

Department of Indian Affairs and Northern Development

ECONOMIC EVALUATION OF THE FARO PROPERTY, N.T.

FEBRUARY, 2002

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EXECUTIVE SUMMARY

In November 2001, Micon International Limited was commissioned by the Department of Indian Affairs and Northern Development (DIAND) to provide an economic evaluation of the Faro Mine, Yukon Territory, in order to assist in determining a course of action with respect to the disposal of mineral assets and reclamation of the sites.

The agreed scope of work included an assessment of remaining reserves and resources based on the current requirements of NI 43-101, preliminary economic analyses of the mineral deposits under four production scenarios, and recommendations regarding potential sale of the properties. This report is based on data provided by DIAND and the Interim Receiver, on a visit to the site and on Micon's analysis and experience.

Existing facilities include the Faro townsite, the Faro processing plant with a capacity of at least 4.0 Mt/a, other buildings and infrastructure around the plant site, a high quality haul road from the Vangorda and Grum pits to the plant, and other connecting roads.

Previous owners have exhausted the Faro and Vangorda deposits and partially mined the Grum open pit. The remaining reserve at Grum is estimated as 19.63 Mt with average grades of 4.27 % Zn, 2.56 % Pb, 43.3 g/t Ag and 0.69 g/t Au. Since no breakdown of reserve confidence category was available, Micon considers the entire reserve to be Probable. The pit mining equipment fleet has been sold. This provides flexibility to a new owner in setting production rates, choosing the type and size of equipment, new or used, or contracting the mining.

The undeveloped Grizzly deposit lies between 500 and 900 m below surface and has been drill tested by only 57 widely spaced holes from surface. The polygonal estimate of "mining inventory", above a cutoff grade of 9 % combined lead plus zinc and a mining height of 3.5 m, including 10 % dilution, is reported as 21.37 Mt at 6.38 % Zn, 4.84 % Pb, 71.4 g/t Ag and 0.75 g/t Au. It is further reported that some 60 % of this resource is in the indicated category, and 40 % is inferred. Under the guidelines specified by NI 43-101, these two categories should not be added together.

In Micon's opinion, enough information has been gathered to support an informed preliminary geological interpretation of the Grizzly deposit and it is considered appropriate to use these resources in a preliminary economic evaluation. Micon's determination of the likely Grizzly underground mineable portion of the indicated and inferred resources is 14.86 Mt at 6.49 % Zn, 5.03 % Pb, 74.3 g/t Ag and 0.76 g/t Au.

The Swim deposit is considered too small and of insufficient grade for a viable open pit. There no other known lead-zinc bearing deposits in the Faro area. However, Grizzly demonstrates the potential for deep discoveries. Such deposits could be discovered through an expensive program of deep stratigraphic drilling of the untested portions of the prospective horizon followed by downhole geophysical testing.



Based on the available metallurgical testwork and historical processing records, Micon considers that recoveries from Grizzly ore will be considerably higher than those from Grum ore, namely 81 % Zn (vs 74 %), 81 % Pb (vs 77 %) and 60 % Ag (vs 58 %). Gold recovery is predicted to remain at 30 %. The condition of the Faro processing plant is reasonable for its age. Extensive refurbishing is required, but the cost of this work is much less than the investment in a new mill and is not likely to increase significantly over the next few years.

Micon has used conventional discounted cash flow (DCF) analysis to evaluate the remaining reserves and resources. The agreed scope included four cases:

Case 1, mining both deposits simultaneously and processing at the existing mill. Case 2, mining both deposits simultaneously and processing at a new mill. Case 3, mining the Grizzly deposit only and processing at a new mill. Case 4, mining the Grum deposit only and processing at a new mill.

Production schedules were prepared for each of the four scenarios and built into four variations of the basic cash flow model. The costs used were based, in part, on reported historical costs and, in part, on Micon's in-house database. It was immediately obvious that, at recent metal prices such as 35 ¢/lb Zn, all four cash flows would be negative.

Micon compiled historic price data and selected long-term prices of $35 \notin$ /lb Pb, \$5.00/0z Ag and \$300/0z Au for the basic DCF analyses. These were combined with an optimistic zinc price of $60 \notin$ /lb so that the cash flows would all be positive. The upper range limit line on the chart of historic zinc price data (see Figure 9-1) indicates that the annual average price of zinc is unlikely to exceed $65 \notin$ /lb except during short-term (3 to 4 year) cyclical peaks. Major peaks occurred around 1974 and 1989. However, there is no reliable way of predicting the likelihood, magnitude or duration of such an event.

The cash flows were re-run to establish the zinc prices required for breakeven and for specific IRR hurdle rates. From these, Micon concludes that a sustained zinc price of about 45 ¢/lb is required just to cover operating costs. The cash flow breakeven price required to cover all the capital and operating costs, including taxes and royalties but excluding any financing costs and profit margins, varies from 49 to 58 ¢/lb Zn, depending on the case.

Based on the parameters used in this report and assuming a 20 % IRR hurdle, the average sustained zinc price necessary to interest private companies in re-opening the Faro property is estimated as approximately 60 ϕ /lb, provided that the existing Faro mill remains in place.

If the Faro mill and its processing equipment are removed, then the additional capital requirements, as estimated in Cases 2,3 and 4, increase the necessary sustained price into the range of 80 to 90 ϕ /lb Zn, depending on the selected production scenario. In Micon's opinion, this would virtually guarantee that the



Grum and Grizzly deposits would not be mined in the foreseeable future. Accordingly, it is Micon's opinion that the continued existence of the mill is essential to the potential sale of the property to any party interested in developing and exploring the Faro area.

Based on these conclusions, Micon recommends:

- That the reclamation requirements set out in the Rodger Report be separated into those which would affect significantly the economics of re-starting operations at Faro, and those which would not.
- That work proceed on the latter group of reclamation tasks.
- That reclamation of the process plant, associated buildings and haul road be deferred for a period of up to five years in anticipation of another possible cyclical increase in zinc prices. This corresponds to a period of 13 to 18 years from the previous peak in 1989.
- That zinc prices be monitored and, if 60 ¢/lb can be foreseen, offers be solicited from potential purchasers who may be interested in the exploration potential of the area as well as the known deposits.
- That after approximately five years, if the price peak has not materialized and is not obviously imminent, the resources should be abandoned and the rest of the property reclaimed.



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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

In November 2001, Micon International Limited was commissioned by the Department of Indian Affairs and Northern Development (DIAND) to provide an economic evaluation of the Faro Mine, Yukon Territory, in order to assist in determining a course of action with respect to the disposal of mineral assets and reclamation of the sites.

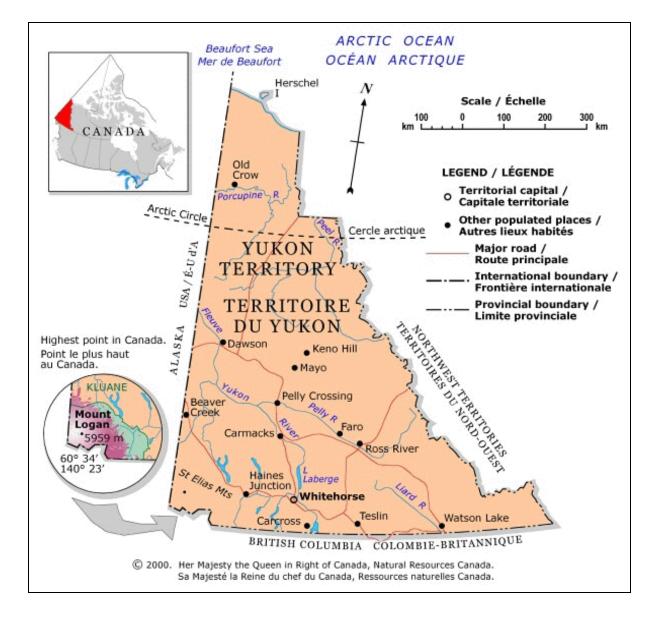
The Faro property is located approximately 220 air kilometres northeast of Whitehorse, YT. The town of Faro is on the north bank of the Pelly River, about 6 km north of the Robert Campbell Highway, 25 km west of Ross River, as shown in Figure 1-1. This map also shows the previous concentrate haulage route, west to Pelly Crossing, south through Carmacks, Whitehorse and Carcross, then southwest across a thin strip of British Columbia (off the map) to Skagway, Alaska. The relative locations of the Faro pit and concentrator, the Grum and Vangorda pits, and the Dy (now known as Grizzly) and Swim deposits are shown in Figure 3-1 (Section 3.2). The Faro and Vangorda pits are exhausted but there are resources in the Grum pit and the Grizzly underground deposit.

The agreed scope of work can be summarized as follows:

- 1. Meet with DIAND representatives to obtain information regarding current site conditions.
- 2. Visit the site.
- 3. Review available information on known "ore reserves" for the Grum and Grizzly (Dy) deposits and provide a summary of this information, addressing quality, and of the feasibility of developing and mining these deposits.
- 4. Review the 22nd report of the Interim Receiver (January 8, 2001), the Reclamation Cost Estimates by Robert Rodger (March 2001), and other relevant documents.
- 5. Review all available material on the economic value of the Grum and Grizzly deposits and provide a) reserves and grades based on CIM standards or similar classifications; b) a comparison of metallurgy and processing concerns for the Grum and Grizzly ore types; and c) mining options for the remaining reserves and resources.
- 6. Provide a preliminary economic analysis of mining of the deposits under four scenarios: i) Mining Grum and Grizzly deposits simultaneously and processing at the existing Faro mill;



Figure 1-1 LOCATION MAP





ii) Mining Grum and Grizzly deposits simultaneously and processing at a new mill closer to the two mines; iii) Mining the Grizzly deposit only and constructing a new mill; and iv) Mining the Grum deposit only and constructing a new mill.

- 7. Provide details in the economic analyses of capital and operating cost estimates, cash flow results at current and historical average metal prices, and breakeven zinc prices.
- 8. Provide details in the economic analyses of criteria used, and the annual production, revenue and taxation calculations.
- 9. Provide conclusions about the economics of the deposits and recommendations regarding potential sale of the properties.
- 10. Discuss the impact of removal of the mill and of reclaiming the pits on the feasibility of future mining operations.

The reports specified in Item 4 above were received and reviewed in November, and preliminary cash flows were prepared. During the week of December 10, the DIAND office in Whitehorse and the Faro site were visited by three Micon representatives: Harry Burgess, vice president and mining engineer, B. Terrence Hennessey, senior economic geologist, and Richard M. Gowans, senior metallurgist.

Micon reviewed the limited data that were available at site. Back in Toronto, Micon made use of the data bank maintained by the Interim Receiver, Deloitte Touche, whose cooperation is gratefully acknowledged. These data were mainly from Curragh Resources and also of limited use.

Note that two currencies are used in this document. All metal prices, by convention, are quoted in United States funds, either as cents per pound (base metals) or dollars per ounce (precious metals). All other estimated costs, cash flows and net present values are expressed in year 2000 Canadian dollars.

1.2 HISTORICAL BACKGROUND

The first discovery of lead zinc mineralization on the Vangorda Plateau occurred in 1953 when prospector Al Kulan found the Vangorda deposit and optioned it to Prospector airways, later acquired by Kerr Addison Mines Limited (Kerr). Further exploration by Kerr resulted in the discovery of the Swim deposit in 1963, 10 km to the southeast. Concurrent exploration by Dynasty Explorations, on an adjacent block of ground, resulted in the discovery of the Faro deposit, 15 km to the northwest, in 1964. The Grum deposit, only 2 km northwest of Vangorda, was not discovered until 1973 during an exploration program by Kerr. The Grizzly Deposit, 4 km southeast of Vangorda, was discovered by Cyprus Anvil Mining Corporation (Cyprus Anvil, a joint venture of Cyprus Mines and Dynasty) in 1976. In 1979 the property



position in the camp was consolidated when Cyprus Anvil acquired the Grum/Vangorda property from Kerr.

The Faro open pit was developed and mined by Dynasty/Cyprus Anvil over the period 1966 to 1982. During those years, annual average zinc prices ranged from 12 to 38 US cents per pound (ϕ /lb) with an isolated peak of 56 ϕ /lb in 1974. In constant Year 2000 dollars, the equivalent prices would be 54 to 73 ϕ /lb with a peak of 178 ϕ /lb.

Curragh Resources acquired the Faro property in 1985 and operated it from January 1986 until April 1993. During this period, the Faro pit was exhausted, a high grade lens was mined from the Faro pit wall by a contractor using the room-and-pillar method, the Vangorda pit was developed and partially mined, and stripping of the Grum pit was started. Annual zinc prices ranged from 34 ¢/lb up to 75 in 1989 then fell to 44 ¢/lb in 1993. The 2000 dollar equivalents are 51 to 101 then back to 51 ¢/lb.

Curragh spent some \$20 million on exploration and planning of the Grizzly underground deposit (then known as Dy) but was never able to justify start-up, despite the obvious benefit of combining with existing pit production to retain the economies of scale in a 4.5 Mt/a process plant.

Anvil Range Mining Corporation (ARMC) bought the property for \$30 million in 1994 and invested a further \$70 million in rehabilitation of the plant and pits and in working capital. From August 1995 to December 1996, ARMC exhausted the Vangorda pit and partially mined the Grum deposit. The plant continued to process stockpiled material through March 1997. The model which ARMC used to justify the investment was based on a zinc price starting at 55 ¢/lb and rising to 65 ¢/lb by 1998. However, the average price during the operating period was about 47 ¢/lb (52 ¢/lb in 2000 dollars) and the property, again, went into receivership. There were other problems such as low availability of the aging haul truck fleet and poor recovery in the plant, but the main contributor appears to have been the zinc price.

Since the most recent shut down, the major mobile mining equipment has been sold and the concentrator was prepared for care and maintenance with the mills blocked up off the bearings. The plant and buildings, already old, continue to deteriorate with the crusher flooded and frozen in ice, although a portion of the mill is currently used as a water treatment plant in the summer months.



1.3 REFERENCE DOCUMENTS

Studies

Preliminary Review and Update of Reclamation Cost Estimates, Faro Site by Robert J. Rodger, P.Eng., March 2001 (for Indian and Northern Affairs Canada)

Chapters 6 and 7 for Grizzly Project Underground Pre-feasibility Study by Piteau Associates (Project 1617), November 1996

Grizzly Project Hydrogeological Assessment and Conceptual Design for Blind Creek Exploration Decline by Piteau Associates (Project 1779), July 1997

Review and Assessment of Water Management Options for Grizzly Decline by Access Mining Consutants Ltd., July 1997

Dy Project April, 1996 by Fritz F. Prugger, P.Eng., Consulting Mining Engineer

Advanced Exploration and Development of the Dy Underground Mine, Project Description by Rescan Environmental Services Ltd., January 1993

Other Reports

Yukon Mineral Property Update, January 2001 by Mineral Resources Branch, Dept. of Economic Development, Govt. of the Yukon

Twenty second Report of the Interim Receiver, January 18, 2001 by Heenan Blaikie, Solicitors for Deloitte & Touche Inc.

[This document includes a number of sub-reports including five by Strathcona Mineral Services Limited]

Faro Operations Start-up Plan (12-Month Operation) by ARMC, March 1998

Review of the Proposed Development of the Grum Lead-Zinc Deposit by Micon International Limited / David S. Robertson, February 1993,



Pre-stripping of the Grum Deposit and Associated Activities (the Propriety of Described Costs and Processes), by David S. Robertson, Ph.D., P.Eng., January 27, 1992

Dy Deposit - Initial Exploration and Development Program (three options) by Canadian Mine Development, October 29, 1990 (partial copy)

Dy Deposit, Exploration Ramp Access by Canadian Mine Development, April 1989

Dy Deposit, Exploration Shaft Access by Canadian Mine Development, April 1989

Dy Deposit, Long Range Plan, Shaft Access by Canadian Mine Development, April 1989

ARMC Month End Reports for: December 1997 September 1997 April 1997 December 1996 December 1995

Papers

Geology and Sulphide Deposits of Anvil Range, Yukon by D.S. Jennings and G.A. Jilson published in Mineral Deposits of Northern Cordillera, 1986

Field Guide Anvil Pb-Zn-Ag District, Yukon Territory, Canada by Lee C. Pigage, 1990

Correspondence

Memo from Aiden Carey to John Fleming, Mine Start Up Plan, January 29, 1998

Memo from John Fleming to Don Hindy, Mine Geology after Startup, August 5, 1997

Minutes of Grum Planning Meeting, Whitehorse, September 28, 1991



Memo from J.W. Hendry to C.K. Benner, Economic Basis for Grum Design Criteria, Jan.31, 1992

Internal Curragh Resources document, about May 1992, describing the Exploration status of the Dy Deposit and other claim blocks in the Anvil District

Memo from Gregg A. Jilson to C.K. Benner, Dy Mineral Inventory, March 27, 1992



2.0 SUMMARY

In November 2001, Micon International Limited was commissioned by the Department of Indian Affairs and Northern Development (DIAND) to provide an economic evaluation of the Faro Mine, Yukon Territory, in order to assist in determining a course of action with respect to the disposal of mineral assets and reclamation of the sites.

The agreed scope of work included an assessment of remaining reserves and resources based on the current requirements of NI 43-101, preliminary economic analyses of the mineral deposits under four production scenarios, and recommendations regarding potential sale of the properties.

2.1 EXISTING FACILITIES

Cyprus Anvil Mining Corporation, a joint venture of Cyprus Mines and Dynasty Resources, began to develop the Faro property in 1966. This included an open pit on the Faro deposit, a processing plant, town site and associated infrastructure. The mill went through a number of expansions and had reached a capacity of more than 4 Mt/a before the first closure in 1982.

Curragh Resources acquired the Faro property in 1985 and operated it from January 1986 until April 1993. During this period, the Faro pit was exhausted, a high grade lens was mined from the Faro pit wall by a contractor using the room-and-pillar method, the Vangorda pit was developed and partially mined, and stripping of the Grum pit was started. Curragh constructed some 14 km of high quality haulage road between the Vangorda and Faro pits so that Vangorda and Grum ore could be delivered to the Faro mill by 200 t trucks. This included a causeway across the north fork of Rose Creek which is understood to have been built with coarse waste rock, designed for percolation, without culverts.

Anvil Range Mining Corporation (ARMC) bought the property from the Receiver in 1994 and installed additional grinding and flotation equipment to improve recovery from the Grum ore. From August 1995 to December 1996, ARMC exhausted the Vangorda pit and partially mined the Grum deposit before following Curragh into receivership.

The badly worn mining equipment fleet has been sold by the Receiver. However, there is an unfinished truck shop at the Grum site and a water treatment plant. The haul road and the power supply are intact.

The Faro concentrator was prepared for care and maintenance with the mills blocked up off their bearings. The plant and building, already old, continue to deteriorate with the crusher flooded and frozen in ice, although a portion of the mill is still used as a water treatment plant in the summer months. Other existing facilities at this site include the administration building, warehouse, workshops and electrical sub-station.



The status of the town of Faro is unclear. It was originally a 'company' town but is understood to have been acquired by a real estate company and some of the houses have been sold as vacation homes. Certainly, it still exists.

2.2 RECLAMATION REQUIREMENTS

The reclamation requirements for the Faro property and their estimated costs were addressed in the Rodger Report. The largest cost is for the Down Valley Tailings Impoundment which was used by Cyprus Anvil and Curragh, and is estimated to contain 50.5 Mt of sulphide tailings. The preferred closure method is to slurry the tailings and pump them into the Faro pit. Passing them through the plant was considered, but a zinc price of more than US 70 ¢/lb would be required to balance the cost of processing. There would still be room within the pit to store the tailings from the Grum and Grizzly deposits if it were possible to resume operations.

Other work which could proceed at any time includes re-contouring, covering and revegetating the Faro and Vangorda waste rock dumps, and much of the work involved in preparing the three pits for contaminated water storage.

Items which would affect future mining potential are reclamation of the mill and other surface facilities, breaching of the haul road, and reclamation of the Grum overburden and waste rock dumps.

2.3 **RESERVES AND RESOURCES**

The lead-zinc deposits of the Faro area are stratiform synsedimentary exhalative massive sulphide deposits (sedex type) which occupy a 150-m thick stratigraphic horizon which contains extensive units of graphitic phyllite, non-calcareous phyllites, basaltic metavolcanic rocks and metaintrusive units. The mineralization is of two types, massive sulphide and quartzose disseminated sulphide, and their percentages vary with each deposit. The massive and disseminated sulphides typically occur together, with a massive upper portion stratigraphically overlying lower quartzose sulphides. They occur in lenses or horizons which may be stacked within the prospective stratigraphic horizon.

Five significant lead-zinc bearing sulphide deposits have been found in the district in addition to two barren ones. These are, from northwest to southeast, the Faro, Grum, Vangorda, Grizzly (Dy) and Swim deposits. Only the first four of these deposits had sufficient grade and tonnage and suitable location to be considered for production. Faro and Vangorda have been mined out.



2.3.1 Grum Reserve

The Grum deposit was in production at the time of mine closure. Available records and anecdotal evidence indicate that the mineral resources were estimated using a block model and the GEMCOM software package. The mineral reserves were determined from the block model by selecting those blocks which fell within the October, 1997 pit design by SRK.

Micon discovered two different tables which purported to represent the mineral reserves at Grum on January 21, 1998 and February 1, 1998, both dates after the reported cessation of mining (January 16, 1998). The two tables present identical grades for the four principal commodities (lead, zinc, silver and gold) but differ in tonnage by 269,000 tonnes, or slightly more than 0.1%. Micon considers that this difference is not material to the analysis herein and has used the larger tonnage from the table which provided more detail (bench by bench and pit stage by pit stage). The reported mineral reserve is summarized as 21,810,550 t at 2.56 % Zn, 4.27 % Pb, 43.3 g/t Ag and 0.69 g/t Au.

It was reported to Micon that ARMC had experienced difficulties reconciling the mineral reserves from the Grum pit with actual production from the mill. A search of the hard drive from the engineering/geology computer discovered a detailed reconciliation spreadsheet for most of the production life of the Grum deposit (from 1995 to the end of 1997). This comparison indicates that the mill reconciliation problem probably was caused by overestimation of tonnes in the ore reserves. The mill head grade and calculated pit production grade (from the block model) agree to within less than 0.2 % on zinc and lead, but the calculated production overestimates tonnage by 8.2 % relative to the mill.

Micon has concluded that the Grum pit reserve tonnages are overstated by approximately 10 %, probably as a result of a specific gravity (or bulk density) error for the ore. It is also concluded that the grades of the principal metals of interest, zinc and lead, are accurately estimated. Strathcona Mineral Services came to the same conclusion in its previous reviews of the project. The reserve for the Grum pit, as adjusted by Micon, is 19,630,000 tonnes with the same average grades of 2.56 % Zn, 4.27 % Pb, 43.3 g/t Ag and 0.69 g/t Au.

2.3.2 Grizzly Resource

Most of the Grizzly Deposit is 500 m to 900 m below surface and has been drill tested by only 57 relatively widely-spaced surface diamond drill holes of significant length. Typical drill hole spacing is roughly 130 m x 90 m. The Grizzly deposit has never been exposed by underground development and does not outcrop or subcrop. It is relatively flat and tabular with two separate horizons that generally dip between 20° and 35° to the southwest.

Several mineral resource and reserve estimates have been completed at Grizzly over the years 1981 to 1996, the most recent being Piteau Associates' "Chapter 6 and 7 for the Grizzly Project Underground Pre-



feasibility Study". Micon had access only to this latter report for the review of Grizzly resources. Drill hole composites were constructed, on either a 6 % or 9 % combined lead plus zinc cutoff, without regard to lithology, using a minimum mining thickness of 3.5 m. Polygons were generated in GEMCOM using midpoint projections between drill holes up to a maximum of 170 m. At the edges of the deposit, polygons were terminated at 60 m beyond the last drill intersection. Polygon areas were computed and converted to volumes by multiplying by the vertical thickness of each drill intercept. Tonnes were determined by multiplying volumes by a bulk density of 3.92, a number determined by Curragh in 1991.

Results were tabulated, at both 6 % and 9 % cutoff grades, and reported with 10 % dilution at zero grade but with no adjustment for mining losses (see Table 3.4). These numbers are presented by Piteau as a "Mining Inventory" without separate reporting of the two confidence categories, although the text of the report indicates that 60 % of the mineralization was in the probable category and 40 % possible. Under current resource and reserve nomenclature in use in Canada, these would be referred to as indicated and inferred resources, and the two categories would not be added together.

From the plus 9 % resource, Piteau made an assessment of a "mining inventory with recoveries" using different mining methods for areas above or below 6.5 m thickness (see Table 3.5). After reviewing the available data, Micon decided to eliminate those blocks in which the diluted average grade had fallen below 9 % combined lead plus zinc, and to reduce the recoveries where upper and lower lenses were in close proximity. Micon's determination of the likely mineable portion of the indicated and inferred resources (see Table 3.6) reduces Piteau's total of 17.24 Mt to 14.86 Mt at 6.49 % Zn, 5.03 % Pb, 74.3 g/t Ag and 0.76 g/t Au.

Micon concludes that the Grizzly deposit cannot be considered a mineral reserve ready for a production decision and the associated capital expenditure commitment. Further basic geological work is required. Enough information has been gathered to allow informed preliminary geological interpretation and it is appropriate to use the resources in this preliminary economic evaluation.

2.3.3 Exploration Potential

The Anvil District lead-zinc deposits are known to exist in a relatively narrow, 150 m-thick horizon at the contact between the Mount Mye and Vangorda Formations. Soil geochemistry and airborne/ground geophysical surveys have probably discovered all of the near surface, outcropping and shallow subcropping (< 300 m) targets in the district. However, Grizzly demonstrates the potential for deep discoveries. Such deposits could be discovered through a program of deep stratigraphic drilling of the untested portions of the prospective horizon followed by downhole geophysical testing. Such a program would require a large commitment in terms of time and expense.



2.4 FINANCIAL EVALUATION

Micon has used conventional discounted cash flow (DCF) analysis to evaluate the remaining mineral resources at Faro. Four possible scenarios were to be assessed:

Case 1, mining both deposits simultaneously and processing at the existing mill.

Case 2, mining both deposits simultaneously and processing at a new mill.

Case 3, mining the Grizzly deposit only and processing at a new mill.

Case 4, mining the Grum deposit only and processing at a new mill.

Micon prepared production scenarios and capital and operating cost estimates for each case, and incorporated these into the DCF model. It was immediately obvious that, at recent metal prices of $35 \notin$ /lb Zn, 23 \notin /lb Pb, \$4.25/oz Ag and \$275/oz Au, the resulting cash flows would all be negative.

Micon obtained historical annual price data from 1960 to August 2001, adjusted those prices to constant year 2000 dollars, and prepared price charts with trend lines and range limits (see Figures 9-1 to 9-4). Using these charts, Micon selected possible long-term prices of $35 \, \epsilon/lb$ Pb, \$5.00/oz Ag and \$300/oz Au for the DCF analyses, and an optimistic zinc price of $60 \, \epsilon/lb$ so that the cash flows would all be positive.

Having run the DCFs at the above prices and an exchange rate of Can\$1.55 = US\$1.00, Micon then adjusted the zinc prices in each case to determine the operating and cash flow breakeven prices, and the prices required to give IRRs of 15 % and 20 %.

The full, detailed cash flow for each case is reproduced in the Appendices. The results of the four analyses are summarized for comparison in Table 2.1.

Production from the Grizzly underground mine is limited to 1.0 Mt/a (about 3,000 t/d) by practical consideration of the attitude and dimensions of the deposit, resulting in a production life of about 15 years. This provides the total mill feed in Case 3. In Cases 1 and 2, it is combined with ore from the Grum pit. In Case 1, the existing mill is filled to its comfortable capacity of 4 Mt/a until the Grum reserve is exhausted (7 years), then reduced to 1 Mt/a by shutting down some of the plant circuits and equipment. In Case 2, the selected new plant capacity is 2.25 Mt/a to minimize initial capital and to balance ore production from both sources at 15 years. In Case 4, Grum ore only to a new mill, the rate of 2.0 Mt/a provides a 10-year life, which is a compromise between initial capital requirements and economies of scale. It should be noted that, for this preliminary evaluation



			CASE 1	CASE 2	CASE 3	CASE 4
			GRUM + GRIZZLY	GRUM + GRIZZLY	GRIZZLY ONLY	GRUM ONLY
			EXISTING MILL	NEW MILL	NEW MILL	NEW MILL
DDODUCTION						
PRODUCTION Grum Ore		kt/a	2 000	1.250	0	2,000
			3,000	1,250 1,000	0 1,000	2,000
Grizzly Ore Mill Feed		kt/a kt/a	1,000 4,000	2,250	1,000	2,000
				· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
Total Ore Processed	Zn	kt	34,863	34,863 5.21	15,233	19,998
Average Grades	Zn Pb	%	5.21 3.61	3.61	6.42 4.96	4.26
		%				2.55
	Ag	g/t	56.6	56.6	73.6	43.4
	Au	g/t	0.72	0.72	0.75	0.69
Zinc Concentrate		kt	2,767	2,767	1,552	1,237
Lead Concentrate		kt	1,665	1,665	1,020	655
REVENUE	_		0.40	0.40	0.40	0.40
Metal Prices	Zn	US\$/lb	0.60	0.60	0.60	0.60
	Pb	US\$/lb	0.35	0.35	0.35	0.35
	Ag	US\$/oz	5.00	5.00	5.00	5.00
	Au	US\$/oz	300	300	300	300
US dollar Revenue		kUS\$	1,440,311	1,440,371	819,499	630,586
Exchange Rate		Can\$/US\$	1.55	1.55	1.55	1.55
Total Revenue		k\$	2,232,481	2,232,575	1,270,224	977,408
Unit Revenue		\$/t	64.04	64.04	83.39	48.88
COSTS						
Operating Costs		k\$	1,645,106	1,685,594	998,358	731,355
Unit Operating Costs		\$/t	47.19	48.35	65.54	36.57
Operating Profit		k\$	587,375	546,981	271,866	246,054
Initial Capital Costs		k\$	215,300	297,200	187,000	200,700
Unit Initial Capital Costs		\$/t	6.18	8.52	12.28	10.04
Sustaining Capital Costs		k\$	30,100	26,000	15,200	13,100
Corporate Income Tax		k\$	95,600	52,760	0	0
Yukon Mining Royalty		k\$	55,963	42,258	17,991	17,969
RESULTS						
Cumulative Cash Flow		k\$	230,412	168,763	67,675	33,285
NPV at 10% Discount		k\$	59,956	-46,708	-45,273	-42,333
Internal Rate of Return		%/a	20.0	6.4	4.1	3.1
BREAKEVEN ZINC PRIC	CES					
Operating Breakeven		US\$/lb	0.44	0.45	0.46	0.45
Cash Flow Breakeven		US\$/lb	0.49	0.53	0.56	0.58
Price for 15% IRR		US\$/lb	0.56	0.75	0.77	0.74
Price for 20% IRR		US\$/lb	0.60	0.85	0.88	0.81

Table 2.1 RESULTS OF DISCOUNTED CASH FLOW ANALYSES

of reserves and resources, the selected production rates are arbitrary and no attempt has been made at optimization.



Total ore processed includes an estimated 368,000 tonnes of stockpiled material containing 3.86 % Zn, 2.11 % Pb and 47 oz/t Ag, which is used to start up the plant.

The unit revenue line shows that Grizzly ore, at \$83.39/t, is more valuable than Grum ore, at \$48.88/t, because the average grades are higher. However, the unit operating cost line shows that Grizzly ore, at \$65.54/t, is also much more expensive to mine and process than the Grum pit ore at \$36.57/t. For combined production (Cases 1 and 2), the unit revenue is \$64.04/t. The unit operating cost is slightly lower in Case 1 (\$47.19/t) because of the higher throughput in the early years. The operating margin (operating profit over operating cost) is widest in Case 1.

The unit initial capital line shows another clear advantage for Case 1, in which the existing mill and infrastructure are retained. After allowing for extensive rehabilitation, the estimated initial capital for Case 1 is some \$82 million less than in Case 2 with its new, smaller mill. This makes a large difference to the cash flow.

At the selected, forward-looking metal prices, including $60 \notin /lb$ Zn, Case 1 produces a cash flow of \$230 million, an NPV at 10 % of \$60 million, and an IRR of 20 %.

Without the initial capital cost benefit of the existing mill and other buildings, Cases 2 to 4 show disappointing, though still positive, cash flows and IRRs in the range of 3.1 to 6.4 %.

Regarding breakeven pricing, the operating breakeven is quite consistent in the range of 44 to 46 ¢/lb. The cash flow breakeven price varies from 49 to 58 ¢/lb Zn. These are the prices which would cover all the capital and operating costs for each case, including taxes and royalties but excluding any financing costs and profit margins.

The rate of return required to justify a mining investment varies with many factors including corporate policy, location, type of product and perceived risks. Micon has tabulated the zinc prices required for 15 % and 20 % IRRs. The former is widely considered to be a minimum, and the latter is believed to be more applicable to this Faro evaluation.

Based on the 20 % IRR hurdle, the average sustained zinc price necessary to interest private companies in re-opening the Faro property is approximately 60 ¢/lb, provided that the existing Faro mill remains in place.

If the Faro mill and its processing equipment is removed, then the additional capital requirements in Cases 2,3 and 4 raise the necessary sustained price into the range of 80 to 90 ϕ /lb Zn, depending on the selected production scenario. In Micon's opinion, this would virtually guarantee that the Grum and Grizzly deposits would not be mined in the foreseeable future.



2.5 CONCLUSIONS AND RECOMMENDATIONS

Based on data provided by DIAND and the Interim Receiver, on a visit to the site and on Micon's analysis and experience, the following conclusions have been reached:

- Existing facilities include the Faro townsite, the Faro processing plant with a capacity of at least 4.0 Mt/a, other buildings and infrastructure around the plant site, a high quality haul road from the Vangorda and Grum pits to the plant, and other connecting roads.
- The Grum deposit has a large resource but only the portion contained within the SRK-designed open pit is considered viable at foreseeable metal prices. Micon concluded that the estimated grades were accurate but agreed with Strathcona Mineral Services that the tonnage of the reserve was probably overstated. The estimated Grum Reserve, with the tonnage reduced by 10 %, is 19.63 Mt with average grades of 4.27 % Zn, 2.56 % Pb, 43.3 g/t Ag and 0.69 g/t Au. Since no breakdown of reserve confidence category was available, Micon considers the entire reserve to be Probable.
- The pit mining equipment fleet has been sold. This provides flexibility to a new owner in setting production rates, choosing the type and size of equipment, new or used, or contracting the mining.
- The Grizzly deposit lies between 500 and 900 m below surface and has been drill tested by only 57 widely spaced holes from surface. The polygonal estimate of "mining inventory" above a cutoff grade of 9 % combined lead plus zinc and a mining height of 3.5 m, including 10 % dilution, is reported as 21.37 Mt at 6.38 % Zn, 4.84 % Pb, 71.4 g/t Ag and 0.75 g/t Au. It is further reported that some 60 % is in the indicated category, and 40 % is inferred. Under the guidelines specified by NI 43-101, these two categories should not be added together.
- Piteau Associates prepared a rock mechanics assessment of possible mining methods in November, 1996 for use in a pre-feasibility study. Using different methods for thick or thin (+/-6.5 m) zones, Piteau estimated recovery of 17.24 Mt. After reviewing all the available block data and drawings, Micon eliminated those blocks in which the diluted average grade had fallen below 9 %, and adjusted the recoveries where upper and lower lenses were in close proximity. Micon's determination of the likely Grizzly underground mineable portion of the indicated and inferred resources is 14.86 Mt at 6.49 % Zn, 5.03 % Pb, 74.3 g/t Ag and 0.76 g/t Au.
- Micon accepted the two basic methods designed by Piteau, namely room and pillar in the thinner sections, with retreat pillar robbing to achieve 70 % recovery; and drift and bench mining in the thicker areas, backfilling with "concrete" (i.e. heavily cemented tailings), and subsequent mining of the intervening pillars for an assumed 85 % extraction. However, where payable sections of the



upper and lower lenses overlapped, Micon assumed that extraction would be reduced to 45 % by not robbing pillars in retreat (first method) or by drifting and benching only the primary stopes and leaving the intervening pillars.

- Enough information has been gathered to allow an informed preliminary geological interpretation of the Grizzly deposit. It is considered appropriate to use these resources in a preliminary economic evaluation provided that sufficient time and capital budget are provided for the required underground exploration, bulk sampling and testwork proposed by Piteau and ARMC.
- Based on the available metallurgical testwork and historical processing records, Micon considers that recoveries from Grizzly ore will be considerably higher than those from Grum ore, namely 81 % Zn (vs 74 %), 81 % Pb (vs 77 %) and 60 % Ag (vs 58 %). Gold recovery is predicted to remain at 30 %.
- The condition of the Faro processing plant is reasonable for its age. Extensive refurbishing is required, but the cost of this work is much less than the investment in a new mill and is not likely to increase significantly over the next few years.
- At recent metal prices, the estimated cash flows for all four agreed cases are negative.
- Micon compiled historic price data and selected long-term prices of 35 ¢/lb Pb, \$5.00/oz Ag and \$300/oz Au for the basic DCF analyses. These were combined with an optimistic zinc price of 60 ¢/lb so that the cash flows would all be positive.
- From the chart of historic zinc price data (see Figure 9-1), it is considered unlikely that the annual average price of zinc will exceed 65 ¢/lb except during short-term (3 to 4 year) cyclical peaks. Major peaks occurred around 1974 and 1989. However, there is no reliable way of predicting the likelihood, magnitude or duration of such an event.
- The cash flows were re-run to establish the zinc prices required for breakeven and for specific IRR hurdle rates. From these, Micon concludes that a sustained zinc price of about 45 ¢/lb is required just to cover operating costs. The cash flow breakeven price varies from 49 to 58 ¢/lb Zn, depending on the case, to cover all the capital and operating costs including taxes and royalties but excluding any financing costs and profit margins.
- Based on the parameters used in this report and assuming a 20 % IRR hurdle, the average sustained zinc price necessary to interest private companies in re-opening the Faro property is estimated as approximately 60 ¢/lb, provided that the existing Faro mill remains in place.



- If the Faro mill and its processing equipment are removed, then the additional capital requirements, as estimated in Cases 2,3 and 4, raise the necessary sustained price into the range of 80 to 90 ¢/lb Zn, depending on the selected production scenario. In Micon's opinion, this would virtually guarantee that the Grum and Grizzly deposits would not be mined in the foreseeable future.
- Accordingly, it is Micon's opinion that the continued existence of the mill is essential to the potential sale of the property to any party interested in developing and exploring the Faro area.

Based on these conclusions, Micon recommends:

- That the reclamation requirements set out in the Rodger Report be separated into those which would affect significantly the economics of re-starting operations at Faro, and those which would not.
- That work proceed on the latter group of reclamation tasks.
- That reclamation of the process plant, associated buildings and haul road be deferred for a period of up to five years in anticipation of another possible cyclical increase in zinc prices. This corresponds to a period of 13 to 18 years from the previous peak in 1989.
- That zinc prices be monitored and, if 60 ¢/lb can be foreseen, offers be solicited from potential purchasers who may be interested in the exploration potential of the area as well as the known deposits.
- That after approximately five years, if the price peak has not materialized and is not obviously imminent, the resources should be abandoned and the rest of the property reclaimed.



