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McDame Creek

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VENTURES MINING LTD.  
Summary and Reappraisal Report  
McDame Creek Project

ALRAE ENGINEERING LTD.

February 7, 1969

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ALRAE ENGINEERING LTD.  
VANCOUVER, B.C.  
ENGINEERS & GEOLOGISTS

### ABSTRACT

An examination of all available information on the McDame Creek property of Ventures Mining Limited indicates that material so far outlined, amounting to 50,000 - 60,000 tons of \$32.00 per ton gross value, is insufficient to base further detailed drilling and underground work within the indicated orebodies which are of limited extent and show a consistent reduction in values and mining widths with depth. It is also considered that sufficient drilling has been done to show that the Creek Fault does not support a continuous mineralization of ore grade. The presence of bismuth in at least two orebodies, while increasing the gross value of the ore, is neither sufficient nor consistent enough to have any effect on the overall value of the property.

It is suggested that an alternative working theory based on the possible presence of orebodies along the regionally favourable northwest trending carbonate-group contact be explored by the relatively cheap method of surface mapping, geophysics and geochemistry. This, with the basic concept of establishing sufficiently large potential reserves to establish a mining and milling project, rather than selective mining of high-grade material.

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1. Claim list and validity dates.
2. Tonnages and grade calculations, Caribou Zone.
3. Useful reports and maps retained on active file.

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## INTRODUCTION

This report represents a general reappraisal of the McDame Creek property based on work and results obtained during the period summer 1963 to 1966. The property includes a number of mineralized zones along a fault zone which contain significant amounts of silver, lead and zinc, with copper and bismuth in less consistent but useful amounts. The program of work, including surface mapping, trenching, intensive diamond drilling and minor geophysical surveys, appears to have been aimed at outlining high-grade ore to justify a selective mining project with direct shipment of ore to smelter.

All relevant maps and data have been collated and stored and a borehole location map for the whole property was prepared.

The data and maps available were generally well prepared but little attempt had been made to draw the available information together into a coherent final report and map series.

## CLAIMS, LOCATION AND ACCESS

The property, situated 13 miles east of Cassiar, comprises a roughly rectangular block of 139 claims lying across a southeasterly flowing stretch of McDame Creek and the Cassiar - Watson Lake highway. Sufficient work has been filed to validate all claims to December 21st, 1970 and part to 1975 (see attached schedule). The general locality in relation to overland transportation and existing smelter services presents considerable problems, while the 240 mile Cassiar - Stewart road is still 90 miles from completion. This situation limits the viability of the project to either selective mining of ore sufficiently valuable to stand the high transportation cost, or a delimitation of a large enough tonnage of lower grade material to warrant a milling operation.

## GEOLOGY

The regional and detailed geology of the area have been fully described in previous survey and progress reports. Briefly, the deposits are associated with well defined fault-zones affecting limestones, dolomites and phyllites forming the eastern flank of a major north - west trending syncline containing rocks ranging from Lower Cambrian to Devonian and Mississippian age. The contact between Lower and Upper Cambrian (Atan and Ketchika groups) appears to be regionally the most favourable for the occurrence of silver and base metal deposits.

The carbonate formation and minor argillaceous horizons underlying the property are indicated as being part of the Atan Group of Lower Cambrian age, and in the vicinity of McDame Creek strike between S60°E and S80°E, dipping steeply to the southwest. Dip reversals in the northeast of the mapped area indicate tight folding parallel to the general strike, but this was not confirmed by the presence of minor folds or measured planer and linear elements.

## Faults

The ore zones are controlled by two major fault-zones, an earlier northeast trending structure known as the Creek Fault and a later northwest to northerly trending dislocation known as the Yellowjack Fault. In both cases the structures appear to consist of a number of parallel to subparallel faults constituting a steeply dipping fault-zone. The northeasterly extension of the Creek Fault zone has not been defined but to the southwest it is truncated by the later Yellowjack zone.

East of the Yellowjack fault, the Creek fault has been traced for about 5,000 feet and follows the McDame Creek for over 2,000 feet. It is impossible to match lithologies across the Creek fault and even considering uneven dolomitization or other lateral

variation factors it must be concluded that considerable vertical and/or lateral displacement has taken place. Swings in strike of lithological units as the fault zone is approached indicate an overall sinistral sense of movement.

