

Empire Mine Economic Model Summary Base Case – Feb 21

		YEARS 1 TO 7	YEARS 4 TO 10
PRODUCTION		Cu Zn	Au Ag
Total ore	tonnes	14,317,207	14,317,207
Total tonnes ore & waste	tonnes	55,018,098	
Contained copper	tonnes	76,556	
Contained zinc	tonnes	26,782	
Contained gold	ounces		141,205
Contained silver	ounces		6,005,694
Copper recovery	%	76	
Zinc recovery	%	50	
Gold recovery	%		83
Silver recovery	%		77
Scheduled Ore Production	tonners / day	5,625	5,625
Scheduled Ore Production	tonnes / year	2,100,000	2,100,000
Mine life	years	6.8	6.8
Copper recovered (LOM)	tonnes	58,183	
Zinc recovered (LOM)	tonnes	13,391	
Copper equ recovered (LOM)	tonnes	62,647	
Average annual copper equ production	tonnes	9,213	
Saleable gold recovered (LOM)	ounces		117,200
Saleable silver recovered (LOM)	ounces		4,624,384
Gold equ recovered (LOM)	ounces		185,616
Average annual gold equ production	ounces		27,296
REVENUE (LIFE OF MINE)			
Copper price	\$/pound	3.60	
Copper revenue	\$	461,776,280	
Zinc price	\$/pound	1.20	
Zinc revenue	\$	35,426,448	
NSR after royalties, freight, insurance & TC	\$	467,212,591	
Gold price	\$/oz		1,825
Gold revenue	\$		213,889,626
Silver price	\$/oz		27.00
Silver revenue	\$		124,858,374
NSR after royalties, freight, insurance & TC	\$		316,405,194

		YEARS 1 TO 7	YEARS 4 TO 10
OPERATING COSTS (LIFE OF MINE)		Cu Zn	Au Ag
Mining (Rehandle Heap to Au Ag Plant)	\$	102,575,000	10,725,000
Processing	\$	128,533,000	203,339,060
G&A and property tax	\$	21,690,000	6,809,524
Total operating costs	\$	252,798,000	220,873,584
Cash operating cost	\$/tonne ore	17.66	
Cash operating cost	\$/lb copper equ	1.83	
Cash operating cost	\$/tonne ore		15.45
Cash operating cost	\$/oz gold equ		1,190
EBITDA (LIFE OF MINE)	\$	214,414,591	95,531,610
CAPITAL COSTS			
Pre-production capital costs	\$	52,673,000	36,837,000
Sustaining capital	\$	24,175,000	7,000,000
Equipment finance costs	\$	10,635,000	
PRE-TAX CASH FLOW (LIFE OF MINE)	\$	126,931,591	51,694,610
Federal & State tax	\$	17,069,000	7,605,028
POST-TAX CASH FLOW (LIFE OF MINE)	\$	109,862,591	44,089,582

	Pre Tax	Post Tax
NPV (5%)	124,951,217	105,707,169
NPV (7.5%)	105,171,561	87,995,963
NPV (10%)	88,821,433	73,394,787
IRR %	57	47

Metal Price Sensitivity	NPV (7.5%)	
	Pre Tax	Post Tax
+10%	157,429,610	139,842,247
-10%	52,913,511	36,382,354

Metal Price Sensitivity	IRR %	
	Pre Tax	Post Tax
+10%	77	68
-10%	34	25