3.0 GEOLOGY, RESERVES AND RESOURCES

The regional and local geology and lead-zinc mineralization styles of the Faro district have been described extensively in papers by Jennings and Jilson (1986) and Pigage (1990) and various project studies and reviews by Strathcona Mineral Services (1996, 1997, 1998 and 2001), Canadian Mine Development (1989), Piteau Associates (1997), Micon International (1993), David S. Robertson (1992) and Rescan (1993). It is not Micon's intention to reiterate this in great detail here. A brief synopsis of the geology described in these reports follows.

3.1 REGIONAL AND PROPERTY GEOLOGY

The lead-zinc deposits of the Faro area are located in the central Yukon Territory in the Selwyn Basin metallogenic province. They are found on the Vangorda Plateau of the Anvil Mountain Range, immediately northeast of the Tintaya Trench, a major regional fault (see Figure 3-1). The Vangorda Plateau is cored by the Cretaceous-age granodiorite-quartz monzanite Anvil Batholith and exposes a stratigraphic sequence of late Precambrian to Permian age miogeosynclinal sedimentary rocks dominated by non-calcareous shales of the Mount Mye Formation and calcareous phyllites of the Vangorda Formation. The district is structurally complex and has experienced as many as 5 periods of deformation.

3.2 MINERALIZATION STYLES

The lead-zinc deposits of the Faro area are stratiform synsedimentary exhalative massive sulphide deposits (sedex type) which occupy a 150-m thick stratigraphic horizon straddling the often poorly defined contact between the Mt. Mye and Vangorda Formations. This transition zone between the two formations forms a southeast-striking arcuate belt along the south side of the Anvil Batholith and is more lithologically complex than the overlying and underlying rocks. It contains extensive units of graphitic phyllite, non-calcareous phyllites, basaltic metavolcanic rocks and metaintrusive units.

The mineralization is of two types, massive sulphide and quartzose disseminated sulphide, and their percentages vary with each deposit. There are pyritic, barytic, pyrrhotitic and carbonate-bearing variants of the massive sulphide and carbonaceous and non-carbonaceous variants of the disseminated sulphide type ores. Both mineralization types also contain economically significant quantities of gold and silver. Metallurgical performance varies with each type and subtype.



File: AAN93011.DWG Dwg: AN-AN-93-011 20 BATHOLI ANVIL RANGE MINING CORPORATION ORCHAY CLAIM OUTLINE kilometres VANGORDA BASIN SWIM 10 5 0 ERT CAMPBE NON Pb-Zn BEARING DEPOSITS X Pb-Zn-Ag DEPOSITS FARO BLOCK 1 - Faro (Depleted) 2 - Grum 3 - Vongorda (Depleted) 4 - Grizzly 5 - Swim Strand Contraction of the second M.05.55 N.51-29 - S8 10 m - NM + M 4

Figure 3.1 GEOGRAPHIC REGIONS, DEPOSITS AND CLAIM OUTLINE OF THE FARO PROPERTIES



The massive and disseminated sulphides typically occur together, with a massive upper portion stratigraphically overlying lower quartzose sulphides. They occur in lenses or horizons, which may be stacked within the prospective stratigraphic horizon, and are associated with a regionally-

developed but laterally-discontinuous carbonaceous pelite unit. The deposits are believed to have been formed by hot metal-bearing brines exhaled from submarine fumaroles.

The sulphide horizons are deformed into complex fold structures on a local scale and faults may locally truncate and offset mineralization. Sulphide mineralization found closer to the batholith contact has generally been "cooked" by the proximity to the intrusive and tends to be coarser-grained than that found further away. This grain size change also affects metallurgical performance.

3.3 MINERALIZED DEPOSITS

Five significant lead-zinc bearing sulphide deposits have been found in the district in addition to two barren ones. These are, from northwest to southeast, the Faro, Grum, Vangorda, Grizzly (Dy) and Swim Deposits. Only the first four of these deposits had sufficient grade and tonnage and suitable location to be considered for production. Faro and Vangorda have been mined out.

3.3.1 Grum

The Grum deposit subcrops beneath overburden of glacial and fluvioglacial origin which is thin to absent in the northwest and up to 100 m thick to the southeast. There is a till-filled paleochannel exposed in the wall in the east corner of the pit where overburden thicknesses reach their maximum. This channel represents a significant source of water inflow to the pit.

The deposit consists of 3 to 5 layers of massive and disseminated mineralization interbanded with pelitic phyllites. There are several important extensional faults which can truncate and offset the deposit and a relatively complex pattern of small scale folding from the multiple deformation events. Grum ores are finer grained and more complexly intergrown than those from Faro and require finer grinding (as shown by several years of experience).

3.3.2 Grizzly

Formerly known as Dy, the Grizzly deposit lies at a depth of approximately 480 to 920 m below surface and has approximate maximum plan view extents of 1,500 m x 900 m. It contains several mineralized horizons which dip 20° to 35° to the southwest including one main mineralized area known as the AB Zone. In plan view, AB Zone can be resolved into the lead-rich A and zinc-rich B Zones which are separated by a relatively barren massive sulphide zone known as the Q Zone. The AB Zone is actually composed of



two stacked horizons known as the Upper G and Lower G, which are as close as 15 m and up to 60 m apart. Each horizon varies in thickness from 0.2 m to 28 m but are more typically in the 3 m to 10 m range.

The structural characteristics of the deposit are poorly understood as a result of the limited drilling completed to date. As a result of the polyphase deformation experienced by the area, similar structural complexities to those seen at Vangorda, Grum and Faro can be expected. High-angle vertical displacement faults and low-angle extensional faulting are understood to occur here as they do in the other deposits. The Grizzly orebody is believed to be truncated on the northwest and east sides by faults.

It is important to understand thoroughly the implications of the faulting, particularly the steeply dipping faults, for adequate planning of the underground mining. Similar complexities at the Faro underground operations, where vertical displacements of 3 to 6 m were common, caused difficulty for rubber tired underground equipment. This level of understanding will not be available until further drill programs and, possibly, an underground bulk sampling and development program have been completed.

3.4 MINERAL RESOURCES AND RESERVES

At the time of Micon's visit to Faro, ARMC had been in receivership for a number of years and, as a result, with the exception of Mr. Dana Hagar, former Mill Superintendent, none of the technical staff from the mine were available for consultation. Mr. Lee Pigage, formerly of Curragh's exploration group, was available to provide an overview of the geology at Faro but had no direct exposure to the ARMC resource estimates, particularly for Grum.

All of the documents from ARMC's head office had been inventoried, boxed and stored by ARMC, or the receiver, in a suburban warehouse near Toronto. However, the inventory list was general in nature and of limited use. The receiver and warehouse were the same organizations involved in the earlier Curragh bankruptcy and Micon discovered some useful early documentation from Curragh at this site.

At the mine and guest house in the town of Faro, similar difficulties were encountered. The Mine Engineering building for the Grum/Vangorda pit was not accessible due to snow fall and no snowmobiles were available to reach it. A selection of the most important technical and financial documents had been taken to the boardroom of the guest house but most had been recently boxed up, without being catalogued or inventoried, and were stacked in a crawl space. The engineering/geology department computer was at the guest house and was available for examination along with a final memo by the Chief Geologist outlining the state of the mine's mineral resources and reserves at the time of final closure in February, 1998.

Micon was able to find a spreadsheet reconciling the Grum pit production to the mill's metallurgical balance and some documentation of the methodology used to estimate the resources and reserves. No complete



information on Grizzly could be found, although Mr. Hagar was able, several weeks later, to access the engineering offices and provide copies of several important studies and reports on both Grizzly and Grum.

For these reasons Micon was unable to perform as thorough a review of the resources and reserves for the two deposits as would generally be desirable under the circumstances. As described in more detail below, it was possible to develop a reasonable level of comfort with the reported mineral reserves for the Grum pit, but a level of uncertainty exists for the mineral resource at Grizzly.

3.4.1 Grum

The Grum Deposit was in production at the time of mine closure. Available records and anecdotal evidence indicate that the mineral resources were estimated using a block model and the GEMCOM software package. Block sizes were 6m x 6m x 6m and the specific gravity information used for the tonnage estimate came from a large number of pycnometer measurements and comparisons with whole core. The mineral reserves were determined from the block model by selecting those blocks which fell within the October, 1997 pit design by SRK. This pit design reportedly does not incorporate steeper slope angles which were recommended in a Fall, 1997 SRK geotechnical assessment. A pit designed with such criteria would likely reduce the stripping ratio, improve pit economics and possibly allow for the inclusion of a little more of the resource within the pit design. However, no information was provided on these new design criteria and their impact on the mineral reserves was apparently never determined as no new pit design was found.

Beyond this, little information on the resource or reserve estimates for Grum was available for review. There were no data on grade interpolation method and search parameters employed, any supporting variography or statistical analysis, any detailed documentation of the resource and reserve estimation procedures, dilution factors or bulk densities used.

Micon discovered two different tables which purported to represent the mineral reserves at Grum on January 21, 1998 and February 1, 1998, both dates after the reported cessation of mining (January 16, 1998). The two tables present identical grades for the four principal commodities (lead, zinc, silver and gold) but differ in tonnage by 269,000 tonnes, or slightly more than 0.1 %. Micon considers that this difference is not material to the analysis herein and has used the larger tonnage from the table which provided more detail (bench by bench and pit stage by pit stage). The reported mineral reserves are summarized and presented in Table 3.1. No breakdown by reserve confidence category was presented by ARMC.



Zone	Tonnes	Pb+Zn (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
Grum, Stages I to IV*	21541710	-	2.56	4.27	43	0.69
Grum, Stages I to IV**	21810550	6.83	2.56	4.27	43.3	0.69

Table 3.1 GRUM PROVEN AND PROBABLE RESERVES

* - tonnes from Resource Inventory Statement

** - tonnes from Block Model Reserve Calculation spreadsheet

In addition to the reserves in the Grum pit, the ARMC Resource Inventory presents mineral resources from the Champ zone and from another Grum zone, accessible only to underground mining, as shown in Table 3.2 below. The Champ Zone was not included in the pit optimization and the Underground Zone is presented as an unclassified resource which apparently has not been subjected to economic study. Presentation of a resource without classification into a confidence category is unusual and not consistent with the CIM reporting code. Micon has not included either zone in its analysis.

Table 3.2GRUM MINERAL RESOURCES

Zone	Category	Tonnes	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
Grum, Champ Zone	Indicated	1219860	2.33	2.93	35	0.64
Grum Underground	Unclassified	39268944	4.54	7.32	75	0.52

Both Mr. Pigage and Mr. Hagar reported to Micon that ARMC had experienced difficulties reconciling the mineral reserves from the Grum pit with actual production from the mill. The produced metal from the mill was significantly less than the predicted contained metal from the ore reserve block model and asmined outlines. Verbal accounts and various memoranda discovered by Micon, reported inconsistent sizes of the discrepancy ranging from 8 % to 25 % and attributed it, variably, to tonnage and/or grade problems with the reserves or problems at the mill. These memos accept the existence of the problem and recommend further study to determine its source but do nothing to pin point the cause.

A search of the hard drive from the engineering/geology computer discovered a detailed reconciliation spreadsheet for most of the production life of the Grum deposit (from 1995 to the end of 1997). The spreadsheet compares block model, blasthole, stockpile, hauled and milled tonnes and grade figures and attempts to reconcile them. This comparison indicates that the mill reconciliation problem probably was caused by overestimation of tonnes in the ore reserves. The mill head grade and calculated pit production grade (from the block model) agree to within less than 0.2 % on zinc and lead, but the calculated production overestimates tonnage by 8.2 % relative to the mill.



Mr. Hagar reports that, during this period, the mill's weightometer was calibrated on a weekly basis, so its estimation of milled tonnes is probably accurate. Therefore, because the mill's grades agree so closely with the grades of ore produced, as determined from assays of exploration and mining samples in the pit (expressed in weight percent), and the milled tonnages are likely correct, Micon is led to believe that the grade of the reserves has been correctly estimated, but the wrong bulk density has been applied to the ore volumes in the block model.

During the period of time analysed by the spreadsheet, more than 11 % of mill feed came from the Vangorda pit, which was not known to have a serious reconciliation problem based on earlier production history. The tonnage reconciliation problem of 8.2 % can likely be attributed then to the 88.6 % of the mill feed coming from the Grum pit. Therefore, Micon has concluded that the Grum pit reserve tonnages are overstated by approximately 10 %, probably as a result of a specific gravity (or bulk density) error for the ore. It is also concluded that the grades of the principal metals of interest, zinc and lead, are accurately estimated. Strathcona Mineral Services came to the same conclusion in its previous reviews of the project. The reserves for the Grum pit, as adjusted by Micon, appear in Table 3.3. Micon has not adjusted the tonnage of the waste in the Grum pit. There is usually a significant specific gravity difference between ore and waste at most massive sulphide mines and it cannot be assumed that the overestimation of bulk density for the ore at Grum has affected the estimation of waste tonnes.

Despite the significant lack of backup documentation accompanying the Grum reserves, Micon is of the opinion that the production experience with this ore, as documented in the production reconciliation spreadsheet, lends confidence to the accuracy of the adjusted mineral reserve estimate.

3.4.2 Grizzly

Most of the Grizzly Deposit is 500 m to almost 1,000 m below surface and has been drill tested by only 57 relatively widely-spaced surface diamond drill holes of significant length. Typical drill hole spacing is roughly 130 m x 90 m. However, more densely spaced drilling exists around the A-B Zone and Q-B Zone boundaries in the north-central portion of the deposit. The Grizzly deposit has never been exposed by underground development and does not outcrop or subcrop.

Several mineral resource and reserve estimates have been completed at Grizzly over the years 1981 to 1996, the most recent being Piteau Associates' "Chapter 6 and 7 for the Grizzly Project Underground Prefeasibility Study". Micon had access only to this latter report for the review of Grizzly resources. The "geological reserves" quoted in the 1996 Pre-feasibility Study are based on, and are an update of, a polygonal resource estimate performed by N. D. Rose of Fox Geological Consultants (FGC) in 1992. The FGC report was not available for this review but the estimation methodology is summarized in the Piteau report and Rose was working for Piteau at that time.



Table 3.3ADJUSTED GRUM PROBABLE RESERVES

			Low Grade Ore					Total Ore								
Stage	Waste ('000 t)	Tonnage ('000 t)	Pb (%)	Zn (%)	Ag (q/t)	Au (ɑ/t)	Tonnage ('000 t)	Pb (%)	Zn (%)	Ag (g/t)	Au (ɑ/t)	Tonnage ('000 t)	Pb (%)	Zn (%)	Ag (q/t)	Au (ɑ/t)
1	453	131	3.93	7.07	67.1	1.10	16	1.67	2.69	29.3	0.65	147	3.69	6.60	63.1	1.06
2	28,949	4,206	3.55	5.58	58.8	0.84	1,560	1.55	2.48	26.7	0.63	5,766	3.01	4.74	50.1	0.78
3	28,689	3,485	3.23	5.35	55.1	0.93	1,720	1.50	2.52	26.0	0.59	5,205	2.66	4.42	45.5	0.82
4	52,460	5,228	2.59	4.58	44.0	0.61	3,284	1.51	2.62	26.2	0.44	8,512	2.18	3.83	37.1	0.54
TOTAL	110,550	13,050	3.08	5.13	52.0	0.77	6,580	1.52	2.56	26.3	0.53	19,630	2.56	4.27	43.3	0.69



A plan view polygonal "geological reserve" estimate was done on both G horizons at 6 % and at 9 % Pb+Zn cutoff grades. Drill hole composites were constructed, on either a 6 % or 9 % combined lead plus zinc cutoff, without regard to lithology. They were set at a minimum mining thickness of 3.5 m and were diluted out to 3.5 m with waste if the mineralized intercepts were less. Contained intervals of waste greater than 3.5 m were excluded from composite calculations. Polygons were generated in GEMCOM using midpoint projections between drill holes up to a maximum of 170 m. At the edges of the deposit, polygons were terminated at 60 m beyond the last drill intersection.

Polygon areas were determined by computer and converted to volumes by multiplying by the vertical thickness of each drill intercept. Tonnes were determined by multiplying volumes by a bulk density of 3.92, a number determined by Curragh in 1991. Results were tabulated, at both 6 % and 9 % cutoff grades, and reported with 10 % dilution at zero grade but with no adjustment for mining losses (see Table 3.4). These numbers are presented by Piteau as a "Mining Inventory" without separate reporting of the two confidence categories, although the text of the report indicates that 60 % of the mineralization was in the probable category and 40 % possible. Under current resource and reserve nomenclature in use in Canada, these would be referred to as indicated and inferred resources, and the two categories would not be added together.

Cutoff Grade	Zone	Tonnes	Pb+Zn (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
6% Pb+Zn	Upper G	19,267,173	8.86	4.03	4.83	58.3	0.66
	Lower G	20,001,771	9.05	3.49	5.56	55.6	0.58
	Total	39,268,944	8.95	3.75	5.2	56.9	0.62
9 % Pb+Zn	Upper G	11,086,376	10.85	5.19	5.66	73.1	0.83
	Lower G	10,283,155	11.61	4.45	7.16	69.6	0.68
	Total	21,369,532	11.22	4.84	6.38	71.4	0.75

Table 3.4 GRIZZLY MINING INVENTORY, 10 % DILUTION

Of these tonnes, approximately 29 % were in "thin mining areas" (less than 6.5 m) and 71 % were in "thick areas". Different mining recoveries were applied to the thick and thin areas of the 9 % cutoff Mining Inventory resulting in the "Mining Inventory With Recoveries" as presented below in Table 3.5. Once dilution and mining recoveries are applied to a mineral resource, if it has been demonstrated to be economic and legal to mine, the resulting tonnes may be referred to as a mineral reserve. However, there is no mineral reserve equivalent to an inferred resource. Therefore the tonnes presented in Table 3.5 below, which are 40 % derived from inferred resources, cannot be considered a mineral reserve. There are also potential problems with the permitting of the proposed operation and it is not obvious that such permitting



could be obtained. The Pre-feasibility Study completed by Piteau would be called a Preliminary Economic Analysis under current regulations.

Cutoff Grade	Zone	Tonnes	Pb+Zn (%)	Pb (%)	Zn (%)	Au (g/t)	Ag (g/t)
9% Pb+Zn	Upper G	8,956,019	10.84	5.23	5.61	73.6	0.83
	Lower G	8,284,830	11.66	4.44	7.22	69.5	0.67
	Total	17,240,849	11.24	4.85	6.39	71.6	0.75

Table 3.5 GRIZZLY MINING INVENTORY WITH RECOVERIES, 10 % DILUTION

Micon has reviewed the mining recoveries used by Piteau, as described below in section 5.2, and produced its own determination of the percentage of the blocks which are mineable by underground methods. Micon eliminated those blocks in which the diluted average grade had fallen below 9 % combined lead plus zinc, and adjusted the recoveries where upper and lower lenses were in close proximity. Micon's determination of the likely mineable portion of the indicated and inferred resources is presented, by block, in Table 3.6. Piteau's total of 17.24 Mt at 11.24 % Pb+Zn has been reduced to 14.86 Mt at 11.52 % Pb+Zn.

The mineral resources at the Grizzly deposit are based on much less information than that available for the determination of reserves at Grum. This information is more widely spaced and there is no mining or processing experience to support it. While the deposits of the Anvil District generally show good lateral continuity and, therefore, there is reason to believe in the continuity of the zones between drill holes at Grizzly, the holes are considered to be too far apart to adequately determine lateral grade variations and structural complexity. Additionally, Piteau appears to have used a single bulk density of 3.92 for all mineralization at Grizzly. It would be expected that if there was a significant amount of quartz in the quartzose sulphide mineralization, a different bulk density would be used for the two ore types. Perhaps 3.92 is an average bulk density. However, given the overestimation of reserve tonnes seen at Grum, this has to be considered as an area of uncertainty.

Piteau reports that 40 % of the resource is in the possible (inferred) category and 60 % in the indicated category but gives no rationale for the breakdown and classification. The report also contains several caveats and qualifiers indicating the need for further exploration before a production decision can be made. A plan for an exploration ramp to conduct a bulk sampling and definition drill program is presented.

As a result, Micon concludes that the Grizzly deposit cannot be considered a mineral reserve ready for a production decision and the associated capital expenditure commitment. Further basic geological work is required. Enough information has been gathered to allow informed preliminary geological interpretation and the resources could appropriately be used in a preliminary economic evaluation. Any study into the



potential for mining the deposit will need to allow for the time and capital budget to complete the required exploration as proposed by Piteau and ARMC.

3.4.3 Other Known Deposits

Of the five significant lead-zinc deposits discovered in the Faro area two, Vangorda and Faro, have been mined out and two others, Grum and Grizzly have been described above. The fifth deposit is known as Swim. Swim was reported on ARMC's final resource inventory statement dated February 1, 1998 as an inferred resource containing 3.91 million tonnes grading 3.22 % lead, 3.91 % Zn, 42 g/t silver and 0.65 g/t gold.

Beyond this, no data were reviewed for Swim and an examination of the deposit was not within the scope of work defined for the assignment. The deposit is classified entirely in the inferred confidence category and would require further exploration before an economic evaluation could be completed.

3.5 EXPLORATION POTENTIAL

The Anvil District lead-zinc deposits are known to exist in a relatively narrow, 150 m-thick horizon at the contact between the Mount Mye and Vangorda Formations. This horizon is known to wrap around the southeast portion of the Anvil Batholith and is known to host to 7 sulphide deposits (SB and Sea are not lead-zinc bearing). The Mount Mye-Vangorda stratigraphy is repeated on the north side of the batholith, but no sulphide deposits have been found there to date.

The prospective stratigraphy of the Anvil district has been extensively explored by soil geochemistry and airborne geophysics in the most prospective areas. This work and accompanying prospecting resulted in all of the early discoveries. Vangorda outcropped in a stream and Faro was a weak geochemical and geophysical target. Grum was also a geophysical target. However, Grizzly, the last one discovered, was a stratigraphic target for a deep drilling program.

Soil geochemistry and airborne/ground geophysical surveys have probably discovered all of the near surface, outcropping and shallow subcropping (< 300 m) targets in the district. However, Grizzly demonstrates the potential for deep discoveries. The district reportedly lacks modern, deep-penetrating and downhole geophysical coverage. In addition, there are large gaps in the drilling of the prospective horizon between the five currently known deposits and even larger gaps on the extremities of the prospective areas and along the northern repetition of the host stratigraphy.

The potential exists for the discovery of further deep deposits similar to Grizzly. Such deposits could be discovered through a program of deep stratigraphic drilling of the untested portions of the prospective



horizon followed by downhole geophysical testing. Such a program would require a large commitment in terms of time and expense.



Mining	Ave.	Diluted	Mining	Recovered		G	rades		
Block	Height	Tonnes	Recov.	Tonnes	Pb+Zn %	% Pb	% Zn	Ag (g/t)	Au (g/t)
UPPER - G	ч Т								
A1	3.48	614,375	70%	430,063	11.93	4.10	7.83	73.0	0.84
A2	3.42	352,219	70%	246,553	10.06	5.52	4.55	73.6	0.56
A3	6.75	241,986	85%	205,688	11.75	4.79	6.96	98.5	1.23
A4	13.22	2,580,058	85%	2,193,049	10.97	6.05	4.91	80.3	0.92
A5	4.25	272,591	70%	190,814	10.61	5.42	5.19	72.9	1.05
A6	3.33	366,280	70%	256,396	9.88	3.78	6.10	65.4	1.14
A7	15.56	5,148,346	85%	4,376,094	10.72	5.23	5.49	73.9	0.81
A8	5.83	380,842	70%	266,589	17.06	8.05	9.02	92.5	1.10
A9	4.05	270,016	0%	0	8.80	4.24	4.56	60.5	0.18
ZONE A	6.65444	10,226,713		8,165,246					
B1	5.6	354,477	0%	0	8.50	2.45	6.05	39.8	0.54
B2	3.34	149,251	45%	67,163	10.04	3.07	6.96	52.5	0.42
ZONE B	4.47	503,728		67,163					
Q1	3.28	355,934	0%	0	8.95	2.81	6.14	29.0	0.48
UPPER	6.00917	11,086,375	74.3%	8,232,409	11.02	5.42	5.60	76.3	0.87
LOWER -	G								
A11	3.88	493,981	0%	0	8.97	3.52	5.45	45.8	0.68
A13	3.38	236,895	70%	165,827	9.82	5.19	4.63	72.1	0.81
A14	10.32	620,694	45%	279,312	12.36	4.14	8.22	72.4	1.23
A16	3.23	213,537	45%	96,092	13.32	8.00	5.32	127.5	0.85
A18	15.41	505,370	45%	227,417	10.58	5.55	5.03	82.0	0.92
ZONE A	7.24	2,070,477		768,647	11.41	5.27	6.14	82.1	1.00
B3	17.83	1,204,217	85%	1,023,584	14.52	5.35	9.17	72.5	0.41
B4	4.23	365,670	70%	255,969	16.82	6.94	9.88	107.4	0.75
B5	16.42	2,851,756	85%	2,423,993	12.38	4.27	8.11	71.8	0.52
B6	4.83	292,049	70%	204,434	9.85	3.87	5.98	68.5	1.02
B7	11.55	835,689	85%	710,336	12.02	4.18	7.84	61.9	0.67
B8	3.41	202,202	70%	141,541	9.08	3.95	5.13	84.2	0.99
ZONE B	9.71	5,751,583		4,759,857	12.82	4.61	8.21	72.6	0.57
Q5	3.58	940,199	70%	658,139	10.30	3.94	6.36	62.8	0.58
Q6	16.79	990,749	45%	445,837	8.84	3.65	5.19	58.7	0.64
Q7	4.93	530,149	0%	0	8.79	3.38	5.41	46.5	0.81
ZONE O	8.43	2,461,097		1,103,976	9.71	3.82	5.89	61.1	0.60
LOWER	5.45	10,283,157		6,632,481	12.14	4.55	7.59	71.8	0.62
TOTAL		21,369,532		14,864,890	11.52	5.03	6.49	74.3	0.76

Table 3.6GRIZZLY MINING INVENTORY ABOVE 9 % CUTOFFWITH 10 % DILUTION, ADJUSTED BY MICON



4.0 PRODUCTION SCENARIOS

As stated previously, Micon's scope of work is to provide a preliminary economic analysis of the Grum and Grizzly deposits under four scenarios:

- Case 1, mining both deposits simultaneously and processing at the existing mill.
- Case 2, mining both deposits simultaneously and processing at a new mill.
- Case 3, mining the Grizzly deposit only and processing at a new mill.
- Case 4, mining the Grum deposit only and processing at a new mill.

For each of these cases, Micon made assumptions based on existing mill capacity, estimated reserves and resources, sustainable mining rates and economic project life. The resulting production scenarios are basic to all of the other design, costing and evaluation sections. They are described and tabulated below.

In each case it is assumed that the pit will require some waste stripping in project year 2 and will achieve only 90 % of rated production in the first full year (project year 3); the mine will require three full years for exploration and development and will achieve only 70 % of rated production in its first full year (project year 4); and a new mill will take two years to construct and will be started up using stockpiled low grade material.

4.1 CASE 1

The capacity of the existing processing plant is scheduled at 4.0 Mt/a. ARMC achieved about 4.2 Mt/a processing Grum ore after installing the additional grinding circuit.

As discussed in Section 5.X, production from the Grizzly underground mine is limited to 1.0 Mt/a. It begins in project year 4 and spreads over 16 years. By difference, the maximum Grum pit ore production is 3.0 Mt/a but, at this rate, the reserve is exhausted in project year 9. For the remaining 10 years of limited Grizzly production, it is assumed that some process circuits and cells will be shut down in order to treat 1.0 Mt/a effectively.

The Case 1 production scenario is set out, by years, in Table 4.1.

4.2 CASE 2

In this scenario, a new mill is to be built to treat ore from simultaneous mining of Grum and Grizzly. The location is assumed to be close to Grum because this is the larger resource and it is not far from Vangorda pit for tailings disposal. The capacity is set at 2.25 Mt/a (1.0 from Grizzly and 1.25 from Grum) in order to minimize capital while providing a similar 15 to 16 year operating life for each deposit.



The Case 2 production scenario is set out, by years, in Table 4.2.

4.3 CASE 3

For Grizzly only, the mill is located near the mine shaft to avoid coarse ore haulage and is sized to the mining limit of 1.0 Mt/a. The Case 3 production scenario is set out, by years, in Table 4.3.

4.4 CASE 4

For Grum only, the new mill is sited as in Case 2. The capacity selected is 2.0 Mt/a which provides a 10 year production life. The Case 4 production scenario is set out, by years, in Table 4.4.

It should be noted that no attempt has been made to optimize the throughput rates in any of these cases. It was outside the limited scope of this study, and the Grizzly deposit is not sufficiently well explored to justify detailed planning. Higher production rates could be expected to provide economies of scale. However, considering the current difficulty of financing mining ventures, Micon leaned toward lower capital costs and conservative production targets rather than lower unit operating costs.



Table 4.1 FARO PROJECT PRODUCTION SCENARIOS CASE 1 - GRUM + GRIZZLY, EXISTING MILL

PRO	JECT	YEAR	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTALS
GRUM PIT MINING																						
Ore Mined		kt	0	2,700	3,000	3,000	3,000	3,000	3,000	1,930	0	0	0	0	0	0	0	0	0	0	0	19,630
Ore Grades	Zn	%		4.84	4.73	4.44	4.30	3.83	3.83	3.83												4.27
	Pb	%		3.04	3.01	2.68	2.57	2.18	2.18	2.18												2.56
	Ag	g/t		50.8	50.1	45.8	43.9	37.0	37.0	37.0												43.3
	Au	g/t		0.80	0.78	0.81	0.76	0.54	0.54	0.54												0.69
Waste Mined		kt	6,000	20,000	20,000	19,000	17,000	14,000	11,000	3,550	0	0	0	0	0	0	0	0	0	0	0	110,550
Total Mined		kt	6,000	22,700	23,000	22,000	20,000	17,000	14,000	5,480	0	0	0	0	0	0	0	0	0	0	0	130,180
Stripping Ratio		t/t		7.4	6.7	6.3	5.7	4.7	3.7	1.8												5.6
GRIZZLY U/G MINING	3																					
Room & Pillar		70%	0	0	267	384	400	58	146	110	0	0	0	0	0	191	353	708	58	142	0	2,816
R & P without 2nd Pass		45%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	67	0	0	0	163
Drift, Bench & Fill		85%	0	0	200	570	600	942	854	890	1,000	1,000	1,000	1,000	1,000	707	426	225	350	169	0	10,933
Drift & Bench Only		45%	0	0	233	46	0	0	0	0	0	0	0	0	0	102	125	0	242	204	0	953
Total Ore Mined		kt	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Ore Grades	Zn	%			7.74	6.98	6.91	6.79	6.52	6.30	6.10	6.10	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05		6.49
	Pb	%			5.94	4.96	5.08	5.26	5.74	5.48	5.19	5.19	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91		5.03
	Ag	g/t			80.5	73.0	73.2	79.1	80.5	79.1	75.2	75.2	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8		74.3
	Au	g/t			1.06	0.73	0.65	0.77	0.77	0.78	0.76	0.76	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75		0.76
MILL FEED																						
Stockpile		kt	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	368
Grum Ore		kt	0	2,700	3,000	3,000	3,000	3,000	3,000	1,930	0	0	0	0	0	0	0	0	0	0	0	19,630
Grizzly Ore		kt	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Total Feed		kt	368	2,700	3,700	4,000	4,000	4,000	4,000	2,930	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	34,863
Ore Grades	Zn	%	3.86	4.84	5.30	5.07	4.95	4.57	4.50	4.67	6.10	6.10	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05		5.21
	Pb	%	2.11	3.04	3.56	3.25	3.19	2.95	3.07	3.30	5.19	5.19	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91		3.61
	Ag	g/t	47	50.8	55.8	52.6	51.2	47.5	47.9	51.4	75.2	75.2	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8		56.6
	Au	g/t	n.a.	0.80	0.83	0.79	0.74	0.60	0.60	0.63	0.76	0.76	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75		0.71



Table 4.2 FARO PROJECT PRODUCTION SCENARIOS CASE 2 - GRUM + GRIZZLY, NEW MILL

PRO	DJECT	YEAR	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTALS
GRUM PIT MINING																						
Ore Mined		kt	0	1,125	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,005	0	0	19,630
Ore Grades	Zn	%		4.98	4.73	4.73	4.73	4.68	4.42	4.42	4.42	4.41	3.83	3.83	3.83	3.83	3.83	3.83	3.83			4.27
	Pb	%		3.10	3.01	3.01	3.01	2.95	2.66	2.66	2.66	2.66	2.18	2.18	2.18	2.18	2.18	2.18	2.18			2.56
	Ag	g/t		51.8	50.1	50.1	50.1	49.31	45.52	45.52	45.52	45.47	37.00	37.00	37.00	37.00	37.00	37.00	37.00			43.3
	Au	g/t		0.82	0.78	0.78	0.78	0.79	0.82	0.82	0.82	0.82	0.54	0.54	0.54	0.54	0.54	0.54	0.54			0.69
Waste Mined		kt	4,000	9,000	9,000	9,000	8,500	8,500	8,000	8,000	7,500	7,000	6,000	6,000	5,500	5,000	4,500	3,500	1,550	0	0	110,550
Total Mined		kt	4,000	10,125	10,250	10,250	9,750	9,750	9,250	9,250	8,750	8,250	7,250	7,250	6,750	6,250	5,750	4,750	2,555	0	0	130,180
Stripping Ratio		t/t		8.0	7.2	7.2	6.8	6.8	6.4	6.4	6.0	5.6	4.8	4.8	4.4	4.0	3.6	2.8	1.5			5.6
GRIZZLY U/G MINING	3																					
Room & Pillar		70%	0	0	267	384	400	58	146	110	0	0	0	0	0	191	353	708	58	142	0	2,816
R & P without 2nd Pass		45%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	96	67	0	0	0	163
Drift, Bench & Fill		85%	0	0	200	570	600	942	854	890	1,000	1,000	1,000	1,000	1,000	707	426	225	350	169	0	10,933
Drift & Bench Only		45%	0	0	233	46	0	0	0	0	0	0	0	0	0	102	125	0	242	204	0	953
Total Ore Mined		kt	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Ore Grades	Zn	%			7.74	6.98	6.91	6.79	6.52	6.30	6.10	6.10	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05		6.49
	Pb	%			5.94	4.96	5.08	5.26	5.74	5.48	5.19	5.19	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91		5.03
	Ag	g/t			80.5	73.0	73.2	79.1	80.5	79.1	75.2	75.2	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8		74.3
	Au	g/t			1.06	0.73	0.65	0.77	0.77	0.78	0.76	0.76	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75		0.76
MILL FEED																						
Stockpile		kt	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	368
Grum Ore		kt	0	1,125	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1.005	Ő	Ő	19.630
Grizzly Ore		kt	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Total Feed		kt	368	1,125	1,950	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	1,655	515	0	34,863
Ore Grades	Zn	%	3.86	4.98	5.81	5.73	5.70	5.62	5.35	5.25	5.17	5.16	4.84	4.84	4.90	4.92	5.01	5.06	4.96	6.05	Ĩ	5.21
	Pb	%	2.11	3.10	4.06	3.88	3.93	3.98	4.03	3.91	3.78	3.78	3.51	3.51	3.49	3.42	3.34	2.94	2.88	3.91		3.61
	Ag	g/t	47	51.8	61.0	60.3	60.4	62.5	61.1	60.4	58.7	58.7	54.0	54.0	53.9	53.4	54.2	49.0	46.3	66.8		56.6
	Au	g/t	n.a.	0.82	0.88	0.76	0.72	0.78	0.80	0.80	0.79	0.79	0.64	0.64	0.63	0.64	0.61	0.65	0.59	0.75		0.71



Table 4.3 FARO PROJECT PRODUCTION SCENARIOS CASE 3 - GRIZZLY ONLY, NEW MILL

PRO	JECT Y	(EAR	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTALS
GRIZZLY U/G MIN	ING																					
Room & Pillar		70%	0	0	267	384	400	58	146	110	0	0	0	0	0	191	353	708	58	142	0	2,816
R & P without 2nd Pa	ass	45%	0	0	207	0	400	0	140	0	0	0	0	0	0	0	96	67	0	0	0	163
Drift, Bench & Fill	400	85%	Ő	ő	200	570	600	942	854	890	1,000	1,000	1,000	1,000	1,000	707	426	225	350	169	Ő	10,933
Drift & Bench Only		45%	Ő	ő	233	46	000	0	0.0	0	1,000	1,000	1,000	1,000	1,000	102	125	0	242	204	0	953
Total Ore Mined		kt	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000			1,000	650	515	0	14,865
Ore Grades	Zn	%	Ĩ	-	7.74	6.98	6.91	6.79	6.52	6.30		· · · ·	· · ·	· · ·		6.30	· ·	6.61	6.72	6.05	÷	6.49
ore ondes	Pb	%			5.94	4.96	5.08	5.26	5.74	5.48	5.19						4.79	3.89	3.96	3.91		5.03
	Ag	g/t			80.5	73.0	73.2	79.1	80.5	79.1	75.2	75.2	75.2			73.8		63.9	60.8	66.8		74.3
	Au	g/t			1.06	0.73	0.65	0.77	0.77	0.78	0.76							0.79	0.65	0.75		0.76
MILL FEED																						
Stockpile		1.t	0	100	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	368
Grum Ore		KL Let	0	100	208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	308
Grizzly Ore		KL Let	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Total Feed		ki kt	0	100	968	1,000	1,000	1,000	1,000									1,000	650	515	0	14,803
Ore Grades	Zn	кі 0%	0	3.86	6.67	6.98	6.91	6.79	6.52	6.30		· · · ·		· · ·	· · ·	6.30		6.61	6.72	6.05	0	6.42
OIC GIAGES	Pb	70 0/6		2.11	4.88	4.96	5.08	5.26	5.74	5.48	5.19						4.79	3.89	3.96	3.91		4.96
	Ag	γ0 α/t		47	71.21	73.0	73.2	79.1	80.5	79.1	75.2	75.2				73.8		63.9	60.8	66.8		73.6
	Au	g/t g/t		+ / n.a.	0.93	0.73	0.65	0.77	0.77	0.78							0.69	0.79	0.65	0.75		0.77



Table 4.4 FARO PROJECT PRODUCTION SCENARIOS CASE 4 - GRUM ONLY, NEW MILL

PR	ROJECT Y	EAR	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTALS
GRUM PIT MINI	NG																					
Ore Mined		kt	0	1,810	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,820	0	0	0	0	0	0	0	0	19,630
Ore Grades	Zn	%		4.89	4.73	4.73	4.43	4.42	4.21	3.83			3.83									4.27
	Pb	%		3.06	3.01	3.01	2.68	2.66	2.49	2.18	2.18	2.18	2.18									2.56
	Ag	g/t		51.1	50.1	50.1	45.8	45.5	42.6	37.0	37.0	37.0	37.0									43.30
	Au	g/t		0.80	0.78	0.78	0.82	0.82	0.72	0.54	0.54	0.54	0.54									0.69
Waste Mined		kt	4,000	13,500	13,500	13,000	12,500	12,000	11,500	10,500	9,000	6,500	4,550	0	0	0	0	0	0	0	0	110,550
Total Mined		kt	4,000	15,310	15,500	15,000	14,500	14,000	13,500	12,500	11,000	8,500	6,370									
Stripping Ratio		t/t		7.5	6.8	6.5	6.3	6.0	5.8	5.3	4.5	3.3	2.5									5.6
MILL FEED																						
Stockpile		kt	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	368
Grum Ore		kt	0	1,810	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,820	0	0	0	0	0	0	0	0	19,630
Grizzly Ore		kt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Feed		kt	368	1,810	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	1,820	0	0	0	0	0	0	0	0	19,998
Ore Grades	Zn	%	3.86	4.89	4.73		4.43	4.42	4.21	3.83												4.26
	Pb	%	2.11	3.06	3.01		2.68	2.66	2.49													2.55
	Ag	g/t	47	51.1	50.1	50.1	45.8	45.5	42.6													43.4
	Au	g/t	n.a.	0.80	0.78	0.78	0.82	0.82	0.72	0.54	0.54	0.54	0.54									0.69



5.0 MINING

5.1 GRUM OPEN PIT MINE

The Grum open pit was mined by ARMC to a depth of approximately 200 m. It is partly flooded and a portion of the high wall has failed and slumped into the pit. Before normal operations can resume, it will be necessary to establish dewatering wells around the failed area to remove pressure from that wall, pump out and treat the accumulated seepage water, remove overburden and the sloughed material, and resurface the benches, ramps and haul roads.