West of the Yellowjack fault zone, which from the portion mapped is probably more complex than the Creek fault, phyllites outcrop both north and south of the creek, and from displacements of bedding units within the zone it was concluded that the Creek fault is probably displaced some distance to the north, although this was not proven.

### Mineralization

#### General

Sulphide mineralization is closely associated with the Creek and Yellowjack faults, concentrations occurring along the main fault-zone and more commonly as lateral offshoots at favourable cross-faults and lithological junctions. Of nine possible orebodies in the area, six are closely associated with thin argillite horizons within the dominantly carbonate rocks. There is little doubt that the major mineralization was post the formation of the Creek fault, while the north - south Yellowjack fault-zone cuts this mineralization in bedding units. The presence of further mineralization associated with the Yellowjack faulting indicates late movement of sulphides, although it is not clear whether this is due to a new sulphide stage or redistribution of existing mineralization. Both fault directions appear to have been reactivated from time to time resulting in the shearing and crushing of quartz veins and sulphide zones. Mineralization along north - south quartz veins and shears is restricted to the vicinity of the Creek fault.

The petrogenesis of the sulphide mineralization has not been worked out in detail and identification of secondary and primary

minerals is by eye only. More relevant information in respect of relative leaching and enrichment is available from a statistical analysis of borehole sections and surface to underground profiles.

#### Control of Mineralization

The main control of silver-lead-zinc mineralization within the immediate area of interest is undeniably the Creek fault, such mineralization as occurs along the Yellowjack being located at the junction with the Creek fault and parallel faults. Along the Creek fault mineralization has been proved at a number of points along a 5,000 foot strike, but the investigations to date have not primarily been aimed at proving continuity of ore in the Creek fault zone as a whole.

So far nine possible ore bodies have been indicated by surface mapping of which eight have been explored by diamond drilling. From west to east the zones are the Canyon Top, North Yellowjack and South Yellowjack, all in the Yellowjack fault zone and probably representing faulted offsets of a single offshoot of the original Creek fault; the West Caribou, North Creek, Caribou, East Caribou and China Vein zones. Of these, only the Caribou and South Yellowjack zones can be regarded as orebodies on present information.

#### Caribou Zone

The Caribou zone consists of a near vertical orebody about 200 feet long with an average mining width of ten feet, from a minimum of five feet to a maximum of 20 feet. The orebody is complex and in part consists of two or three parallel ore sections. Values vary both along strike and down dip.

Of a total 14,500 feet of diamond drilling carried out on the property as a whole, some 6,000 feet have been concentrated on this relatively short strike, and to a depth of 250 feet has outlined 50,000 to 60,000 tons of mineable ore with a gross value of about \$30.00 per ton. A summary of tonnages, values, etc. is given in Appendix 2. All useful maps, borehole sections, etc. have been collated and retained.

The drilling on Caribou is summarized on a longitudinal section. From west to east the boreholes sections at approximately 25 foot intervals provide the following relevant information:

D.D.H. 32 and 47

Borehole #32 drilled north at  $-48^{\circ}$  and #47 drilled south at  $-54^{\circ}$  give a good profile indicating three parallel, near-vertical ore horizons in #37 merging down dip to form a single zone of 15' width with an average gross value of \$45.00/ton in borehole #47. Two long holes, #46 and #49, both collared on the north side of the creek and inclined to the south at  $-45^{\circ}$  and  $-55^{\circ}$  respectively, do not intersect any significant mineralization. It must be concluded that either the Caribou Zone is pinching out to the west or that the orebody is raking steeply west and has been overshot by both boreholes.

D.D.H. 35, 36, 37, 38 and 39

The above holes collared on the creek island and directed south at from  $-30^{\circ}$  to  $-80^{\circ}$  provide a useful profile indicating a single, near vertical orebody cut by four of the holes, the most steeply inclined being parallel to and not cutting the projected orebody. Over a vertical distance of about 100' the orebody averages a 10' mining width. However, a disturbing feature is the steady reduction of all metals with increase in depth from \$45.00 gross value at intersections in #35 and #36 to \$20.00 at #37 to a negligible value at #38, a total vertical distance of less than 200 feet. Only four of the paying metals, i.e.: silver, zinc, lead and

copper are recorded, no assay for bismuth having been carried out in this section.

