006804

WESTERN MINES LIMITED

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June 7, 1978

Dr. W. R. Bacon
Co-ordinator
Accelerated Mineral Development
Ministry of Mines and Petroleum Resources
VICTORIA, British Columbia V8V 1X4

Dear Bill:

Re: Application for Accelerated Mineral Exploration

Enclosed are two copies of Western Mines Limited application for an Accelerated Mineral Exploration grant from the British Columbia Ministry of Mines and Petroleum Resources for exploration work at the Buttle Lake Mine. Supportive data appended includes:

1. Excerpts from the 1978 Operating Budget of Western Mines Limited. This budget contains but one exploration item - all other items are strictly mine development. The Electric wireline diamond drilling totalling 2700 feet (823 m) was an extension of our 1977 program and was completed in March.

2. Proposed Exploratory Program - Buttle Lake Mine - 1978 to 1980. The first part of this proposed program has not been changed because we feel a program of the scope necessary to establish additional ore reserves at the Buttle Lake Mine will require more than one year to achieve its goals.

   Part 2 of the proposal is a somewhat detailed outline of our program covering the 10-month period from June, 1978 through March, 1979. You will note a few changes from an earlier draught. Diamond drill charges have been raised to $18.00 per foot due to bids received from drilling contractors.

Additional moneys will be expended on chemical analyses of rock samples required to help establish marker units within this complexly altered and deformed pile of volcanic and sedimentary rocks.

Should you require additional information or supportive data, please do not hesitate to call.

Yours very truly,

WESTERN MINES LIMITED

A. E. Soregaroli

A. E. Soregaroli
Vice-President, Exploration

AES/lmb
Enclosures

PROPOSED EXPLORATORY PROGRAM - BUTTLE LAKE MINE

1978 to 1980

For the ten years preceding 1977 sufficient new ore reserves were generally found each year to take the place of those mined and concentrated during the year. However, during 1977, the results of the exploratory program were negative and total ore reserves fell from 1,731,000 tons to 1,459,000. This is the largest decline in reserves in any single year since the mine commenced production in 1967.

The mine converted from principally open-pit ore to ore principally from underground operations in 1973. This change was of course accompanied by a sharp increase in mine operating costs. Fortunately, in late 1972 a small ore zone was discovered in the Myra Mine containing much higher values in metals, particularly silver and gold, than the regular grade of ore from the other ore bodies in the Lynx and Myra Mines.

The addition of the Myra High Grade ore each year, in varying quantities, served to raise mill heads sufficiently to provide a surplus of operating revenues over operating costs during the intervening six years when operating costs were escalating rapidly, due mainly to increasing labour costs. Now, however, it is estimated that the Myra High Grade ore will be exhausted by the end of 1980. None of the efforts to date have succeeded in finding additional reserves of high grade ore. Current operating costs have now reached a point where, together with the depressed copper and zinc prices, the mine can no longer be operated at a profit with only regular grade ore. Consequently, the alternatives for the mine in the next few years are now under consideration.

A reduced throughput appears inevitable. Steps have already been taken in this direction with the lay-off of 25 miners in the last quarter of 1977 and the lay-off of an additional 20 men in the first quarter of 1978.

In order to keep the mine operating, we, in March of this year, engaged three consultants, a mining engineer, a metallurgist and a geologist, to examine the mine and determine whether the mine's operation could be made more efficient by using different methods and equipment, etc., and to determine the potential for finding additional reserves of ore. The reports indicated little can be done to increase the efficiency or reduce operating costs at the mine. However, the consulting geologist, Dr. Paul Gilmour, a recognized world-wide authority on massive sulphide deposits of volcanogenic origin, has concluded in his report the following:

> "Numerous exploration 'leads' exist in and around Buttle Lake mine. Accordingly, the chances that additional reserves of commercial tonnage and grade remain to be found might be described as excellent - although the subjective term 'excellent' cannot be quantified. Some of the exploration possibilities involve the Myra area, and what may be the horizon which contains the Myra High Grade ore, so there seems a reasonable chance that additional high grade material may be discovered. Once again, however, it is not realistic to try to predict what the 'chance' is."

It is for these reasons, therefore, that application is being made for financial assistance pursuant to Bill 5 to fund an exploratory program at the Buttle Lake mine. It is our considered opinion, based upon the preliminary study by Dr. Paul Gilmour, that a thoroughly comprehensive re-study of the mine geology, coupled with a carefully planned diamond drilling program, over a two year period, will succeed in finding the additional reserves of ore necessary to permit the mine to continue operating and will not only slow down the rate of lay-offs of the workers but will permit in due course, the re-employment of most of those already laid off.

The proposed program, extending over the two years from mid-1978 to mid-1980, would involve the setting up of a new "Mine Exploration Unit" independent of the mine production geology staff and reporting directly to the Vice-President, Exploration, Dr. A. E. Soregaroli. The new unit would undertake a comprehensive review of the geology of the mine, with emphasis on stratigraphic and structural analyses, that could lead to the development of new concepts on which to base further exploration for new ore reserves at the mine.