5.1.1 Production Plan

A number of designs have been prepared at various cut-off grades as discussed in Section 3.4. Micon has decided to evaluate the project based on ARMC's total Grum mining reserves, as of January 21, 1998, but with the ore tonnages reduced by 10 percent due to long-term reconciliation problems. This plan was built in four stages, including three pushbacks to the northwest, which increase the depth from 200 to 300 m, the width by up to 100 m and the length by 400 m. As shown in Table 3.3, the total reserve is 19.63 Mt of ore plus 110.55 Mt of waste rock for a stripping ratio of 5.6:1. This does not include the estimated 7.0 Mm³ of overburden and loose material to be removed from the failed wall.

The production schedules are different for each of the four cases assessed as set out in Tables 4.1 to 4.4 in the previous section.

5.1.2 Mining Equipment

Existing conditions, such as the width of the haulage ramp and the dimensions of the truck shop bays, will limit the size of equipment that can be used efficiently. Also, the rate of production will be limited by the capacity of the existing mill in Case 1 and, in the other cases, is likely to be less rather than more in order to minimize capital and obtain a reasonable project life. Thus, the mining equipment is likely to be similar to the fleet used by the previous operators.

The primary choices are as follows:

Buy new equipment Lease new equipment Buy used equipment Contract out the mining operation



Each option has advantages and disadvantages. The first has the highest capital but lowest operating cost. Leasing minimizes front-end capital but increases the total cost. Buying used equipment reduces capital expenditure but usually results in lower availability and higher maintenance costs. If a suitably qualified and experienced contractor has equipment available, this can be a timely and cost-effective solution, though operating costs will be higher to cover depreciation, overheads and profit margin, and contractual disputes may arise. Also, where housing is in short supply, the contractor can be required to provide accommodation and catering.

For this study it is assumed that the new owner would buy and operate good, used equipment. Table 5.1 shows the equipment used by ARMC for mining over 30 Mt/a (including waste), and that proposed by Micon for lesser tonnages in the cases considered in this study. Note that, while Cases 2 and 4 have the same equipment quantities, it is assumed that for Case 2 (10 Mt/a) it would work only two shifts per day. The Grum pit is not mined in Case 3.

EQUIPMENT TYPE	ARMC	PROP	OSED EQUIPM	TENT
	PLAN	CASE 1	CASE 2	CASE 4
Haul Truck, 180 t	18	14	10	10
Hydraulic Shovel, 25 m ³	4	3	2	2
Drill Rigs	3	3	2	2
Front-end Loader, 20 m ³	2	2	1	1
Front-end Loader, 6 m ³	1	1	1	1
Grader, 4.9 m blade	4	3	2	2
Track Dozer, 770 hp	2	2	1	1
Track Dozer, 350 hp	2	2	1	1
Rubber Tired Dozer, 300 hp	1	1	1	1
Backhoe	1	1	1	1

Table 5.1 Grum Pit Equipment List

The proposed equipment has been selected by prorating from the ARMC plan and is considered reasonable for the purpose of comparative cost estimating. Obviously, a thorough analysis of new mining plans, bench schedules and haul profiles would be required before a new owner could select and purchase equipment.



5.2 GRIZZLY UNDERGROUND MINE

5.2.1 Historical Assessments

The Grizzly deposit is relatively flat and tabular, lying between 500 and 900 m below surface. It has been explored by only 57 holes because of the expense of drilling to such depths. The dip ranges from 20° to 35° to the southwest and the hanging wall rock is weak. Thus, mining is likely to be fairly difficult and expensive.

The Grizzly deposit has been the subject of numerous studies and evaluations, commissioned by Curragh Resources and ARMC, up to the Pre-feasibility Study at the end of 1996. The consensus seemed to be that the tonnage and grade of the resource was sufficient to justify further work but that an underground exploration stage was necessary prior to detailed design and full feasibility assessment. This would check the continuity of grades and the degree of vertical displacements, and generally increase the density of the database.

Micon personnel were familiar with some of the earlier studies, and obtained a copy of Fritz Prugger's Dy Project report of April 1996 which compiled and discussed the results of those studies. Micon also obtained a copy of a report by Piteau Associates which became chapters 6 and 7 of the Pre-feasibility Study and which discussed the proposed exploration development, mining methods and extraction ratios.

5.2.2 Current Assessment

For the purposes of this evaluation, Micon has made the following assumptions:

- that the twinned exploration declines from a portal above Blind Creek can be permitted, driven and used to drill off the deposit and take a bulk sample;
- that a circular, concrete lined shaft will be sunk for production, men and materials hoisting, with the decline serving as an emergency exit;
- that at least one bored ventilation raise will be required;
- that the mining method in thinner areas (up to 6.5 m thick) will be room and pillar with retreat pillar robbing to achieve 70 % extraction;
- that the method in thicker areas will be 'concrete pillar mining', that is top cutting and benching of rooms up to 80 m long, tight filling with cemented tailings backfill, then top cutting and benching of the intervening pillars and filling with waste rock and tailings to achieve 85 % extraction;
- that all headings can be driven on a component of dip so that gradients are limited to 18%.



Micon reviewed the plans and sections provided in the Piteau report. There are two separate 'ore' horizons known as Upper-G and Lower-G, and in some places ore grade blocks overlap. Micon concluded that mining on one horizon would interfere with subsequent mining on the other and that extraction should be reduced or eliminated depending on the separation and the value of the blocks. Also, those blocks in which the addition of dilution had reduced the average grade below 9 % Pb+Zn were eliminated. One exception was block Q6 with 8.84 % Pb+Zn and a thickness of more than 16 m. It was assumed that 45 % of this block could be extracted cheaply by mining the rooms only, without backfilling, and leaving the pillars.

The resultant 'mineable resource' was 14.86 Mt at 11.52 % lead plus zinc, as set out in Table 3.6 in the previous section. Looking only at mine life, annual production rates of between one and two million tonnes might be considered (i.e. 8 to 15 years). One of the previous studies contemplated a rate of 7,500 t/d but most were in the range of 2,500 to 3,500 t/d. Considering the geometry of this deposit, Micon agrees that a production rate of 3,000 t/d is appropriate for a preliminary evaluation. Assuming a 7day/ week operation at this remote location, 3,000 t/d is approximately 1.0 Mt/a.

5.2.3 Mining Schedule

Previous studies indicate a three year period from commitment to exploration through to start of production. This is considered reasonable.

Detailed mine planning cannot begin until the underground exploration program is well advanced. For this evaluation, Micon considered using the average grade of the resource in each year of the cash flow. However, given the fact that every new mine strives to maximize return by taking higher than average grades in the early years, Micon prepared the mining schedule set out in Table 5.2. It attempts to progress through the deposit in a logical manner but is quite arbitrary in that it has no basis in terms of shaft location, mine layout, equipment selection nor basic engineering.

The schedule shows only 700,000 tonnes in the first production year because it takes time to start up multiple crews and workplaces and establish routines. Similarly, there is a tail off in the last couple of years as development is completed, zones become mined out and the number of workplaces diminishes. Again, this is based on experience, not detailed engineering.



Table 5.2GRIZZLY MINING SCHEDULE

	PI	RODUCTION		1 4	2 5	3	4	5 8	6	7 10	8 11	9 12	10 13				14 17	15 18	16 19
Block	Zn %	tonnes	Code		-													-	
UPPER - G A1	7.83	430,063	RP		218,271	211,792													
A2	4.55	246,553	RP		210,271	188,208	58,345												
A3	6.96	205,688	в				205,688												
A4	4.91	2,193,049	В				85,967	300,000	300,000	300,000	300,000	300,000	300,000	300,000	7,082				
A5	5.19	190,814	RP												190,814				
A6	6.10	256,396	RP													52,502	203,894		
A7	5.49	4,376,094	в	200,000	300,000	300,000	350,000	400,000	400,000	400,000	400,000	400,000	400,000	350,000	350,000	126,094	· ·		
A8	9.02	266,589	RP	266,589	,	,	·	,	,	· ·	,	, i	, i	,	· · ·	,			
A9	4.56	0																	
B1	6.05	0																	
B2	6.96	67,163	pRP														67,163		
LOWER - 0	3																		
A11	5.45	0																	
A13	4.63	165,827	RP		165,827														
A14	8.22	279,312	pB	233,410	45,902														
A16	5.32	96,092	pRP													96,092			
A18	5.03	227,417	pB												102,104	125,313			
В3	9.17	1,023,584	в		270,000	300,000	300,000	153,584											
B4	9.88	255,969	RP					146,416											
B5	8.11	2,423,993	В						190,447	300,000	300,000	300,000	300,000	350,000	350,000	300,000			
B6	5.98	204,434	RP														204,434		
B7	7.84	710,336	В														190,963	350,000	169,373
B8	5.13	141,541	RP																141,541
Q5	6.36	658,139	RP													300,000	300,000	58,139	
Q6	5.19	445,837	pB															241,861	203,976
ANNUAL '	TOTALS	14,864,890		700,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	650,000	514,890
GRADES	Zn %			7.74	6.98	6.91	6.79	6.52	6.30	6.10	6.10	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05
	Pb %			5.94	4.96	5.08	5.26			5.19	5.19	5.19				4.79	3.89	3.96	3.91
	Ag g/t			80.5	73.0	73.2	79.1	80.5		75.2	75.2	75.2		75.1	73.8		63.9	60.8	66.8
	Au g/t			1.06	0.73	0.65	0.77	0.77	0.78	0.76	0.76	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75

METHOD CODES:

RP Room & Pillar

pRP R & P without 2nd Pass B Drift, Bench & Fill pB Drift & Bench Only 70% Extraction45% Extraction85% Extraction45% Extraction

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6.0 PROCESSING AND INFRASTRUCTURE

6.1 METALLURGY

Historical metallurgical testwork results and operating data from the metallurgical facility on site provide a basis to predict the future metallurgical performance of Grum ore. An estimate of metallurgical performance of ore from the Grizzly deposit can be gleaned from bench-scale testwork performed on drill core samples by Kamloops Research and Assay Laboratory in 1982 and Lakefield Research in 1992.

6.1.1 Grum

The average results from pilot and locked cycle flotation testwork performed between 1978 and 1996 by Kerr Addison Mines, Curragh Resources and Anvil Range Mining Corporation are summarized in Table 6.1 below.

	Head Grade	Lead Cor	ncentrate	Zinc Cor	icentrate
	Pb(%) + Zn(%)	Pb (%)	Recovery (%)	Zn (%)	Recovery
					(%)
Average	12	64	83	55	82
Range	8-16	60-67	77 - 87	53 - 57	79 - 84

 Table 6.1

 Average Historic Testwork Results

The testwork indicated that Grum ore required finer concentrate regrinding than Faro ore, which had historically been treated at the concentrator, in order to achieve a similar metallurgical response. Prior to the resumption of operations in 1995, ARMC modified the concentrator flowsheet. The adopted circuit, specifically designed to process Grum ore, included three stages of lead concentrate regrinding to a fineness of 80 % passing 13 microns and one stage of zinc regrinding to a fineness of 80 % passing 18 microns. Additional stages of flotation cleaning were also included in the Grum flowsheet.

Grum ore was fed to the existing metallurgical facility during the most recent operating campaigns (August 1995 to March 1997, October 1997 to February 1998). The average metallugical results for 1996 and 1997, when the concentrator feed comprised mainly of Grum material, are summarized in Table 6.2.



	Feed G	ade		Lead Cor	ncentrate			Zinc Co	ncentrate
				Grade		Recove	ry (%)		
Date	Pb	Zn	Ag	Pb	Ag	Pb	Ag	Zn	Recovery
	(%)	(%)	(g/t)	(%)	(g/t)			(%)	(%) Zn
Nov95–Dec 96 ¹	3.05	5.14	51.7	60.7	777	76.7	57.9	51.1	71.4
Jan 97–Nov 97 ²	2.18	3.66	35.8	60.3	711	73	54.0	50.7	67.5

Table 6.2Concentrator Operating Results

¹Fourteen month period.

² Average data for January to March, October and November only (5 months)

The ore processed in 1997 was mainly low-grade material and not a good representation of typical Grum ore. However, even the results obtained during 1996 were somewhat worse than the results achieved in the laboratory. Although detailed monthly operating data were not obtained for 1996 during this review, it has been reported in previous studies that, with the assistance of various consultants and certain modifications in the plant, the metallurgical performance improved throughout the year. For example, the results obtained in December 1996, when treating mainly Grum ore containing approximately 7 % combined lead and zinc (2.6 % and 4.6 % respectively), were:

Lead concentrate grade	-	60.5 %
Lead recovery	-	77.6 %
Zinc concentrate grade	-	51.4 %
Zinc recovery	-	74.4 %

Micon believes that these results are a reasonable estimate of what would be achieved using the existing plant while processing typical Grum ore of a combined lead plus zinc head grade of about 7 %. Micon considers that for the purposes of this review, projected recoveries for Grum ore of lead, zinc, silver and gold of 77 %, 74 %, 58 % and 30 % respectively, are reasonable.

6.1.2 Grizzly

A series of bench-scale laboratory tests were performed on samples of Grizzly ore by Kamloops Research and Assay Laboratory (KRAL) in 1982 and Lakefield Research (LFR) in 1992.



The metallurgical investigation on drill core performed by KRAL included preliminary testwork to estimate the required grinding and flotation parameters followed by locked cycle tests. These tests were performed on five composite samples each representing different ore types. These ore types were G, E, DC, A and K. A weighted average of the locked cycle tests results is presented in Table 6.3.

		Ana	lysis			Distributi	on (%)	
	Pb (%)	Zn(%)	Ag (g/t)	Au (g/t)	Pb	Zn	Ag	Au
Lead Con.	56.4	8.1	768	5.16	88.7	10.0	81	33.9
Zn Con	1	56.4	-	-	1.9	84.5	-	-
Head	5.3	6.7	79	1.4	100.0	100.0	100.0	100

 Table 6.3

 Weighted Average of KRAL Locked Cycle Tests Performed on Grizzly Ore

This testwork indicated that, as with Grum ore, a relatively fine grind would be required to ensure good metallurgical results. The preliminary testwork also indicated that the metallurgy did not significantly alter between the different ore types. Of note was that the mercury content of the zinc concentrates produced from the different ore types was consistently about 500 g/t, which could affect the marketability of the product.

The metallurgical testwork performed by LFR was conducted on a composite drill core sample representing a 13m ore intersection of hole 91DY05 (hole depth 588.5m to 601.5m). This sample was reported to be typical of the B Zone, however, it was noted that it contained a lower proportion of barite and massive pyrite than the overall deposit.

The flowsheet and reagent scheme used during the LFR testwork was based on the procedure developed for the treatment of Grum ore. The results of the locked cycle test performed on the composite sample is presented in Table 6.4.



		Analysis		D	Distribution (%)	
	Pb (%)	Zn(%)	Ag (g/t)	Pb	Zn	Ag
Lead Con.	60.1	10.9	1077	87.4	7	81.1
Zn Con	1.11	57.2	43.6	4.0	90.8	8.1
Total tails	0.56	0.33	13.6	8.6	2.3	10.8
Head	4.89	11.2	94.7	100	100	100

Table 6.4 Summary of Results from LFR Locked Cycle Test

The results from the LFR testwork program indicated that the basic flowsheet used for Grum would be suitable for Grizzly ore with the exceptions of a coarser lead concentrate regrind and the substitution of sodium carbonate for lime as the pH modifier in the lead flotation circuit.

Taking into the account the relatively poor historical performance of the concentrator when processing Grum ore compared to the results achieved in the laboratory, Micon considers that the following recoveries are reasonable estimates of potential Grizzly ore metallurgical operating results.

Lead concentrate grade	- 60 %
Lead recovery	- 81 %
Silver recovery	- 60 %
Gold recovery	- 30 %
Zinc concentrate grade	- 51 %
Zinc recovery	- 81 %



7.0 CAPITAL COST ESTIMATES

The capital cost estimates used in this evaluation study are order of magnitude, having an accuracy limit of plus or minus 25 percent.

7.1 MINE CAPITAL ESTIMATES

7.1.1 Grum Pit Capital

Exhibit Q in the twenty second report of the Interim Receiver presents an estimate of the costs of putting the Grum pit and Faro mill back into operation. Micon's adaptation of those estimates is set out in Table 7.1 below.

The mining equipment fleet which was used by both Curragh and ARMC was sold off and must be replaced. For feasibility studies which are to be submitted to securities commissions, capital cost estimates must provide for all new equipment unless orders have been placed for specific used items. However, it is considered almost certain that any mining company which re-opens the Faro property will favour good, used equipment over new. For this evaluation study, Micon accepted the ARMC equipment list and the principle of purchasing good used equipment, approximately five years old. In Micon's experience, such equipment should cost between 50 % and 60 % of new price. On that basis, Micon considered it necessary to adjust some of the unit costs and to include a contingency.

Other Grum capital costs, taken from Exhibit Q, include the following:

- Grum Truck Shop; concrete floor, repairs and re-equipping;
- Wall Dewatering; ditches, wells and pumps, operation and maintenance;
- Pit Dewatering; barge system, pipeline, power and maintenance;
- Overburden Stripping; sloughed material from the northeast wall of the pit;
- Waste Rock Stripping; to expose ore.

For the proposed pit mining rates in Cases 1, 2 and 4, the equipment quantities have been adjusted as explained in Section 5.1 and, in Cases 2 and 4, the pre-production stripping quantity has also been reduced.



ТҮРЕ	UNIT	ARM	IC PLAN	0	CASE 1	(CASE 2		CASE 4
	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
Total Mined, Mt/a			>30		23		>10		>15
MOBILE EQUIPMENT									
Haul Truck, 180 t	1,500	18	27,000	14	21,000	10	15,000	10	15,000
Hydraulic Shovel, 25 m ³	4,500	4	18,000	3	13,500	2	9,000	2	9,000
Drill Rigs	333	3	1,000	3	1,000	2	667	2	667
Front-end Loader, 20 m3	1,500	2	3,000	2	3,000	1	1,500	1	1,500
Front-end Loader, 6 m3	500	1	500	1	500	1	500	1	500
Grader, 4.9 m blade	400	4	1,600	3	1,200	2	800	2	800
Track Dozer, 770 hp	1,000	2	2,000	2	2,000	1	1,000	1	1,000
Track Dozer, 350 hp	500	2	1,000	2	1,000	1	500	1	500
Rubber Tired Dozer, 300 hp	400	1	400	1	400	1	400	1	400
Backhoe	200	1	200	1	200	1	200	1	200
Service Vehicle Allowance	500	Lot	500	Lot	500	Lot	400	Lot	400
Contingency			8300		6700		4533		4533
Sub-total Mobile Equip.			63,500		51,000		34,500		34,500
OTHER COSTS									
Grum Truck Shop		Lot	2,000	Lot	2,000	Lot	2,000	Lot	2,000
Wall Dewatering		Lot	2,000	Lot	2,000	Lot	2,000	Lot	2,000
Pit Dewatering		Lot	1,500	Lot	1,500	Lot	1,500	Lot	1,500
Stripping Overburden	\$1.50/m3	7M	10,500	7M	10,500	7M	10,500	7M	10,500
Stripping Waste Rock	\$1.80/t3	6M	10,800	6M	10,800	4M	7,200	4M	7,200
Sub-total Other Costs			26,800		26,800		23,200		23,200
TOTAL MINE CAPITAL			90,300		77,800		57,700		57,700

Table 7.1 Grum Pit Capital Estimate (\$'000s)

7.1.2 Grizzly Mine Capital

The order of magnitude estimate of capital costs to bring the Grizzly mine into production is shown in Table 7.2. It is drawn, mainly, from the CMD Studies of April, 1989 and October, 1990, with contingencies removed and 26.5 % escalation added (from the Canadian Mining Cost Service index for underground mine capital). The ventilation and miscellaneous costs are taken from another Micon estimate, and a global contingency has been added.



DESCRIPTION	\$(000's)
Ramp Access from Blind Creek	11800
Exploration Development, Diamond Drilling, Bulk Sampling	5100
Surface Plant, including headframe and two hoists	7300
Sink and Equip 4.75 m dia. Production and Service Shaft	16950
Bored Vent. Rse., Fans and Heating Plant	1400
Mining Equipment for 3,000 t/d	6650
Backfill System, Power & Communications and Miscellaneous	2000
Engineering, Procurement and Construction Management	2500
Contingency	8300
Total Estimate	62000

Table 7.2Grizzly Mine Capital Cost Estimate

7.2 PROCESS AND INFRASTRUCTURE CAPITAL ESTIMATES

7.2.1 Basis of Estimates

Order of magnitude capital cost estimates for the surface facilities and associated infrastructure have been developed for the four scenarios reviewed based on the following criteria:

Case 1: Grum plus Grizzly, Existing Mill

- Refurbishment of the existing processing facility and associated infrastructure at Faro and general upgrades and repairs to the mill, maintenance and administration buildings.
- Extensions of the existing haul road from the Vangorda pit to the Grizzly mine.
- Extensions of the mine power supply from the Faro mine site to the Grizzly mine and a new substation to satisfy the Grizzly mine power requirements.



- New potable and mine water supply, storage and distribution systems at the Grizzly mine.
- General Grizzly mine roads and site work.

Case 2: Grum plus Grizzly, New Mill

- New mill and mine surface administration building, dry, laboratory, maintenance shop, reagent store and general equipment store between the Grum and Vangorda pit areas. New shop equipment, shop tools and office equipment at the new facilities.
- New surface operation and maintenance vehicles.
- Extension of the mine power supply and new substations adjacent to the new mill site and at the Grizzly mine site.
- New haul road connecting the Grizzly mine with the new processing facility. Minor haul road extension from the Grum mine to the nearby new mill area.
- New potable, mine water and process water supply, storage and distribution systems at the new mill and at the grizzly mine.
- Heating fuel storage facility at the new mill site.
- New overland tailings line discharging into the Vangorda open pit. It is assumed that the Vangorgda pit would be a suitable tailings disposal site and its capacity would be sufficient to contain the life of mine volume of tailings.
- General Grizzly mine roads and site work.

Case 3: Grizzly Only, New Mill

- New mill and mine surface administration building, dry, laboratory, maintenance shop, reagent store and general equipment store at the Grizzly mine. New shop equipment, shop tools and office equipment at the new facilities.
- New surface operation and maintenance vehicles.



- Extension of the mine power supply and new substation at the Grizzly mine area servicing both the new mill and the mine.
- New potable, mine and process water supply, storage and distribution systems.
- New heating fuel storage facility at the new mill site.
- New overland tailings line discharging into the Vangorda open pit. It is assumed that the Vangorgda pit would be a suitable tailings disposal site and its capacity would be sufficient to contain the life of mine volume of tailings. This eliminates the need for a new tailings storage facility at the Grizzly mine area.
- General mine site roads and earthworks.

Case 4: Grum Only, New Mill

- New mill and mine surface administration building, dry, laboratory, maintenance shop, reagent store and general equipment store at the Grum pit area. New shop equipment, shop tools and office equipment will be required at the new facilities.
- New surface operation and maintenance vehicles.
- Extension of the mine power supply and new substation adjacent to the new mill site.
- Minor haul road extension from the Grum mine to the nearby new mill area.
- New potable and process water supply, storage and distribution systems.
- New heating fuel storage facility at the new mill site.
- New overland tailings line discharging into the Vangorda open pit. It is assumed that the Vangorgda pit would be a suitable tailings disposal site and its capacity would be sufficient to contain the life of mine volume of tailings.

7.2.2 Case 1 Capital Cost Estimate:

The capital cost estimate used in this evaluation is based on the estimated capital costs prepared by the interim receiver for the re-opening of the mine and existing facilities as outlined in Exhibit Q of



the twenty second report. Micon considers the costs included in Table 7.3 are a reasonable estimate of process plant and surface infrastructure capital requirements at the existing Faro operation. The capital cost estimates pertaining to the infrastructure requirements at the Grizzly mine have been developed from Micon's in-house cost database.

Item	Cost (k\$)
Mill equipment refurbishment and mobile equipment ¹	15000
Building repairs (Faro) ¹	1000
Replacement shop tools and scale repairs (Faro) ¹	2000
Potable water system renovations (Faro) ¹	1000
Employee housing ¹	2000
Haul road extension to Grizzly mine	1500
Grizzly mine water systems	1000
Grizzly mine power supply	5500
General Grizzly mine area roads and sitework	1000
Total	30000

 Table 7.3

 CASE 1 PROCESS AND INFRASTRUCTURE CAPITAL COST ESTIMATE

¹Based on interim receiver capital cost estimate

The total process and surface infrastructure capital cost for Case 1 is estimated at approximately \$30 million, including associated indirect costs such as the EPCM contract and construction overheads.

7.2.3 Case 2 Capital Cost Estimate:

The Capital cost estimates for the processing and surface infrastructure requirements of Cases 2, 3 and 4 are presented in Tables 7.4, 7.5 and 7.6 respectively. The costs are based on actual comparative project capital costs and Micon's cost database. The cost items in the order of magnitude estimates incorporate indirect costs



Item	Cost (k\$)
Mill at Grum site – (capacity 2.25 Mt/a)	95,000
Site buildings (admin, dry, lab, shop, stores etc.)	15,000
Plant and surface mobile equipment	2,000
Power supply	7,000
Haul roads	1,500
Water supply, storage and distribution systems	4,500
Heating fuel storage facility	1,000
Tailings disposal system	2,000
General roads and site work	2,500
Employee housing	1,500
Total	132000

 Table 7.4

 CASE 2 PROCESS AND INFRASTRUCTURE CAPITAL COST ESTIMATE

The total process and surface infrastructure capital cost, including indirect costs, for Case 2 is estimated at approximately \$132 million.

7.2.4 Case 3 Capital Cost Estimate:

Table 7.5
CASE 3 PROCESS AND INFRASTRUCTURE CAPITAL COST ESTIMATE

Item	Cost (k\$)
Mill at Grizzly site – (capacity 1.0 Mt/a)	56,000
Site buildings (admin, dry, lab, shop, stores etc.)	12,000
Plant and surface mobile equipment	1,500
Power supply	6,000
Water supply, storage and distribution systems	2,500
Heating fuel storage facility	1,000
Tailings disposal system	4,500
General roads and site work	2,000
Employee housing	1,000
Total	86500

The total process and surface infrastructure capital cost for Case 3 is estimated at approximately \$86.5 million.



7.2.5 Case 4 Capital Cost Estimate:

Item	Cost (k\$)
Mill at Grum site – (capacity 2.0 Mt/a)	88,000
Site buildings (admin, dry, lab, shop, stores etc.)	15,000
Plant and surface mobile equipment	2,000
Power supply	4,500
Water supply, storage and distribution systems	2,500
Heating fuel storage facility	1,000
Tailings disposal system	2,000
General roads and site work	2,500
Employee housing	1,500
Total	119000

Table 7.6 CASE 4 PROCESS AND INFRASTRUCTURE CAPITAL COST ESTIMATE

The total process and surface infrastructure capital cost for Case 4 is estimated at approximately \$119 million.

7.3 INDIRECT COSTS

7.3.1 Contingency

Contingency allowances have been provided in the preceding estimates, generally at 15 % of direct costs.

7.3.2 EPCM

Allowances for engineering, procurement and construction management have also been provided in the preceding estimates.

7.3.3 Owner's Costs

During the pre-production period, the owner must provide a team of design and construction supervisors, and vehicles for those on site. Other expenses usually include office rental and supplies, permits and licences, communications, travel, accommodation, recruitment and training, and consulting fees. An allowance of \$1.0 M/a is provided before plant start-up, and \$0.5 M/a at Grizzly after milling commences.



7.3.4 Care and Maintenance

The Rodger Report estimates an amount of \$1.5 M/a for on-going environmental monitoring, care and maintenance. Micon has assumed that this will be an additional cost during pre-production, but will be covered by the site general and administration cost estimate during operations.

7.3.5 Working Capital

Working capital is intended to bridge the gap between accounts payable and accounts receivable. It is calculated as 3 months of operating costs and is recovered at the end of the cash flow.

7.4 SUSTAINING CAPITAL ESTIMATE

7.4.1 Grum Pit

Allowances are provided, from project year 6 onward over the life of the pit, for replacement of service vehicles and pumps, and for rebuilding of major equipment. The Case 1 allowance is \$1.0 M/a over 4 years. The total is spread over the longer production periods in Cases 2 and 4.

7.4.2 Grizzly Mine

An allowance is provided, from project year 6 onward, for capitalized waste development and replacement of mobile equipment, hoisting ropes and pumps. It has been averaged over the life of the mine at \$550,000/a.

7.4.3 Processing and Infrastructure

The estimated average sustaining capital requirements for the process and surface infrastructure in Case 1, when operating at the full design capacity of 4 Mt/a, is \$1.1 million per annum. This amount is scaled down for the lower production rates of the other cases:

Case 2	2.25 million t/a	\$700,000/a
Case 3	1.0 million t/a	\$400,000/a
Case 4	2.0 million t/a	\$660,000/a.



8.0 OPERATING COST ESTIMATES

8.1 MINE OPERATING COSTS

8.1.1 Grum Pit Operating Costs

Micon's estimate of operating costs for the Grum pit draw upon historical actual and budgeted costs at the 4 Mt/a production level. Basic costs are \$1.90/t and \$1.60/t for mining ore and waste, respectively, plus \$1.90/t of ore loaded and hauled to the Faro mill. The mining costs are then factored on the assumption that 24 % of the costs are fixed and 74 % proportional to tonnage, based on in-house data. Thus, the Micon mining cost estimates use \$1.50/t for ore, \$1.20/t for waste and a fixed cost of \$9.1 million per year.

The resultant costs for the ARMC plan and the three proposed Grum cases are tabulated below together with comparative costs taken from page 10 of Exhibit "C" in the Interim Receiver's Report.

SOURCE	UNIT COST PER TONNE MINED		
	ORE*	WASTE	AVERAGE
1996 Actual Costs	4.55	1.64	2.02
Costs used in SRK Pit Design	3.46	1.4	1.67
ARMC's 1998 Budget Estimate	4	1.4	1.71
Micon's Estimate for the ARMC Mine Plan	3.8	1.6	1.95
Micon's Estimate for Case 1	3.95	1.75	2.1
Micon's Estimate for Case 2	4.55	2.35	2.7
Micon's Estimate for Case 4	4.12	1.92	2.26

 Table 8.1

 Estimated Grum Pit Operating Costs

Note*: The unit cost for Ore mining includes about \$2/t for hauling to the Faro mill.

Micon's estimated cost of \$1.60/t for waste mining at ARMC's planned rate of up to 30 Mt/a is much higher than that company's 1998 budget but a little below the 1996 actual cost. It is



considered that newer equipment with higher availability will more than offset the small escalation in costs since 1996. Micon has no explanation for ARMC's high budget cost for ore nor the very high actual cost. A premium of \$0.30/t for tighter drilling and blasting of ore is considered generous and Micon is comfortable with the \$1.90/t estimate for loading (\$0.50/t) and hauling (\$0.10/t/km). Note that Micon's average of \$1.95/t is also well above ARMC's budget and closer to the 1996 actual cost of \$2.02.

8.1.2 Grizzly Mine Operating Costs

There is no historical data for the Grizzly deposit because it has not been mined. The mining cost estimates prepared from a contractor's perspective by CMD for Curragh Resources are considered incomplete and somewhat optimistic. The relevant section of the Pre-feasibility Study was not available. For these reasons, Micon has made its own independent estimate of costs based on its in-house database of operating mines.

The four mining methods and their estimated order of magnitude unit costs, based on a total of 1.0 Mt/a (3,000 t/d), are as follows:

Room and Pillar, with pillar robbing to 70 % extraction	\$35/t
Room and Pillar, 45 % extraction	\$33/t
Drift, Bench and Fill, 85 % extraction	\$32/t
Drift and Bench only, 45 % extraction	\$27/t

For Cases 1 and 2, charges of \$2.50/t and \$1.00/t are added for loading and haulage to the Faro and New mills, respectively. In Case 3 it is assumed that the new mill will be close enough that ore will be conveyed directly from the headframe bin to the coarse ore bin.

8.2 **PROCESSING OPERATING COSTS**

8.2.1 Historical Operating Costs

A summary of the actual processing operating costs for 12 months ending October 1996 is presented in Table 8.2.

These costs are a good basis from which to forecast the cost of milling Grum and Grizzly ore. However, these operating costs are probably high due to additional expenditures associated with bringing the mothballed plant back into continuous operating mode and the various alterations made to the plant circuitry over the year.



	Cost	Unit Cost
	(\$ Thousands)	(\$/t milled)
Grinding media	7,468	1.78
Reagents	9,567	2.29
Fuel	2,174	0.52
Liners	443	0.11
Other supplies	620	0.15
Total Consumables	20,272	4.85
Operating salaries	1,442	0.34
Maintenance salaries	330	0.08
Operating wages	3,677	0.88
Maintenance wages	3,200	0.76
Total Labour	8,649	2.06
Electrical power	10,953	2.62
Maintenance supplies	4,136	0.99
Contractors	1,676	0.4
General and administration	657	0.16
Total Process Unit Cost	46,343	11.08

 Table 8.2

 Actual Processing Operating Costs (Nov 95 to Oct 96)

8.2.2 Estimated Operating Costs

The process operating costs used for the various operating scenarios are presented in Table 8.3. These estimates are based on actual costs (Table 8.2) and comparisons with similar operations. The costs refer to steady-state conditions and the four cases considered are as follows:

Case 1: Existing mill, 3,000 kt/a Grum and 1,000 kt/a Grizzly, total capacity, 4,000 kt/a.

Case 2: New mill, 1,250 kt/a Grum and 1,000 kt/a Grizzly, total capacity, 2,250 kt/a.

Case 3: New mill, total capacity 1,000 kt/a Grizzly.

Case 4: New mill, total capacity 2,000 kt/a Grum.



	Case 1 (4,000 kt/a)		Case 2 (2,250 kt/a)		Case 3 (1,000 kt/a)		Case 4 (2,000 kt/a)	
	(k\$/a)	\$/t	(k\$)	\$/t	(k\$)	\$/t	(k\$)	\$/t
Grinding media	7120	1.78	3,353	1.49	1,490	1.49	2,980	1.49
Reagents	9160	2.29	5,152	2.29	2,290	2.29	4,580	2.29
Fuel	2080	0.52	1,170	0.52	520	0.52	1,040	0.52
Liners	440	0.11	0	0.00	0	0.00	0	0
Other Op. Supplies	600	0.15	225	0.10	100	0.10	200	0.1
Power	10480	2.62	6,075	2.70	2,700	2.70	5,400	2.7
Maint. Supplies	3960	0.99	2,025	0.90	900	0.90	1,800	0.9
Total Variable Costs	33840	8.46	18,000	8.00	8,000	8.00	16,000	8.00
Labour	8620	2.16	6,100	2.71	4,500	4.50	6,100	3.05
General and admin.	670	0.17	600	0.27	500	0.50	600	0.30
Total fixed costs	9290	2.32	6,700	2.98	5,000	5.00	6,700	3.35
Total	43130	10.78	24,700	10.98	13,000	13.00	22,700	11.35

Table 8.3 Estimated Process Operating Costs

These processing cost estimates have been adjusted for the ramp-up and ramp-down production periods, before and after steady state operating conditions. Details of these costs can be found in the cash flows presented in Section 9 of this report.

Cases 2, 3 and 4 assume that the new processing facility will utilize SAG/ball milling technology rather than the conventional crushing, rod and ball mill circuit used at the existing plant.

In all cases, the cost of transporting concentrate to port and loading on board ship is assumed to be the \$65.00 per wet tonne used in the Rodger Report. This is believed to be based on the historical costs of truck/trailer haulage to storage and ship loading facilities at Skagway, Alaska. Micon has not attempted to verify whether this routing is still available, nor to identify alternatives.

8.3 GENERAL AND ADMINISTRATION COSTS

For the site administration and overhead cost, Micon has accepted ARMC's 1998 budget of \$7 million. At the planned 4 Mt/a, this is only \$1.75/t of ore which is comparatively low for such a remote location. Note that this does not include the reclamation fund (calculated separately), exploration (which, for regional work, should have a separate capital budget) nor off-site corporate and financing costs.



9.0 FINANCIAL EVALUATION

9.1 EVALUATION PARAMETERS

Micon has used conventional discounted cash flow (DCF) analysis to evaluate the remaining mineral resources at Faro. Four possible scenarios were to be assessed:

Case 1, mining both deposits simultaneously and processing at the existing mill.

Case 2, mining both deposits simultaneously and processing at a new mill.

Case 3, mining the Grizzly deposit only and processing at a new mill.

Case 4, mining the Grum deposit only and processing at a new mill.

Micon prepared production scenarios as described in Sections 4,5 and 6, and cost estimates as described in Sections 7 and 8. Other parameters and assumptions used are discussed below.

9.1.1 Metal Prices

Having prepared production schedules and cost estimates for the four agreed cases and built the cash flow model, it was clear that recent metal prices would give only negative results. One objective of the exercise was to establish the zinc price level at which the project would be commercially attractive. However, in assuming higher zinc prices, it seemed reasonable to anticipate a general increase in metal prices. It should be noted that net revenues from the lead concentrate (including silver and minor gold values) contribute between 37 and 39 percent of total revenues in the four DCFs.

In order to assess historical metal prices and possible trends, Micon obtained average annual London Metal Exchange (LME) metal prices, from 1960 to August 2001, for zinc, lead, silver and gold. These are set out in Table 9.1 both in current dollars of the day and in constant Year 2000 dollars, using the U.S. GNP deflator factors from Table 3 in Appendix II of the Rodger Report. It will be noted that there have been two periods of unusually high prices, one around 1974 and one centered on 1989. It should also be noted that, while the prices of the other metals were relatively high at those times, their peaks occurred in 1979-80, out of step with zinc.