D.D.H. 7

A single borehole inclined south from creek island provides a triple intersection of mineralized host of which only a single mining width of five feet can be considered as ore, with gross values in excess of \$60.00.

D.D.H. 11, 12

D.D.H. #11 and #12, inclined to the south at  $-45^{\circ}$  and  $-70^{\circ}$  respectively, provide an interesting section without showing an ore-body profile. The shallower hole intersects two lengths of ore material, the higher of which is narrow and cut off by a steeply dipping fault. This fault is also cut by the steeper hole but no significant values are intersected. From a comparison of dips in #11 the presence of a tight fold parallel to the fault is indicated, the northerly limb being cut off by the fault. The presence of folds parallel to the Creek fault and at right-angles to the main strike of adjacent country rocks is quite possible if the Creek fault is of the shear or wrench fault type with considerable lateral movement. Such folds might explain the apparent erratic nature of the orebody if considered as a single, near vertical horizon. Again, values are progressively reduced with depth with an overall gross value of \$22.00 per ton over an average mining width of 12 feet.

D.D.H. 5, 33, 34

The above boreholes, all collared, on the creek island and dipping to the south provide a useful profile in which a steeply dipping ore section intersected by boreholes #5 and #35 is not intersected by #33 which passes well beneath and across the projected ore horizon. From the noted data, the most likely explanation appears to lie in the pinching of the ore zone, although parallel faulting may

be the cause. As in other profiles, a comparison of grades from surface showings through borehole intersections indicates a steady reduction in value for all available metals to a depth of 250 feet below surface.

D.D.H. 14

Surface outcrops and intersections of ore zones by a single, gently inclined borehole suggest either folding or faulting parallel to the Creek fault, or two parallel orebodies. Again mining widths and values decrease with depth.

D.D.H. 1, 2, 3

The three boreholes inclined to the south provide a useful profile indicating a near vertical 10' wide orebody from surface to 100' depth. However, borehole #1, drilled at a shallower angle beneath holes #2 and #3, intersects only narrow zones of low-grade material and there is a consistent decrease in grade with depth.

D.D.H. 43, 44

Two long holes drilled from the north bank and inclined to the south, to the east of the creek island, failed to intersect any significant mineralization and mark the maximum easterly limit of the Caribou orebody.

Canyon Top

Three boreholes #8, #9 and #10, all collared at different points, were directed to the west, south and west respectively, to test the underground extension of surface mineralization picked up in a trench across the Yellowjack fault zone. Of these, only #9 intersected any significant mineralization, where a mining width of 10' with a gross value of \$22.00 was indicated at a vertical depth from surface of 60'. However, the value of the silver-lead-zinc in this section is nominal, on anomalous high bismuth content of 2.08%

over a true width of 1.5 feet providing 90% of the value. Apart from this, no ore grade material was intersected in this zone.

#### North Yellowjack Zone

Two boreholes, #22 and #23, were directed north and north-west respectively from a site on the south bank of the McDame Creek to intersect the possible projection of a narrow mineralized zone immediately north of the creek. No significant mineralized zone was intersected and the assay returns over a 10.5' surface width gave a gross value of only \$10.00.

#### South Yellowjack Zone

Three groups of boreholes were directed to cut the vertical projection of a complex sulphide outcropping south of McDame Creek with gross values averaging \$25.00 over an average width of 12'.

Boreholes #25 and #28 were directed south from the same collar position as #22 and #23. Holes #24-26 provide a profile of a steeply dipping narrow ore zone. Although values over short intersections are high, when converted into true maximum mining widths an average gross value of \$45.00 is attained, of which some \$3.00 to \$6.00 is represented by bismuth values. The highest intersection of the ore zone is some 100' vertically below surface. Boreholes #27 and #28 intersect thin stringers of sulphides with negligible values over minimum mining widths.

#### D.D.H. 15-21

Two vertical fans were directed west and southwest from a collar position just east of the South Yellowjack surface indications. Holes #15 and #16 did not intersect any worthwhile mineralization. Holes #17 and #18 provide a useful profile indicating a single orebody which, assuming the section is not complicated by unrecognized folding or faulting, has no vertical

continuity and indicated values decrease rapidly with depth. A 12' mining width indicates gross values of \$40.00 over a vertical distance of 50'. Holes #19, #20 and #21 do not provide profile information and only narrow widths of low value mineralization were intersected. Surface sampling indicated average values of \$27.00 over 12' widths with no consideration for any contained bismuth.

