCS 12.21 \$299,836 \$0 \$299,836 \$0 \$299,836 \$0 \$299,836 \$0 \$299,836 \$0 \$299,836 \$0 \$293,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$283,494 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$295,065 \$0 \$0 \$295,065 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	Piping	m	1000 PPLS	55.409	\$55,409		\$0	\$55,409
Bone Yard Clean Up 1 #N/A 283494 \$283,494 \$0 \$283,494 Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	OBJECTIVE: LANDFILL FOR DEMOLITION WASTE		#N//	A				
Operation of Landfill 1 #N/A 295065 \$295,065 \$0 \$295,065 OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	Isolate Buildings (waste,water,glycol,sewer)	m2	24562 BDCS	12.21	\$299,836		\$0	\$299,836
OBJECTIVE: GRADE AND CONTOUR #N/A Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	Bone Yard Clean Up		1 #N/A	283494	\$283,494		\$0	\$283,494
Grade/Contour Entire Mine Site Area m2 230000 SB2L 4.4721 \$1,028,573 \$0 \$1,028,573 Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	Operation of Landfill		1 #N/A	295065	\$295,065		\$0	\$295,065
Concrete Slab Removal m2 25000 BRCS 7.0342 \$175,854 \$0 \$175,854 Subtotal \$6,046,303 0% \$0 \$6,046,303	OBJECTIVE: GRADE AND CONTOUR							
Subtotal \$6,046,303 0% \$0 \$6,046,303								
	Concrete Slab Removal	m2	25000 BRCS	7.0342	\$175,854		\$0	\$175,854
Pct Land Total Land Total Water				Subtotal	\$6,046,303	0%	\$0	\$6,046,303
						Pct Land	Total Land	l Total Water

1 Chemicals and Soil Contamination:

		Cost	Unit	Land	Water
ACTIVITY/MATERIAL	Units Quantity	Code	Cost	Cost % Land Cost	Cost

Note: The procedures, equipment and packaging for clean up and removal of chemicals or contaminated soils are highly dependent on the nature of the chemicals and their existing state of containment. Government guidelines should be consulted on an individual chemical basis. Any estimate made here should be considered very rough unless specific evaluations have been conducted.

Type 1, hydrocarbon Type 3, metals	m3 m3		csoss	58.156 5.5387	\$2,326,255 \$11,077		\$0 \$0	\$2,326,255 \$11,077
Other contaminants Haz. Mat. testing & assessment	m3	800 (CSOSS	5.5387	\$4,431		\$0	\$4,43
Technician and analyses	each	1	#N/A	0	\$37,853		\$0	\$37,85
Drilling	each	1	#N/A	0	\$21,630		\$0	\$21,63
Report	each	1	#N/A	0	\$16,223		\$0	\$16,223
		s	ubtota	ı	\$2,417,469	0%	\$0	\$2,417,469
						Pct	•	Tota
						Land Tot	al Land	Wate

1 **Mobilization:**

			Cost			%		
ACTIVITY/MATERIAL	Units	Quantity	Code	Unit Cost	Cost	Land	Land Cost	Water Cost
A MOBILIZE HEAVY EQUIPMENT								
Equipment to region	al centre							
Mobilization - ICE ROAD	ea	1	MHER1S	2006828.741	\$2,006,829		\$0	\$2,006,829
Demobilization - ICE ROAD	ea	1	MHEA1S	802892.6682	\$802,893		\$0	\$802,893
D MOBILIZE MISC. SUPPLIES			#N/A					
. Fuel	litre	2790369	#N/A	1.15	\$3,208,924		\$0	\$3,208,924
				Subtotal	\$6,018,646	0%	\$0	\$6,018,646
						Pct		
						Land	Total Land	Total Water

1 Post-Closure Monitoring & Maintenance:

ACTIVITY/MATERIAL	Units	Quantity	Cost Code	Unit Cost	Cost	% Land	Land Cost	Water Cost
A OBJECTIVE: MONITORING & INSPI	ECTIONS							
Annual geotechnical insp.	each	5	VIS	\$22,155	\$110,774		\$0	\$110,774
Monitoring years 1-5	year	3	SIS	\$387,709	\$1,163,128		\$0	\$1,163,128
EEM	each	1	RPTS	\$121,851	\$121,851		\$0	\$121,851
Subtotal, Annual post-closure costs Discount rate for calculation of net pr Number of years of post-closure activ	\$1,395,753		\$0	\$1,395,753				
Present Value of payment stream					\$1,395,753	\$0 Po Land	t Total	

Unit Cost Table

for additional construciton cost data check the associations below, or use the Estimator Worksheet

Alberta Road Builders & Heavy Construction Association BC Road Builders Blue Book at : www.roadbuilders.bc.ca

Specified unit rates used fo this cost estimate were updated by an average of 1.72% per year from the 2006 baseline. The inflation rate was calculated based on the Consumer Price Index compiled by the Bank of Canada (http://www.bankofcanada.ca/rates/related/inflation-calculator/#)