Year	Current Zn Price	Current Pb Price	Current Ag Price	Current Au Price	U.S. GNP	Constant Zn Price	Constant Pb Price	Constant Ag Price	Constant Au Price	Year
1 cai	US\$/lb	US\$/lb	US\$/oz	US\$/oz	Deflator	US\$/lb	US\$/Ib	US\$/oz	US\$/oz	I cai
1960	0.112	0.119	0.91	35.00	18.146	0.617	0.656	5.01	192.88	1960
1961	0.097	0.109	0.92	35.00	18.325	0.529	0.595	5.02	191.00	1961
1962	0.084	0.096	1.09	35.00	18.728	0.449	0.513	5.82	186.89	1962
1963	0.096	0.111	1.28	35.00	18.997	0.505	0.584	6.74	184.24	1963
1964	0.147	0.136	1.29	35.00	19.306	0.761	0.704	6.68	181.29	1964
1965	0.141	0.160	1.29	35.00	19.805	0.712	0.808	6.51	176.72	1965
1966	0.128	0.151	1.29	35.00	20.498	0.624	0.737	6.29	170.75	1966
1967	0.124	0.140	1.55	35.00	21.076	0.588	0.664	7.35	166.07	1967
1968	0.119	0.132	2.14	40.06	22.126	0.538	0.597	9.67	181.05	1968
1969	0.130	0.149	1.79	41.51	23.324	0.557	0.639	7.67	177.97	1969
1970	0.134	0.157	1.77	36.41	24.643	0.544	0.637	7.18		1970
1971	0.140	0.139	1.55	41.25	26.02	0.538	0.534	5.96	158.53	1971
1972	0.171	0.150	1.68	58.60	27.262	0.627	0.550	6.16	214.95	1972
1973	0.386	0.163	2.56	97.81	29.047	1.329	0.561	8.81	336.73 504.85	1973 1974
1974 1975	0.562	0.225	4.71 4.42	159.74	31.641 34.794	1.776	0.711	14.89 12.70	464.13	
	0.337	0.215		161.49		0.969	0.618			<u>1975</u>
1976 1977	0.323 0.268	0.231 0.307	4.35 4.62	125.32 148.31	36.984 39.447	0.873 0.679	0.625 0.778	11.76 11.71	338.85 375.97	1976 1977
1977	0.268	0.307	4.62 5.40	148.51	42.344	0.679	0.778	11.71	457.09	1977
1978								12.75 24.06	667.01	1978
1979	0.337 0.345	0.526 0.425	11.09 20.63	307.50 612.56	46.101 50.257	0.731 0.686	1.141 0.846	24.06 41.05	1218.86	1979
1980	0.343	0.425	10.52	459.64	55.092	0.680	0.663	19.10	834.31	1980
			7.95							1981
1982 1983	0.338 0.347	0.255 0.217	1.95	375.91 424.00	58.634 60.898	0.576 0.570	0.435 0.356	13.56 18.79	641.11 696.25	1982
1985	0.347	0.217	8.14	424.00 360.66	63.17	0.570	0.330	18.79	570.94	1983
1984	0.418	0.230	6.14 6.14	317.66	65.051	0.002	0.403	9.44	488.32	1984
1985	0.333	0.191	6.14 5.47	368.24	66.802	0.546	0.294	9.44 8.19	488.52 551.24	1985
1980	0.342	0.221	7.01	477.95	68.993	0.512	0.520	10.16	692.75	1980
1987	0.563	0.339	6.53	438.31	71.373	0.323	0.520	9.15	614.11	1987
1989	0.752	0.394	5.50	382.58	74.314	1.012	0.520	7.40	514.82	1989
1989	0.732	0.394	4.82	384.93	74.314	0.887	0.595	6.23	497.67	1989
1990	0.080	0.400	4.82	363.29	80.153	0.631	0.418	5.04	497.07	1990
1992	0.563	0.351	3.94	344.97	83.385	0.675	0.413	4.73	413.71	1992
1993	0.436	0.317	4.30	360.91	85.227	0.512	0.372	5.05	423.47	1992
1994	0.453	0.372	5.29	385.41	86.991	0.512	0.372	6.08	443.05	1994
1995	0.468	0.423	5.15	385.50	88.818	0.527	0.476	5.80	434.03	1995
1996	0.465	0.488	5.19	389.08	90.594	0.513	0.539	5.73	429.48	1996
1997	0.597	0.465	4.89	332.38	92.859	0.643	0.501	5.27	357.94	1997
1998	0.465	0.453	5.10	295.14	95.181	0.489	0.476	5.36		1998
1999	0.488	0.228	5.22	278.49	97.558	0.500	0.234	5.35	285.46	1999
2000	0.512	0.206	4.95	279.10	100	0.500	0.206	4.95	279.10	2000
*2001	0.427	0.216	4.43	266.78	100	0.427	0.216	4.43	266.78	*2001
Average	0.340	0.266	4.83	236.79		0.672	0.561	9.56	405.48	Average

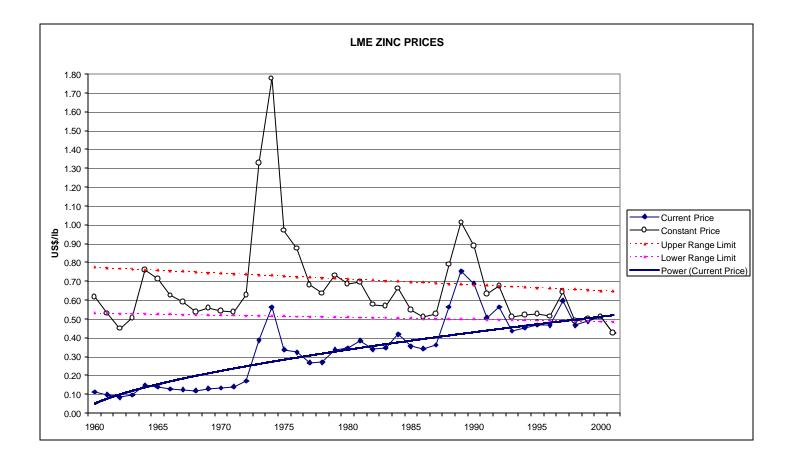
Table 9.1 LME AVERAGE ANNUAL METAL PRICES

 Average
 0.340
 0.2

 * 8 months to 31 August, 2001



Figure 9-1 LME ZINC PRICES





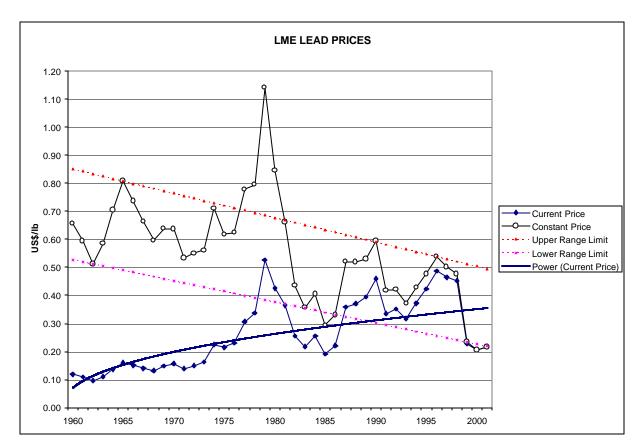


Figure 9-2 LME LEAD PRICES



Figure 9-3 LME SILVER PRICES

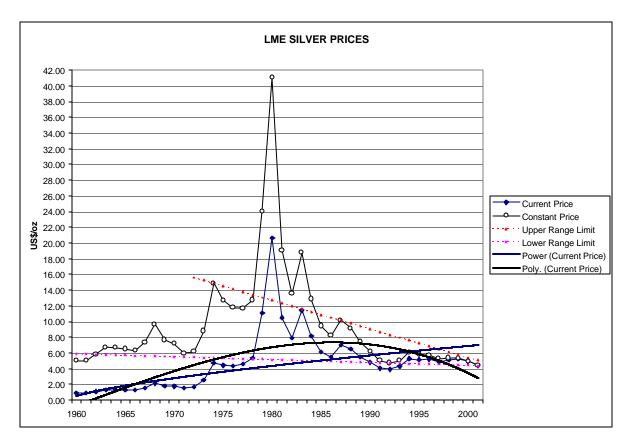
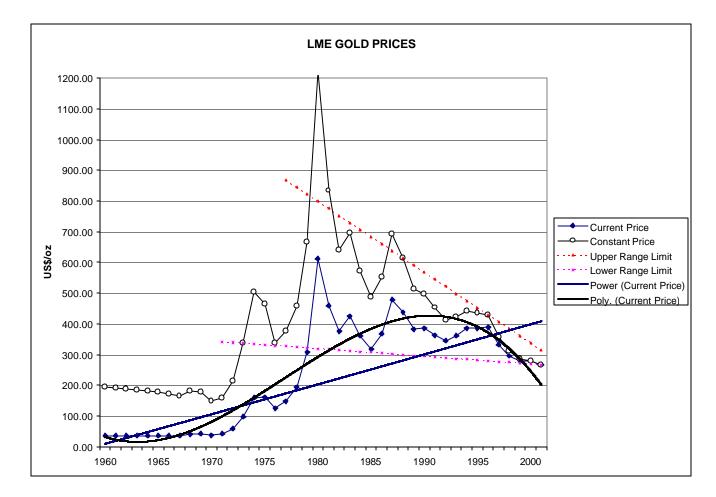




Figure 9-3 LME GOLD PRICES





From the price tabulation, Micon made charts of both the current dollars of the day prices and the constant Year 2000 dollar prices of the four metals as shown in Figures 9-1 to 9-4. 'Power' trendlines of current prices were added to each chart. These appear satisfactory for the base metals but not for the precious metals. 'Polynomial' trendlines on the gold and silver offered no improvement. Finally, Micon added entirely subjective upper and lower range limit lines, on the constant 2000 dollar prices, ignoring the peaks and the extreme low zinc prices.

For zinc (Figure 9-1) the range is approximately from 48 to 65 ¢/lb and trending lower, perhaps in step with technological improvements that reduce production unit costs. With the exception of 1997 (too late to rescue ARMC), zinc has been trading near the bottom of that range (49 to 53 ¢/lb) for nine years. The average for the first eight months of 2001 was less than 43 ¢/lb and the price has been as low as 34 ¢/lb. Projecting from Figure 9-1, the probability of sustained zinc prices above 60 ¢/lb is low. On the other hand, there is a possibility that another peak could occur, say, 15 to 20 years after the 1989 peak. However, there is no reliable way of predicting the likelihood, magnitude or duration of such an event.

For lead (Figure 9-2) the range is much wider (20 to 50 ϕ /lb) and the constant dollar price has been in the upper half of that range for 11 of the last 15 years. Since the trendline bisects the range limits, Micon has selected 35 ϕ /lb as the forward-looking base price for the analyses.

The revenue contributions from the precious metals are relatively insignificant. Micon, somewhat arbitrarily, has chosen \$5.00/oz and \$300/oz for future silver and gold prices. Silver has traded, in current dollars, between \$4 and \$6 for the past 13 years. Over the past four years, gold has traded mostly below \$300, average about \$288, but there is reason to hope that this was due, in part, to the selling of central bank holdings.

9.1.2 Revenue Calculations

The net smelter return calculations are set out in the DCF model, for zinc and lead concentrates, using the same charges and penalties as were used in the Rodger Report. These are understood to be based on actual ARMC smelter agreements and are comparable with the terms in similar agreements in Micon's database.



9.1.3 Escalation

Estimates of revenues and costs are in 2001 Canadian dollars. In preparing financial forecasts, no allowances have been made for future inflation.

9.1.4 Exchange Rate

The Canadian dollar has been close to US 62 ¢ for several months now but, since metals are priced in US dollars, this very low level results in high Canadian dollar revenue. The first comparably low value was 63 ¢ in mid-1998. From there it climbed to 70 ¢ at the end of 1999 and fell back to 63 ¢ in March, 2001. It is considered that 65 ¢ would be a conservative average for this evaluation, equivalent to Can\$ 1.55 = US\$ 1.00.

9.1.5 Taxes and Royalties

In each DCF model, a depreciation pool is established with an opening balance of \$140 million as claimed in the Rodger Report. The pool is increased annually by the estimated capital expenditure and decreased by the amount required to reduce taxable income to zero.

Corporate income tax is calculated at the rate of 39 % of taxable income, based on operating profit less the depreciation allowance which is assumed to be limited only by the amount available in the pool.

The Yukon Mining Royalty is also based on operating profit after deduction of 15 % of that profit (as a depreciation allowance) and any income tax payable. The rate is a minimum 5 %, increased by a further 1 % for each \$5 million of taxable profit.

9.1.6 Financing Assumptions

The DCF analyses for all four cases have been run on an all-equity basis. If a mining company purchased and reopened the property, it would probably borrow the maximum possible loan financing in order to maximize return on its equity investment. However, the lending institution would evaluate the loan on the basis of the all-equity project rate of return.



9.2 DISCOUNTED CASH FLOW ANALYSES

9.2.1 The DCF Model

The full DCF models for all four cases are reproduced in the Appendices. They each cover a period of 20 years, including pre-production. The format is such that years 1 to 10 appear on odd-numbered pages, and years 11 to 20 plus totals on even-numbered pages. The first pair of pages provides a summary of the calculations and the results in terms of net present value (NPV) and internal rate of return (IRR). Details on successive pairs of pages show production, revenue calculations, capital and operating cost estimates, and tax calculations for a total of 10 pages.

9.2.2 Results

The results of all four analyses are summarized for comparison in Table 9.2. Using the production, cost and price parameters described in this report, including 60 ¢/lb Zn and 35 ¢/lb Pb, each case has a positive cash flow. However, only Case 1, which retains the existing mill, is viable with an NPV of \$60 million (at a 10 %/a discount rate) and an IRR of 20 %.

Case 2, also mining both deposits but with a new mill, carries an extra \$82 million of initial capital. With slightly higher operating costs for the lower production rate, this brings the IRR down to 6.4 %. Cases 3 and 4, which mine only one deposit with a new mill, have to carry higher unit overhead costs resulting in even lower returns of 4.1 % and 3.1 %, respectively.

9.2.3 Breakeven Zinc Prices

The four cases were rerun at varying zinc prices in order to establish breakeven prices and the prices required to reach rates of return of 15 % and 20 %. The prices for lead, silver and gold and all other parameters remained fixed.

Table 9.2 shows that the operating breakeven price was fairly constant, in the range of 44 to 46 ϕ /lb Zn.

The cash flow breakeven price varied from 49 to 58 ϕ /lb Zn. These are the prices which would cover all the capital and operating costs for each case, including taxes and royalties but excluding any financing costs and profit margins.

The rate of return required to justify a mining investment varies with many factors including corporate policy, location, type of product and perceived risks. Micon has tabulated the zinc prices required



for 15 % and 20 % IRRs. The former is widely considered to be a minimum, and the latter is believed to be more applicable to this Faro evaluation.

Based on the 20 % IRR hurdle, the average zinc price necessary to interest private companies in reopening the Faro property is approximately 60 ϕ /lb, sustained over a period of at least five years, provided that the existing Faro mill remains in place. Looking at Figure 9-1 and considering another possible cyclical peak within the next five years, this is not an unreasonable expectation.

If the Faro mill and its processing equipment is removed, then the additional capital requirements in Cases 2,3 and 4 increase the necessary sustained price into the range of 80 to 90 ϕ /lb Zn, depending on the selected production scenario. In Micon's opinion, this would virtually guarantee that Grum and Grizzly deposits would not be mined in the foreseeable future.



			CASE 1	CASE 2	CASE 3	CASE 4
			GRUM + GRIZZLY	GRUM + GRIZZLY	GRIZZLY ONLY	GRUM ONLY
			EXISTING MILL	NEW MILL	NEW MILL	NEW MILL
PRODUCTION						
Grum Ore		kt/a		1,250	0	2,000
Grizzly Ore		kt/a	1,000	1,000	1,000	0
Mill Feed		kt/a	4,000	2,250	1,000	2,000
Total Ore Processed		kt	34,863	34,863	15,233	· · · · · · · · · · · · · · · · · · ·
Average Grades	Zn	%	5.21	5.21	6.42	
	Pb	%	3.61	3.61	4.96	2.55
	Ag	g/t	56.6	56.6	73.6	43.4
	Au	g/t	0.72	0.72	0.75	0.69
Zinc Concentrate		kt	2,767	2,767	1,552	1,237
Lead Concentrate		kt	1,665	1,665	1,020	655
REVENUE & COSTS						
Metal Prices	Zn	US\$/lb	0.60	0.60	0.60	0.60
	Pb	US\$/lb	0.35	0.35	0.35	0.35
	Ag	US\$/oz	5.00	5.00	5.00	5.00
	Au	US\$/oz	300	300	300	300
US dollar Revenue		kUS\$	1,440,311	1,440,371	819,499	630,586
Exchange Rate		Can\$/US\$	1.55	1.55	1.55	,
Total Revenue		k\$	2,232,481	2,232,575	1,270,224	977,408
Operating Costs		k\$	1,645,106	1,685,594	998,358	,
Operating Profit		k\$	587,375	546,981	271,866	,
Initial Capital Costs		k\$	215,300	297,200	187,000	200,700
Sustaining Capital Costs		k\$	30,100	26,000	15,200	13,100
Corporate Income Tax		k\$	95,600	52,760	0	0
Yukon Mining Royalty		k\$	55,963	42,258	17,991	17,969
RESULTS			,	,	- ,,, , -	
Cumulative Cash Flow		k\$	230,412	168,763	67,675	33,285
NPV at 10% Discount		k\$	59,956	-46,708	-45,273	
Internal Rate of Return		%/a	20.0	6.4	4.1	3.1
BREAKEVEN ZINC PRI	CES					
Operating Breakeven		US\$/lb	0.44	0.45	0.46	0.45
Cash Flow Breakeven		US\$/lb		0.53	0.56	
Price for 15% IRR		US\$/lb		0.75	0.77	0.74
Price for 20% IRR		US\$/lb	0.60	0.85	0.88	

Table 9.2RESULTS OF DISCOUNTED CASH FLOW ANALYSES



SUMMARY		1											
SOMMART		PROJECT YEAR	1	2	3	4	5	6	7	8	9	10	11
PRODUCTION		Units											
Grum Pit Ore Mined		kt	0	0	2,700	3,000	3,000	3,000	3,000	3,000	1,930	0	0
Waste rock mined		kt	0	6,000	20,000	20,000	19,000	17,000	14,000	11,000	3,550	0	0
Total Mined (under operating	g costs)	kt	0	0,000	22,700	23,000	22,000	20,000	17,000	14,000	5,480	0	0
Strip Ratio	5	t/t	0.0	0.0	7.4	6.7	6.3	5.7	4.7	3.7	1.8	0.0	0.0
Grizzly Underground Ore Mi	ned	kt	0	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Mill Feed		kt	0	368	2,700	3,700	4,000	4,000	4,000	4,000	2,930	1,000	1,000
Head Grades	Zinc	%	0	3.86	4.84	5.30	5.07	4.95	4.57	4.50	4.67	6.10	6.10
	Lead	%	0	2.11	3.04	3.56	3.25	3.19	2.95	3.07	3.30	5.19	5.19
	Silver	g/t	0	47.0	50.8	55.8	52.6	51.2	47.5	47.9	51.4	75.2	75.2
7in - Consentante	Gold	g/t	0	n.a.	0.80	0.83	0.79	0.74	0.60	0.60	0.63	0.76	0.76
Zinc Concentrate Con. Grade	Zinc	dry t %	0 51%	20,611 51%	189,447 51%	292,171 51%	304,060 51%	297,061 51%	274,392 51%	270,140 51%	207,124 51%	96,914 51%	96,914 51%
Lead Concentrate	ZINC	dry t	0	9,965	105,508	171,946	170,308	167,389	154,823	161,329	127,882	70,038	70,038
Con. Grade	Lead	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver	g/t	0	867.9	753.9	703.5	725.4	718.5	722.3	698.5	695.0	644.1	644.1
	Gold	g/t	0	n.a.	6.11	5.38	5.59	5.27	4.66	4.47	4.30	3.24	3.24
REVENUE													
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300	300
Zinc Con. Payment		kUS\$	0	11,723	107,755	166,183	172,945	168,964	156,070	153,652	117,810	55,123	55,123
LESS Zinc Con. Cha	rges	kUS\$	0	5,106	46,937	72,387	75,333	73,599	67,982	66,929	51,316	24,011	24,011
NSR on Zinc Concentrate		kUS\$	0	6,617	60,818	93,796	97,612	95,366	88,088	86,723	66,493	31,112	31,112
Lead Con. Payment		kUS\$	0	5,660	63,188	100,528	100,445	98,061	89,902	92,832	73,305	38,901	38,901
LESS Lead Con. Cha	arges	kUS\$	0	2,442	25,847	42,026	41,663	40,930	37,846	39,397	31,221	17,054	17,054
NSR on Lead Concentrate		kUS\$	0	3,219	37,341	58,502	58,781	57,131	52,056	53,435	42,083	21,848	21,848
Total US dollar Revenue	1.5	kUS\$	0	9,835	98,160	152,298	156,394	152,497	140,144	140,158	108,577	52,960	52,960
Exchange Rate Total Revenue	1.5	5 Can\$/US\$ k\$	0	15,245	152,147	236,062	242,410	236,370	217,224	217,245	168,294	82,088	82,088
OPERATING COSTS													
Grum Pit Mining		k\$	0	0	37150	37600	36400	34000	30400	26800	13155	0	0
Grum Ore Haulage to Mill		k\$	0 0	ů 0	5,130	5,700	5,700	5,700	5,700	5,700	3,667	0	0 0
Underground Ore Mining		k\$	0	0	0	22,033	32,923	33,200	32,175	32,439	32,329	32,000	32,000
Grizzly Ore Haulage to Mill		k\$	0	0	0	1,750	2,500	2,500	2,500	2,500	2,500	2,500	2,500
Ore Processing		k\$	0	4,166	30,564	40,589	43,120	43,120	43,120	43,120	32,377	13,960	13,960
Site Admin. & Overhead		k\$	0	0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Conc. Haul & Port Fees		k\$	0	2,160	20,839	32,791	33,515	32,814	30,325	30,484	23,669	11,796	11,796
Reclamation Fund		k\$	0	229	2,282	3,541	3,636	3,546	3,258	3,259	2,524	1,231	1,231
Total Operating Costs		k\$	0	6,555	102,965	151,003	164,794	161,880	154,478	151,302	117,220	68,487	68,487
Operating Profit		k\$	0	8,690	49,182	85,058	77,616	74,490	62,745	65,942	51,073	13,601	13,601
CAPITAL COSTS													
Direct Costs		k\$	29,000	100,100	38,700	2,000	0	0	0	0	0	0	0
Indirect Costs		k\$	2,500	2,500	500	0	0	0	0	0	0	0	0
Working Capital		k\$	0	0	26000	12000	2000	0	0	0	0	0	0
Sustaining Capital		k\$	0	0	0	0	0	2650	2650	2650	2150	1650	1650
Reclamation		k\$	0	0	0	0	0	0	0	0	1500	1500	0
Cash Flow before Taxes		k\$	-31,500	-93,910	-16,018	71,058	75,616	71,840	60,095	63,292	47,423	10,451	11,951
TAXES AND ROYALTIES	_		-	-	-	-	-	-	10 -00	04.00	40.005	0.007	4.075
Corporate Income Tax	3	9% k\$	0	0	0	0	0	0	15,535	24,684	18,885	3,881	4,076
Yukon Mining Royalty		k\$	0	443	5,435	13,737	11,875	10,764	4,536	3,450	2,207	461	449
Cash Flow After Taxes Cumulative Cash Flo	w	k\$ k\$	-31,500 -31,500	-94,353 -125,853	-21,453 -147,306	57,321 -89,984	63,741 -26,243	61,076 34,833	40,025 74,858	35,158 110,016	26,331 136,347	6,109 142,456	7,426 149,882
RESULTS	NPV @	10% k\$	59,956										
	NPV @	15% k\$	23,208										
	NPV @	20% k\$	99										
	IRR	%	20.0%										

SUMMARY		7										
SOMMART		PROJECT YEAR	12	13	14	15	16	17	18	19	20	TOTALS
PRODUCTION		Units										
Grum Pit Ore Mined		kt	0	0	0	0	0	0	0	0	0	19,630
Waste rock mined		kt	0	Ő	0	0	0	0	0	0	0	110,550
Total Mined (under operating of	costs)	kt	0	0	0	0	0	0	0	0	0	124,180
Strip Ratio	,	t/t	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Grizzly Underground Ore Mine	d	kt	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Mill Feed		kt	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	34,863
Head Grades	Zinc	%	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05	0.00	5.21
	Lead	%	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91	0.00	3.61
	Silver	g/t	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8	0.0	56.6
	Gold	g/t	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75	0.00	0.72
Zinc Concentrate		dry t	96,914	96,914	98,995	100,038	103,157	104,997	69,390	49,436	0	2,768,674
Con. Grade	Zinc	%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Concentrate	المعط	dry t	70,038	70,038	69,390	67,078	64,599	52,536	34,761	27,156	0	1,664,821
Con. Grade	Lead Silver	%	60% 644.1	60% 644.1	60%	60%	60%	60%	60%	60% 759.5	60% 0.0	60% 699.3
	Gold	g/t g/t	3.24	3.24	649.2 3.21	660.5 3.43	702.7 3.20	730.2 4.50	682.0 3.65	4.24	0.00	4.47
REVENUE												
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	
Zinc Con. Payment		kUS\$	55,123	55,123	56,307	56,900	58,674	59,721	39,468	28,118	0	1,574,785
LESS Zinc Con. Charge	es	kUS\$	24,011	24,011	24,527	24,785	25,558	26,014	17,192	12,248	0	685,957
NSR on Zinc Concentrate		kUS\$	31,112	31,112	31,780	32,115	33,116	33,707	22,276	15,870	0	888,829
Lead Con. Payment		kUS\$	38,901	38,901	38,576	37,547	36,445	30,491	19,646	15,813	0	958,044
LESS Lead Con. Charg	ges	kUS\$	17,054	17,054	16,899	16,345	15,763	12,844	8,478	6,645	0	406,562
NSR on Lead Concentrate		kUS\$	21,848	21,848	21,677	21,202	20,681	17,647	11,167	9,168	0	551,482
Total US dollar Revenue		kUS\$	52,960	52,960	53,457	53,317	53,798	51,354	33,444	25,039	0	1,440,311
Exchange Rate Total Revenue	1.5	5 Can\$/US\$ k\$	82,088	82,088	82,859	82,641	83,387	79,599	51,838	38,810	0	2,232,481
OPERATING COSTS												
Grum Pit Mining		k\$	0	0	0	0	0	0	0	0	0	215,505
Grum Ore Haulage to Mill		k\$	0	0	0	0	0	0	0	0	0	37,297
Underground Ore Mining		k\$	32,000	32,000	32,000	32,062	32,527	34,192	19,765	15,881	0	479,526
Grizzly Ore Haulage to Mill		k\$	2,500	2,500	2,500	2,500	2,500	2,500	1,625	1,287	0	37,162
Ore Processing		k\$	13,960	13,960	13,960	13,960	13,960	13,960	10,036	8,001	0	409,893
Site Admin. & Overhead		k\$	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	0	119,000
Conc. Haul & Port Fees		k\$	11,796	11,796	11,897	11,807	11,852	11,130	7,358	5,411	0	313,236
Reclamation Fund		k\$	1,231	1,231	1,243	1,240	1,251	1,194	778	582	0	33,487
Total Operating Costs		k\$	68,487	68,487	68,600	68,569	69,090	69,976	46,562	38,163	0	1,645,106
Operating Profit		k\$	13,601	13,601	14,259	14,072	14,297	9,622	5,276	646	0	587,375
CAPITAL COSTS												
Direct Costs		k\$	0	0	0	0	0	0	0	0	0	169,800
Indirect Costs		k\$	0	0	0	0	0	0	0	0	0	5,500
Working Capital		k\$	0	0	0	0	0	0	0	0	-40000	0
Sustaining Capital Reclamation		k\$ k\$	1650 0	1650 0	1650 0	1650 0	1650 0	1650 0	800 0	0 0	0 3000	24100 6000
Cash Flow before Taxes		k\$	11,951	11,951	12,609	12,422	12,647	7,972	4,476	646	37,000	381,975
TAXES AND ROYALTIES												
Corporate Income Tax	39	9 % k\$	4,661	4,661	4,917	4,845	4,932	3,109	1,414	0	0	95,600
Yukon Mining Royalty		k\$	414	414	432	427	433	304	154	27	0	55,963
Cash Flow After Taxes Cumulative Cash Flow		k\$ k\$	6,876 156,758	6,876 163,635	7,259 170,894	7,151 178,045	7,281 185,326	4,559 189,885	2,908 192,793	619 193,412	37,000 230,412	230,412
RESULTS	NPV @ NPV @ NPV @	10% k\$ 15% k\$ 20% k\$										

NPV @ 20% k\$ IRR %

PRODUCTION MINING PLAN Grum Pit Ore Overburden mined (wall failure)	PROJECT YEAR Units	1	2	3	4	5	6	7	8	9	10	11
Grum Pit Ore	Units					•	0	'	0	3	10	11
Grum Pit Ore												
Overburden mined (wall failure)	kt	0	0	2,700	3,000	3,000	3,000	3,000	3,000	1,930	0	0
	kt		9880	0	0	0	0	0	0	0	0	0
Waste rock mined	kt		6,000	20,000	20,000	19,000	17,000	14,000	11,000	3,550	0	0
Total Mined (under operating costs)	kt			22700	23000	22000	20000	17000	14000	5480	0	0
Strip Ratio	t/t			7.4	6.7	6.3	5.7	4.7	3.7	1.8		
Mined Grades Zinc	%			4.84	4.73	4.44	4.30	3.83	3.83	3.83		
Lead	%			3.04	3.01	2.68	2.57	2.18	2.18	2.18		
Silver	g/t			50.8	50.1	45.8	43.9	37.0	37.0	37.0		
Gold	g/t			0.80	0.78	0.81	0.76	0.54	0.54	0.54		
Grizzly Underground Ore	5.1											
Room & Pillar	70% kt	0	0	0	267	384	400	58	146	110	0	0
R & P without 2nd Pass	45% kt	0	0	0	0	0	0	0	0	0	0	0
Drift, Bench & Fill	85% kt	0	0	0	200	570	600	942	854	890	1,000	1,000
Drift & Bench Only	45% kt	0	0	0	233	46	0	0	0	0	0	0
Total Ore Mined	kt	0	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Mined Grades Zinc	%	-	-	-	7.74	6.98	6.91	6.79	6.52	6.30	6.10	6.10
Lead	%				5.94	4.96	5.08	5.26	5.74	5.48	5.19	5.19
Silver	g/t				80.5	73.0	73.2	79.1	80.5	79.1	75.2	75.2
Gold	g/t				1.06	0.73	0.65	0.77	0.77	0.78	0.76	0.76
Stockpile, Remove (Add)	g,t kt	0	368	0	0	0.70	0.00	0.71	0.77	0.70	0.70	0.70
Stockpile Grades Zinc	%	Ũ	3.86	0	Ũ	Ũ	Ũ	°,	0	0	•	•
Lead	%		2.11									
Silver	g/t		47.0									
Gold	g/t		n.a.									
PROCESSING PLAN	9,1		· · · · ·									
Mill Feed	kt	0	368	2,700	3,700	4,000	4,000	4,000	4,000	2,930	1,000	1,000
Head Grades Zinc	%	0	3.86	4.84	5.30	5.07	4.95	4.57	4.50	4.67	6.10	6.10
Lead	%	0	2.11	3.04	3.56	3.25	3.19	2.95	3.07	3.30	5.19	5.19
Silver	g/t	0	47.0	50.8	55.8	52.6	51.2	47.5	47.9	51.4	75.2	75.2
Gold	g/t	-	n.a.	0.80	0.83	0.79	0.74	0.60	0.60	0.63	0.76	0.76
	Grum %		74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
	Grizzly %		81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Grum %		77%	77%	77%	77%	77%	77%	77%	77%	77%	77%
	Grizzly %		81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Grum %		50%	58%	58%	58%	58%	58%	58%	58%	58%	58%
	Grizzly %		60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Both %		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Concentrate Produced												
Zinc Concentrate	dry t	0	20,611	189,447	292,171	304,060	297,061	274,392	270,140	207,124	96,914	96,914
Lead Concentrate	dry t	0	9,965	105,508	171,946	170,308	167,389	154,823	161,329	127,882	70,038	70,038
Zinc Con. Grades Zinc	%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Con. Grades Lead	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Silver	g/t	0070	868	754	703	725	718	722	699	695	644	644
Gold	g/t	0	n.a.	6.11	5.38	5.59	5.27	4.66	4.47	4.30	3.24	3.24
Zinc Con. Shipped (incl. 8% moisture)	wet t	0	22,403	205,921	317,577	330,500	322,892	298,252	293,630	225,135	105,341	105,341
Lead Con. Shipped (incl. 8% moisture)	wet t	0	10,831	114,682	186,898	185,117	181,945	168,286	175,358	139,002	76,128	76,128

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PRODUCTION													
		PROJECT		12	13	14	15	16	17	18	19	20	TOTALS
			Units										
MINING PLAN													
Grum Pit Ore			kt	0	0	0	0	0	0	0	0	0	19630
Overburden mined (wall failu	ure)		kt	0	0	0	0	0	0	0	0	0	9880
Waste rock mined			kt	0	0	0	0	0	0	0	0	0	110550
Total Mined (under operating	g costs)		kt	0	0	0	0	0	0	0	0	0	124180
Strip Ratio			t/t										5.6
Mined Grades	Zinc		%										4.27
	Lead		%										2.56
	Silver		g/t										43.3
	Gold		g/t										0.69
Grizzly Underground Ore													
Room & Pillar		70%		0	0	0	191	353	708	58	142	0	2,816
R & P without 2nd Pa	ass	45%		0	0	0	0	96	67	0	0	0	163
Drift, Bench & Fill		85%		1,000	1,000	1,000	707	426	225	350	169	0	10,933
Drift & Bench Only		45%	kt	0	0	0	102	125	0	242	204	0	953
Total Ore Mined			kt	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Mined Grades	Zinc		%	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05		6.49
	Lead		%	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91		5.03
	Silver		g/t	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8		74.3
	Gold		g/t	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75		0.76
Stockpile, Remove (Add)			kt	0	0	0	0	0	0	0	0	0	368
Stockpile Grades	Zinc		%										3.86
	Lead		%										2.11
	Silver		g/t										47.0
	Gold		g/t										n.a.
PROCESSING PLAN													
Mill Feed			kt	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	34,863
Head Grades	Zinc		%	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05		5.21
	Lead		%	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91		3.61
	Silver		g/t	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8		56.6
	Gold		g/t	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75		0.72
Recoveries	Zinc	Grum	%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
	Zinc	Grizzly	%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Lead	Grum	%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%
	Lead	Grizzly	%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Silver	Grum	%	58%	58%	58%	58%	58%	58%	58%	58%	58%	58%
	Silver	Grizzly	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Gold	Both	%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Concentrate Produced													
Zinc Concentrate			dry t	96,914	96,914	98,995	100,038	103,157	104,997	69,390	49,436	0	2,768,674
Lead Concentrate			dry t	70,038	70,038	69,390	67,078	64,599	52,536	34,761	27,156	0	1,664,821
Zinc Con. Grades	Zinc		%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Con. Grades	Lead		%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver		g/t	644	644	649	661	703	730	682	759	0	699
	Gold		g/t	3.24	3.24	3.21	3.43	3.20	4.50	3.65	4.24	0.00	4.47
Zinc Con. Shipped (incl. 8%	moisture)		wet t	105,341	105,341	107,603	108,737	112,127	114,127	75,424	53,735	0	3,009,429
Lead Con. Shipped (incl. 8%	moisture)		wet t	76,128	76,128	75,424	72,911	70,217	57,104	37,783	29,518	0	1,809,588
••• •	,												

NSR/t of Lead Con.