#### Others

Other holes were directed to check surface mineralization and continuity of sulphides along the Creek zone, south of South Yellowjack, at the East Caribou zone and in the China Vein, none of which proved any significant mineralization. The co-ordinates of holes #50 and #51 place the collar positions northwest of the Canyon Top zone. However, from a written description of the locations it seems likely that the holes were collared just northeast of the creek island and directed south to test the possibility of the East Caribou zone swinging westward into the Creek fault to parallel the main Caribou zone. No significant mineralization was detected. Three long holes across the main Creek fault zone put down to the west of the Caribou zone also failed to cut ore.

Of six further boreholes sited on surface float and electromagnetic crossovers in the northeast of the mapped area, #52, #55 and #56 were abandoned at shallow depth due to casing problems and #53, #54 and #57 failed to intersect strongly mineralized zones although the final hole was stopped in dolomites with minor pyrite and galena mineralization.

#### ORE GRADE AND TONNAGE

Grade and tonnage calculations for the Caribou zone are given in Appendix 2. These figures are a verification of similar exercise carried out by Mr. D. McKelvie and close attention has been given to the problems of minimum mining widths, separated horizons,

etc. Assuming that a 30' surface pillar would be the minimum requirement for underground operations, 50,000 to 60,000 tons are probably available to a general level of 2,250 (i.e.: 250 feet below creek level) at an average grade of 5.31 oz. silver, 2.38% lead, 1.81% zinc, 0.21% copper and .09% bismuth (see Appendix). At the selling prices of \$2.00 oz. silver, 12¢ lb. for lead and zinc, 45¢ lb. copper and \$4.00 lb. bismuth, this would realize a gross value of \$32.00 ton. In most sections, extensions of accessible ore below this level is subject to doubt except in the section provided by boreholes #32 and #47 where a block of ore below 2,250' level might provide a possible 6,000 tons at gross value \$45.00 over a true mining width of 15'.

A further 10,000 tons of \$30.00 gross value may be available from the South Yellowjack zone although on information available, this is only a probability. Considering the distance to smelter, a shipping value of up to \$100.00 per ton may be required for viability. On the total tonnage available the costs of selective mining and hand cobbing would not be justified and upgrading of ore by selective mining would reduce available tonnage to 20,000 tons.

#### Bismuth Content

The relatively high bismuth content in some sections of the Caribou and South Yellowjack zones was discovered fairly late in the work program and full data on distribution is not available. However, from known results, it is evident that the bismuth mineralization is irregular and does not bear any consistent relationship to the percentages of other contained metals. In the Caribou zone an overall percentage of 0.07% bismuth is available in ore grade material. Values in individual sections vary from a trace to 0.40%. Bismuth assays are available for thirteen of the sixteen sections used for calculating reserves in the Caribou zone, so that even assuming an abnormally high content in the unassayed sections, an overall average content of 0.10% bismuth is as much as can be

expected. At a gross value of \$4.00 per lb., this would represent an increase in value of \$8.00, but it is most doubtful if credit would be given for anything less than a consistent average content of 0.5% or 10 lbs. per ton bismuth. On the contrary, irregular amounts of bismuth may result in penalties. Bismuth values in the South Yellowjack are also erratic, but generally much higher than in the Caribou zone. However, the drilling to date has not been sufficiently successful to outline specific ore blocks in this orebody and hence an average overall figure for bismuth is not available. In individual borehole sections average bismuth content over mineable widths ranges from a trace to 0.20%. Previously quoted assays of 2.08% bismuth are representative of only one narrow intersection in the Canyon Top zone and when translated to a practical mining width is much reduced. It is safe to say that without consideration for bismuth the South Yellowjack zone could not be considered as an orebody, average gross values for other metals rarely exceed \$20.00 per ton.

#### ORE VALUES AT SMELTER

On information obtained, it is unlikely that any smelter would pay for bismuth unless a consistent content of 10 lb. per ton or more could be maintained. Cominco indicate that a reasonable working figure for bismuth payments would be 75% of the total contained bismuth at about one dollar less than market price, at present around \$4.00 per lb.