PART 2: PROPOSED EXPLORATION PROGRAM

JUNE, 1978 - MARCH, 1979

1.	Geologist, with experience in the study of massive sulphide volcanogenic type deposits. 10 months at $33,400 Expenses at 5,000	$ 38,400
2.	Transfer of one mine geologist from production geology to exploration geology. 10 months at $27,700 One technical assistant 10 months at $19,800	46,500
3.	Surface diamond drilling, helicopter supported, totalling 3,000 feet, in the Price Creek Block, as a follow up to the high grade intersections (gold - .59 oz. and silver 17 oz.) encountered in surface drill hole P.R. No. 7 at a depth of 590 feet. Estimated cost: Drilling at $18.00 per foot = $54,000 Helicopter, 30 hours at $400 per hour = 12,000	66,000
4.	Mobilizing and demobilizing diamond drill and drill crew	3,000
5.	Surface diamond drilling, helicopter supported, totalling 6,000 feet, in the western portion of the Lynx Mine and near surface drill hole W73, to follow up the ore grade mineralization intersected in that hole at a depth of 2,573 feet which lies approximately 2,000 feet west of present underground workings.	

	Estimated cost:		
	Drilling at $18.00 per foot =	$108,000	
	Helicopter, 50 hours at $400 per hour =	20,000	128,000
6.	Ten thousand feet of underground diamond drilling (Wire line $8.00, conventional $3.00)		
	Estimated cost:		
	Drilling at $6.00 per foot		60,000
7.	Rock geochemistry analyses		35,000
8.	Assays		10,000
9.	Fee and expenses of Dr. Paul Gilmour for four visits to mine to review and provide guidance for the geological studies at the mine, estimated at $3,500 per visit		14,000
	TOTAL		$400,900

WESTERN MINES LIMITED

OPERATING BUDGET

1978

(Excerpts)

HEAD OFFICE

Jan 27/78
Mine Budget
1978
FINAL

BUDGET 1978

MINE SUMMARY	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTA
DEVELOPMENT	79718	79718	56564	32559	32559	32559	16387	24716	32775	33517	33517	3351[illegible]	48 4881
		159436	216000	248559	281118	313677	330064	354780	387555	421072	454589	488107	
PRODUCTION	196188	190838	186843	202921	192104	202184	78951	172518	194098	204890	198545	185318	220
		387026	573869	776790	968894	1171078	1250029	1422547	1616645	1821535	2020080	2205398	
SERVICES	95597	93840	90862	92525	89279	92733	40406	74414	89314	94062	93978	91197	1039
		189437	280299	372824	462103	554836	595243	669656	758970	853032	947010	1038207	
FIX + PROGRAM	227048	227048	227048	223797	223797	223797	119165	173497	227830	224432	224432	224432	254
		454096	681144	904941	1128738	1352535	1471700	1645197	1873027	2097459	2321891	2546323	
TOTAL MINE	598551	591444	561317	551802	537739	551273	254909	445145	544017	556901	550472	534465	627
		1189995	1751312	2303114	2840853	3392126	3647035	4092180	4636197	5193098	5743570	6278035	

BUDGET 1978

DEVELOPMENT	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
RAISE	300	300	300	300	300	300	150	225	300	300	300	300	33
51.46/51.75/52.10/53.30	15438	15438	15438	15525	15525	15525	7815	11722	15630	15990	15990	15990	176
(52.15)													
		600	900	1200	1500	1800	1950	2175	2475	2775	3075	3375	
		30876	46314	61839	77364	92889	100704	112426	128056	144046	160036	176026	
DRIFT + X-CUT	480	480	300	120	120	120	60	90	120	120	120	120	22
74.08/74.45/74.87/76.31	35558	35558	22224	8934	8934	8934	4492	6738	8985	9157	9157	9157	1679
(74.59													
		960	1260	1380	1500	1620	1680	1770	1890	2010	2130	2250	
		71116	93340	102274	111208	120142	124634	131372	140357	149514	158671	167828	
DIA. DRILL	3750	3750	2400	1500	1500	1500	750	1150	1500	1500	1500	1500	22
STANDARD	20062	20062	12840	8100	8100	8100	4080	6256	8160	8370	8370	8371	120
5.35/5.40/5.44/5.58													
(5.42)		7500	9900	11400	12900	14400	15150	16300	17800	19300	20800	22300	
Stope Development and		40124	52964	61064	69164	77264	81344	87600	95760	104130	112500	120871	
ore definition.													
ELECTRIC	1000	1000	700 ft			1978 Exploration							2700
8.66	8660	8660	6062			Completed Mar/1978							2338
(Wire Line)													
		2000	2700										
		17320	23382										
TOTAL DIA DRILL	28722	28722	18902	8100	8100	8100	4080	6256	8160	8370	8370	8371	~~144~~ 1442
(5.77)													
		57444	76346	84446	92546	100646	104726	110982	119142	127512	135882	144253	
TOTAL	79718	79718	56564	32559	32559	32559	16387	24716	32775	33517	33517	33518	488

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