US\$/t

FARO DCF ANALYSIS CASE 1 - GRUM + GRIZZLY, EXISTING MILL

12	Feb.2002	
	5	

(in US dollars)	Y	EAR	1	2	3	4	5	6	7	8	9	10	1
· · ·		Units											
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.6
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.3
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.0
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300	30
nc Concentrate													
Payment based on L	esser of:												
· , · · · · · · · ·	85%	k.lb	0	19,698	181,053	279,226	290,588	283,899	262,235	258,171	197,948	92,620	92,62
Or Content minus		k.lb	0	19,539	179,592	276.971	288.242	281.607	260,117	256,087	196.349	91,872	91,87
Zinc Con. Payment		kUS\$	0	11,723	107,755	166,183	172,945	168,964	156,070	153,652	117,810	55,123	55,12
harges			-	,.==	,	,	,• .•	,	,	,	,		,
Treatment	\$190 /t	t kUS\$	0	3,916	35,995	55,512	57,771	56,442	52,134	51,327	39,354	18,414	18,41
Price Escalator	>\$1100/t	\$0.07 kUS\$	0	312	2,870	4,426	4,606	4,500	4,156	4,092	3,137	1,468	1,46
Penalties	\$5.00 / t		0	103	947	1,461	1,520	1,485	1,372	1,351	1,036	485	48
Ocean Freight	\$30.00 / t		0	672	6,178	9,527	9,915	9,687	8,948	8,809	6,754	3,160	3,16
Representation	\$5.00 / t		0	103	947	1,461	1,520	1,485	1,372	1,351	1,036	485	48
otal Charges	•••••	kUS\$	0	5,106	46,937	72,387	75,333	73,599	67,982	66,929	51,316	24,011	24,01
Ū.													
SR on Zinc Concentrate		kUS\$	0	6,617	60,818	93,796	97,612	95,366	88,088	86,723	66,493	31,112	31,11
NSR/t on Zinc Con.		US\$/t	\$0.00	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.0
ead Concentrate													
Lead Payment base	d on Lesser of												
Lead 1 dynicht base	95%	k.lb	0	12,522	132,584	216,071	214,012	210,345	194,555	202,730	160,699	88,011	88,01
Or Content minus		k.lb	0	12,522	132,584	216,071	214,012	210,345	194,555	202,730	160,699	88,011	88,01
Lead Payment	o unito	kUS\$	0	4,383	46,404	75,625	74,904	73,621	68,094	70,955	56,245	30,804	30,80
Silver Payment base	d on Lesser of	κυσφ	0	4,505	40,404	10,020	74,304	73,021	00,034	70,955	30,243	30,004	30,00
Given r ayment base	95%	kg	0	8,216	75,569	114,912	117,366	114,254	106,236	107,056	84,431	42,858	42,8
Or Content minus		kg	0	8,299	75,854	114,912	117,583	114,409	106,409	107,030	84,399	42,663	42,66
Silver Payment	55 grans	kUS\$	0	1,278	11,752	17,871	18,252	17,768	16,522	16,647	13,125	6,635	42,00
Gold Payment base	d on Lesser of	KOOφ	0	1,270	11,752	17,071	10,202	17,700	10,022	10,047	10,120	0,000	0,00
Gold F ayment base	95%	kg	0	n.a.	612	879	904	838	685	686	522	215	2'
Or Content minus		kg	0	n.a.	539	754	781	715	567	560	422	157	15
Gold Payment	ryiani	kUS\$	0	11.a. 0	5,032	7,032	7,288	6,672	5,286	5,230	3,935	1,463	1,46
e ola r dymont			Ū.	Ŭ	0,002	1,002	1,200	0,012	0,200	0,200	0,000	1,100	.,
Lead Con. Payment		kUS\$	0	5,660	63,188	100,528	100,445	98,061	89,902	92,832	73,305	38,901	38,90
harges													
Treatment	\$175 /t	t kUS\$	0	1,744	18,464	30,091	29,804	29,293	27,094	28,233	22,379	12,257	12,2
Price Escalator	>\$0.25/lb	\$2.50 kUS\$	0	249	2,638	4,299	4,258	4,185	3,871	4,033	3,197	1,751	1,7
Silver Refining	\$9.00 / 9		0	74	680	1,034	1,056	1,028	956	963	760	384	38
Gold Refining	\$180 / 0	•	0	0	97	136	141	129	102	101	76	28	2
Penalties	\$0.00 / t		Õ	0 0	0	0	0	0	0	0	0	0	-
Ocean Freight	\$30.00 / t	+	Ő	325	3,440	5,607	5,554	5,458	5,049	5,261	4,170	2,284	2,2
Representation	\$5.00 / t		0	50	528	860	852	837	774	807	639	350	2,2
otal Charges	<i>Q</i> 0.00 / (kUS\$	0	2,442	25,847	42,026	41,663	40,930	37,846	39,397	31,221	17,054	17,0
-													
ISR on Lead Concentrate		kUS\$	0	3,219	37,341	58,502	58,781	57,131	52,056	53,435	42,083	21,848	21,84
			# 0 00	¢222 04	ФОГО ОО								

\$0.00 \$323.01 \$353.92 \$340.24 \$345.15 \$341.31 \$336.23 \$331.22 \$329.08 \$311.94 \$311.94

REVENUE CALCULAT	IONS												
(in US dollars)		YEAR		12	13	14	15	16	17	18	19	20	TOTALS
(Units		-		-	-		-	-	-	
Metal Prices	Zinc) US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Lead		5 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Silver Gold) US\$/oz) US\$/oz	5.00 300									
Zinc Concentrate	Golu	300	039/02	300	300	300	300	300	300	300	300	300	300
Payment based on Le	esser of:												
	85%		k.lb	92.620	92.620	94.609	95.606	98.586	100.345	66.316	47.246	0	2,646,006
Or Content minus	8 units		k.lb	91,872	91,872	93,845	94,834	97,790	99,535	65,781	46,864	0	2,624,642
Zinc Con. Payment			kUS\$	55,123	55,123	56,307	56,900	58,674	59,721	39,468	28,118	0	1,574,785
Charges													
Treatment	\$190 /	/ t	kUS\$	18,414	18,414	18,809	19,007	19,600	19,949	13,184	9,393	0	526,048
Price Escalator	>\$1100/t		kUS\$	1,468	1,468	1,500	1,515	1,563	1,590	1,051	749	0	41,939
Penalties	\$5.00 /		kUS\$	485	485	495	500	516	525	347	247	0	13,843
Ocean Freight	\$30.00 /		kUS\$	3,160	3,160	3,228	3,262	3,364	3,424	2,263	1,612	0	90,283
Representation	\$5.00 /	/ t	kUS\$	485	485	495	500	516	525	347	247	0	13,843
Total Charges			kUS\$	24,011	24,011	24,527	24,785	25,558	26,014	17,192	12,248	0	685,957
NSR on Zinc Concentrate			kUS\$	31,112	31,112	31,780	32,115	33,116	33,707	22,276	15,870	0	888,829
NSR/t on Zinc Con.			US\$/t	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$0.00	\$321.03
Lead Concentrate													
Lead Payment based	on Lesser of:												
·	95%		k.lb	88,011	88,011	87,197	84,292	81,177	66,018	43,681	34,125	0	2,092,051
Or Content minus	3 units		k.lb	88,011	88,011	87,197	84,292	81,177	66,018	43,681	34,125	0	2,092,051
Lead Payment			kUS\$	30,804	30,804	30,519	29,502	28,412	23,106	15,288	11,944	0	732,218
Silver Payment base	d on Lesser of:												
	95%		kg	42,858	42,858	42,798	42,093	43,126	36,442	22,523	19,594	0	1,106,048
Or Content minus	35 grams		kg	42,663	42,663	42,622	41,960	43,135	36,521	22,491	19,675	0	1,105,992
Silver Payment			kUS\$	6,635	6,635	6,629	6,526	6,707	5,667	3,498	3,047	0	171,828
Gold Payment based				o									
	95%		kg	215	215	211	218	196	225	121	109	0	7,070
Or Content minus	1 gram		kg	157	157	153	163	142	184	92	88	0	5,787
Gold Payment			kUS\$	1,463	1,463	1,428	1,519	1,326	1,717	860	822	0	53,998
Lead Con. Payment			kUS\$	38,901	38,901	38,576	37,547	36,445	30,491	19,646	15,813	0	958,044
Charges													
Treatment	\$175 /	/ t	kUS\$	12,257	12,257	12,143	11,739	11,305	9,194	6,083	4,752	0	291,344
Price Escalator	>\$0.25/lb	\$2.50	kUS\$	1,751	1,751	1,735	1,677	1,615	1,313	869	679	0	41,621
Silver Refining	\$9.00	/ g	kUS\$	384	384	384	378	388	328	202	176	0	9,944
Gold Refining	\$180 /	/ g	kUS\$	28	28	28	29	26	33	17	16	0	1,042
Penalties	\$0.00	/ t	kUS\$	0	0	0	0	0	0	0	0	0	0
Ocean Freight	\$30.00 /	/ t	kUS\$	2,284	2,284	2,263	2,187	2,107	1,713	1,133	886	0	54,288
Representation	\$5.00 /	/ t	kUS\$	350	350	347	335	323	263	174	136	0	8,324
Total Charges			kUS\$	17,054	17,054	16,899	16,345	15,763	12,844	8,478	6,645	0	406,562
NSR on Lead Concentrate			kUS\$	21,848	21,848	21,677	21,202	20,681	17,647	11,167	9,168	0	551,482
NSR/t of Lead Con.			US\$/t	\$311.94	\$311.94	\$312.39	\$316.07	\$320.15	\$335.90	\$321.27	\$337.61	\$0.00	\$331.26

CAPITAL COST ESTIMA													
	YEAR		1	2	3	4	5	6	7	8	9	10	11
		Units											
DIRECT COSTS (Incl. Continge													
Grizzly Ramp Access and Deve		k\$	11,000	9,500	0	0	0	0	0	0	0	0	0
Grizzly Shaft Sinking & Equipin		k\$	0	5,500	13,000	2,000	0	0	0	0	0	0	0
Grizzly Surface & Underground	l Plant	k\$	0	1,300	11,600	0	0	0	0	0	0	0	0
Grizzly Mobile Equipment		k\$	0	0	8,100	0	0	0	0	0	0	0	0
Grum Mine Equipment		k\$	9,500	35,500	6,000	0	0	0	0	0	0	0	0
Grum Shop and Dewatering		k\$	5,500	0	0	0							
Grum Preproduction Mining -	Overburden	k\$	0	10,500	0	0	0	0	0	0	0	0	0
	Waste Rock	k\$	0	10,800	0	0							
Faro Process Plant		k\$	3,000	12,000	0	0	0	0	0	0	0	0	0
Ancillary Facilities		k\$	0	4,000	0	0	0	0	0	0	0	0	0
Infrastructure		k\$	0	11.000	0	0	0	0	0	0	0	0	0
Sub-total Direct Costs		k\$	29,000	100,100	38,700	2,000	0	0	0	0	0	0	0
OTHER COSTS		•	-,	,	,	,							
Owner's Costs		k\$	1.000	1.000	500	0	0	0	0	0	0	0	0
Care and Maintenance		k\$	1,500	1,500	0	0	Ő	Ő	Ő	0	Õ	Ő	Ő
Working Capital		k\$	0	0	26,000	12,000	2,000	0 0	0	0	0 0	0 0	0
Sub-total Other Costs		k\$	2,500	2,500	26,500	12,000	2,000	0	0	0	0	0	0
		KΨ	2,000	2,000	20,000	12,000	2,000	0	0	0	0	0	0
Replacement Capital		k\$	0	0	0	0	0	2,650	2,650	2,650	2,150	1,650	1,650
Reclamation		k\$	0	0	0	0	0	0	0	0	1,500	1,500	0
TOTAL CAPITAL COSTS		k\$	31,500	102,600	65,200	14,000	2,000	2,650	2,650	2,650	3,650	3,150	1,650
OPERATING COST EST	IMATE												
	YEAR		1	2	3	4	5	6	7	8	9	10	11
		Units											
MINING													
Pit Ore Mining	1.50 \$/t	k\$		0	4,050	4,500	4,500	4,500	4,500	4,500	2,895	0	0
Pit Waste Mining	1.20 \$/t	k\$		0	24,000	24,000	22,800	20,400	16,800	13,200	4,260	0	0
Pit Fixed Cost	9,100 \$/a	k\$		0	9,100	9,100	9,100	9,100	9,100	9,100	6,000	0	
Grum Ore Haulage to Mill	1.90 \$/t	k\$		0	5,130	5,700	5,700	5,700	5,700	5,700	3,667	0	0
U/g Ore Mining - R & P (70%)	35 \$/t	k\$		0	0	9,331	13,443	14,000	2,042	5,125	3,834	0	0
- R & P to 45% Extr.	33 \$/t	k\$		0	0	0	0	0	0	0	0	0	0
- Drift, Bench & Fill	32 \$/t	k\$		0	0	6,400	18,240	19,200	30,133	27,315	28,494	32,000	32,000
- Drift & Bench Only	27 \$/t	k\$		0	0	6.302	1,239	0	0	0	0	0	0
Grizzly Ore Haulage to Mill	2.50 \$/t	k\$		0	0	1,750	2,500	2,500	2,500	2,500	2,500	2,500	2,500
PROCESSING & GENERAL				-	5	,	,	,	,	,	,	,	.,
Ore Processing	Var. \$/t			11.32	11.32	10.97	10.78	10.78	10.78	10.78	11.05	13.96	13.96
Ore Processing	- φ/τ	k\$		4,166	30,564	40,589	43,120	43,120	43,120	43,120	32,377	13,960	13,960
Site Admin. & Overhead	7000 k\$/a	k\$ k\$		4,100	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Conc. Haul & Port Fees		къ k\$,	,	,	,	,	,	,	,	,
	65 \$/t (wet)			2,160	20,839	32,791	33,515	32,814	30,325	30,484	23,669	11,796	11,796
Reclamation Fund	1.5 %	k\$		229	2,282	3,541	3,636	3,546	3,258	3,259	2,524	1,231	1,231
TOTAL OPERATING COSTS		k\$		6,555	102,965	151,003	164,794	161,880	154,478	151,302	117,220	68,487	68,487
Unit Operating Cost		\$/t Ore		\$17.81	\$38.14	\$40.81	\$41.20	\$40.47	\$38.62	\$37.83	\$40.01	\$68.49	\$68.49

CAPITAL COST ESTIMA												
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DIRECT COSTS (Incl. Conting												~~ ~~~
Grizzly Ramp Access and Dev		k\$	0	0	0	0	0	0	0	0	0	20,500
Grizzly Shaft Sinking & Equipir	0	k\$	0	0	0	0	0	0	0	0	0	20,500
Grizzly Surface & Underground	d Plant	k\$	0	0	0	0	0	0	0	0	0	12,900
Grizzly Mobile Equipment		k\$	0	0	0	0	0	0	0	0	0	8,100
Grum Mine Equipment		k\$	0	0	0	0	0	0	0	0	0	51,000
Grum Shop and Dewatering		k\$										5,500
Grum Preproduction Mining -	Overburden	k\$	0	0	0	0	0	0	0	0	0	10,500
	Waste Rock	k\$										10,800
Faro Process Plant		k\$	0	0	0	0	0	0	0	0	0	15,000
Ancillary Facilities		k\$	0	0	0	0	0	0	0	0	0	4,000
Infrastructure		k\$	0	0	0	0	0	0	0	0	0	11,000
Sub-total Direct Costs		k\$	0	0	0	0	0	0	0	0	0	169,800
OTHER COSTS												
Owner's Costs		k\$	0	0	0	0	0	0	0	0	0	2,500
Care and Maintenance		k\$	0	0	0	0	0	0	0	0	0	3,000
Working Capital		k\$	0	0	0	0	0	0	0	0	-40.000	0
Sub-total Other Costs		k\$	0	0	0	0	0	0	0	0	-40,000	5,500
Replacement Capital		k\$	1,650	1,650	1,650	1,650	1,650	1,650	800	0	0	24,100
			,	,	,	,	,	,				,
Reclamation		k\$	0	0	0	0	0	0	0	0	3,000	6,000
TOTAL CAPITAL COSTS		k\$	1,650	1,650	1,650	1,650	1,650	1,650	800	0	-37,000	205,400
OPERATING COST EST												
OPERATING COST EST	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
MINING												
Pit Ore Mining	1.50 \$/t	k\$	0	0	0	0	0	0	0	0	0	29,445
Pit Waste Mining	1.20 \$/t	k\$	0	0	0	0	0	0	0	0	0	125,460
Pit Fixed Cost	9,100 \$/a	k\$										60,600
Grum Ore Haulage to Mill	1.90 \$/t	k\$	0	0	0	0	0	0	0	0	0	37,297
U/g Ore Mining - R & P (70%)	35 \$/t	k\$	0	0	0	6,678	12,338	24,791	2,035	4,954	0	98,571
- R & P to 45% Extr.	33 \$/t	k\$	0	0	0	0	3,171	2,216	_,===	0	0	5,387
- Drift. Bench & Fill	32 \$/t	k\$	32,000	32,000	32,000	22,627	13,635	7,184	11,200	5.420	0	349.848
- Drift & Bench Only	27 \$/t	k\$	02,000	02,000	02,000	2,757	3,383	0	6,530	5,507	0	25.719
Grizzly Ore Haulage to Mill	2.50 \$/t	k\$	2,500	2,500	2,500	2,500	2,500	2,500	1,625	1,287	0	37,162
PROCESSING & GENERAL	2.00 φ/τ	KΨ	2,500	2,500	2,500	2,500	2,500	2,500	1,020	1,207	0	57,102
Ore Processing	Var. \$/t		13.96	13.96	13.96	13.96	13.96	13.96	15.44	15.54		
Ore Processing	vαι. φ/ι	k\$	13,960	13,960	13,960	13,960	13,960	13,960	10,036	8,001	0	409,893
Site Admin. & Overhead	7000 k\$/a	къ k\$,	,	,	,	,	,	,	0	,
			7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000		119,000
Conc. Haul & Port Fees	65 \$/t (wet)	k\$	11,796	11,796	11,897	11,807	11,852	11,130	7,358	5,411	0	313,236
Reclamation Fund	1.5 %	k\$	1,231	1,231	1,243	1,240	1,251	1,194	778	582	0	33,487
TOTAL OPERATING COSTS		k\$	68,487	68,487	68,600	68,569	69,090	69,976	46,562	38,163	0	1,645,106
Unit Operating Cost		\$/t Ore	\$68.49	\$68.49	\$68.60	\$68.57	\$69.09	\$69.98	\$71.63	\$74.12		\$47.19

TAX CALCULATIONS													
	YEAR		1	2	3	4	5	6	7	8	9	10	11
		Units											
DEPRECIATION POOL													
Opening Balance		k\$	140,000	171,500	265,410	255,428	172,370	94,753	22,913	2,650	2,650	3,650	3,150
Additional Assets		k\$	31,500	102,600	39,200	2,000	0	2,650	2,650	2,650	3,650	3,150	1,650
Amount Used to Defer Taxes		k\$	0	8,690	49,182	85,058	77,616	74,490	22,913	2,650	2,650	3,650	3,150
Closing Balance		k\$	171,500	265,410	255,428	172,370	94,753	22,913	2,650	2,650	3,650	3,150	1,650
INCOME TAX CALCULATION													
Operating Profit		k\$	0	8,690	49,182	85,058	77,616	74,490	62,745	65,942	51,073	13,601	13,601
LESS Depreciation Allowance		k\$	0	-8,690	-49,182	-85,058	-77,616	-74,490	-22,913	-2,650	-2,650	-3,650	-3,150
Taxable Income		k\$	0	0	0	0	0	0	39,832	63,292	48,423	9,951	10,451
Income Tax Payable 3	9 %	k\$	0	0	0	0	0	0	15,535	24,684	18,885	3,881	4,076
YUKON MINING ROYALTY													
Operating Profit		k\$	0	8,690	49,182	85,058	77,616	74,490	62,745	65,942	51,073	13,601	13,601
LESS 15% Depreciation Allowand	се	k\$	0	-1,304	-7,377	-12,759	-11,642	-11,174	-9,412	-9,891	-7,661	-2,040	-2,040
LESS Income Tax Payable		k\$	0	0	0	0	0	0	-15,535	-24,684	-18,885	-3,881	-4,076
Taxable Profit		k\$	0	7,387	41,805	72,300	65,974	63,317	37,799	31,367	24,527	7,680	7,485
		•	0	,1	8	14	13	12	7	6	4	,	,
Royalty Rate (5% + 1%/\$5M)		k\$	0	6	13	19	18	17	12	11	9	6	6
Royalty Payments		k\$	0	443	5,435	13,737	11,875	10,764	4,536	3,450	2,207	461	449

TAX CALCULATIONS												
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DEPRECIATION POOL												
Opening Balance		k\$	1,650	1,650	1,650	1,650	1,650	1,650	1,650	800	154	
Additional Assets		k\$	1,650	1,650	1,650	1,650	1,650	1,650	800	0	3,000	
Amount Used to Defer Taxes		k\$	1,650	1,650	1,650	1,650	1,650	1,650	1,650	646	0	342,246
Closing Balance		k\$	1,650	1,650	1,650	1,650	1,650	1,650	800	154	3,154	
INCOME TAX CALCULATION												
Operating Profit		k\$	13,601	13,601	14,259	14,072	14,297	9,622	5,276	646	0	587,375
LESS Depreciation Allowance		k\$	-1,650	-1,650	-1,650	-1,650	-1,650	-1,650	-1,650	-646	0	
Taxable Income		k\$	11,951	11,951	12,609	12,422	12,647	7,972	3,626	0	0	245,129
Income Tax Payable 3	9 %	k\$	4,661	4,661	4,917	4,845	4,932	3,109	1,414	0	0	95,600
YUKON MINING ROYALTY												
Operating Profit		k\$	13,601	13,601	14,259	14,072	14,297	9,622	5,276	646	0	587,375
LESS 15% Depreciation Allowand	ce	k\$	-2,040	-2,040	-2,139	-2,111	-2,144	-1,443	-791	-97	0	
LESS Income Tax Payable		k\$	-4,661	-4,661	-4,917	-4,845	-4,932	-3,109	-1,414	0	0	
Taxable Profit		k\$	6,900	6,900	7,203	7,117	7,220	5,070	3,070	549	0	403,669
			1	1	1	. 1	1	1	0	0	0	-,
Royalty Rate (5% + 1%/\$5M)		k\$	6	6	6	6	6	6	5	5	5	
Royalty Payments		k\$	414	414	432	427	433	304	154	27	0	55,963



DIAND, Faro Site, NWT DCF Cases1to4.xls

SUMMARY		٦											
		PROJECT YEAR	1	2	3	4	5	6	7	8	9	10	11
		Units											
PRODUCTION													
Grum Pit Ore Mined		kt	0	0	1,125	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Waste rock mined		kt	0	4,000	9,000	9,000	9,000	9,000	9,000	8,500	8,000	7,500	7,000
Total Mined (under operating	costs)	kt	0	0	10,125	10,250	10,250	10,250	10,250	9,750	9,250	8,750	8,250
Strip Ratio	ad	t/t	0.0 0	0.0 0	8.0 0	7.2 700	7.2	7.2	7.2	6.8	6.4	6.0	5.6
Grizzly Underground Ore Mir	ea	kt	0	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Mill Feed		kt	0	368	1,125	1,950	2,250	2,250	2,250	2,250	2,250	2,250	2,250
Head Grades	Zinc	%	0	3.86	4.84	5.30	5.07	4.95	4.57	4.50	4.67	6.10	6.10
	Lead	%	0	2.11	3.04	3.56	3.25	3.19	2.95	3.07	3.30	5.19	5.19
	Silver	g/t	0	47.0	50.8	55.8	52.6	51.2	47.5	47.9	51.4	75.2	75.2
7. 0	Gold	g/t	0	n.a.	0.80	0.83	0.79	0.74	0.60	0.60	0.63	0.76	0.76
Zinc Concentrate	7	dry t	0	20,611	81,261	171,964	196,674	195,651	192,753	183,728	180,106	177,026	176,963
Con. Grade	Zinc	%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Concentrate	Lood	dry t	0 60%	9,965	44,709	104,391	115,201	116,850	118,355 60%	120,226	116,658	112,709	112,663
Con. Grade	Lead Silver	% g/t	00%	60% 867.9	60% 755.8	60% 671.7	60% 695.2	60% 686.8	702.9	60% 676.3	60% 689.7	60% 693.1	60% 693.0
	Gold	g/t	0	n.a.	6.17	4.94	4.44	4.17	4.45	4.48	4.64	4.73	4.73
		0											
REVENUE Motol Briggs	Zina		0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Metal Prices	Zinc Lead	0.60 US\$/lb 0.35 US\$/lb	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35
	Silver	5.00 US\$/oz	0.35 5.00	0.35 5.00	0.35 5.00	5.00	0.35 5.00	5.00	0.35 5.00	0.35 5.00	0.35 5.00	0.35 5.00	0.35 5.00
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300	300
	Goid	300 034/02	500	500	500	300	500	500	500	500	500	500	500
Zinc Con. Payment		kUS\$	0	11,723	46,220	97,811	111,865	111,284	109,635	104,502	102,442	100,690	100,654
LESS Zinc Con. Char	ges	kUS\$	0	5,106	20,133	42,605	48,727	48,474	47,756	45,520	44,622	43,859	43,844
NSR on Zinc Concentrate		kUS\$	0	6,617	26,087	55,206	63,138	62,810	61,880	58,982	57,820	56,831	56,810
Lead Con. Payment		kUS\$	0	5,660	26,811	60,086	66,191	66,698	68,155	68,768	67,142	65,030	64,999
LESS Lead Con. Cha	rges	kUS\$	0	2,442	10,954	25,476	28,129	28,517	28,907	29,336	28,483	27,524	27,512
NSR on Lead Concentrate		kUS\$	0	3,219	15,858	34,610	38,062	38,181	39,248	39,432	38,660	37,506	37,486
Total US dollar Revenue	1 5	kUS\$ 5 Can\$/US\$	0	9,835	41,945	89,816	101,201	100,991	101,127	98,414	96,479	94,337	94,297
Exchange Rate Total Revenue	1.0	k\$	0	15,245	65,015	139,214	156,861	156,536	156,747	152,542	149,543	146,222	146,160
OPERATING COSTS								o / = = =					
Grum Pit Mining		k\$	0	0 0	21587.5	21775	21775	21775	21775	21175	20575	19975	19375
Grum Ore Haulage to Mill Underground Ore Mining		k\$ k\$	0	0	2,138 0	2,375 22,033	2,375 32,923	2,375 33,200	2,375 32,175	2,375 32,439	2,375 32,329	2,375 32,000	2,375 32,000
Grizzly Ore Haulage to Mill		k\$	0	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Ore Processing		k\$	0	4,339	13,264	21,703	24,705	24,705	24,705	24,705	24,705	24,705	24,705
Site Admin. & Overhead		k\$	Ő	0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Conc. Haul & Port Fees		k\$	0	2,160	8,900	19,525	22,035	22,079	21,980	21,475	20,967	20,470	20,463
Reclamation Fund		k\$	0	229	975	2,088	2,353	2,348	2,351	2,288	2,243	2,193	2,192
Total Operating Costs		k\$	0	6,728	53,864	97,200	114,165	114,482	113,362	112,457	111,194	109,719	109,110
Operating Profit		k\$	0	8,517	11,151	42,015	42,696	42,054	43,386	40,085	38,349	36,503	37,050
CAPITAL COSTS													
Direct Costs		k\$	46,000	169,500	34,200	2,000	0	0	0	0	0	0	0
Other Costs		k\$	2,500	2,500	500	0	0	0	0	0	0	0	0
Working Capital Relacement Capital		k\$	0 0	0 0	26000 0	12000 0	2000	0 1600	0 1600	0 1600	0 1600	0 1600	0 1600
Reclamation		k\$ k\$	0	0	0	0	0	000	000	000	0001	000	000
Cash Flow before Taxes		k\$					40,696	40,454				34,903	
		KΦ	-40,300	-163,483	-49,549	28,015	40,090	40,404	41,786	38,485	36,749	34,903	35,450
TAXES AND ROYALTIES													
Corporate Income Tax	3	9 % k\$	0	0	0	0	0	0	0	0	0	0	0
Yukon Mining Royalty		k\$	0	434	569	4,285	4,355	4,290	4,425	3,748	3,586	3,413	3,464
Cash Flow After Taxes		k\$	-48.500	-163,917	-50,118	23,729	36,341	36,165	37,360	34,737	33,164	31,490	31,986
Cumulative Cash Flow	v	k\$	-48,500	-212,417	-262,535		-202,465	-166,301	-128,940	-94,203	-61,039	-29,549	2,436
		100/ 10	10 70-										
RESULTS	NPV @	10% k\$	-46,708										
	NPV @ NPV @	15% k\$ 20% k\$	-82,386 -100,036										
	IRR	20% K\$	6.4%										
		70	0.770										

SUMMARY		7										
SUMIMAR I		PROJECT YEAR	12	13	14	15	16	17	18	19	20	TOTALS
		Units										
PRODUCTION												
Grum Pit Ore Mined		kt	1,250	1,250	1,250	1,250	1,250	1,250	1,005	0	0	19,630
Waste rock mined	contro)	kt kt	6,000 7,250	6,000	5,000 6,250	5,000 6,250	4,000 5,250	3,500 4,750	1,050 2,055	0	0	110,550 126,180
Total Mined (under operating Strip Ratio	COSIS)	t/t	4.8	7,250 4.8	6,250 4.0	6,250 4.0	5,250 3.2	4,750	2,055	0.0	0.0	5.6
Grizzly Underground Ore Min	ed	kt	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0.0	14,865
Mill Feed	7:	kt	2,250	2,250	2,250	2,250	2,250	2,250	1,655	515	0	34,863
Head Grades	Zinc Lead	%	6.10 5.19	6.10 5.19	6.23 5.14	6.30 4.97	6.50 4.79	6.61 3.89	6.72 3.96	6.05 3.91	0.00 0.00	5.21 3.61
	Silver	g/t	75.2	75.2	75.1	73.8	4.79 75.7	63.9	60.8	66.8	0.00	56.6
	Gold	g/t g/t	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75	0.00	0.72
Zinc Concentrate	Cold	dry t	166,299	166,299	168,380	169,423	172,542	174,382	125,176	49,436	0.00	2,768,674
Con. Grade	Zinc	%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Concentrate		dry t	104,944	104,944	104,296	101,984	99,505	87,442	62,825	27,156	0	1,664,821
Con. Grade	Lead	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver	g/t	685.5	685.5	689.2	697.5	725.8	745.5	720.7	759.5	0.0	699.3
	Gold	g/t	4.11	4.11	4.09	4.26	4.13	5.04	4.63	4.24	0.00	4.47
REVENUE												
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	
Zine Con Devenant			04 500	04 500	05 770	00.000	00 400	00.400	74 400	00.440	0	4 574 705
Zinc Con. Payment		kUS\$	94,589	94,589	95,772	96,366	98,139	99,186	71,198	28,118 12.248	0	1,574,785
LESS Zinc Con. Char	ges	kUS\$	41,202	41,202	41,717	41,976	42,748	43,204	31,013	, -	0	685,957
NSR on Zinc Concentrate Lead Con. Payment		kUS\$ kUS\$	53,387 59,815	53,387 59,815	54,055 59,489	54,390 58,460	55,391 57,339	55,982 51,386	40,185 36,450	15,870 15,813	0	888,829 958,108
LESS Lead Con. Cha	mes	kUS\$ kUS\$	25,609	25,609	25,454	24,900	24,317	21,398	15,356	6,645	0	406,565
NSR on Lead Concentrate	igoo	kUS\$	34,206	34,206	34,035	33,560	33,023	29,988	21,094	9,168	0	551,542
Total US dollar Revenue		kUS\$	87,593	87,593	88,090	87,950	88,414	85,970	61,280	25,039	0	1,440,371
Exchange Rate	1.5	5 Can\$/US\$,	.,	,	,		,		,		.,,
Total Revenue		k\$	135,770	135,770	136,540	136,323	137,041	133,253	94,983	38,810	0	2,232,575
OPERATING COSTS												
Grum Pit Mining		k\$	18175	18175	16975	16975	15775	15175	11867.5	0	0	302,905
Grum Ore Haulage to Mill		k\$	2,375	2,375	2,375	2,375	2,375	2,375	1,910	0	0	37,297
Underground Ore Mining		k\$	32,000	32,000	32,000	32,062	32,527	34,192	19,765	15,881	0	479,526
Grizzly Ore Haulage to Mill		k\$	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Ore Processing		k\$	24,705	24,705	24,705	24,705	24,705	24,705	18,735	6,071	0	385,276
Site Admin. & Overhead		k\$	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	0	119,000
Conc. Haul & Port Fees		k\$	19,164	19,164	19,265	19,175	19,221	18,498	13,283	5,411	0	313,236
Reclamation Fund		k\$	2,037	2,037	2,048	2,045	2,056	1,999	1,425	582	0	33,489
Total Operating Costs		k\$	106,455	106,455	105,368	105,337	104,658	104,944	74,634	35,460	0	1,685,594
Operating Profit		k\$	29,314	29,314	31,172	30,985	32,383	28,309	20,349	3,350	0	546,981
CAPITAL COSTS												
Direct Costs		k\$	0	0	0	0	0	0	0	0	0	251,700
Other Costs		k\$	0	0	0	Ő	0	Ő	Ő	0	Ő	5,500
Working Capital		k\$	0	0	0	0	0	0	0	0	-40000	0
Relacement Capital		k\$	1600	1600	1600	1600	1600	1600	800	0	0	0
Reclamation		k\$	0	0	0	0	0	0	0	3000	3000	0
Cash Flow before Taxes		k\$	27,714	27,714	29,572	29,385	30,783	26,709	19,549	350	37,000	263,781
TAXES AND ROYALTIES												
Corporate Income Tax	3	9 % k\$	0	0	10,571	11,460	12,005	10,416	7,312	994	0	52,760
Yukon Mining Royalty	3	9 % K\$ k\$	2,243	2,243	1,274	1,041	12,005	955	599	994 93	0	42,258
in this is a country		NΨ	2,270	2,270	1,214	1,011	1,272	555	555	55	0	12,200
Cash Flow After Taxes Cumulative Cash Flow	v	k\$ k\$	25,472 27,908	25,472 53,380	17,727 71,106	16,884 87,990	17,536 105,526	15,337 120,863	11,638 132,501	-737 131,763	37,000 168,763	168,763
RESULTS	NPV @	10% k\$										
NLOULIO	NPV @ NPV @	10% k\$ 15% k\$										
	NPV @	20% k\$										
	IRR	%										
	-											

PRODUCTION														
		PROJEC	T YEAR	1	2	3	4	5	6	7	8	9	10	11
			Units											
MINING PLAN														
Grum Pit Ore			kt	0	0	1,125	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Overburden mined (wall fail	ure)		kt		9880	0	0	0	0	0	0	0	0	0
Waste rock mined	,		kt		4,000	9,000	9,000	9,000	9,000	9,000	8,500	8,000	7,500	7,000
Total Mined (under operatin	ig costs)		kt			10125	10250	10250	10250	10250	9750	9250	8750	8250
Strip Ratio	· /		t/t			8.0	7.2	7.2	7.2	7.2	6.8	6.4	6.0	5.6
Mined Grades	Zinc		%			4.98	4.73	4.73	4.73	4.68	4.42	4.42	4.42	4.41
	Lead		%			3.10	3.01	3.01	3.01	2.95	2.66	2.66	2.66	2.66
	Silver		g/t			51.8	50.1	50.1	50.1	49.3	45.5	45.5	45.5	45.5
	Gold		g/t			0.82	0.78	0.78	0.78	0.79	0.82	0.82	0.82	0.82
Grizzly Underground Ore														
Room & Pillar		70'	% kt	0	0	0	267	384	400	58	146	110	0	0
R & P without 2nd P	ass	45'	% kt	0	0	0	0	0	0	0	0	0	0	0
Drift, Bench & Fill		85	% kt	0	0	0	200	570	600	942	854	890	1,000	1,000
Drift & Bench Only		45'	% kt	0	0	0	233	46	0	0	0	0	0	0
Total Ore Mined			kt	0	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Mined Grades	Zinc		%				7.74	6.98	6.91	6.79	6.52	6.30	6.10	6.10
	Lead		%				5.94	4.96	5.08	5.26	5.74	5.48	5.19	5.19
	Silver		g/t				80.5	73.0	73.2	79.1	80.5	79.1	75.2	75.2
	Gold		g/t				1.06	0.73	0.65	0.77	0.77	0.78	0.76	0.76
Stockpile, Remove (Add)			kt	0	368	0	0	0	0	0	0	0	0	0
Stockpile Grades	Zinc		%		3.86									
	Lead		%		2.11									
	Silver		g/t		47.0									
	Gold		g/t		n.a.									
PROCESSING PLAN														
Mill Feed			kt	0	368	1,125	1,950	2,250	2,250	2,250	2,250	2,250	2,250	2,250
Head Grades	Zinc		%	0	3.86	4.84	5.30	5.07	4.95	4.57	4.50	4.67	6.10	6.10
	Lead		%	0	2.11	3.04	3.56	3.25	3.19	2.95	3.07	3.30	5.19	5.19
	Silver		g/t	0	47.0	50.8	55.8	52.6	51.2	47.5	47.9	51.4	75.2	75.2
	Gold		g/t		n.a.	0.80	0.83	0.79	0.74	0.60	0.60	0.63	0.76	0.76
Recoveries	Zinc	Grum	%		74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
	Zinc	Grizzly	%		81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Lead	Grum	%		77%	77%	77%	77%	77%	77%	77%	77%	77%	77%
	Lead	Grizzly	%		81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Silver	Grum	%		50%	58%	58%	58%	58%	58%	58%	58%	58%	58%
	Silver	Grizzly	%		60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Gold	Both	%		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Concentrate Produced				_										
Zinc Concentrate			dry t	0	20,611	81,261	171,964	196,674	195,651	192,753	183,728	180,106	177,026	176,963
Lead Concentrate	7		dry t	0	9,965	44,709	104,391	115,201	116,850	118,355	120,226	116,658	112,709	112,663
Zinc Con. Grades	Zinc		%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Con. Grades	Lead		%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver		g/t	0	868	756	672	695	687	703	676	690	693	693
	Gold		g/t	0	n.a.	6.17	4.94	4.44	4.17	4.45	4.48	4.64	4.73	4.73
Zinc Con. Shipped (incl. 8%			wet t	0	22,403	88,327	186,918	213,776	212,664	209,514	199,704	195,768	192,420	192,351
Lead Con. Shipped (incl. 8%	% moisture)		wet t	0	10,831	48,596	113,469	125,218	127,011	128,646	130,680	126,802	122,510	122,460

PRODUCTION													
		PROJECT		12	13	14	15	16	17	18	19	20	TOTALS
			Units										
MINING PLAN													
Grum Pit Ore			kt	1,250	1,250	1,250	1,250	1,250	1,250	1,005	0	0	19630
Overburden mined (wall fail	ure)		kt	0	0	0	0	0	0	0	0	0	9880
Waste rock mined			kt	6,000	6,000	5,000	5,000	4,000	3,500	1,050	0	0	110550
Total Mined (under operatin	g costs)		kt	7250	7250	6250	6250	5250	4750	2055	0	0	126180
Strip Ratio			t/t	4.8	4.8	4.0	4.0	3.2	2.8	1.0			5.6
Mined Grades	Zinc		%	3.83	3.83	3.83	3.83	3.83	3.83	3.83			4.27
	Lead		%	2.18	2.18	2.18	2.18	2.18	2.18	2.18			2.56
	Silver		g/t	37.0	37.0	37.0	37.0	37.0	37.0	37.0			43.3
	Gold		g/t	0.54	0.54	0.54	0.54	0.54	0.54	0.54			0.69
Grizzly Underground Ore													
Room & Pillar		70%		0	0	0	191	353	708	58	142	0	2,816
R & P without 2nd Pa	ass	45%		0	0	0	0	96	67	0	0	0	163
Drift, Bench & Fill		85%		1,000	1,000	1,000	707	426	225	350	169	0	10,933
Drift & Bench Only		45%		0	0	0	102	125	0	242	204	0	953
Total Ore Mined			kt	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Mined Grades	Zinc		%	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05		6.49
	Lead		%	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91		5.03
	Silver		g/t	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8		74.3
	Gold		g/t	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75		0.76
Stockpile, Remove (Add)			kt	0	0	0	0	0	0	0	0	0	368
Stockpile Grades	Zinc		%										3.86
	Lead		%										2.11
	Silver		g/t										47.0
	Gold		g/t										n.a.
PROCESSING PLAN													
Mill Feed			kt	2,250	2,250	2,250	2,250	2,250	2,250	1,655	515	0	34,863
Head Grades	Zinc		%	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05		5.21
	Lead		%	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91		3.61
	Silver		g/t	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8		56.6
	Gold		g/t	0.76	0.76	0.74	0.77	0.69	0.79	0.65	0.75		0.72
Recoveries	Zinc	Grum	%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
	Zinc	Grizzly	%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Lead	Grum	%	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%
	Lead	Grizzly	%	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Silver	Grum	%	58%	58%	58%	58%	58%	58%	58%	58%	58%	58%
	Silver	Grizzly	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Gold	Both	%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Concentrate Produced													
Zinc Concentrate			dry t	166,299	166,299	168,380	169,423	172,542	174,382	125,176	49,436	0	2,768,674
Lead Concentrate			dry t	104,944	104,944	104,296	101,984	99,505	87,442	62,825	27,156	0	1,664,821
Zinc Con. Grades	Zinc		%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Con. Grades	Lead		%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver		g/t	686	686	689	698	726	745	721	759	0	699
	Gold		g/t	4.11	4.11	4.09	4.26	4.13	5.04	4.63	4.24	0.00	4.47
Zinc Con. Shipped (incl. 8%	moisture)		wet t	180,760	180,760	183,021	184,155	187,545	189,546	136,061	53,735	0	3,009,429
Lead Con. Shipped (incl. 8%	(moisture)		wet t	114,069	114,069	113,365	110,852	108,158	95,045	68,288	29,518	0	1,809,588