			Year of update		2012		
		COST	Yearly av	verage inflati	on rate	1.7%	
ITEM	Detail	CODE	UNITS	LOW \$	HIGH \$	SPECIFIED \$	
exca	vate Soil, Bulk						LOW cost: excavation of loose soil, 1.5 km haul, high
	SB1 + long haul, up to 1500 m	SB2	m3	\$4.47	\$6.71	\$7.00	volume. Pro-rated from Actual Cost Incured in 2005 LOW cost: rehandle waste rock dump into pit,
	SB1 + Specified activity	SBS	m3	\$2.60	\$7.17	\$12.06	>500,000 m3, 2 km haul LOW cost: doze frost heaves HIGH cost: contour - wet or frozen, Specialized -
	Soil, tailings	SBT	m3	\$1.25	\$3.40	\$14.28	haul/place wet infill
Shaft	, Raise & Portal Closures						
	Chaff 9 Dairea	0.0	0	#505.50	#4 000 00	************	LOW cost: pre-cast concrete slabs, little site prep. HIGH cost: for hand construction, remote site. Pro
	Shaft & Raises	SR	m2	\$595.52	\$1,966.36	\$82,784.19	rated from HAZCO Quote 2005 HIGH cost: for excavate & backfill collapsed portal
	Portals	POR	m3	\$0.00	\$230.34	\$1,101.60	SPECIFIED cost: installed pressure plug
PiPes	3						
	Small, < 6 inch diameter	PPS	m	\$0.56	\$5.62	#N/A	LOW cost: pipe removal, HIGH cost: supply new pipe SPECIFIED: small, heat traced & insulated pipe LOW cost: pipe removal, HIGH cost: supply 24"
	Large, > 6 inch diameter	PPL	m	\$1.12	\$202.25	\$55.41	100 psi HDPE pipe, FOB Edm.
	Fuel Contaminated	PPF	m	\$1.08	\$194.67	\$50.02	LOW, HIGH, SPECIFIED: 2005 Quote not located
							add shipping & installation
exca	vate Rip Rap drill, blast, load short haul						
	(<500 m) dump and spread	RR1	m3	\$12.30	\$18.37	#N/A	
	RR1 + long haul excavate rock from waste	RR2	m3	\$12.47	\$19.05	#N/A	HIGH cost: quarry & place rip rap in channel LOW cost: removal of 18 in minus from dump, long
	dump, short haul, spread	RR3	m3	\$4.72	\$6.49	#N/A	haul and spread
	RR3 + long haul	RR4	m3	\$5.26	\$7.02	#N/A	
	specified rip rap source	RR5	m3	#N/A	#N/A	#N/A	
Build	ings - Remove						
	Concrete	BRC	m	\$37.08	\$55.62	\$7.03	Pro-rated from HAZCO Quote 2005
	Steel - teardown	BRS1	m2	\$39.55	\$59.33	\$139.09	Pro-rated from HAZCO Quote 2005
	Steel - salvage	BRS2	m2	\$61.80	\$92.70	\$24.66	Pro-rated from HAZCO Quote 2005
Conta	aminated Soils						
	Remediate on site	CSR	m3	\$43.26	\$134.84	\$58.16	LOW cost: bio-remediate on-site. off-site to landfil as haz. Waste. from revision 5.1 HIGH cost: ship SPECIFIED:
	Dispose off-site	csos	m3			\$5.54	

Unit Cost Table

for additional construciton cost data check the associations below, or use the Estimator Worksheet

Alberta Road Builders & Heavy Construction Association						ere updated by an average of
environmental investigation	CSEI	each	\$2,080.80	\$0.00		
consolidate & cover	Use cost	t code items	\$0.00	\$0.00	\$0.00	
cover in place	Use cost	t code items	\$0.00	\$0.00	\$0.00	
Mobilize Heavy Equipment						
Mobilize	MHER1	each	\$3.04	\$9.11	\$2,006,828.74	LOW, HIGH, SPECIFIED: Pro-rated from HAZCO Quote 2005 LOW, HIGH, SPECIFIED: Pro-rated from HAZCO
Demobilize	MHEA1	each	#N/A	#N/A	\$802,892.67	Quote 2005
Road access	MHER	\$/km	\$3.16	\$9.46	\$2.26	SPECIFIED cost: \$/tonne/km in cargo plane
Air access	MHEA	each	#N/A	#N/A	\$1,514.70	SPECIFIED cost: helicopter cost, \$/hr of operation
Winter Road	WR	km	\$1,483.19	\$2,943.92	\$1,890.06	Speicalized winter road to 40,000 kg capactiy
Geotechnical Inspection	VI	each	\$3,955.18	\$7,977.79	\$22,154.81	Pro-rated From MMG Quote 2010 reclaim estimate
Site Monitoring	SI	each	#N/A	#N/A	\$387,709.24	Pro-rated From MMG Quote 2010 reclaim estimate
Environmental Effects Monitoring	g RPT	each	#N/A	#######	\$121,851.48	Pro-rated From MMG Quote 2010 reclaim estimate
SCariFY road and	SCFY	km	\$3,960.80	\$5,561.98	\$6,028.83	
install water breaks					\$0.00	