The Ataka Company of Japan indicate that for an ore of the Ventures type no payment would be made for bismuth in a lead concentrate and no payment could be made for copper in a zinc concentrate but that for consistent amounts of bismuth over 10 lb. per ton some payment could be expected although extra penalties on other metals may affect this.

A gross average value of \$30.00 including a bismuth content of 0.07% at \$4.00 lb. would be reduced to a smelter return of around \$15.00 assuming normal penalties and no payment for bismuth.

#### PREVIOUS CONCLUSIONS AND RECOMMENDATIONS

It was concluded by Messrs. Hawley and Fawley that the Creek fault controlled a period of mineralization and that the fault structure has been traced over a length of 5,000 feet with a vertical range of mineralization over 400 feet with length and depth still undetermined. However, this statement must be modified to the extent that although numerous sulphide stringers exist along the strike of the fault, it is by no means proved that mineable ore is associated with this total strike length. From drill sections across the zone, east and west of the main Caribou zone, it is almost certain that the type and grade of mineralization found in the 200 foot strike length of this zone is not continuous. Similarly, in all cases except one where a section profile is available, the indications are that width and grade of ore diminish rapidly with depth.

It is fairly stated by Hawley that only the Caribou and South Yellowjack zones have been sufficiently tested, but the factual indications from other boreholes do not warrant an extrapolation of these results for other parts of the fault zone. It was also suggested that as the mineralized zones are lense-like structures with uneven concentrations of sulphide, diamond drilling would not have revealed the full potential of the orebodies and that underground work might well increase both tonnage and grade in the Caribou zone and adjacent areas. On this basis, it was recommended that a phased program of diamond drilling, and underground prospecting, together with trenching, mapping and geophysical work, to a total \$365,000.00 should be undertaken.

ANALYSIS OF PREVIOUS RECOMMENDATIONS

The high cost of proving the small tonnages of relatively low-grade ore so far obtained are considered to be largely the result of the fact that insufficient consideration was given to the viability of the project in relation to the remote location of the property and the relatively low values obtained in the earlier stages. Although realizing the physical difficulty of obtaining suitable drilling sites, etc., and the need to prove ore for promotional requirements, it is felt that some of the drilling carried out in the Caribou zone, particularly holes which were not sited to provide profile information, would have been more usefully employed in investigating the presence or otherwise of ore along a greater strike length of the fault zone. However, sufficient has been done to suggest that there is no significant continuity of ore grade mineralization east and west of the Caribou zone and it is doubtful if further drilling along the Creek fault zone is warranted at this stage, considering the cost involved and results to date.

An analysis of the results at Caribou zone and adjacent areas suggests that while underground work may increase the tonnage and value of ore, it is fairly certain that any such increases would be insufficient to increase the viability of a selective mining project. The possibility of undetected folding and faulting and decrease of value with depth increases the complexity of the orebody. Further, the position of the ore zone in relation to the present creek bed and the high probability of water problems in the fractured limestone/dolomite country rocks mitigate against underground work, which, apart from a temporary promotional aspect, would not be in the best interests of the company at this stage.

Objectively, there is little doubt that the northeast fault is one of the controlling factors for the deposition of sulphides. However, the association of sulphides with thin argillite bands in

dolomites and limestones appear to be at least equally important and is enhanced by the regional pattern of silver and base metal locations along strike within the Atan Group. The suggestion of parallel folding in some sections across the Creek fault zone would also lend support to the presence of a lithological factor even in the Caribou zone which is the only orebody parallel to the Creek fault zone.

#### FURTHER RECOMMENDATIONS

It is understood that apart from the immediate area of McDame Creek little or no general work has been carried out except for the electromagnetic survey carried out in the area immediately north and south of the Creek fault zone. It is felt that for a relatively small sum a more general approach to the area should now be made with an emphasis on geological mapping, geochemical sampling and surface geophysics.

The basis of this work would rest on the possibility that while the Creek fault zone provides a locus for mineralization the lithological horizon of carbonates and associated argillites striking northeast may be more important.