(in US dollars)	YE	AR	1	2	3	4	5	6	7	8	9	10	1
		Units											
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.6
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.3
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.0
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300	30
c Concentrate													
Payment based on Le	sser of:												
,	85%	k.lb	0	19,698	77,661	164,345	187,960	186,983	184,213	175,588	172,126	169,183	169,1
Or Content minus 8	units	k.lb	0	19,539	77,034	163,018	186,442	185,473	182,725	174,170	170,737	167,817	167,7
Zinc Con. Payment		kUS\$	0	11,723	46,220	97,811	111,865	111,284	109,635	104,502	102,442	100,690	100,6
arges		•		, -	-, -	- ,-	,	, -		- /	- /		/ -
Treatment	\$190 /t	kUS\$	0	3,916	15,440	32,673	37,368	37,174	36,623	34,908	34,220	33.635	33,6
Price Escalator	>\$1100/t	\$0.07 kUS\$	0	312	1,231	2,605	2,979	2,964	2,920	2,783	2,728	2,682	2,6
Penalties	\$5.00 / t	kUS\$	0 0	103	406	860	983	978	964	919	901	885	_,0
Ocean Freight	\$30.00 / t	kUS\$	0	672	2.650	5.608	6.413	6.380	6.285	5.991	5.873	5.773	5,7
Representation	\$5.00 / t	kUS\$	0	103	406	860	983	978	964	919	901	885	8
al Charges	φ5.00 / ί	kUS\$	0	5.106	20,133	42,605	48,727	48,474	47,756	45,520	44.622	43,859	43,8
ai onargeo		κοσφ	0	3,100	20,100	42,000	40,727	+0,+7	47,750	40,020	44,022	-0,000	40,0
R on Zinc Concentrate		kUS\$	0	6.617	26.087	55.206	63.138	62.810	61.880	58.982	57.820	56.831	56.8
NSR/t on Zinc Con.		US\$/t	\$0.00	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.
Id Concentrate Lead Payment based Or Content minus 3	95%	k.lb k.lb	0	12,522 12.522	56,182 56.182	131,180 131.180	144,764 144,764	146,837 146.837	148,727 148,727	151,078 151,078	146,595 146,595	141,632 141,632	141,5 141.5
Lead Payment	units	kUS\$	0	4,383	19,664	45,913	50,667	51,393	52,054	52,877	51,308	49,571	49,5
,	on Longor of	KUSA	0	4,303	19,004	45,913	50,667	51,595	52,054	52,077	51,306	49,571	49,5
Silver Payment based	95%	1.0	0	8.216	32,100	CC C40	76.086	76.242	79.036	77 0 40	70 400	74.210	744
		kg		-, -	- ,	66,612	- /	- /	- ,	77,243	76,433	, -	74,1
Or Content minus 3	5 grams	kg kUS\$	0	8,299	32,225	66,465	76,058	76,165	79,054	77,100	76,373	74,171	74,1
Silver Payment		KUS\$	0	1,278	4,992	10,336	11,828	11,845	12,291	11,990	11,877	11,535	11,5
Gold Payment based		1			000	400	400	100	500			507	-
0.0.1.1.1.1.1.1	95%	kg	0	n.a.	262	490	486	463	500	511	514	507	5
Or Content minus 1	gram	kg	0	n.a.	231	411	396	371	408	418	424	420	4
Gold Payment		kUS\$	0	0	2,156	3,837	3,695	3,460	3,809	3,900	3,957	3,923	3,9
Lead Con. Payment		kUS\$	0	5,660	26,811	60,086	66,191	66,698	68,155	68,768	67,142	65,030	64,9
arges													
Treatment	\$175 /t	kUS\$	0	1.744	7.824	18,268	20,160	20,449	20,712	21,039	20,415	19,724	19,7
Price Escalator	>\$0.25/lb	\$2.50 kUS\$	0	249	1,118	2,610	2,880	2.921	2,959	3,006	2,916	2,818	2,8
Silver Refining	\$9.00 / g	\$2.50 KUS\$	0	74	289	2,010	2,000	685	2,353	5,000 694	687	2,010	2,0
Gold Refining	\$180 / g	kUS\$	0	0	42	74	71	67	73	75	76	76	Ċ
Penalties	\$0.00 / t	kUS\$	0	0	42	0	0	0/	0	0	0	0	
Ocean Freight	\$30.00 / t	kUS\$	0	325	1.458	3.404	3.757	3,810	3,859	3,920	3.804	3.675	3.6
0	\$5.00 / t	kUS\$ kUS\$	0	525 50	224	3,404 522	-, -	584	3,659 592	3,920 601	3,604 583	3,675 564	3,0 5
Representation	φ5.00 /t						576						
al Charges		kUS\$	0	2,442	10,954	25,476	28,129	28,517	28,907	29,336	28,483	27,524	27,5
													07
R on Lead Concentrate		kUS\$	0	3,219	15,858	34,610	38,062	38,181	39,248	39,432	38,660	37,506	37,4

REVENUE CALCULAT	IONS	1											
(in US dollars)		YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		4	Units										
Metal Prices	Zinc	0.6) US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Lead	0.3	5 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Silver	5.0) US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Gold	30) US\$/oz	300	300	300	300	300	300	300	300	300	300
Zinc Concentrate													
Payment based on Le													
	85%		k.lb	158,931	158,931	160,920	161,916	164,897	166,656	119,630	47,246	0	2,646,006
Or Content minus 8	3 units		k.lb	157,648	157,648	159,620	160,609	163,566	165,311	118,664	46,864	0	2,624,642
Zinc Con. Payment			kUS\$	94,589	94,589	95,772	96,366	98,139	99,186	71,198	28,118	0	1,574,785
Charges	.							~~ ~~~		~~ ~~~			=
Treatment	\$190		kUS\$	31,597	31,597	31,992	32,190	32,783	33,133	23,783	9,393	0	526,048
Price Escalator	>\$1100/t		kUS\$	2,519	2,519	2,551	2,566	2,614	2,641	1,896	749	0	41,939
Penalties	\$5.00		kUS\$	831	831	842	847	863	872	626	247	0	13,843
Ocean Freight	\$30.00		kUS\$	5,423	5,423	5,491	5,525	5,626	5,686	4,082	1,612	0	90,283
Representation	\$5.00	/ t	kUS\$ kUS\$	831 41,202	831 41,202	842 41,717	847 41,976	863 42,748	872 43,204	626 31,013	247 12,248	0	13,843 685,957
Total Charges			KUSĄ	41,202	41,202	41,717	41,970	42,740	43,204	31,013	12,240	0	665,957
NSR on Zinc Concentrate			kUS\$	53,387	53,387	54,055	54,390	55,391	55,982	40,185	15,870	0	888,829
NSR/t on Zinc Con.			US\$/t	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$0.00	\$321.03
NSINT OIL ZINC COIL.			000/1	ψ321.03	ψ321.05	ψ321.03	ψ321.03	ψ321.03	ψ321.03	ψ321.03	ψ321.03	ψ0.00	ψ321.05
Lead Concentrate													
Lead Payment based	on Lesser of	:											
·····,	95%		k.lb	131,875	131,875	131,061	128,155	125,041	109,881	78,947	34,125	0	2,092,051
Or Content minus 3	3 units		k.lb	131,875	131,875	131,061	128,155	125,041	109,881	78,947	34,125	0	2,092,051
Lead Payment			kUS\$	46,156	46,156	45,871	44,854	43,764	38,458	27,632	11,944	0	732,218
Silver Payment based	l on Lesser o	f:											
	95%		kg	68,344	68,344	68,284	67,578	68,611	61,928	43,013	19,594	0	1,106,048
Or Content minus 3	35 grams		kg	68,268	68,268	68,227	67,565	68,740	62,126	43,078	19,675	0	1,105,992
Silver Payment			kUS\$	10,617	10,617	10,611	10,508	10,670	9,631	6,689	3,047	0	171,892
Gold Payment based	on Lesser of	:											
	95%		kg	409	409	405	412	390	419	276	109	0	7,070
Or Content minus 1	l gram		kg	326	326	322	332	311	353	228	88	0	5,787
Gold Payment			kUS\$	3,042	3,042	3,007	3,098	2,905	3,296	2,129	822	0	53,998
Lead Con. Payment			kUS\$	59,815	59,815	59,489	58,460	57,339	51,386	36,450	15,813	0	958,108
Charges													
Charges Treatment	\$175	1.	kUS\$	40.005	40.005	40.050	47.047	47 440	45 000	40.004	4 750	0	004 044
Price Escalator	۵۱/5 \$0.25/lb>		kUS\$ kUS\$	18,365 2,624	18,365	18,252 2,607	17,847 2,550	17,413	15,302	10,994	4,752 679	0	291,344 41,621
			kUS\$ kUS\$	2,624	2,624 614	2,607	2,550 608	2,488 618	2,186 557	1,571 387	679 176	0	41,621 9.948
Silver Refining Gold Refining	\$9.00 \$180		kUS\$ kUS\$	59	59	58	608	56	557 64	307 41	16	0	9,940 1,042
Penalties	\$0.00	•	kUS\$ kUS\$	0	0	0	00	0	04	41	0	0	1,042
Ocean Freight	\$0.00		kUS\$ kUS\$	3.422	3.422	3.401	3.326	3.245	2.851	2.049	886	0	54.288
Representation	\$5.00		kUS\$ kUS\$	525	525	521	3,320 510	498	437	2,049	136	0	8,324
Total Charges	φ <u>υ</u> .00	/ι	kUS\$ kUS\$	525 25,609	25,609	25,454	24,900	496 24,317	437 21,398	15,356	6,645	0	0,324 406,565
i olai Ollaiyes			κυσφ	20,009	20,009	20,404	24,900	24,317	21,390	10,000	0,040	0	400,505
NSR on Lead Concentrate			kUS\$	34,206	34,206	34,035	33,560	33,023	29,988	21,094	9,168	0	551,542
NSR/t of Lead Con.			US\$/t	\$325.95	\$325.95	\$326.34	\$329.07	\$331.87	\$342.95	\$335.76	\$337.61	\$0.00	\$331.29
				+								+	+0

TOTAL OPERATING COSTS

Unit Operating Cost

FARO DCF ANALYSIS CASE 2 - GRUM + GRIZZLY, NEW MILL

109,110

\$48.49

\$48.76

	YEAR		1	2	3	4	5	6	7	8	9	10	11
		Units	1	2	5	4	5	0	'	0	5	10	
DIRECT COSTS (Incl. Conting	ency & EPCM)	Units											
Grizzly Ramp Access and Dev		k\$	11.000	9,500	0	0	0	0	0	0	0	0	C
Grizzly Shaft Sinking & Equipir		k\$	0	5,500	13,000	2,000	0 0	0 0	Ő	0	0 0	0	C
Grizzly Surface & Underground		k\$	0	1,300	11,600	2,000	Ő	Ő	0	0	0 0	0	C
Grizzly Mobile Equipment		k\$	0	0	8,100	0	0	0	0	0	0	0	0
Grum Mine Equipment		k\$	9,500	23,500	1,500	0	Ő	Ő	Ő	0	0 0	0	(
Grum Shop and Dewatering		k\$	5,500	20,000	1,000	0	0	0	0	0	0	0	0
Grum Preproduction Mining -	Overburden	k\$	3,300 0	10,500	0	0	0	0	0	0	0	0	(
and in the production withing -	Waste Rock	k\$	0	7,200	0	0	0	0	0	0	0	0	(
aro Process Plant	Waste RUCK	k\$ k\$	20,000	75,000	0	0	0	0	0	0	0	0	(
		къ k\$	20,000	,	0	0	0	0	0	0	0	0	(
ncillary Facilities		•	-	22,500	-	-	-	-	-	-	-	-	
frastructure		k\$	0	14,500	0	0	0	0	0	0	0	0	(
Sub-total Direct Costs		k\$	46,000	169,500	34,200	2,000	0	0	0	0	0	0	(
THER COSTS						_				_		-	
wner's Costs		k\$	1,000	1,000	500	0	0	0	0	0	0	0	(
are and Maintenance		k\$	1,500	1,500	0	0	0	0	0	0	0	0	(
/orking Capital		k\$	0	0	26,000	12,000	2,000	0	0	0	0	0	(
Sub-total Other Costs		k\$	2,500	2,500	26,500	12,000	2,000	0	0	0	0	0	(
eplacement Capital		k\$	0	0	0	0	0	1,600	1,600	1,600	1,600	1,600	1,600
eclamation		k\$	0	0	0	0	0	0	0	0	0	0	(
OTAL CAPITAL COSTS		k\$	48,500	172,000	60,700	14,000	2,000	1,600	4 000	4 000	4 000	4 000	
		·	10,000	112,000	00,700	14,000	2,000	1,600	1,600	1,600	1,600	1,600	1,600
OPERATING COST EST			,		·			,	·				·
DPERATING COST EST	IMATE YEAR	Units	1	2	3	4	5	6	7,600	1,600	1,600	1,600	·
			,		·			,	·				·
1INING	YEAR	Units	,	2	3	4	5	6	7	8	9	10	1.
IINING it Ore Mining	YEAR 1.50 \$/t	Units k\$,	2	3	4	5	6	7	8	9	10	1,875
1INING it Ore Mining it Waste Mining	YEAR	Units k\$ k\$,	2	3 1,688 10,800	4 1,875 10,800	5 1,875 10,800	6 1,875 10,800	7 1,875 10,800	8 1,875 10,200	9 1,875 9,600	10 1,875 9,000	1,875 8,400
IINING itt Ore Mining itt Waste Mining itt Fixed Cost	YEAR 1.50 \$/t 1.20 \$/t	Units k\$ k\$ k\$,	2	3 1,688 10,800 9,100	4 1,875 10,800 9,100	5 1,875 10,800 9,100	6 1,875 10,800 9,100	7 1,875 10,800 9,100	8 1,875 10,200 9,100	9 1,875 9,600 9,100	10 1,875 9,000 9,100	1,87 8,400 9,100
IINING it Ore Mining it Waste Mining it Fixed Cost srum Ore Haulage to Mill	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t	Units k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0	3 1,688 10,800 9,100 2,138	4 1,875 10,800 9,100 2,375	1,875 10,800 9,100 2,375	6 1,875 10,800 9,100 2,375	7 1,875 10,800 9,100 2,375	8 1,875 10,200 9,100 2,375	9 1,875 9,600 9,100 2,375	10 1,875 9,000 9,100 2,375	1,875 8,400 9,100 2,375
IINING it Ore Mining it Waste Mining it Fixed Cost rum Ore Haulage to Mill /g Ore Mining - R & P (70%)	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0	4 1,875 10,800 9,100 2,375 9,331	1,875 10,800 9,100 2,375 13,443	6 1,875 10,800 9,100 2,375 14,000	7 1,875 10,800 9,100 2,375 2,042	8 1,875 10,200 9,100 2,375 5,125	9 1,875 9,600 9,100 2,375 3,834	10 1,875 9,000 9,100 2,375 0	1,879 8,400 9,100 2,379
IINING it Ore Mining it Waste Mining it Fixed Cost rum Ore Haulage to Mill /g Ore Mining - R & P (70%) - R & P to 45% Extr.	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0	4 1,875 10,800 9,100 2,375 9,331 0	1,875 10,800 9,100 2,375 13,443 0	6 1,875 10,800 9,100 2,375 14,000 0	1,875 10,800 9,100 2,375 2,042 0	1,875 10,200 9,100 2,375 5,125 0	9 1,875 9,600 9,100 2,375 3,834 0	10 1,875 9,000 9,100 2,375 0 0	1 1,875 8,400 9,100 2,375
IINING it Ore Mining it Waste Mining it Fixed Cost rum Ore Haulage to Mill /g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t 32 \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0 0	4 1,875 10,800 9,100 2,375 9,331 0 6,400	5 1,875 10,800 9,100 2,375 13,443 0 18,240	6 1,875 10,800 9,100 2,375 14,000 0 19,200	7 1,875 10,800 9,100 2,375 2,042 0 30,133	8 1,875 10,200 9,100 2,375 5,125 0 27,315	9 1,875 9,600 9,100 2,375 3,834 0 28,494	10 1,875 9,000 9,100 2,375 0 0 32,000	1,879 8,400 9,100 2,377 (0 32,000
IINING it Ore Mining it Waste Mining it Fixed Cost rum Ore Haulage to Mill /g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill - Drift & Bench Only	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t 32 \$/t 27 \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0 0 0 0	4 1,875 10,800 9,100 2,375 9,331 0 6,400 6,302	1,875 10,800 9,100 2,375 13,443 0 18,240 1,239	6 1,875 10,800 9,100 2,375 14,000 0 19,200 0	7 1,875 10,800 9,100 2,375 2,042 0 30,133 0	1,875 10,200 9,100 2,375 5,125 0 27,315 0	9 1,875 9,600 9,100 2,375 3,834 0 28,494 0	10 1,875 9,000 9,100 2,375 0 0 32,000 0	1,879 8,400 9,100 2,379 (32,000
IINING it Ore Mining it Waste Mining it Fixed Cost rrum Ore Haulage to Mill /g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill - Drift & Bench Only rizzly Ore Haulage to Mill	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t 32 \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0 0	4 1,875 10,800 9,100 2,375 9,331 0 6,400	5 1,875 10,800 9,100 2,375 13,443 0 18,240	6 1,875 10,800 9,100 2,375 14,000 0 19,200	7 1,875 10,800 9,100 2,375 2,042 0 30,133	8 1,875 10,200 9,100 2,375 5,125 0 27,315	9 1,875 9,600 9,100 2,375 3,834 0 28,494	10 1,875 9,000 9,100 2,375 0 0 32,000	1,879 8,400 9,100 2,379 (32,000
IINING it Ore Mining it Waste Mining it Fixed Cost frum Ore Haulage to Mill /g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill - Drift & Bench Only irizzly Ore Haulage to Mill ROCESSING & GENERAL	YEAR 1.50 \$/t 1.20 \$/t 35 \$/t 33 \$/t 32 \$/t 27 \$/t 1.00 \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0 0 0 0 0 0	4 1,875 10,800 9,100 2,375 9,331 0 6,400 6,302 700	5 1,875 10,800 9,100 2,375 13,443 0 18,240 1,239 1,000	6 1,875 10,800 9,100 2,375 14,000 0 19,200 0 1,000	7 1,875 10,800 9,100 2,375 2,042 0 30,133 0 1,000	8 1,875 10,200 9,100 2,375 5,125 0 27,315 0 1,000	9 1,875 9,600 9,100 2,375 3,834 0 28,494 0 1,000	10 1,875 9,000 9,100 2,375 0 0 32,000 0 1,000	1,873 8,400 9,100 2,377 (32,000 (1,000
IINING it Ore Mining it Waste Mining it Fixed Cost Grum Ore Haulage to Mill /g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill - Drift & Bench Only Grizzly Ore Haulage to Mill ROCESSING & GENERAL Dre Processing	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t 32 \$/t 27 \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0 0 11.79	3 1,688 10,800 9,100 2,138 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 1,875 10,800 9,100 2,375 9,331 0 6,400 6,302 700 11.13	5 1,875 10,800 9,100 2,375 13,443 0 18,240 1,239 1,000 10.98	6 1,875 10,800 9,100 2,375 14,000 0 19,200 0 1,000 10.98	7 1,875 10,800 9,100 2,375 2,042 0 30,133 0 1,000 10.98	8 1,875 10,200 9,100 2,375 5,125 0 27,315 0 1,000 10.98	9 1,875 9,600 9,100 2,375 3,834 0 28,494 0 1,000 10.98	10 1,875 9,000 9,100 2,375 0 0 32,000 0 1,000 10.98	11 1,875 8,400 9,100 2,375 (0 32,000 (1,000 10.98
MINING it Ore Mining bit Waste Mining bit Fixed Cost frum Ore Haulage to Mill l/g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill - Drift & Bench Only Grizzly Ore Haulage to Mill PROCESSING & GENERAL Dre Processing Dre Processing	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t 32 \$/t 27 \$/t 1.00 \$/t Var. \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0 0 0 0 0 0 0 0 11.79 13,264	4 1,875 10,800 9,100 2,375 9,331 0 6,400 6,302 700 11.13 21,703	5 1,875 10,800 9,100 2,375 13,443 0 18,240 1,239 1,000 10,98 24,705	6 1,875 10,800 9,100 2,375 14,000 0 19,200 0 1,000 10,98 24,705	7 1,875 10,800 9,100 2,375 2,042 0 30,133 0 1,000 10,98 24,705	8 1,875 10,200 9,100 2,375 5,125 0 27,315 0 1,000 10,98 24,705	9 1,875 9,600 9,100 2,375 3,834 0 28,494 0 1,000 10.98 24,705	10 1,875 9,000 9,100 2,375 0 0 32,000 0 1,000 1,000 10.98 24,705	11 1,875 8,400 9,100 2,375 0 0 32,000 0 1,000 10.98 24,705
MINING bit Ore Mining bit Waste Mining bit Fixed Cost brum Ore Haulage to Mill J/g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill - Drift & Bench Only bit & Bench	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t 32 \$/t 27 \$/t 1.00 \$/t Var. \$/t 7000 k\$/a	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0 0 0 0 0 0 11.79 13,264 7,000	4 1,875 10,800 9,100 2,375 9,331 0 6,400 6,302 700 11.13 21,703 7,000	5 1,875 10,800 9,100 2,375 13,443 0 18,240 1,239 1,000 18,240 1,239 1,000 10,98 24,705 7,000	6 1,875 10,800 9,100 2,375 14,000 0 19,200 0 1,000 10,98 24,705 7,000	7 1,875 10,800 9,100 2,375 2,042 0 30,133 0 1,000 10,98 24,705 7,000	8 1,875 10,200 9,100 2,375 5,125 0 27,315 0 1,000 10,98 24,705 7,000	9 1,875 9,600 9,100 2,375 3,834 0 28,494 0 1,000 10,98 24,705 7,000	10 1,875 9,000 9,100 2,375 0 0 32,000 0 1,000 10,98 24,705 7,000	1,600 11 1,875 8,400 9,100 2,375 0 0 0 32,000 0 1,000 10.98 24,705 7,000 20,455
MINING Pit Ore Mining Pit Waste Mining Pit Fixed Cost Brum Ore Haulage to Mill J/g Ore Mining - R & P (70%) - R & P to 45% Extr. - Drift, Bench & Fill - Drift & Bench Only Brizzly Ore Haulage to Mill PROCESSING & GENERAL Dre Processing Dre Processing	YEAR 1.50 \$/t 1.20 \$/t 1.90 \$/t 35 \$/t 33 \$/t 32 \$/t 27 \$/t 1.00 \$/t Var. \$/t	Units k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$ k\$,	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 1,688 10,800 9,100 2,138 0 0 0 0 0 0 0 0 0 11.79 13,264	4 1,875 10,800 9,100 2,375 9,331 0 6,400 6,302 700 11.13 21,703	5 1,875 10,800 9,100 2,375 13,443 0 18,240 1,239 1,000 10,98 24,705	6 1,875 10,800 9,100 2,375 14,000 0 19,200 0 1,000 10,98 24,705	7 1,875 10,800 9,100 2,375 2,042 0 30,133 0 1,000 10,98 24,705	8 1,875 10,200 9,100 2,375 5,125 0 27,315 0 1,000 10,98 24,705	9 1,875 9,600 9,100 2,375 3,834 0 28,494 0 1,000 10.98 24,705	10 1,875 9,000 9,100 2,375 0 0 32,000 0 1,000 1,000 10.98 24,705	11 1,875 8,400 9,100 2,375 (0 32,000 (1,000 10.98 24,705

k\$ \$/t Ore

6,728

\$18.28

53,864

\$47.88

\$49.85

\$50.74

\$50.88

97,200 114,165 114,482 113,362 112,457 111,194 109,719

\$50.38

\$49.98

\$49.42

CAPITAL COST ESTIMA	TE											
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DIRECT COSTS (Incl. Conting												
Grizzly Ramp Access and Deve		k\$	0	0	0	0	0	0	0	0	0	20,500
Grizzly Shaft Sinking & Equipin	0	k\$	0	0	0	0	0	0	0	0	0	20,500
Grizzly Surface & Underground	d Plant	k\$	0	0	0	0	0	0	0	0	0	12,900
Grizzly Mobile Equipment		k\$	0	0	0	0	0	0	0	0	0	8,100
Grum Mine Equipment		k\$	0	0	0	0	0	0	0	0	0	34,500
Grum Shop and Dewatering		k\$	0	0	0	0	0	0	0	0	0	5,500
Grum Preproduction Mining -	Overburden	k\$	0	0	0	0	0	0	0	0	0	10,500
	Waste Rock	k\$	0	0	0	0	0	0	0	0	0	7,200
Faro Process Plant		k\$	0	0	0	0	0	0	0	0	0	95,000
Ancillary Facilities		k\$	0	0	0	0	0	0	0	0	0	22,500
Infrastructure		k\$	0	0	0	0	0	0	0	0	0	14,500
Sub-total Direct Costs		k\$	ő	0	0	0	0	Ő	0	0	0	251,700
OTHER COSTS		NΨ	Ũ	Ũ	0	Ŭ	0	Ũ	0	0	Ũ	201,700
Owner's Costs		k\$	0	0	0	0	0	0	0	0	0	2,500
Care and Maintenance		k\$	0	0	0	0	0	0	0	0	0	3,000
		k\$	0	0	0	0	0	0	0	0	-40,000	3,000
Working Capital			0	0	0	0	0	0	0	0	,	
Sub-total Other Costs		k\$	0	0	0	0	0	0	0	0	-40,000	5,500
Replacement Capital		k\$	1,600	1,600	1,600	1,600	1,600	1,600	800	0	0	20,000
Reclamation		k\$	0	0	0	0	0	0	0	3,000	3,000	6,000
FOTAL CAPITAL COSTS		k\$	1,600	1,600	1,600	1,600	1,600	1,600	800	3,000	-37,000	283,200
OPERATING COST EST	IMATE YEAR	Units	12	13	14	15	16	17	18	19	20	TOTALS
MINING												
Pit Ore Mining	1.50 \$/t	k\$	1,875	1,875	1,875	1,875	1,875	1,875	1,508	0	0	29,445
Pit Waste Mining	1.20 \$/t	k\$	7,200	7,200	6,000	6,000	4,800	4,200	1,260	0	0	127,860
Pit Fixed Cost		k\$	9,100	9,100	9,100	9,100	9,100	9,100	9,100	0	0	145,600
Grum Ore Haulage to Mill	1.90 \$/t	k\$	2.375	2,375	2,375	2,375	2,375	2,375	1,910	0	0	37,297
U/g Ore Mining - R & P (70%)	35 \$/t	k\$	2,010	2,010	2,010	6,678	12,338	24,791	2,035	4,954	0	98,571
- R & P to 45% Extr.	33 \$/t	k\$	0	0	Õ	0,010	3,171	2,216	2,000	.,	0	5,387
- Drift, Bench & Fill	32 \$/t	k\$	32.000	32,000	32,000	22,627	13,635	7.184	11,200	5.420	0	349.848
,	27 \$/t	•	32,000 0	32,000 0	32,000 0	2,027	3,383	7,104	6,530	-, -	0	25,719
- Drift & Bench Only		k\$ k\$	1,000			2,757	,		650	5,507 515	0	,
Grizzly Ore Haulage to Mill PROCESSING & GENERAL	1.00 \$/t	КФ	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	14,865
Ore Processing	Var. \$/t		10.98	10.98	10.98	10.98	10.98	10.98	11.32	11.79		
Ore Processing		k\$	24,705	24,705	24,705	24,705	24,705	24,705	18,735	6,071	0	385,276
Site Admin. & Overhead	7000 k\$/a	k\$	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	0	119,000
Conc. Haul & Port Fees	65 \$/t (wet)	k\$	19,164	19,164	19,265	19,175	19,221	18,498	13,283	5,411	0	313,236
Reclamation Fund	1.5 %	k\$	2,037	2,037	2,048	2,045	2,056	1,999	1,425	582	0	33,489
TOTAL OPERATING COSTS	1.0 /0	k\$	106,455	106,455	105,368	105,337	104,658	104,944	74,634	35,460	0	1,685,594
Unit Operating Cost		\$/t Ore	\$47.31	\$47.31	\$46.83	\$46.82	\$46.51	\$46.64	\$45.10	\$68.87	0	\$48.35
Onit Operating COSt		wit Ole	ψ+1.51	ψη 1.51	ψ 1 0.03	ψ+0.02	ψ+0.31	ψ+0.04	ψησ.10	ψ00.07		ψ+0.30

TAX CALCULATIONS	1												
	YEAR		1	2	3	4	5	6	7	8	9	10	11
		Units											
DEPRECIATION POOL													
Opening Balance		k\$	140,000	186,000	346,983	370,032	330,017	287,322	246,867	205,082	166,597	129,847	94,944
Additional Assets		k\$	46,000	169,500	34,200	2,000	0	1,600	1,600	1,600	1,600	1,600	1,600
Amount Used to Defer Taxes		k\$	0	8,517	11,151	42,015	42,696	42,054	43,386	40,085	38,349	36,503	37,050
Closing Balance		k\$	186,000	346,983	370,032	330,017	287,322	246,867	205,082	166,597	129,847	94,944	59,495
INCOME TAX CALCULATION													
Operating Profit		k\$	0	8,517	11,151	42,015	42,696	42,054	43,386	40,085	38,349	36,503	37,050
LESS Depreciation Allowance		k\$	0	-8,517	-11,151	-42,015	-42,696	-42,054	-43,386	-40,085	-38,349	-36,503	-37,050
Taxable Income		k\$	0	0	0	0	0	0	0	0	0	0	0
Income Tax Payable 39	9 %	k\$	0	0	0	0	0	0	0	0	0	0	0
YUKON MINING ROYALTY													
Operating Profit		k\$	0	8,517	11,151	42,015	42,696	42,054	43,386	40,085	38,349	36,503	37,050
LESS 15% Depreciation Allowanc	e	k\$	0	-1,278	-1,673	-6,302	-6,404	-6,308	-6,508	-6,013	-5,752	-5,475	-5,557
LESS Income Tax Payable		k\$	0	0	0	0	0	0	0	0	0	0	0
Taxable Profit		k\$	0	7,240	9,478	35,712	36,291	35,746	36,878	34,072	32,597	31,028	31,492
			0	1	1	, 7	7	7	7	6	6	6	6
Royalty Rate (5% + 1%/\$5M)		k\$	0	6	6	12	12	12	12	11	11	11	11
Royalty Payments		k\$	0	434	569	4,285	4,355	4,290	4,425	3,748	3,586	3,413	3,464

TAX CALCULATIONS												
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DEPRECIATION POOL												
Opening Balance		k\$	59,495	31,780	4,066	1,600	1,600	1,600	1,600	800	3,000	
Additional Assets		k\$	1,600	1,600	1,600	1,600	1,600	1,600	800	3,000	40,000	
Amount Used to Defer Taxes		k\$	29,314	29,314	4,066	1,600	1,600	1,600	1,600	800	0	411,700
Closing Balance		k\$	31,780	4,066	1,600	1,600	1,600	1,600	800	3,000	43,000	
INCOME TAX CALCULATION												
Operating Profit		k\$	29,314	29,314	31,172	30,985	32,383	28,309	20,349	3,350	0	546,981
LESS Depreciation Allowance		k\$	-29,314	-29,314	-4,066	-1,600	-1,600	-1,600	-1,600	-800	0	
Taxable Income		k\$	0	0	27,106	29,385	30,783	26,709	18,749	2,550	0	135,281
Income Tax Payable 39	9%	k\$	0	0	10,571	11,460	12,005	10,416	7,312	994	0	52,760
YUKON MINING ROYALTY												
Operating Profit		k\$	29,314	29,314	31,172	30,985	32,383	28,309	20,349	3,350	0	546,981
LESS 15% Depreciation Allowanc	e	k\$	-4,397	-4,397	-4,676	-4,648	-4,857	-4,246	-3,052	-502	0	
LESS Income Tax Payable		k\$	0	0	-10,571	-11,460	-12,005	-10,416	-7,312	-994	0	
Taxable Profit		k\$	24,917	24,917	15,925	14,877	15,520	13,646	9,985	1,853	0	412,174
			4	4	3	2	3	2	1	0	0	
Royalty Rate (5% + 1%/\$5M)		k\$	9	9	8	7	8	7	6	5	5	
Royalty Payments		k\$	2,243	2,243	1,274	1,041	1,242	955	599	93	0	42,258



DIAND, Faro Site, NWT DCF Cases1to4.xls

SUMMARY		7											
oommark i		PROJECT YEAR	1	2	3	4	5	6	7	8	9	10	11
		Units											
PRODUCTION													
Grum Pit Ore Mined		kt	0	0	0	0	0	0	0	0	0	0	0
Waste rock mined		kt	0	0	0	0	0	0	0	0	0	0	0
Total Mined (under operating	costs)	kt	0	0	0	0	0	0	0	0	0	0	0
Strip Ratio	ad	t/t	0.0 0	0.0 0	0.0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grizzly Underground Ore Min	eu	kt	0	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Mill Feed		kt	0	0	100	968	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Head Grades	Zinc	%	0	0.00	3.86	6.67	6.98	6.91	6.79	6.52	6.30	6.10	6.10
	Lead	%	0	0.00	2.11	4.88	4.96	5.08	5.26	5.74	5.48	5.19	5.19
	Silver	g/t	0	0.0	47.0	71.2	73.0	73.2	79.1	80.5	79.1	75.2	75.2
	Gold	g/t	0	0	0.00	0.93	0.73	0.65	0.77	0.77	0.78	0.76	0.76
Zinc Concentrate	_	dry t	0	0	5,601	101,113	110,812	109,790	107,868	103,616	99,994	96,914	96,914
Con. Grade	Zinc	%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Concentrate	11	dry t	0	0	2,708	63,395	66,948	68,597	71,049	77,555	73,987	70,038	70,038
Con. Grade	Lead Silver	%	60% 0	60% 0.0	60% 1006.7	60% 648.5	60% 653.9	60% 640.5	60% 667.8	60% 622.9	60% 641.4	60% 644.1	60% 644.1
	Gold	g/t g/t	0	n.a.	0.00	3.51	3.26	2.84	3.26	2.99	3.17	3.24	3.24
	Colu	g/t	0	n.a.	0.00	0.01	0.20	2.04	5.20	2.55	0.17	5.24	5.24
REVENUE													
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300	300
Zinc Con. Payment		kUS\$	0	0	3,186	57.512	63,028	62,447	61,354	58,935	56,875	55,123	55,123
LESS Zinc Con. Char	201	kUS\$	0	0	1,388	25,051	27,454	27,201	26,725	25,671	24,774	24,011	24,011
NSR on Zinc Concentrate	903	kUS\$	0	0	1,798	32,460	35,574	35,246	34,629	33,264	32,101	31,112	31,112
Lead Con. Payment		kUS\$	0	0 0	1,568	35,417	37,301	37,808	39,736	42,640	41,014	38,901	38,901
LESS Lead Con. Char	rges	kUS\$	0	0	666	15,442	16,307	16,696	17,315	18,866	18,013	17,054	17,054
NSR on Lead Concentrate	-	kUS\$	0	0	902	19,975	20,993	21,112	22,421	23,774	23,002	21,848	21,848
Total US dollar Revenue		kUS\$	0	0	2,700	52,435	56,567	56,358	57,050	57,038	55,103	52,960	52,960
Exchange Rate	1.5	5 Can\$/US\$											
Total Revenue		k\$	0	0	4,185	81,274	87,679	87,354	88,427	88,409	85,409	82,088	82,088
OPERATING COSTS													
Grum Pit Mining		k\$	0	0	0	0	0	0	0	0	0	0	0
Grum Ore Haulage to Mill		k\$	0	0	0	0	0	0	0	0	0	0	0
Underground Ore Mining		k\$	0	0	0	22,033	32,923	33,200	32,175	32,439	32,329	32,000	32,000
Grizzly Ore Haulage to Mill		k\$	0	0	0	0	0	0	0	0	0	0	0
Ore Processing		k\$	0	0	1,306	12,642	13,000	13,000	13,000	13,000	13,000	13,000	13,000
Site Admin. & Overhead		k\$	0	0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Conc. Haul & Port Fees		k\$	0	0	587	11,623	12,559	12,603	12,641	12,800	12,292	11,796	11,796
Reclamation Fund		k\$	0	0	63	1,219	1,315	1,310	1,326	1,326	1,281	1,231	1,231
Total Operating Costs		k\$	0	0	8,956	54,517	66,797	67,114	66,142	66,565	65,902	65,027	65,027
Operating Profit		k\$	0	0	-4,770	26,758	20,882	20,241	22,285	21,843	19,508	17,061	17,061
CAPITAL COSTS													
Direct Costs		k\$	11,000	42,300	108,200	2,000	0	0	0	0	0	0	0
Other Costs		k\$	2,500	2,500	2,500	2,000	0	0	0	0	0	0	0
Working Capital		k\$	0	0	0	14000	2000	0	0	0	0	0	0
Relacement Capital		k\$	0	0	0	0	0	950	950	950	950	950	950
Reclamation		k\$	0	0	0	0	0	0	0	0	0	0	0
Cash Flow before Taxes		k\$	-13,500	-44,800	-115,470	10,758	18,882	19,291	21,335	20,893	18,558	16,111	16,111
TAXES AND ROYALTIES	~	0.0/	~	~	~	~	~	~	~	~	~	~	0
Corporate Income Tax	3	9 % k\$	0	0	0	0	0	0	0	0	0	0	0
Yukon Mining Royalty		k\$	0	0	0	2,047	1,420	1,376	1,515	1,485	1,327	1,015	1,015
Cash Flow After Taxes		k\$	-13,500	-44,800	-115,470	8,711	17,462	17,914	19,819	19,408	17,231	15,096	15,096
Cumulative Cash Flov	v	k\$	-13,500	-58,300		-165,060		-129,683	-109,864	-90,456	-73,225	-58,129	-43,033
RESULTS	NPV @	10% k\$	-45,273										
	NPV @	15% k\$	-60,825										
	NPV @	20% k\$	-66,754										
	IRR	%	4.1%										

SUMMARY		7										
SUMMART		PROJECT YEAR	12	13	14	15	16	17	18	19	20	TOTALS
		Units	.=	10					10	10	20	
PRODUCTION		-										
Grum Pit Ore Mined		kt	0	0	0	0	0	0	0	0	0	0
Waste rock mined		kt	0	0	0	0	0	0	0	0	0	0
Total Mined (under operating Strip Patio	COSIS)	kt t/t	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0	0 0.0
Strip Ratio Grizzly Underground Ore Min	ed	kt	1,000	1,000	1,000	1,000	1,000	1,000	650	0.0 515	0.0	14,865
	iou -	in the second se	1,000	1,000	1,000	1,000	1,000	1,000	000	010	Ū	11,000
Mill Feed		kt	1,000	1,000	1,000	1,000	1,000	1,000	650	515	0	15,233
Head Grades	Zinc	%	6.10	6.10	6.23	6.30	6.50	6.61	6.72	6.05	0.00	6.42
	Lead	%	5.19	5.19	5.14	4.97	4.79	3.89	3.96	3.91	0.00	4.96
	Silver	g/t	75.2	75.2	75.1	73.8	75.7	63.9	60.8	66.8	0.0	73.6
Zinc Concentrate	Gold	g/t	0.76 96,914	0.76 96,914	0.74 98,995	0.77 100,038	0.69 103,157	0.79 104,997	0.65 69,390	0.75 49,436	0.00 0	0.75 1,552,461
Con. Grade	Zinc	dry t %	51%	51%	98,995 51%	51%	51%	51%	51%	49,430 51%	51%	1,552,401 51%
Lead Concentrate	ZINC	dry t	70,038	70,038	69,390	67,078	64,599	52,536	34,761	27,156	0	1,019,910
Con. Grade	Lead	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver	g/t	644.1	644.1	649.2	660.5	702.7	730.2	682.0	759.5	0.0	659.5
	Gold	g/t	3.24	3.24	3.21	3.43	3.20	4.50	3.65	4.24	0.00	3.31
REVENUE Motol Briggs	Zina		0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	
Metal Prices	Zinc Lead	0.60 US\$/lb 0.35 US\$/lb	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	0.60 0.35	
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	
Zinc Con. Payment		kUS\$	55,123	55,123	56,307	56,900	58,674	59,721	39,468	28,118	0	883,019
LESS Zinc Con. Char	ges	kUS\$	24,011	24,011	24,527	24,785	25,558	26,014	17,192	12,248	0	384,632
NSR on Zinc Concentrate		kUS\$	31,112	31,112	31,780	32,115	33,116	33,707	22,276	15,870	0	498,387
Lead Con. Payment		kUS\$	38,901	38,901	38,576	37,547	36,445	30,491	19,646	15,813	0	569,607
LESS Lead Con. Char NSR on Lead Concentrate	rges	kUS\$ kUS\$	17,054 21,848	17,054 21,848	16,899 21,677	16,345 21,202	15,763 20,681	12,844 17,647	8,478 11,167	6,645 9,168	0 0	248,495 321,112
Total US dollar Revenue		kUS\$	52,960	52,960	53,457	53,317	53,798	51,354	33,444	25,039	0	819,499
Exchange Rate	1.5	5 Can\$/US\$	02,000	02,000	00,101	00,011	00,100	01,001	00,	20,000		010,100
Total Revenue		k\$	82,088	82,088	82,859	82,641	83,387	79,599	51,838	38,810	0	1,270,224
OPERATING COSTS		1.0	0	0	0	0	0	0	0	0	0	0
Grum Pit Mining Grum Ore Haulage to Mill		k\$ k\$	0 0	0 0	0 0	0	0 0	0 0	0 0	0 0	0 0	0
Underground Ore Mining		k\$	32,000	32,000	32,000	32,062	32,527	34,192	19,765	15,881	0	479,526
Grizzly Ore Haulage to Mill		k\$	0_,000	0_,000	0_,000	02,002	02,021	0 ., 0	0	0	0	0
Ore Processing		k\$	13,000	13,000	13,000	13,000	13,000	13,000	8,977	7,111	0	199,035
Site Admin. & Overhead		k\$	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	0	119,000
Conc. Haul & Port Fees		k\$	11,796	11,796	11,897	11,807	11,852	11,130	7,358	5,411	0	181,744
Reclamation Fund		k\$	1,231	1,231	1,243	1,240	1,251	1,194	778	582	0	19,053
Total Operating Costs		k\$	65,027	65,027	65,140	65,109	65,630	66,516	43,878	35,985	0	998,358
Operating Profit		k\$	17,061	17,061	17,719	17,532	17,757	13,082	7,960	2,824	0	271,866
CAPITAL COSTS												
Direct Costs		k\$	0	0	0	0	0	0	0	0	0	163,500
Other Costs		k\$	0 0	0	0	Ő	0 0	0	0	0	0 0	7,500
Working Capital		k\$	0	0	0	0	0	0	0	0	-16000	0
Relacement Capital		k\$	950	950	950	950	950	950	800	0	0	12,200
Reclamation		k\$	0	0	0	0	0	0	0	0	3000	3,000
Cash Flow before Taxes		k\$	16,111	16,111	16,769	16,582	16,807	12,132	7,160	2,824	13,000	85,666
TAXES AND ROYALTIES												
Corporate Income Tax	3	9 % k\$	0	0	0	0	0	0	0	0	0	0
Yukon Mining Royalty	0.	γ κφ k\$	1,015	1,015	1,205	1,043	1,207	778	406	120	0	17,991
g to juni		•••	.,0.0	.,010	.,200	.,0.0	.,			0	5	
Cash Flow After Taxes Cumulative Cash Flow	v	k\$ k\$	15,096 -27,937	15,096 -12,841	15,564 2,723	15,539 18,263	15,599 33,862	11,354 45,216	6,754 51,970	2,704 54,675	13,000 67,675	67,675
RESULTS	NPV @	10% k\$										
	NPV @	15% k\$										
	NPV @	20% k\$										
	IRR	%										

