

9. Financial Analysis

9.1 Cash Flow

A simplified financial analysis of Case 1 – 500 tpd and Case 2 – 2,500 tpd was undertaken using a discounted cash flow model. Project capital cost estimates including pre-production and sustaining capital costs have been included in the cash flow projection. Operating costs presented as April 2005 Canadian dollars remain constant over the mine life and no allowance for inflation has been included.

The financial analysis excludes considerations of alternate financing and is based on zero debt to present a base case before tax, cash flow analysis. Market related pricing was based on the marketing report in Appendix G. Details of the cash flow model are outlined in Appendix H.

A summary of the financial analysis for Case 1 – 500 tpd and Case 2 – 2,500 tpd is presented below:

Table 9-1: Project Cash Flow Analysis Summary Case 1 – 500 tpd

Project Data	Scoping Study
Life of Mine	3 years
Total Mo produced	6.1 million pounds
Total Ore Mined	476,211 tonnes
Total Material Mined (ore + waste)	765,721 tonnes
Capital Cost	CAD\$30.20 million
Operating Cost - Mining	CAD\$55.60 / tonne mined
Operating Cost - Mill	CAD\$25.80 / tonne milled ore
Mo Price – Scenario 1	US\$15 - 10 / lb
Mo Price – Scenario 2	US\$20 / lb
Mo Price – Scenario 3	US\$30 / lb

Table 9-2: Project Cash Flow Analysis Summary Case 2 – 2,500 tpd

Project Data	Scoping Study
Life of Mine	10 years
Total Mo produced	31.7 million pounds
Total Ore Mined	8,658,241 tonnes
Total Material Mined (ore + waste)	9,437,818 tonnes
Capital Cost	CAD\$131 million
Operating Cost - Mining	CAD\$36.8/ tonne mined
Operating Cost - Mill	CAD\$13.3/ tonne milled ore
Mo Price – Base Scenario	US\$20 - 10 / lb
Before Tax Net Present Value @0%	-CAD\$21,521,210
Before Tax Net Present Value @5%	-CAD\$36,653,020
Before Tax Internal Rate of Return	-4%

Negative values denoted as: –CAD\$

5. Mineral Process Plant

5.1 Introduction

Development of process for Case 1 – 500 tpd and Case 2 – 2,500 tpd plants were based on information available from historical reports and literature pertaining to similar molybdenite concentrators such as Endako and Henderson mines. All relevant parameters used in the size and designs of the plants are listed in the Process Design Criteria document in Appendix C.

The mined ore will be subject to a size reduction, including crushing and wet grinding in a closed circuit with classification systems. The slurry will flow through a froth flotation circuit, the final concentrate will be filtered and the filter cake will be dried. Molybdenite concentrate will finally be bagged and ready for transport to roasters.

A simplified flowsheet of the process is presented in Figure 5-1 and molybdenite concentrate production is summarised as follows:

- Case 1 - 500 tpd operation will be able to process 182,500 tonnes per annum of ore with a head grade of 1.0% MoS₂. Using the projected recoveries of 91% MoS₂ production will be 1,908 tonnes per annum of molybdenite concentrate with a grade of 52% Mo.
- Case 2 - 2,500 tpd the plant will be able to process 912,500 tonnes per annum of ore with a head grade of 0.5% MoS₂, using the projected recoveries of 91% MoS₂ production will be 4,770 tonnes per annum of molybdenite concentrate with a grade of 52% Mo.

The process plant design development for the two cases as well as an estimate for manpower requirements are outlined below.