Area locations in respect to the present claims, topographical maps and photogeological interpretation should be carried out as a basis for geological mapping and geophysical work. The electromagnetic work previously carried out was found to be unsatisfactory due largely to the depth of terrain and it is suggested that induced and self-potential methods might be more applicable. Initial geochemical sampling should be carried out on a broad stream sampling basis for which the known mineralization in the McDame Creek would act as a suitable control.

Further drilling should not be carried out unless and until further targets have been outlined outside the Creek fault zone. There does not appear to be any merit in undertaking underground work at the present time.

Respectfully submitted:

J. Glenn Simpson, Ph. D.

APPENDIX 1

VENTURES MINING LTD.  
McDame Creek Project  
Claim List and Validity Dates

<u>CLAIM NAME</u>	<u>VALIDITY DATE</u>
McDame Belle 1 - 2	January 21, 1975
Bar 1 - 10	April 3, 1975
Three Square and Four Square	July 20, 1975
Bar 11 - 49	July 31, 1971
McDame Belle	September 6, 1975
North 1 - 18	December 21, 1970
Creek 1 - 14	December 21, 1970
Cathy 1 - 9	December 21, 1970
Yellowjack 1 - 16	December 21, 1970
Yellowjack 1 - 28	December 21, 1970

\* Pillar material not included in final calculation  
 Ag. \$2.00 oz; Cu. 45¢ lb.; Pb. 12¢ lb.; Zn. 12¢ lb.; Bi. \$4.00 lb.

APPENDIX 2

TONNAGE AND GRADE CALCULATIONS  
 Caribou Zone Possible Ore - 'A' Reserves  
 to 2,250 foot elevation

Blk.	True Width Feet	Area sq. ft.	Thick-ness Feet	Tons	Ag.	Ag. T	Pb.	Pb. T	Zn.	Zn. T	Cu.	Cu. T	Bi.	Bi. T.	Gross Value \$
35	5.0	65	37.5	244	10.50	2,562	2.65	646.6	3.25	793.0	0.40	97.60	-	?	40.00
36	10.0	200	37.5	750	9.79	7,342	3.48	2,610.0	2.40	1,800.0	0.25	187.50	-	?	36.73
37	11.0	925	37.5	3,469	4.75	16,478	2.07	7,180.8	2.65	9,193.0	0.27	936.60	-	?	26.44
7	4.5	250	30.0	750	12.4	9,300	5.97	4,522.5	7.72	5,790.0	0.24	180.00	Tr.	-	62.54
11	12.0	1,000	33.0	3,300	3.10	10,230	1.24	4,092.0	2.90	9,570.0	0.40	1,320.00	0.20	660.0	34.00
11B	10.0	1,000	33.0	3,300	0.88	2,904	0.36	1,188.0	0.10	330.0	0.24	792.00	0.18	594.0	19.00
5	20.0	1,200	26.0	2,850	8.47	24,139	7.27	6,469.5	2.20	6,270.0	0.25	712.50	Tr.	-	32.00
34	7.0	454	26.0	1,180	3.82	4,508	1.15	1,357.0	0.05	59.0	0.02	23.60	Tr.	-	23.00
14A	5.0	393	25.0	983	23.13	22,737	9.60	9,436.8	6.05	5,947.2	0.61	599.63	0.37	145.4	120.10
14B	5.0	360	25.0	900	6.78	6,102	3.20	2,880.0	2.09	1,881.0	0.55	495.00	0.12	43.2	36.67
* 14S	10.0	447	25.0	1,117	12.61	14,085	5.94	6,635.0	3.68	4,110.6	0.67	748.39	-		54.24
* 3	10.0	253	30.0	759	4.80	3,643	2.07	1,571.1	1.40	1,062.6	0.08	60.72	Tr.	-	18.00
2	10.0	554	30.0	1,662	2.87	4,770	1.34	2,227.1	1.19	1,977.8	0.21	349.02	Tr.	-	9.00
2S	8.0	105	30.0	315	37.9	11,939	15.72	4,951.8	6.66	2,097.9	0.50	157.50	Tr.	-	133.64
4	4.2	136	25.0	340	3.14	1,068	1.28	435.0	1.80	612.0	0.06	20.40	Tr.	-	15.50
4S	7.0	119	25.0	298	34.9	10,400	14.21	4,235.0	6.55	1,952.0	0.15	44.70	Tr.	-	121.00
				20,341		134,479		52,232.1		4,827.3		5,916.05		1,442.6	