PRODUCTION														
		PROJEC	T YEAR	1	2	3	4	5	6	7	8	9	10	11
			Units											
MINING PLAN														
Grum Pit Ore			kt	0	0	0	0	0	0	0	0	0	0	0
Overburden mined (wall fail	ure)		kt		0	0	0	0	0	0	0	0	0	0
Waste rock mined			kt		0	0	0	0	0	0	0	0	0	0
Total Mined (under operatin	ig costs)		kt			0	0	0	0	0	0	0	0	0
Strip Ratio			t/t											
Mined Grades	Zinc		%											
	Lead		%											
	Silver		g/t											
	Gold		g/t											
Grizzly Underground Ore														
Room & Pillar			% kt	0	0	0	267	384	400	58	146	110	0	0
R & P without 2nd P	ass	45	% kt	0	0	0	0	0	0	0	0	0	0	0
Drift, Bench & Fill		85	% kt	0	0	0	200	570	600	942	854	890	1,000	1,000
Drift & Bench Only		45	% kt	0	0	0	233	46	0	0	0	0	0	0
Total Ore Mined			kt	0	0	0	700	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Mined Grades	Zinc		%				7.74	6.98	6.91	6.79	6.52	6.30	6.10	6.10
	Lead		%				5.94	4.96	5.08	5.26	5.74	5.48	5.19	5.19
	Silver		g/t				80.5	73.0	73.2	79.1	80.5	79.1	75.2	75.2
	Gold		g/t				1.06	0.73	0.65	0.77	0.77	0.78	0.76	0.76
Stockpile, Remove (Add)			kt	0	0	100	268	0	0	0	0	0	0	0
Stockpile Grades	Zinc		%			3.86	3.86							
	Lead		%			2.11	2.11							
	Silver		g/t			47.0	47.0							
	Gold		g/t											
PROCESSING PLAN														
Mill Feed			kt	0	0	100	968	1,000	1,000	1,000	1,000	1,000		1,000
Head Grades	Zinc		%	0	0	3.86	6.67	6.98	6.91	6.79	6.52	6.30		6.10
	Lead		%	0	0	2.11	4.88	4.96	5.08	5.26	5.74	5.48	0 0 0 0 0	5.19
	Silver		g/t	0	0	47.0	71.2	73.0	73.2	79.1	80.5	79.1		75.2
	Gold	_	g/t			0.00	0.93	0.73	0.65	0.77	0.77	0.78		0.76
Recoveries	Zinc	Grum	%		74%	74%	74%	74%	74%	74%	74%	74%		74%
	Zinc	Grizzly	%		81%	81%	81%	81%	81%	81%	81%	81%		81%
	Lead	Grum	%		77%	77%	77%	77%	77%	77%	77%	77%		77%
	Lead	Grizzly	%		81%	81%	81%	81%	81%	81%	81%	81%		81%
	Silver	Grum	%		50%	58%	58%	58%	58%	58%	58%	58%		58%
	Silver	Grizzly	%		60%	60%	60%	60%	60%	60%	60%	60%		60%
	Gold	Both	%		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Concentrate Produced					_									
Zinc Concentrate			dry t	0	0	5,601	101,113	110,812	109,790	107,868	103,616	99,994	,	96,914
Lead Concentrate	7:		dry t	0	0	2,708	63,395	66,948	68,597	71,049	77,555	73,987	,	70,038
Zinc Con. Grades	Zinc		%	51%	51%	51%	51%	51%	51%	51%	51%	51%		51%
Lead Con. Grades	Lead		%	60%	60%	60%	60%	60%	60%	60%	60%	60%		60%
	Silver		g/t	0	0	1007	648	654	641	668	623	641		644
	Gold		g/t	0	n.a.	0.00	3.51	3.26	2.84	3.26	2.99	3.17	3.24	3.24
Zinc Con. Shipped (incl. 8%			wet t	0	0	6,088	109,905	120,448	119,336	117,247	112,626	108,689		105,341
Lead Con. Shipped (incl. 8%	% moisture)		wet t	0	0	2,943	68,907	72,769	74,562	77,228	84,299	80,420	76,128	76,128

Units MINING PLAN Grun Pit Ore Overburder mined (wall failure) kt 0	PRODUCTION													
MINING PLAN Grum PI Ore kt 0 <th></th> <th></th> <th>PROJEC</th> <th>T YEAR</th> <th>12</th> <th>13</th> <th>14</th> <th>15</th> <th>16</th> <th>17</th> <th>18</th> <th>19</th> <th>20</th> <th>TOTALS</th>			PROJEC	T YEAR	12	13	14	15	16	17	18	19	20	TOTALS
Grum Pit Ore Overburder mindel (wall failure) kt 0			¯	Units										
Overburden mined (wall failure) kt 0	MINING PLAN													
Waste nock mined it 0 <t< td=""><td>Grum Pit Ore</td><td></td><td></td><td>kt</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></t<>	Grum Pit Ore			kt	0	0	0	0	0	0	0	0	0	0
Total Mined (under operating costs) bity Ratio Mined Grades Lit 0 <td>Overburden mined (wall failu</td> <td>ure)</td> <td></td> <td>kt</td> <td>0</td>	Overburden mined (wall failu	ure)		kt	0	0	0	0	0	0	0	0	0	0
Strip Ratio it it< it it	Waste rock mined			kt	0	0	0	0	0	0	0	0	0	0
Mined Grades Zinc Bad Silver ''' grit Zinc Grizzly Underground Ore Room & Pillar Zinc Silver '''' Grizzly Underground Ore Room & Pillar '''' Silver '''''' Gritzly Underground Ore Room & Pillar ''''''''''''''''''''''''''''''''''''	Total Mined (under operating	g costs)		kt	0	0	0	0	0	0	0	0	0	0
Lead % Grizzly Underground Ore Room & Pillar 70% kt 0 0 0 1191 353 708 58 142 0 2.2 R & P without 2nd Pass 45% kt 1,000 1,000 1,000 707 426 2.25 350 168 0 10.0 Drift, Bench & Fill Bench &	Strip Ratio	· /		t/t										
Silver Gold gh oth gh oth Grizzly Underground Ore R & P without 2nd Pass 70% kt 0 0 0 191 353 708 58 142 0 2.4 R & P without 2nd Pass 45% kt 1000 1,000 707 426 225 330 169 0 10 Drift, Bench Arli 85% kt 1000 1,000 1,000 1,000 1,000 1,000 666 67 0 0 10 Total Ore Mined Kt 1,000 1,000 1,000 1,000 660 6.51 0 1.6 Lead % 5.19 5.12 7.51 7.3 8.39 3.66 3.91 57 Stockpile Grades Zinc % 5.19 5.12 7.51 7.38 3.89 3.66 3.91 50 Stockpile Grades Zinc % 5.19 5.12 7.51 7.38 3.89 3.96 3.91 50 50 6.61	Mined Grades	Zinc		%										
Gold grt Grizzly Underground Ore Room & Pillar 70% kt 0 0 0 191 353 708 58 142 0 2.4 R & P without 2nd Pass 45% kt 0 0 0 0 66 67 0		Lead		%										
Gold grt Grizzly Underground Ore 70% kt 0 0 0 191 353 708 58 142 0 0 2 R & Pwilhout 2nd Pass 45% kt 1,000 1,000 707 426 225 350 166 0 0 10.0 Drift, Bench & Fill 45% kt 1,000		Silver		q/t										
Gritzly Underground Ore -		Gold												
R AP Without 2nd Parss 45% kt 0 0 0 101 353 708 58 142 0 2,2 R A P Without 2nd Parss 45% kt 0 0 0 0 96 67 0	Grizzly Underground Ore			3										
R & P without 2nd Pass 45% kt 0 0 0 0 96 67 0 0 0 1000 Drift, Bench Chill 85% kt 1,000 1,0			70	% kt	0	0	0	191	353	708	58	142	0	2,816
Drift, Bench & Fill 85% kt 1,000 1,000 707 426 225 350 169 0 102 Total Ore Mined kt 1,000 0		ass												163
Drift & Bench Only 45% kt 0 0 0 0 102 125 0 242 204 0 155 Total Ore Mined X 1,000 1,000 1,000 1,000 1,000 650 515 0 14.4 Mined Grades Zinc % 5.19 5.14 4.97 4.79 3.89 3.96 3.91 56 6.65 6.65 6.65 6.65 6.65 6.65 6.65 6.65 6.65 6.65 6.67 6.64 77 Stockpile, Remove (Add) Kt 0						-								10,933
Total Ore Mined kt 1,000 1,000 1,000 1,000 650 515 0 14,4 Mined Grades Zinc % 6,10 6,23 6,30 6,50 6,61 6,72 6,05 6,61 6,72 6,05 6,61 6,72 6,05 6,61 6,72 6,05 6,61 6,72 6,05 6,61 6,72 6,05 6,61 6,72 6,05 6,61 6,72 6,05 6,05 6,61 6,72 6,05 6,05 6,01 6,01 6,00 7,7 7,7 7,7 7,7 7,7 7,7 7,7 0,69 0,79 0,65 0,75 0						,								953
Mined Grades Zinc % 6.10 6.23 6.30 6.50 6.61 6.72 6.05 6.65 Lead % 5.19 5.19 5.14 4.97 4.79 3.89 3.96 3.91 5 Silver g/t 75.2 75.1 77.38 75.7 63.9 60.8 66.8 77 Gold g/t 0.76 0.76 0.74 0.77 0.69 0.79 0.65 0.75 0 Stockpile Grades Zinc % 0			-10											14,865
Lead % 5.19 5.14 4.97 4.79 3.89 3.96 3.91 55 Silver g/t 75.2 75.1 73.8 75.7 63.9 60.8 66.8 77 Stockpile Remove (Add) kt 0		Zinc			,	,	,	,	,	,		• • •	0	6.49
Silver g/t 75.2 75.1 73.8 75.7 63.9 60.8 66.8 77 Gold g/t 0.76 0.76 0.74 0.77 0.69 0.79 0.65 0.75 00 Stockpile Grades Zinc % 0	Milled Grades													5.03
Gold g/t 0.76 0.76 0.74 0.77 0.99 0.85 0.75 0 Stockpile Grades Zinc % 0 </td <td></td> <td>74.3</td>														74.3
Stockpile, Remove (Add) t 0														0.76
Stockpile Grades Zinc % 0 Bilver g/t 00 Silver g/t 00 PROCESSING PLAN Kt 1,000 1,000 1,000 1,000 1,000 650 515 0 15,20 Head Grades Zinc % 6.10 6.10 6.23 6.30 6.50 6.61 6.72 6.05 6 Lead % 5.19 5.19 5.14 4.97 4.79 3.89 3.96 3.91 4 Silver g/t 0.76 0.76 0.74 0.77 0.69 0.79 0.65 0.75 0 Recoveries Zinc Grum % 74%	Stockpile Domove (Add)	Gold											0	368
Lead %		7:			0	0	0	0	0	0	0	0	0	
Silver Gold g/t gold	Stockpile Grades													0.00
Gold g/t 0 PROCESSING PLAN kt 1,000 1,000 1,000 1,000 1,000 650 515 0 15,2 Mill Feed Kt 1,000 6,10 6,23 6,30 6,50 6,61 6,72 6,05 6 6 6,61 6,72 6,05 6 6 6,01 4 4,97 4,79 3,89 3,96 3,91 4 4 4,97 4,79 3,89 3,96 3,91 4 4 4 4 4,97 4,79 3,89 3,96 3,91 4 4 4 4 4 4 4 4 4,77 6,89 0,78 0,65 0,75 0 0 7														0.00
PROCESSING PLAN Kt 1,000 1,000 1,000 1,000 1,000 1,000 650 515 0 15,2 Head Grades Zinc % 6.10 6.23 6.30 6.50 6.61 6.72 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.05 6.67 6.07 6.07 6.07 6.07 6.07 6.07 6.07 6.07 6.07 6.07 6.07 6.07 7.06 0.77 0.69 0.79 0.65 0.75 7.7 7.7% 7.4%														0.0
Mill Feed kt 1,000 <t< td=""><td></td><td>Gold</td><td></td><td>g/t</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.00</td></t<>		Gold		g/t										0.00
Head Grades Zinc % 6.10 6.10 6.23 6.30 6.50 6.61 6.72 6.05 6.61 Lead % 5.19 5.19 5.14 4.97 4.79 3.89 3.96 3.91 4 Silver g/t 75.2 75.2 75.1 73.8 75.7 63.9 60.8 66.8 7 Gold g/t 0.76 0.76 0.74 7.77 0.69 0.79 0.65 0.75 00 Recoveries Zinc Grum % 74% 75%													-	
Lead % 5.19 5.19 5.14 4.97 4.79 3.89 3.96 3.91 4 Silver g/t 75.2 75.2 75.1 73.8 75.7 63.9 60.8 66.8 7 Gold g/t 0.76 0.76 0.77 0.69 0.79 0.65 0.75 0 Zinc Grum % 74%					,	,	,	,	,	,			0	15,233
Silver g/t 75.2 75.1 73.8 75.7 63.9 60.8 66.8 7 Gold g/t 0.76 0.76 0.74 0.77 0.69 0.79 0.65 0.75 00 Recoveries Zinc Grum % 74%	Head Grades													6.42
Gold g/t 0.76 0.76 0.74 0.77 0.69 0.79 0.65 0.75 0 Recoveries Zinc Grum % 74%														4.96
Recoveries Zinc Grum % 74%				•										73.6
Zinc Grizzly % 81% 77% <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.75</td></t<>														0.75
Lead Grum % 77% <td>Recoveries</td> <td></td> <td>74%</td>	Recoveries													74%
Lead Grizzly % 81%<														81%
Silver Grum % 58% <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>77%</td></th<>														77%
Silver Grizzly Gold % Both 60% % 60% 30% <			Grizzly			81%			81%			81%		81%
Gold Both % 30% <td></td> <td>58%</td>														58%
Concentrate Produced dry t 96,914 96,914 98,995 100,038 103,157 104,997 69,390 49,436 0 1,552,4 Lead Concentrate dry t 70,038 70,038 69,390 67,078 64,599 52,536 34,761 27,156 0 1,019,5 Lead Concentrate % 51%		Silver	Grizzly	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Zinc Concentrate dry t 96,914 96,914 98,995 100,038 103,157 104,997 69,390 49,436 0 1,552,4 Lead Concentrate dry t 70,038 70,038 69,390 67,078 64,599 52,536 34,761 27,156 0 1,019,9 Zinc Con. Grades Zinc % 51% <t< td=""><td></td><td>Gold</td><td>Both</td><td>%</td><td>30%</td><td>30%</td><td>30%</td><td>30%</td><td>30%</td><td>30%</td><td>30%</td><td>30%</td><td>30%</td><td>30%</td></t<>		Gold	Both	%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Lead Concentrate dry t 70,038 70,038 69,390 67,078 64,599 52,536 34,761 27,156 0 1,019,5 Zinc Con. Grades Zinc % 51% <t< td=""><td>Concentrate Produced</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Concentrate Produced													
Zinc Con. Grades Zinc % 51%	Zinc Concentrate			dry t	96,914	96,914	98,995	100,038	103,157	104,997	69,390	49,436	0	1,552,461
Lead Con. Grades Lead % 60%	Lead Concentrate			dry t	70,038	70,038	69,390	67,078	64,599	52,536	34,761	27,156	0	1,019,910
Silver Gold g/t 644 644 649 661 703 730 682 759 0 660 g/t 3.24 3.24 3.21 3.43 3.20 4.50 3.65 4.24 0.00 3 Zinc Con. Shipped (incl. 8% moisture) wet t 105,341 107,603 108,737 112,127 114,127 75,424 53,735 0 1,687,4	Zinc Con. Grades	Zinc		%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Gold g/t 3.24 3.21 3.43 3.20 4.50 3.65 4.24 0.00 3 Zinc Con. Shipped (incl. 8% moisture) wet t 105,341 107,603 108,737 112,127 114,127 75,424 53,735 0 1,687,424	Lead Con. Grades	Lead		%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
Gold g/t 3.24 3.24 3.21 3.43 3.20 4.50 3.65 4.24 0.00 3 Zinc Con. Shipped (incl. 8% moisture) wet t 105,341 107,603 108,737 112,127 114,127 75,424 53,735 0 1,687,4		Silver		g/t	644	644	649	661	703	730	682	759	0	660
		Gold			3.24	3.24	3.21	3.43	3.20	4.50	3.65	4.24	0.00	3.31
Land Con Shinned (incl. 90(mainture)	Zinc Con. Shipped (incl. 8%	moisture)		wet t	105,341	105,341	107,603	108,737	112,127	114,127	75,424	53,735	0	1,687,458
Lead Cont. Shipped (Incl. o% molsule) Wet t /0,128 /0,128 /0,424 /2,911 /0,217 57,104 37,783 29,518 0 1,108,5	Lead Con. Shipped (incl. 8%	6 moisture)		wet t	76,128	76,128	75,424	72,911	70,217	57,104	37,783	29,518	0	1,108,598

(in US dollars)	YE.	AR	1	2	3	4	5	6	7	8	9	10	
		Units											
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300	
Concentrate													
Payment based on Le	esser of:												
	85%	k.lb	0	0	5,353	96,633	105,902	104,925	103,088	99,025	95,564	92,620	92
Or Content minus	3 units	k.lb	0	0	5,309	95,853	105,047	104,078	102,256	98,225	94,792	91,872	91
Zinc Con. Payment		kUS\$	0	0	3,186	57,512	63,028	62,447	61,354	58,935	56,875	55,123	55
rges													
Treatment	\$190 /t	kUS\$	0	0	1,064	19,211	21,054	20,860	20,495	19,687	18,999	18,414	18
Price Escalator	>\$1100/t	\$0.07 kUS\$	0	0	85	1,532	1,679	1,663	1,634	1,570	1,515	1,468	1
Penalties	\$5.00 /t	kUS\$	0	0	28	506	554	549	539	518	500	485	
Ocean Freight	\$30.00 /t	kUS\$	0	0	183	3.297	3.613	3,580	3,517	3,379	3,261	3.160	3
Representation	\$5.00 /t	kUS\$	0	0	28	506	554	549	539	518	500	485	
l Charges		kUS\$	0	0	1,388	25,051	27,454	27,201	26,725	25,671	24,774	24,011	24
7. 0		1.1.04		0	4 700	00.400	05 574	05 0 40	04.000	00.004	00.404		~
on Zinc Concentrate NSR/t on Zinc Con.		kUS\$ US\$/t	0 \$0.00	0 \$0.00	1,798 \$321.03	32,460 \$321.03	35,574 \$321.03	35,246 \$321.03	34,629 \$321.03	33,264 \$321.03	32,101 \$321.03	31,112 \$321.03	31 \$32
NSR/LON ZINC CON.		035/1	\$0.00	\$0.00	φ321.03	⊅ 321.03	φ321.03	⊅ 321.03	⊅ 321.03	φ321.03	⊅ 321.03	⊅ 321.03	Ф О2
d Concentrate													
Lead Payment based													
	95%	k.lb	0	0	3,403	79,663	84,128	86,200	89,282	97,457	92,973	88,011	88
Or Content minus 3	3 units	k.lb	0	0	3,403	79,663	84,128	86,200	89,282	97,457	92,973	88,011	88
Lead Payment		kUS\$	0	0	1,191	27,882	29,445	30,170	31,249	34,110	32,541	30,804	30
Silver Payment based	d on Lesser of:												
	95%	kg	0	0	2,590	39,053	41,586	41,743	45,071	45,891	45,081	42,858	42
Or Content minus :	35 grams	kg	0	0	2,631	38,890	41,432	41,539	44,957	45,592	44,865	42,663	42
Silver Payment	-	kŪS\$	0	0	403	6,048	6,443	6,460	6,992	7,090	6,977	6,635	6
Gold Payment based	on Lesser of:												
	95%	kg	0	n.a.	0	212	207	185	220	220	223	215	
Or Content minus	1 aram	kg	0	n.a.	-3	159	151	126	160	154	160	157	
Gold Payment	0	kŬS\$	0	0	-25	1,487	1,413	1,178	1,496	1,440	1,496	1,463	1
Lead Con. Payment		kUS\$	0	0	1,568	35,417	37,301	37,808	39,736	42,640	41,014	38,901	38
rges													
Treatment	\$175 /t	kUS\$	0	0	474	11.094	11.716	12.004	12.434	13.572	12.948	12.257	12
Price Escalator	>\$0.25/lb	\$2.50 kUS\$	0	0	474 68	1,585	1,674	12,004	, -	1,939	1,850	12,257	12
		\$2.50 KUS\$ kUS\$	0	0	23	350	373	374	1,776 405	410	404	384	1
Silver Refining	\$9.00 /g	•	Ũ	-									
Gold Refining	\$180 / g	kUS\$	0	0	0	29	27	23	29	28	29	28	
Penalties	\$0.00 / t	kUS\$	0	-	0	0	0	0	0	0	0	0	-
Ocean Freight	\$30.00 /t	kUS\$	0	0	88	2,067	2,183	2,237	2,317	2,529	2,413	2,284	2
Representation	\$5.00 /t	kUS\$	0	0	14	317	335	343	355	388	370	350	
l Charges		kUS\$	0	0	666	15,442	16,307	16,696	17,315	18,866	18,013	17,054	17
on Lead Concentrate		kUS\$	0	0	902	19,975	20,993	21,112	22,421	23,774	23,002	21,848	21

REVENUE CALCULAT	TIONS											
(in US dollars)		YEAR	12	13	14	15	16	17	18	19	20	TOTALS
		Units									20	1017120
	L	eriite										I
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300
Zinc Concentrate												
Payment based on L	esser of:											
·	85%	k.lb	92,620	92,620	94,609	95,606	98,586	100,345	66,316	47,246	0	1,483,678
Or Content minus	8 units	k.lb	91,872	91,872	93,845	94,834	97,790	99,535	65,781	46,864	0	1,471,699
Zinc Con. Payment		kUS\$	55,123	55,123	56,307	56,900	58,674	59,721	39,468	28,118	0	883,019
Charges												
Treatment	\$190 /	t kUS\$	18,414	18,414	18,809	19,007	19,600	19,949	13,184	9,393	0	294,968
Price Escalator	>\$1100/t	\$0.07 kUS\$	1,468	1,468	1,500	1,515	1,563	1,590	1,051	749	0	23,516
Penalties	\$5.00 /	t kUS\$	485	485	495	500	516	525	347	247	0	7,762
Ocean Freight	\$30.00 /	t kUS\$	3,160	3,160	3,228	3,262	3,364	3,424	2,263	1,612	0	50,624
Representation	\$5.00 /	t kUS\$	485	485	495	500	516	525	347	247	0	7,762
Total Charges		kUS\$	24,011	24,011	24,527	24,785	25,558	26,014	17,192	12,248	0	384,632
NSR on Zinc Concentrate		kUS\$	31,112	31,112	31,780	32,115	33,116	33,707	22,276	15,870	0	498,387
NSR/t on Zinc Con.		US\$/t	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$0.00	\$321.03
Lead Concentrate												
Lead Payment based	d on Lesser of:											
	95%	k.lb	88,011	88,011	87,197	84,292	81,177	66,018	43,681	34,125	0	1,281,642
Or Content minus	3 units	k.lb	88,011	88,011	87,197	84,292	81,177	66,018	43,681	34,125	0	1,281,642
Lead Payment		kUS\$	30,804	30,804	30,519	29,502	28,412	23,106	15,288	11,944	0	448,575
Silver Payment base	d on Lesser of:											
	95%	kg	42,858	42,858	42,798	42,093	43,126	36,442	22,523	19,594	0	639,024
Or Content minus	35 grams	kg	42,663	42,663	42,622	41,960	43,135	36,521	22,491	19,675	0	636,960
Silver Payment		kŪS\$	6,635	6,635	6,629	6,526	6,707	5,667	3,498	3,047	0	99,025
Gold Payment based	on Lesser of:											
	95%	kg	215	215	211	218	196	225	121	109	0	3,209
Or Content minus	1 gram	kg	157	157	153	163	142	184	92	88	0	2,358
Gold Payment		kUS\$	1,463	1,463	1,428	1,519	1,326	1,717	860	822	0	22,007
Lead Con. Payment		kUS\$	38,901	38,901	38,576	37,547	36,445	30,491	19,646	15,813	0	569,607
Charges												
Treatment	\$175 /	t kUS\$	12,257	12,257	12,143	11,739	11,305	9,194	6,083	4,752	0	178,484
Price Escalator	>\$0.25/lb	\$2.50 kUS\$	1,751	1,751	1,735	1,677	1,615	1,313	869	679	0	25,498
Silver Refining	\$9.00 /		384	384	384	378	388	328	202	176	0	5,731
Gold Refining	\$180		28	28	28	29	26	33	17	16	0	425
Penalties	\$0.00	0	0	0	0	0	0	0	0	0	0	0
Ocean Freight	\$30.00		2,284	2,284	2,263	2,187	2,107	1,713	1,133	886	0	33,258
Representation	\$5.00 /		350	350	347	335	323	263	174	136	0	5,100
Total Charges		kUS\$	17,054	17,054	16,899	16,345	15,763	12,844	8,478	6,645	0	248,495
NSR on Lead Concentrate		kUS\$	21,848	21,848	21,677	21,202	20,681	17,647	11,167	9,168	0	321,112
NSR/t of Lead Con.		US\$/t	\$311.94	\$311.94	\$312.39	\$316.07	\$320.15	\$335.90	\$321.27	\$337.61	\$0.00	\$314.84
			•••								••••	•

Ore Processing Site Admin. & Overhead

Conc. Haul & Port Fees

TOTAL OPERATING COSTS

Unit Operating Cost

Reclamation Fund

FARO DCF ANALYSIS CASE 3 - GRIZZLY ONLY, NEW MILL

CAPITAL COST ESTIMA		EAR	1	2	3	4	5	6	7	8	9	10	11
		Units											
DIRECT COSTS (Incl. Conting	ency & EPCN	1)											
Grizzly Ramp Access and Deve	elopment	k\$	11,000	9,500	0	0	0	0	0	0	0	0	(
Grizzly Shaft Sinking & Equipin	ng	k\$	0	5,500	13,000	2,000	0	0	0	0	0	0	0
Grizzly Surface & Underground	d Plant	k\$	0	1,300	11,600	0	0	0	0	0	0	0	(
Grizzly Mobile Equipment		k\$	0	0	8,100	0	0	0	0	0	0	0	(
Grum Mine Equipment		k\$	0	0	0	0	0	0	0	0	0	0	
Grum Shop and Dewatering		k\$	0	0	0	0	0	0	0	0	0	0	
Grum Preproduction Mining -	Overburden	k\$	0	0	0	0	0	0	0	0	0	0	
	Waste Rock	k\$	0	0	0	0	0	0	0	0	0	0	
Faro Process Plant		k\$	0	11,000	45,000	0	0	0	0	0	0	0	
Ancillary Facilities		k\$	0	4,000	21,000	0	0	0	0	0	0	0	
nfrastructure		k\$	0	11,000	9,500	0	0	0	0	0	0	0	(
Sub-total Direct Costs		k\$	11,000	42,300	108,200	2,000	0	0	0	0	0	0	
OTHER COSTS													
Owner's Costs		k\$	1,000	1,000	1,000	0	0	0	0	0	0	0	(
Care and Maintenance		k\$	1,500	1,500	1,500	0	0	0	0	0	0	0	
Norking Capital		k\$	0	0	0	14,000	2,000	0	0	0	0	0	
Sub-total Other Costs		k\$	2,500	2,500	2,500	14,000	2,000	0	0	0	0	0	
Replacement Capital		k\$	0	0	0	0	0	950	950	950	950	950	95
Reclamation		k\$	0	0	0	0	0	0	0	0	0	0	(
FOTAL CAPITAL COSTS		k\$	13,500	44,800	110,700	16,000	2,000	950	950	950	950	950	950
OPERATING COST EST		EAR Units	1	2	3	4	5	6	7	8	9	10	1
MINING													
Pit Ore Mining	1.50 \$	/t k\$		0	0	0	0	0	0	0	0	0	(
Pit Waste Mining	1.20 \$			0	0	0	0	0	0	0	0	0	, (
Pit Fixed Cost	1.20 φ	k\$		0	0	0	0	0	0	0	0	0	, (
Grum Ore Haulage to Mill	1.90 \$			0	0	0	0	0	0	0	0	0	
J/g Ore Mining - R & P (70%)	35 \$			0	0	9,331	13,443	14,000	2,042	5,125	3,834	0	
- R & P to 45% Extr.	33 \$			0	0	9,331	13,443	14,000	2,042	5,125	3,034 0	0	
- R & P to 45% Extr. - Drift, Bench & Fill	33 \$. 32 \$.			0	0	6,400	0 18,240	0 19,200	0 30,133	0 27,315	0 28,494	32,000	22.00
								,					32,00
- Drift & Bench Only	27 \$			0	0	6,302	1,239	0	0	0	0	0	(
Grizzly Ore Haulage to Mill PROCESSING & GENERAL	0.00 \$	/t k\$		0	0	0	0	0	0	0	0	0	(
Dre Processing	Var. \$	/t			13.06	13.06	13.00	13.00	13.00	13.00	13.00	13.00	13.0
Ore Processing		۶J		0	1 306	12 6/2	13 000	13 000	13 000	13 000	13 000	13 000	13 000

1,306

7,000

8,956

\$89.56

587

63

k\$

k\$

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7000 k\$/a

1.5 %

65 \$/t (wet)

12,642

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11,623

1,219

54,517

\$56.32

13,000 7,000 12,641

1,326

66,142

\$66.14

13,000 7,000

12,800

1,326

66,565

\$66.57

13,000 7,000 12,292

1,281

65,902

\$65.90

13,000 7,000

11,796

1,231

65,027

\$65.03

13,000

7,000

11,796

1,231

65,027

\$65.03

13,000 7,000

12,603

1,310

67,114

\$67.11

13,000

7,000 12,559

1,315

66,797

\$66.80

CAPITAL COST ESTIMA	TE											
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DIRECT COSTS (Incl. Conting												
Grizzly Ramp Access and Deve	elopment	k\$	0	0	0	0	0	0	0	0	0	20,500
Grizzly Shaft Sinking & Equipin	ng	k\$	0	0	0	0	0	0	0	0	0	20,500
Grizzly Surface & Underground	d Plant	k\$	0	0	0	0	0	0	0	0	0	12,900
Grizzly Mobile Equipment		k\$	0	0	0	0	0	0	0	0	0	8,100
Grum Mine Equipment		k\$	0	0	0	0	0	0	0	0	0	0
Grum Shop and Dewatering		k\$	0	0	0	0	0	0	0	0	0	0
Grum Preproduction Mining -	Overburden	k\$	0	0	0	0	0	0	0	0	0	0
	Waste Rock	k\$	0	0	0	0	0	0	0	0	0	0
Faro Process Plant		k\$	0	0	0	0	0	0	0	0	0	56,000
Ancillary Facilities		k\$	0	0	0	0	0	0	0	0	0	25,000
Infrastructure		k\$	0	0	0	0	0	0	0	0	0	20,500
Sub-total Direct Costs		k\$	0	0	0	0	0	0	0	0	0	163,500
OTHER COSTS												
Owner's Costs		k\$	0	0	0	0	0	0	0	0	0	3,000
Care and Maintenance		k\$	0	0	0	0	0	0	0	0	0	4,500
Working Capital		k\$	0	0	0	0	0	0	0	0	-16,000	0
Sub-total Other Costs		k\$	0	0	0	0	0	0	0	0	-16,000	7,500
Replacement Capital		k\$	950	950	950	950	950	950	800	0	0	12,200
Reclamation		k\$	0	0	0	0	0	0	0	0	3,000	3,000
TOTAL CAPITAL COSTS		k\$	950	950	950	950	950	950	800	0	-13,000	186,200
OPERATING COST EST	IMATE YEAR	Units	12	13	14	15	16	17	18	19	20	TOTALS
MINING												
Pit Ore Mining	1.50 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
Pit Waste Mining	1.20 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
Pit Fixed Cost		k\$	0	0	0	0	0	0	0	0	0	0
Grum Ore Haulage to Mill	1.90 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
U/g Ore Mining - R & P (70%)	35 \$/t	k\$	0	0	0	6,678	12,338	24,791	2,035	4,954	0	98,571
- R & P to 45% Extr.	33 \$/t	k\$	0	0	0	0	3,171	2,216	0	0	0	5,387
- Drift, Bench & Fill	32 \$/t	k\$	32,000	32.000	32,000	22,627	13,635	7,184	11,200	5,420	0	349.848
- Drift & Bench Only	27 \$/t	k\$	00	0	0	2,757	3,383	0	6,530	5,507	0	25,719
Grizzly Ore Haulage to Mill	0.00 \$/t	k\$	0	0	0	_,	0	0	0	0	0	0
PROCESSING & GENERAL												
Ore Processing	Var. \$/t		13.00	13.00	13.00	13.00	13.00	13.00	13.81	13.81		
Ore Processing	· · · · · · · · · · · · · · · · · · ·	k\$	13,000	13,000	13,000	13,000	13,000	13,000	8,977	7,111	0	199,035
Site Admin. & Overhead	7000 k\$/a	k\$	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	0	119,000
Conc. Haul & Port Fees	65 \$/t (wet)	k\$	11,796	11,796	11,897	11,807	11,852	11,130	7,358	5,411	0	181,744
Reclamation Fund	1.5 %	k\$	1,231	1,231	1,243	1,240	1,251	1,194	778	582	0	19,053
TOTAL OPERATING COSTS	1.0 /0	k\$	65,027	65,027	65,140	65,109	65,630	66,516	43,878	35,985	0	998,358
Unit Operating Cost		\$/t Ore	\$65.03	\$65.03	\$65.14	\$65.11	\$65.63	\$66.52	\$67.50	\$69.89	0	\$65.54
erne operaning book		<i></i>	\$00.00	<i>\</i> 00.00	<i>\</i>	φοσ	\$00.00	\$00.0E	ψ01.00	<i>400.00</i>		φ00.01

YE	AR	1	2	3	4	5	6	7	8	9	10	11
	Units											
DEPRECIATION POOL												
Opening Balance	k\$	140,000	151,000	193,300	301,500	276,742	255,860	236,569	215,235	194,341	175,784	159,673
Additional Assets	k\$	11,000	42,300	108,200	2,000	0	950	950	950	950	950	950
Amount Used to Defer Taxes	k\$	0	0	0	26,758	20,882	20,241	22,285	21,843	19,508	17,061	17,061
Closing Balance	k\$	151,000	193,300	301,500	276,742	255,860	236,569	215,235	194,341	175,784	159,673	143,561
NCOME TAX CALCULATION												
Operating Profit	k\$	0	0	-4,770	26,758	20,882	20,241	22,285	21,843	19,508	17,061	17,061
LESS Depreciation Allowance	k\$	0	0	0	-26,758	-20,882	-20,241	-22,285	-21,843	-19,508	-17,061	-17,061
Taxable Income	k\$	0	0	0	0	0	0	0	0	0	0	0
Income Tax Payable 39 %	k\$	0	0	0	0	0	0	0	0	0	0	0
YUKON MINING ROYALTY												
Operating Profit	k\$	0	0	-4,770	26,758	20,882	20,241	22,285	21,843	19,508	17,061	17,061
LESS 15% Depreciation Allowance	k\$	0	0	716	-4,014	-3,132	-3,036	-3,343	-3,276	-2,926	-2,559	-2,559
LESS Income Tax Payable	k\$	0	0	0	0	0	0	0	0	0	0	0
Taxable Profit	k\$	0	0	0	22,744	17,750	17,205	18,942	18,567	16,581	14,502	14,502
		0	0	0	4	3	3	3	3	3	2	2
Royalty Rate (5% + 1%/\$5M)	k\$	0	5	5	9	8	8	8	8	8	7	7
Royalty Payments	k\$	0	0	0	2,047	1,420	1,376	1,515	1,485	1,327	1,015	1,015