Figure 4-3: Design for a Mine Producing Case 1 - 500 tpd at a cut-off Grade of 0.5% MoS₂ (0.3% Mo)

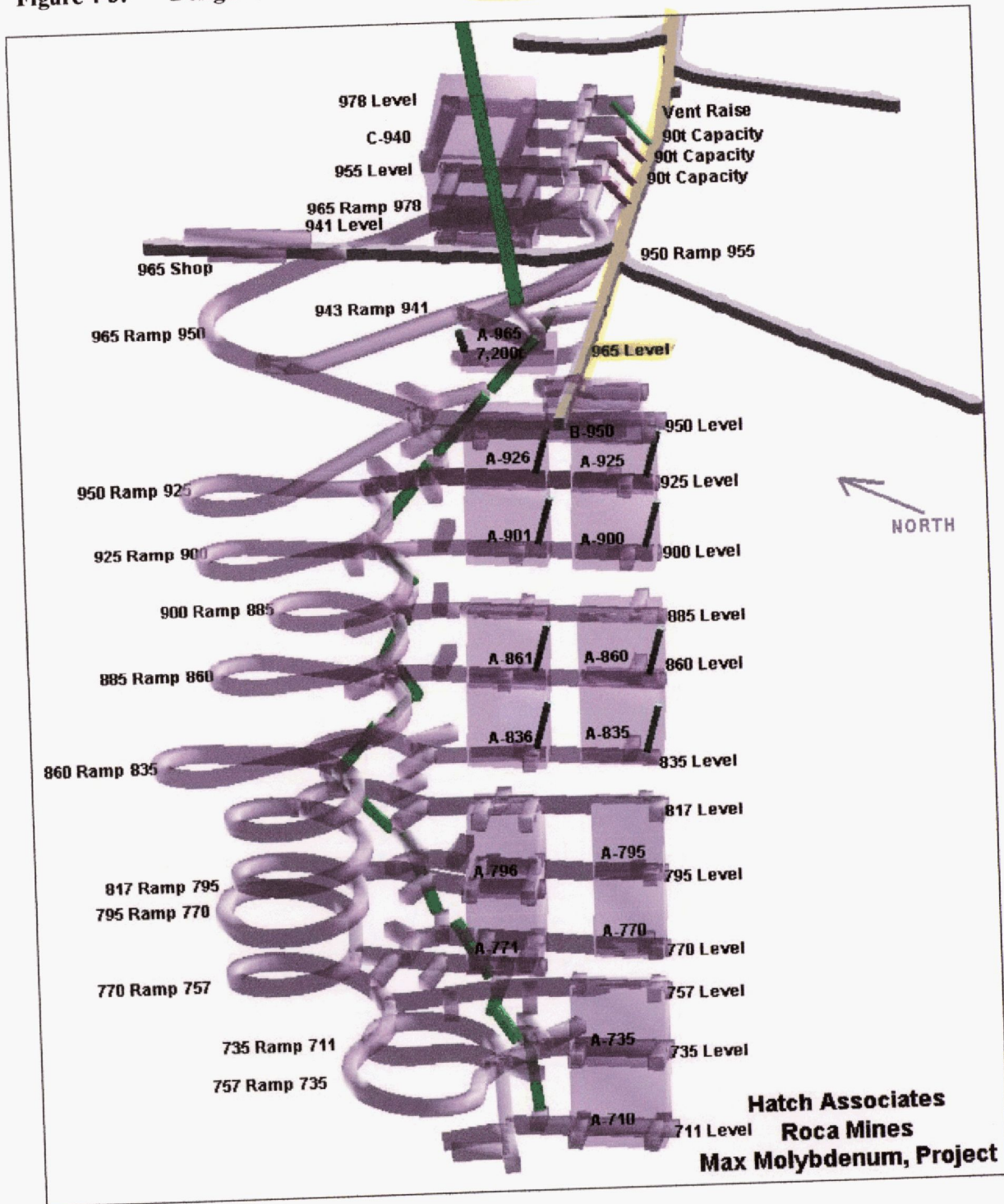


Figure 4-5: Design for a Mine producing Case 2 - 2,500 tpd at a Cut-off Grade of 0.2% MoS₂ (Looking Southwest)