APPENDIX 2

TONNAGE AND GRADE CALCULATIONS  
Caribou Zone Possible Ore - 'B' Reserves  
to 2,250 foot elevation

Blk.	True Width Feet	Area sq. ft.	Thick-ness Feet	Tons	Ag.	Ag. T	Pb.	Pb. T	Zn.	Zn. T	Cu.	Cu. T	Bi.	Bi. T	Gross Value \$
A & B	10.0	1,000	28.2	2,820	0.88	2,481	0.36	1,015	0.10	282	0.24	677.00	0.18	507	19.00
C	4.5	900	30.0	2,700	4.13	11,151	1.99	5,373	2.57	6,939	0.08	216.00	Tr.	---	20.00
D	4.5	500	15.0	750	4.13	3,097	1.99	1,492	2.57	1,927	0.08	60.00	Tr.	---	20.00
E1	10.0	492	13.5	664	4.75	3,154	2.07	1,375	2.65	1,760	0.27	179.28	Tr.	---	23.00
E2	10.0	665	27.0	1,796	4.75	8,531	2.07	3,718	2.65	4,759	0.27	484.92	Tr.	---	23.00
F	5.0	550	66.0	3,630	1.11	4,029	2.36	8,567	6.68	2,425	0.13	471.90	?	?	23.00
G1	6.0	780	50.0	3,900	2.87	11,193	2.34	9,126	0.16	624	0.29	1,131.00	0.22	819	25.00
G2	15.0	1,800	50.0	9,000	6.92	62,280	2.69	24,210	1.45	13,050	0.12	1,080.00	0.11	990	33.00
H1	6.0	252	100.0	2,520	2.87	7,232	2.34	5,897	0.16	403	0.29	730.80	0.22	554	25.00
H2	6.0	630	100.0	6,300	6.92	43,596	2.69	16,947	1.45	9,135	0.12	756.00	0.11	693	33.00
				34,080		156,744		77,720		41,324		5,786.90		3,563	
					4.60		2.28		1.21		0.17		0.104		29.50
<b>TOTALS AND AVERAGES A &amp; B RESERVES</b>															
				54,421		291,223		129,972		99,597		11,703		5,006	
					5.31		2.37		1.81		0.21		0.091		32.50

### APPENDIX 3

#### \* USEFUL REPORTS AND MAPS RETAINED ON ACTIVE FILE

#### REPORTS

- (1) Evaluation Report on the Bartle Group of Mineral Claims  
G. J. Coulson, May 1957
- (2) Bartle Group of Mineral Claims - Allan P. Fawley, May 1963
- (3) Bartle Group of Mineral Claims - Allan P. Fawley, Nov. 1963
- (4) Second Summary Report on the Bartle Silver Project of Ventures  
Mining - R, J. Hawley, May 1965

#### PROGRESS REPORTS 1965 - 1966

#### SMELTER RETURNS AND MISCELLANEOUS NOTES

#### DIAMOND DRILL RECORDS

#### CLAIM MAPS AND VALIDITY LIST

#### TOPOGRAPHICAL MAPS 1:50,000 and 1" » 200'

#### AERIAL PHOTOGRAPHS AND FLIGHT INDEX

#### GEOLOGICAL PLANS (with surface sampling and borehole collar positions)

#### CARIBOU ZONE - LONGITUDINAL SECTION AND ORE BLOCKS

#### DIAMOND DRILL HOLE SECTIONS AND PROJECTIONS

- (1) Horizontal projection of boreholes in Caribou Zone
- (2) Horizontal projection of boreholes in South Yellowback Zone
- (3) Section DDH #1, #2 and #3
- (4) Section DDH #4
- (5) Section DDH #7
- (6) Section DDH #11 and #12
- (7) Section DDH #13
- (8) Section DDH #14
- (9) Section DDH #31
- (10) Section DDH #32
- (11) Section DDH #5, #33 and #34
- (12) Section DDH #35, #36, #37, #36 and #39
- (13) Section DDK #40, #41 and #42
- (14) Section DDH #43 and #44

\* Originals of all maps and diagrams retained in plan cabinet