TAX CALCULATIONS												
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DEPRECIATION POOL												
Opening Balance		k\$	143,561	127,450	111,339	94,570	77,988	61,181	49,049	41,888	39,064	
Additional Assets		k\$	950	950	950	950	950	950	800	0	16,000	
Amount Used to Defer Taxes		k\$	17,061	17,061	17,719	17,532	17,757	13,082	7,960	2,824	0	276,636
Closing Balance		k\$	127,450	111,339	94,570	77,988	61,181	49,049	41,888	39,064	55,064	
INCOME TAX CALCULATION												
Operating Profit		k\$	17,061	17,061	17,719	17,532	17,757	13,082	7,960	2,824	0	271,866
LESS Depreciation Allowance		k\$	-17,061	-17,061	-17,719	-17,532	-17,757	-13,082	-7,960	-2,824	0	
Taxable Income		k\$	0	0	0	0	0	0	0	0	0	0
Income Tax Payable	39 %	k\$	0	0	0	0	0	0	0	0	0	0
YUKON MINING ROYALTY												
Operating Profit		k\$	17,061	17,061	17,719	17,532	17,757	13,082	7,960	2,824	0	271,866
LESS 15% Depreciation Allowan	ice	k\$	-2,559	-2,559	-2,658	-2,630	-2,663	-1,962	-1,194	-424	0	
LESS Income Tax Payable		k\$	0	0	0	0	0	0	0	0	0	
Taxable Profit		k\$	14,502	14,502	15,061	14,902	15,093	11,120	6,766	2,401	0	235,141
			2	2	3	2	3	2	1	0	0	- /
Royalty Rate (5% + 1%/\$5M)		k\$	7	7	8	7	8	7	6	5	5	
Royalty Payments		k\$	1,015	1,015	1,205	1,043	1,207	778	406	120	0	17,991



DIAND, Faro Site, NWT DCF Cases1to4.xls

SUMMARY		7											
		PROJECT YEAR	1	2	3	4	5	6	7	8	9	10	11
		Units											
PRODUCTION													
Grum Pit Ore Mined		kt	0	0	1,810	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Waste rock mined		kt	0	4,000	13,500	13,500	13,000	12,500	12,000	11,500	10,500	9,000	6,500
Total Mined (under operating	costs)	kt	0	0	15,310	15,500	15,000	14,500	14,000	13,500	12,500	11,000	8,500
Strip Ratio		t/t	0.0	0.0	7.5	6.8	6.5	6.3	6.0	5.8	5.3	4.5	3.3
Grizzly Underground Ore Mine	ed	kt	0	0	0	0	0	0	0	0	0	0	0
Mill Feed		kt	0	368	1,810	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Head Grades	Zinc	%	0	3.86	4.89	4.73	4.73	4.43	4.42	4.21	3.83	3.83	3.83
	Lead	%	0	2.11	3.06	3.01	3.01	2.68	2.66	2.49	2.18	2.18	2.18
	Silver	g/t	0	47.0	51.1	50.1	50.1	45.8	45.5	42.6	37.0	37.0	37.0
	Gold	g/t	0	n.a.	0.80	0.78	0.78	0.82	0.82	0.72	0.54	0.54	0.54
Zinc Concentrate		dry t	0	20,611	128,313	137,379	137,379	128,652	128,180	122,237	111,016	111,016	111,016
Con. Grade	Zinc	%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Concentrate		dry t	0	9,965	71,151	77,205	77,205	68,732	68,273	63,972	55,849	55,849	55,849
Con. Grade	Lead	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver	g/t	0	867.9	754.6	752.6	752.6	772.2	773.4	771.9	768.5	768.5	768.5
	Gold	g/t	0	n.a.	6.13	6.07	6.07	7.12	7.18	6.78	5.85	5.85	5.85
REVENUE													
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	300	300
- - - -		11100					70.400						~ ~ ~ ~ ~
Zinc Con. Payment		kUS\$	0	11,723	72,983	78,139	78,139	73,176	72,907	69,527	63,145	63,145	63,145
LESS Zinc Con. Charg	jes	kUS\$	0	5,106	31,790	34,036	34,036	31,874	31,757	30,285	27,505	27,505	27,505
NSR on Zinc Concentrate		kUS\$	0	6,617	41,193	44,103	44,103	41,301	41,150	39,242	35,640	35,640	35,640
Lead Con. Payment LESS Lead Con. Char	000	kUS\$ kUS\$	0 0	5,660 2,442	42,632 17,431	46,193 18,912	46,193 18,912	41,993 16,861	41,766 16,750	38,881 15,689	33,432 13,686	33,432 13,686	33,432 13,686
NSR on Lead Concentrate	gco	kUS\$	0	3,219	25,201	27,281	27,281	25,133	25,016	23,192	19,746	19,746	19,746
Total US dollar Revenue		kUS\$	0	9,835	66,394	71,384	71,384	66,434	66,166	62,433	55,385	55,385	55,385
Exchange Rate	1.5	5 Can\$/US\$		-,		.,	,		,	,	,	,	,
Total Revenue		k\$	0	15,245	102,910	110,645	110,645	102,972	102,557	96,772	85,847	85,847	85,847
OPERATING COSTS		1.¢	0	0	00045	00000	07700	07400	00500	05000	0.4700	00000	40000
Grum Pit Mining Grum Ore Haulage to Mill		k\$ k\$	0	0 0	28015 3,439	28300 3,800	27700 3,800	27100 3,800	26500 3,800	25900 3,800	24700 3,800	22900 3,800	19900 3,800
Underground Ore Mining		k\$	0	0	3, 4 39 0	3,000 0	3,000 0	3,000 0	3,000 0	3,000 0	3,000 0	3,000 0	3,000 0
Grizzly Ore Haulage to Mill		k\$	0	0	0	0	0	0	0	0	0	0	0
Ore Processing		k\$	0	4,221	20,761	22,700	22,700	22,700	22,700	22,700	22,700	22,700	22,700
Site Admin. & Overhead		k\$	0	0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Conc. Haul & Port Fees		k\$	0	2,160	14,093	15,161	15,161	13,946	13,880	13,156	11,789	11,789	11,789
Reclamation Fund		k\$	0	229	1,544	1,660	1,660	1,545	1,538	1,452	1,288	1,288	1,288
Total Operating Costs		k\$	0	6,610	74,851	78,621	78,021	76,090	75,418	74,008	71,277	69,477	66,477
Operating Drafit		k\$	0	8,635	28,059	32,024	32,624	26,882	27,139	22,764	14,570	16,370	19,370
Operating Profit		Kφ	0	0,035	20,009	32,024	32,024	20,002	27,139	22,704	14,570	10,370	19,370
CAPITAL COSTS													
Direct Costs		k\$	33,000	142,200	1,500	0	0	0	0	0	0	0	0
Indirect Costs		k\$	2,500	2,500	0	0	0	0	0	0	0	0	0
Working Capital		k\$	0	0	19,000	0	0	0	0	0	0	0	0
Relacement Capital		k\$	0	0	0	0	0	1800	1800	1800	1800	1800	1100
Reclamation		k\$	0	0	0	0	0	0	0	0	0	0	0
Cash Flow before Taxes		k\$	-35,500	-136,065	7,559	32,024	32,624	25,082	25,339	20,964	12,770	14,570	18,270
TAXES AND ROYALTIES													
Corporate Income Tax	3	9 % k\$	0	0	0	0	0	0	0	0	0	0	0
Yukon Mining Royalty		k\$	0	440	2,147	2,722	2,773	2,056	2,076	1,548	867	974	1,317
Cash Flow After Taxes		k\$	-35,500	-136,505	5,413	29,302	29,851	23,026	23,263	19,416	11,903	13,596	16,953
Cash Flow After Taxes Cumulative Cash Flow	,	къ k\$	-35,500	-136,505		-137,290	-107,439	23,026 -84,414	-61,151	-41,735	-29,831	-16,235	76,953
			- 3,000	,000		,200	,	,	,	,	,001	,200	
RESULTS	NPV @	10% k\$	-42,333										
	NPV @	15% k\$	-57,801										
	NPV @	20% k\$	-66,262										
	IRR	%	3.1%										

SUMMARY		7										
		PROJECT YEAR	12	13	14	15	16	17	18	19	20	TOTALS
PRODUCTION		Units										
Grum Pit Ore Mined		kt	1,820	0	0	0	0	0	0	0	0	19,630
Waste rock mined		kt	4,550	0	0	0	0	0	0	0	0	110,550
Total Mined (under operating of	costs)	kt	6,370	0	0	0	0	0	0	0	0	126,180
Strip Ratio		t/t	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Grizzly Underground Ore Mine	ed	kt	0	0	0	0	0	0	0	0	0	0
Mill Feed		kt	1,820	0	0	0	0	0	0	0	0	19,998
Head Grades	Zinc	%	3.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.26
	Lead	%	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.55
	Silver	g/t	37.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.4
	Gold	g/t	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69
Zinc Concentrate		dry t	101,025	0	0	0	0	0	0	0	0	1,236,824
Con. Grade	Zinc	%	51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Concentrate		dry t	50,823	0	0	0	0	0	0	0	0	654,876
Con. Grade	Lead	%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver Gold	g/t g/t	768.5 5.85	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	766.0 6.20
		3.										
REVENUE Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	
WELDI FILLES	Lead	0.35 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	
Zine Con Devenant			F7 404	0	0	0	0	0	0	0	0	702 400
Zinc Con. Payment LESS Zinc Con. Charg	00	kUS\$ kUS\$	57,461 25,030	0 0	0 0	0 0	0	0 0	0 0	0	0 0	703,489 306,431
NSR on Zinc Concentrate	62	kUS\$	32,432	0	0	0	0	0	0	0	0	397,058
Lead Con. Payment		kUS\$	30,423	0	0	0	0	0	0	0	0	394,036
LESS Lead Con. Charg	nes	kUS\$	12,454	0	0	0	0	0	0	0	0	160,508
NSR on Lead Concentrate	9	kUS\$	17,969	0	0	0	0	0	0	0	0	233,528
Total US dollar Revenue		kUS\$	50,401	0	0	0	0	0	0	0	0	630,586
Exchange Rate	1.5	5 Can\$/US\$										
Total Revenue		k\$	78,121	0	0	0	0	0	0	0	0	977,408
OPERATING COSTS												
Grum Pit Mining		k\$	17290	0	0	0	0	0	0	0	0	248,305
Grum Ore Haulage to Mill		k\$	3,458	0	0	0	0	0	0	0	0	37,297
Underground Ore Mining		k\$	0	0	0	0	0	0	0	0	0	0
Grizzly Ore Haulage to Mill		k\$	0	0	0	0	0	0	0	0	0	0
Ore Processing		k\$	20,857	0	0	0	0	0	0	0	0	227,439
Site Admin. & Overhead Conc. Haul & Port Fees		k\$ k\$	7,000 10,728	0	0	0 0	0	0	0 0	0	0 0	70,000 133,653
Reclamation Fund		k\$ k\$	1,172	0	0	0	0	0	0	0	0	14,661
Total Operating Costs		k\$	60,505	0	0	0	0	0	0	0	0	731,355
Total Operating Obsis		Kψ	00,000	0	0	0	0	0	0	0	0	701,000
Operating Profit		k\$	17,615	0	0	0	0	0	0	0	0	246,054
CAPITAL COSTS												
Direct Costs		k\$	0	0	0	0	0	0	0	0	0	176,700
Indirect Costs		k\$	0	0	0	0	0	0	0	0	0	5,000
Working Capital		k\$	0	-19,000	0	0	0	0	0	0	0	0
Relacement Capital		k\$	0	0	0	0	0	0	0	0	0	10100
Reclamation		k\$	0	3000	0	0	0	0	0	0	0	3000
Cash Flow before Taxes		k\$	17,615	16,000	0	0	0	0	0	0	0	51,254
TAXES AND ROYALTIES												
Corporate Income Tax Yukon Mining Royalty	39	9 % k\$ k\$	0 1,048	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 17,969
Cash Flow After Taxes Cumulative Cash Flow		k\$ k\$	16,567 17,285	16,000 33,285	0 33,285	33,285						
RESULTS	NPV @ NPV @ NPV @ IRR	10% k\$ 15% k\$ 20% k\$ %										

PRODUCTION														
		PROJEC		1	2	3	4	5	6	7	8	9	10	11
			Units											
MINING PLAN														
Grum Pit Ore			kt	0	0	1,810	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Overburden mined (wall failu	re)		kt		9880	0	0	0	0	0	0	0	0	0
Waste rock mined			kt		4,000	13,500	13,500	13,000	12,500	12,000	11,500	10,500	9,000	6,500
Total Mined (under operating	costs)		kt			15310	15500	15000	14500	14000	13500	12500	11000	8500
Strip Ratio			t/t			7.5	6.8	6.5	6.3	6.0	5.8	5.3	4.5	3.3
Mined Grades	Zinc		%			4.89	4.73	4.73	4.43	4.42	4.21	3.83	3.83	3.83
	Lead		%			3.1	3.0	3.0	2.7	2.7	2.5	2.2	2.2	2.2
	Silver		g/t			51.1	50.1	50.1	45.8	45.5	42.6	37.0	37.0	37.0
	Gold		g/t			0.8	0.8	0.8	0.8	0.8	0.7	0.5	0.5	0.5
Grizzly Underground Ore														
Room & Pillar			% kt	0	0	0	0	0	0	0	0	0	0	0
R & P without 2nd Pa	SS		% kt	0	0	0	0	0	0	0	0	0	0	0
Drift, Bench & Fill			% kt	0	0	0	0	0	0	0	0	0	0	0
Drift & Bench Only		459	% kt	0	0	0	0	0	0	0	0	0	0	0
Total Ore Mined			kt	0	0	0	0	0	0	0	0	0	0	0
Mined Grades	Zinc		%											
	Lead		%											
	Silver		g/t											
	Gold		g/t											
Stockpile, Remove (Add)			kt	0	368	0	0	0	0	0	0	0	0	0
Stockpile Grades	Zinc		%		3.86									
	Lead		%		2.11									
	Silver		g/t		47.0									
	Gold		g/t		n.a.									
PROCESSING PLAN				_										
Mill Feed			kt	0	368	1,810	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Head Grades	Zinc		%	0	3.86	4.89	4.73	4.73	4.43	4.42	4.21	3.83	3.83	3.83
	Lead		%	0	2.11	3.06	3.01	3.01	2.68	2.66	2.49	2.18	2.18	2.18
	Silver		g/t	0	47.0	51.1	50.1	50.1	45.8	45.5	42.6	37.0	37.0	37.0
	Gold		g/t		n.a.	0.80	0.78	0.78	0.82	0.82	0.72	0.54	0.54	0.54
Recoveries	Zinc	Grum	%		74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
	Zinc	Grizzly	%		81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Lead	Grum	%		77%	77%	77%	77%	77%	77%	77%	77%	77%	77%
	Lead	Grizzly	%		81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Silver	Grum	%		50% 60%	58% 60%	58% 60%	58% 60%	58% 60%	58% 60%	58%	58% 60%	58% 60%	58% 60%
	Silver Gold	Grizzly	% %			60% 30%	60% 30%		60% 30%		60% 30%	60% 30%	60% 30%	60% 30%
Concentrate Produced	Gold	Both	%		30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Zinc Concentrate			de t	0	20,611	128,313	137,379	137,379	128,652	128,180	122,237	111,016	111,016	111,016
Lead Concentrate			dry t	0	20,811	71,151	77,205	77,205	68,732	68,273	63,972	55.849	55,849	55,849
Zinc Con. Grades	Zinc		dry t %	0 51%	9,965 51%	51%	77,205 51%	77,205 51%	68,732 51%	68,273 51%	63,972 51%	55,849 51%	55,849 51%	55,849 51%
Lead Con. Grades	Lead		%	60%	51% 60%	60%	60%	51% 60%	51% 60%	51% 60%	51% 60%	60%	51% 60%	51% 60%
LEau CUII. GIdues	Silver			60% 0	60% 868	60% 755	60% 753	60% 753	60% 772	60% 773	60% 772	60% 769	60% 769	60% 769
	Gold		g/t	0		6.13	753 6.07	753 6.07	7.12	7.18	6.78	769 5.85	769 5.85	769 5.85
	Golu		g/t	U	n.a.	0.13	0.07	0.07	1.12	1.18	0.78	0.05	0.05	5.65
Zinc Con. Shipped (incl. 8%			wet t	0	22,403	139,471	149,325	149,325	139,839	139,326	132,867	120,670	120,670	120,670
Lead Con. Shipped (incl. 8%			wet t	0	10,831	77,339	83,919	83,919	74,709	74,210	69,535	60,706	60,706	60,706

PRODUCTION													
		PROJECT Y		12	13	14	15	16	17	18	19	20	TOTALS
		L L	Jnits										
MINING PLAN													
Grum Pit Ore		k	t	1,820	0	0	0	0	0	0	0	0	19630
Overburden mined (wall fail	ure)	k	t	0	0	0	0	0	0	0	0	0	9880
Waste rock mined		k	t	4,550	0	0	0	0	0	0	0	0	110550
Total Mined (under operatin	g costs)	k	t	6370	0	0	0	0	0	0	0	0	126180
Strip Ratio	• <i>,</i>	t/	't	2.5									5.6
Mined Grades	Zinc	9	6	3.83									4.27
	Lead	9	6	2.2									2.56
	Silver	a	/t	37.0									43.3
	Gold	•	/t	0.5									0.69
Grizzly Underground Ore	eena	9	, .	0.0									0.00
Room & Pillar		70% k	t	0	0	0	0	0	0	0	0	0	(
R & P without 2nd P	266	45% k		Ő	Ő	0 0	Ő	Ő	Ő	Ő	Ő	0	(
Drift, Bench & Fill	400	85% k		0	Ő	0	0	Ő	0	0 0	Ő	0	(
Drift & Bench Only		45% k		0	0	0	0	0	0	0	0	0	(
Total Ore Mined		45% k		0	0	0	0	0	0	0	0	0	0
Mined Grades	Zinc	к 9		0	0	0	0	0	0	0	0	0	6.49
Willed Grades	Lead	9											5.03
	Silver		/t										74.3
	Gold		/t										0.76
Stockpile, Remove (Add)		k		0	0	0	0	0	0	0	0	0	368
Stockpile Grades	Zinc	9											3.86
	Lead	9											2.11
	Silver	g											47.0
	Gold	g	/t										n.a
PROCESSING PLAN													
Mill Feed		k		1,820	0	0	0	0	0	0	0	0	19,998
Head Grades	Zinc	%		3.83									4.26
	Lead	9	6	2.18									2.55
	Silver	g	/t	37.0									43.4
	Gold	g	/t	0.54									0.69
Recoveries	Zinc	Grum %	6	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
	Zinc	Grizzly %	6	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Lead	Grum %	6	77%	77%	77%	77%	77%	77%	77%	77%	77%	77%
	Lead	Grizzly %	6	81%	81%	81%	81%	81%	81%	81%	81%	81%	81%
	Silver	Grum %	6	58%	58%	58%	58%	58%	58%	58%	58%	58%	58%
	Silver	Grizzly %	6	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Gold	Both 9	6	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Concentrate Produced													
Zinc Concentrate		d	ry t	101,025	0	0	0	0	0	0	0	0	1,236,824
Lead Concentrate			ry t	50,823	0 0	0 0	0 0	0 0	Õ	Õ	0 0	0	654,876
Zinc Con. Grades	Zinc	9		51%	51%	51%	51%	51%	51%	51%	51%	51%	51%
Lead Con. Grades	Lead	, 9		60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
	Silver		/t	769	0070	0070	0070	0070	0070	0070	0070	0070	766
	Gold		/t	5.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.20
	Colu	g	, .	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Zinc Con. Shipped (incl. 8%				109,809	0	0	0	0	0	0	0	0	1,344,374
Lead Con. Shipped (incl. 8%	6 moisture)	w	vet t	55,242	0	0	0	0	0	0	0	0	711,821

REVENUE CALCULAT	TIONS													
(in US dollars)		YEAR		1	2	3	4	5	6	7	8	9	10	11
			Units											
Metal Prices	Zinc	0.60) US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
	Lead	0.35	5 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
	Silver	5.00) US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
	Gold	300) US\$/oz	300	300	300	300	300	300	300	300	300	300	300
Zinc Concentrate														
Payment based on L														
	85%		k.lb	0	19,698	122,628	131,292	131,292	122,952	122,500	116,822	106,097	106,097	106,097
Or Content minus	8 units		k.lb	0	19,539	121,638	130,232	130,232	121,959	121,511	115,878	105,241	105,241	105,241
Zinc Con. Payment			kUS\$	0	11,723	72,983	78,139	78,139	73,176	72,907	69,527	63,145	63,145	63,145
Charges														
Treatment	\$190		kUS\$	0	3,916	24,380	26,102	26,102	24,444	24,354	23,225	21,093	21,093	21,093
Price Escalator	>\$1100/t		kUS\$	0	312	1,944	2,081	2,081	1,949	1,942	1,852	1,682	1,682	1,682
Penalties	\$5.00		kUS\$	0	103	642	687	687	643	641	611	555	555	555
Ocean Freight	\$30.00	/ t	kUS\$	0	672	4,184	4,480	4,480	4,195	4,180	3,986	3,620	3,620	3,620
Representation	\$5.00	/ t	kUS\$	0	103	642	687	687	643	641	611	555	555	555
Total Charges			kUS\$	0	5,106	31,790	34,036	34,036	31,874	31,757	30,285	27,505	27,505	27,505
			11100	0	0.017	44.400	44.400	44.400	44.004	44.450	00.040	05.040	05 0 40	05.040
NSR on Zinc Concentrate			kUS\$	-	6,617	41,193	44,103	44,103	41,301	41,150	39,242	35,640	35,640	35,640
NSR/t on Zinc Con.			US\$/t	\$0.00	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03	\$321.03
Lead Concentrate														
Lead Payment based	d on Lesser of													
Lead 1 ayment based	95%		k.lb	0	12.522	89.411	97.018	97.018	86.370	85.794	80,389	70.182	70.182	70.182
Or Content minus			k.lb	0	12,522	89,411	97.018	97.018	86,370	85.794	80,389	70,182	70,182	70,182
Lead Payment	5 units		kUS\$	0	4,383	31,294	33,956	33,956	30,230	30,028	28,136	24,564	24,564	24,564
Silver Payment base	d on Lesser of	f.	κυσφ	0	4,505	51,234	33,350	55,550	50,250	30,020	20,150	24,304	24,304	24,304
Silver i ayment base	95%		kg	0	8,216	51,006	55,199	55,199	50,422	50,163	46,913	40,777	40,777	40,777
Or Content minus			kg	0	8,299	51,000	55,402	55,402	50,422	50,414	40,913	40,968	40,968	40,968
Silver Payment	55 grams		kUS\$	0	1,278	7,932	8,584	8,584	7,841	7,801	7,296	6,341	6,341	6,341
Gold Payment based	l on Lesser of		κυσφ	0	1,270	7,552	0,004	0,004	7,041	7,001	7,230	0,341	0,541	0,541
Gold I ayment based	95%		kg	0	n.a.	414	445	445	465	466	412	310	310	310
Or Content minus			kg	0	n.a.	365	391	391	403	400	370	271	271	271
Gold Payment	ryiani		kUS\$	0	11.a. 0	3,406	3,652	3,652	3,922	3,937	3,449	2,527	2,527	2,527
Gold Fayment			κυσφ	0	0	3,400	3,052	3,032	3,322	5,557	3,443	2,521	2,521	2,527
Lead Con. Payment			kUS\$	0	5,660	42,632	46,193	46,193	41,993	41,766	38,881	33,432	33,432	33,432
,					-,	,	,	,	,	,	,			
Charges														
Treatment	\$175	/ t	kUS\$	0	1,744	12,452	13,511	13,511	12,028	11,948	11,195	9,774	9,774	9,774
Price Escalator	>\$0.25/lb	\$2.50	kUS\$	0	249	1,779	1,930	1,930	1,718	1,707	1,599	1,396	1,396	1,396
Silver Refining	\$9.00	/ g	kUS\$	0	74	459	497	497	454	451	422	367	367	367
Gold Refining	\$180		kUS\$	0	0	66	70	70	76	76	67	49	49	49
Penalties	\$0.00		kUS\$	0	0	0	0	0	0	0	0	0	0	0
Ocean Freight	\$30.00	/ t	kUS\$	0	325	2,320	2,518	2,518	2,241	2,226	2,086	1,821	1,821	1,821
Representation	\$5.00		kUS\$	0	50	356	386	386	344	341	320	279	279	279
Total Charges			kUS\$	0	2,442	17,431	18,912	18,912	16,861	16,750	15,689	13,686	13,686	13,686
-														
NSR on Lead Concentrate			kUS\$	0	3,219	25,201	27,281	27,281	25,133	25,016	23,192	19,746	19,746	19,746
NSR/t of Lead Con.			US\$/t	\$0.00	\$323.01	\$354.19	\$353.36	\$353.36	\$365.66	\$366.41	\$362.53	\$353.55	\$353.55	\$353.55

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(in US dollars)	YI	EAR	12	13	14	15	16	17	18	19	20	TOTAL
· · ·		Units										
Metal Prices	Zinc	0.60 US\$/lb	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.6
	Lead	0.35 US\$/lb	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.3
	Silver	5.00 US\$/oz	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.
	Gold	300 US\$/oz	300	300	300	300	300	300	300	300	300	3
c Concentrate												
Payment based on Le	sser of:											
,	85%	k.lb	96.549	0	0	0	0	0	0	0	0	1,182,0
Or Content minus 8		k.lb	95,769	0	0	0	0	0	0	0	0	1,172,4
Zinc Con. Payment		kUS\$	57,461	0	0	0	0	0	0	0	0	703,4
arges			.,									,
Treatment	\$190 /t	kUS\$	19,195	0	0	0	0	0	0	0	0	234,9
Price Escalator	>\$1100/t	\$0.07 kUS\$	1,530	0	0	0	0	0	0	0	0	18,7
Penalties	\$5.00 / t		505	0	0	0	0	0	0	0	0	6,1
Ocean Freight	\$30.00 / t	+	3,294	0 0	0	Ő	0 0	Ő	0	0 0	0	40,3
Representation	\$5.00 / t		505	0 0	0	0	0 0	Ő	0	õ	0	6,1
al Charges	φ0.00 / ί	kUS\$	25,030	0	Ő	0	0	0	0	0	Ő	306,4
R on Zinc Concentrate		kUS\$	32,432	0	0	0	0	0	0	0	0	397,0
NSR/t on Zinc Con.		US\$/t	\$321.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$321
ad Concentrate Lead Payment based	on Lesser of:											
	95%	k.lb	63,865	0	0	0	0	0	0	0	0	822,9
Or Content minus 3	units	k.lb	63,865	0	0	0	0	0	0	0	0	822,9
Lead Payment		kUS\$	22,353	0	0	0	0	0	0	0	0	288,0
Silver Payment based	on Lesser of:											
	95%	kg	37,107	0	0	0	0	0	0	0	0	476,5
Or Content minus 3	5 grams	kg	37,281	0	0	0	0	0	0	0	0	478,
Silver Payment		kUS\$	5,771	0	0	0	0	0	0	0	0	74,
Gold Payment based of												
	95%	kg	282	0	0	0	0	0	0	0	0	3,8
Or Content minus 1	gram	kg	246	0	0	0	0	0	0	0	0	3,4
Gold Payment		kUS\$	2,299	0	0	0	0	0	0	0	0	31,8
Lead Con. Payment		kUS\$	30,423	0	0	0	0	0	0	0	0	394,0
arges												
Treatment	\$175 /t	kUS\$	8,894	0	0	0	0	0	0	0	0	114,6
Price Escalator	>\$0.25/lb	\$2.50 kUS\$	1,271	0	0	0	0	0	0	0	0	16,3
Silver Refining	\$9.00 / g	g kUS\$	334	0	0	0	0	0	0	0	0	4,2
Gold Refining	\$180 / g		44	0	0	0	0	0	0	0	0	é
Penalties	\$0.00 / t	kUS\$	0	0	0	0	0	0	0	0	0	
Ocean Freight	\$30.00 /t		1,657	0	0	0	0	0	0	0	0	21,
Representation	\$5.00 / t		254	0	0	0	0	0	0	0	0	3,2
al Charges		kUS\$	12,454	0	0	0	0	0	0	0	0	160,
R on Lead Concentrate		kUS\$	17,969	0	0	0	0	0	0	0	0	233,
		KU GG	17.303	0	0	0	0	0	0	0	0	200.

CAPITAL COST ESTIMA	TE												
	YEAR		1	2	3	4	5	6	7	8	9	10	11
		Units											
DIRECT COSTS (Incl. Conting			0	0	0	0			0		0	0	0
Grizzly Ramp Access and Dev		k\$	0	0	0	0	0	0	0	0	0	0	0
Grizzly Shaft Sinking & Equipir		k\$	0	0	0	0	0	0	0	0	0	0	0
Grizzly Surface & Underground	d Plant	k\$	0	0	0	0	0	0	0	0	0	0	0
Grizzly Mobile Equipment		k\$	0	0	0	0	0	0	0	0	0	0	0
Grum Mine Equipment		k\$	9,500	23,500	1,500	0	0	0	0	0	0	0	0
Grum Shop and Dewatering		k\$	5,500	0	0	0	0	0	0	0	0	0	0
Grum Preproduction Mining -	Overburden	k\$	0	10,500	0	0	0	0	0	0	0	0	0
	Waste Rock	k\$	0	7,200	0	0	0	0	0	0	0	0	0
Faro Process Plant		k\$	18000	70,000	0	0	0	0	0	0	0	0	0
Ancillary Facilities		k\$	0	22500	0	0	0	0	0	0	0	0	0
Infrastructure		k\$	0	8,500	0	0	0	0	0	0	0	0	0
Sub-total Direct Costs		k\$	33,000	142,200	1,500	0	0	0	Ő	0	0	0	0
OTHER COSTS		KΨ	33,000	142,200	1,500	0	0	0	0	0	0	0	0
Owner's Costs		k\$	1,000	1,000	0	0	0	0	0	0	0	0	0
			,	,	0	0	0						
Care and Maintenance		k\$	1,500	1,500	-			0	0	0	0	0	0
Working Capital		k\$	0	0	19000	0	0	0	0	0	0	0	0
Sub-total Other Costs		k\$	2,500	2,500	19,000	0	0	0	0	0	0	0	0
Replacement Capital		k\$	0	0	0	0	0	1800	1800	1800	1800	1800	1100
Reclamation		k\$	0	0	0	0	0	0	0	0	0	0	0
TOTAL CAPITAL COSTS		k\$	33,000	142,200	1,500	0	0	1,800	1,800	1,800	1,800	1,800	1,100
OPERATING COST EST	IMATE YEAR		1	2	3	4	5	6	7	8	9	10	11
		Units											
MINING													
Pit Ore Mining	1.50 \$/t	k\$		0	2,715	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Pit Waste Mining	1.20 \$/t	k\$		Õ	16,200	16,200	15,600	15,000	14,400	13,800	12,600	10,800	7,800
Pit Fixed Cost	1.20 φ/τ	k\$		0	9,100	9,100	9,100	9,100	9,100	9,100	9,100	9,100	9,100
Grum Ore Haulage to Mill	1.90 \$/t	k\$		0	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,100	3,800
5		•		-	-,	- ,	- ,	- ,	-,	-,	- ,	-,	- ,
U/g Ore Mining - R & P (70%)	35 \$/t	k\$		0	0	0	0	0	0	0	0	0	0
- R & P to 45% Extr.	33 \$/t	k\$		0	0	0	0	0	0	0	0	0	0
- Drift, Bench & Fill	32 \$/t	k\$		0	0	0	0	0	0	0	0	0	0
 Drift & Bench Only 	27 \$/t	k\$		0	0	0	0	0	0	0	0	0	0
Grizzly Ore Haulage to Mill PROCESSING & GENERAL	<mark>0</mark> \$/t	k\$		0	0	0	0	0	0	0	0	0	0
Ore Processing	Var. \$/t			11.47	11.47	11.35	11.35	11.35	11.35	11.35	11.35	11.35	11.35
Ore Processing		k\$		4,221	20,761	22,700	22,700	22,700	22,700	22,700	22,700	22,700	22,700
Site Admin. & Overhead	7000 k\$/a	k\$		0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000
Conc. Haul & Port Fees	65 \$/t (wet)	k\$		2,160	14,093	15,161	15,161	13,946	13,880	13,156	11,789	11,789	11,789
Reclamation Fund	1.5 %	k\$		2,100	1,544	1,660	1,660	1,545	1,538	1,452	1,288	1,288	1,288
TOTAL OPERATING COSTS	1.0 70	къ k\$		6,610	74,851	78,621	78,021	76,090	75,418	74,008	71,200	69,477	66,477
		•		,	,	,	,	,	,	,	\$35.64	,	,
Unit Operating Cost		\$/t Ore		\$17.96	\$41.35	\$39.31	\$39.01	\$38.05	\$37.71	\$37.00		\$34.74	\$33.24

CAPITAL COST ESTIMA	TE											
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DIRECT COSTS (Incl. Conting	ency & EPCM)											.
Grizzly Ramp Access and Dev	elopment	k\$	0	0	0	0	0	0	0	0	0	0
Grizzly Shaft Sinking & Equipir		k\$	0	0	0	0	0	0	0	0	0	0
Grizzly Surface & Underground		k\$	0	0	0	0	0	0	0	0	0	0
Grizzly Mobile Equipment		k\$	0	0	0	0	0	0	0	0	0	0
Grum Mine Equipment		k\$	0	0	0	0	0	0	0	0	0	34,500
Grum Shop and Dewatering		k\$	0	0	0	0	0	0	0	0	0	5,500
Grum Preproduction Mining -	Overburden	k\$	0 0	0	0	0 0	Ő	Õ	0 0	0 0	Ő	10,500
Chain reproduction mining	Waste Rock	k\$	Ő	õ	0	Ő	Ő	Õ	0	Ő	Ő	7,200
Faro Process Plant	Waste Rock	k\$	0	0	0	0	0	0	0	0	0	88,000
Ancillary Facilities		k\$	0	0	0	0	0	0	0	0	0	22,500
Infrastructure		k\$ k\$	0	0	0	0	0	0	0	0	0	,
Sub-total Direct Costs			0	0	0	0	0	0	0	0	0	8,500
		k\$	0	0	0	0	0	0	0	0	0	176,700
OTHER COSTS						_	_	_	-	_		
Owner's Costs		k\$	0	0	0	0	0	0	0	0	0	2,000
Care and Maintenance		k\$	0	0	0	0	0	0	0	0	0	3,000
Working Capital		k\$	0	-19000	0	0	0	0	0	0	0	0
Sub-total Other Costs		k\$	0	-19,000	0	0	0	0	0	0	0	5,000
Replacement Capital		k\$	0	0	0	0	0	0	0	0	0	10,100
Reclamation		k\$	0	3000	0	0	0	0	0	0	0	3,000
TOTAL CAPITAL COSTS		k\$	0	3,000	0	0	0	0	0	0	0	189,800
OPERATING COST EST	IMATE											
	YEAR	Units	12	13	14	15	16	17	18	19	20	TOTALS
MINING												
Pit Ore Mining	1.50 \$/t	k\$	2,730	0	0	0	0	0	0	0	0	29,445
Pit Waste Mining	1.20 \$/t	k\$	5,460	0	0	0	0	0	0	0	0	127,860
Pit Fixed Cost	1.20 φ/t	k\$	9,100	0	0	0	0	0	0	0	0	91,000
	1 00 C /4		,		0	0		0	0		0	,
Grum Ore Haulage to Mill	1.90 \$/t	k\$	3,458	0			0			0		37,297
U/g Ore Mining - R & P (70%)	35 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
- R & P to 45% Extr.	33 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
- Drift, Bench & Fill	32 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
 Drift & Bench Only 	27 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
Grizzly Ore Haulage to Mill	0 \$/t	k\$	0	0	0	0	0	0	0	0	0	0
PROCESSING & GENERAL												
Ore Processing	Var. \$/t		11.46									
Ore Processing		k\$	20,857	0	0	0	0	0	0	0	0	227,439
Site Admin. & Overhead	7000 k\$/a	k\$	7,000	0	0	0	0	0	0	0	0	70,000
Conc. Haul & Port Fees	65 \$/t (wet)	k\$	10,728	0	0	0	0	0	0	0	0	133,653
Reclamation Fund	1.5 %	k\$	1,172	0	0	0	0	0	0	0	0	14,661
TOTAL OPERATING COSTS		k\$	60,505	0	0	0	0	0	0	0	0	731,355
Unit Operating Cost		\$/t Ore	\$33.24	-	-	-	-	-	-	-	,	\$36.57

TAX CALCULATIONS												
Y	'EAR	1	2	3	4	5	6	7	8	9	10	11
	Unit	s										
DEPRECIATION POOL												
Opening Balance	k\$	140,000	170,500	301,565	256,006	223,981	191,357	166,275	140,936	119,972	107,202	92,632
Additional Assets	k\$	30,500	139,700	-17,500	0	0	1,800	1,800	1,800	1,800	1,800	1,100
Amount Used to Defer Taxes	k\$	0	8,635	28,059	32,024	32,624	26,882	27,139	22,764	14,570	16,370	19,370
Closing Balance	k\$	170,500	301,565	256,006	223,981	191,357	166,275	140,936	119,972	107,202	92,632	74,362
INCOME TAX CALCULATION												
Operating Profit	k\$	0	8,635	28,059	32,024	32,624	26,882	27,139	22,764	14,570	16,370	19,370
LESS Depreciation Allowance	k\$	0	-8,635	-28,059	-32,024	-32,624	-26,882	-27,139	-22,764	-14,570	-16,370	-19,370
Taxable Income	k\$	0	0	0	0	0	0	0	0	0	0	0
Income Tax Payable 39 %	6 k\$	0	0	0	0	0	0	0	0	0	0	0
YUKON MINING ROYALTY												
Operating Profit	k\$	0	8,635	28,059	32,024	32,624	26,882	27,139	22,764	14,570	16,370	19,370
LESS 15% Depreciation Allowance	k\$	0	-1,295	-4,209	-4,804	-4,894	-4,032	-4,071	-3,415	-2,185	-2,455	-2,905
LESS Income Tax Payable	k\$	0	0	0	0	0	0	0	0	0	0	0
Taxable Profit	k\$	0	7,340	23,851	27,221	27,731	22,850	23,068	19,350	12,384	13,914	16,464
		0	,1	4	5	5	4	4	3	2	2	3
Royalty Rate (5% + 1%/\$5M)	k\$	0	6	9	10	10	. 9	. 9	8	7	7	8
Royalty Payments	k\$	0	440	2,147	2,722	2,773	2,056	2,076	1,548	867	974	1,317

TAX CALCULATIONS												
	YEAR		12	13	14	15	16	17	18	19	20	TOTALS
		Units										
DEPRECIATION POOL												
Opening Balance		k\$	74,362	56,746	78,746	78,746	78,746	78,746	78,746	78,746	78,746	
Additional Assets		k\$	0	22,000	0	0	0	0	0	0	0	
Amount Used to Defer Taxes		k\$	17,615	0	0	0	0	0	0	0	0	246,054
Closing Balance		k\$	56,746	78,746	78,746	78,746	78,746	78,746	78,746	78,746	78,746	
INCOME TAX CALCULATION												
Operating Profit		k\$	17,615	0	0	0	0	0	0	0	0	246,054
LESS Depreciation Allowance		k\$	-17,615	0	0	0	0	0	0	0	0	
Taxable Income		k\$	0	0	0	0	0	0	0	0	0	C
Income Tax Payable	39 %	k\$	0	0	0	0	0	0	0	0	0	C
YUKON MINING ROYALTY												
Operating Profit		k\$	17,615	0	0	0	0	0	0	0	0	246,054
LESS 15% Depreciation Allowa	nce	k\$	-2,642	0	0	0	0	0	0	0	0	
LESS Income Tax Payable		k\$	0	0	0	0	0	0	0	0	0	
Taxable Profit		k\$	14,973	0	0	0	0	0	0	0	0	209,146
			2	0	0	0	0	0	0	0	0	
Royalty Rate (5% + 1%/\$5M)		k\$	7	5	5	5	5	5	5	5	5	
Royalty Payments		k\$	1,048	0	0	0	0	0	0	0	0	17,969