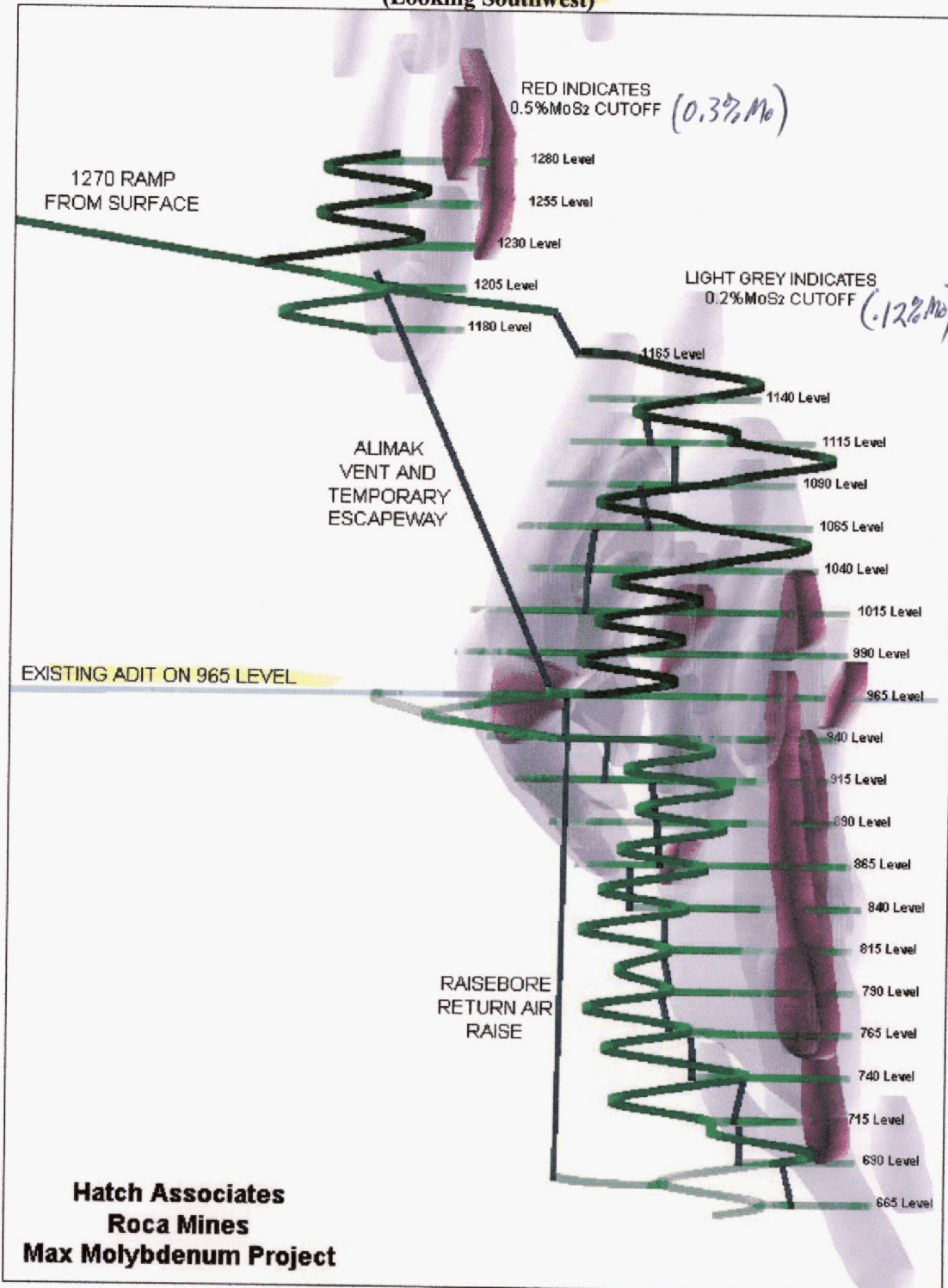
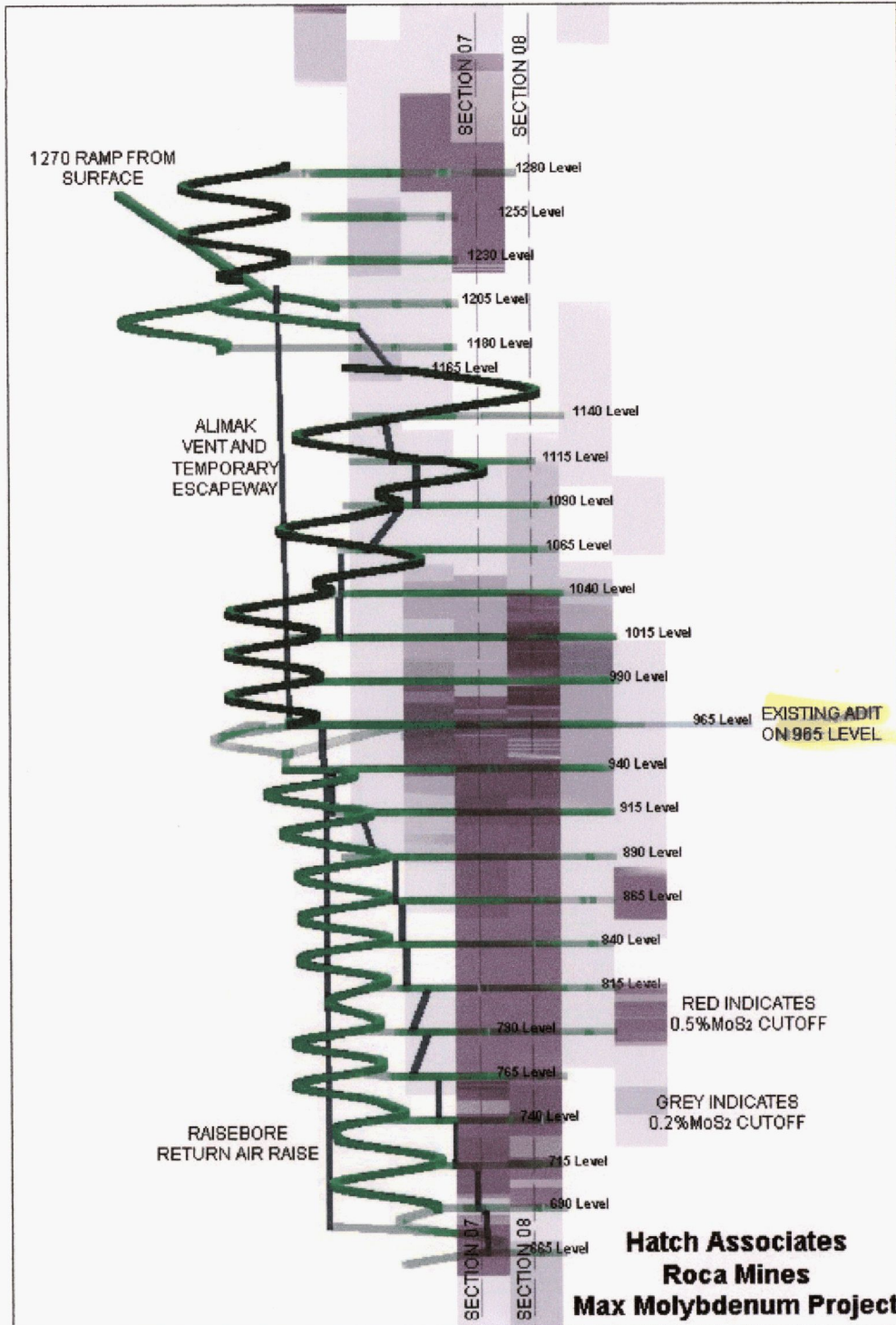


Figure 4-6: Design for a Mine producing Case 2 - 2,500 tpd at a Cut-off Grade of 0.2% MoS₂ (Looking Northwest)



Tom Schwab

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ROCA Mines Inc. – MAX Molybdenum Project
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Figure 4-1: Sections 07 and 08

