A.F.E. NO. \_\_\_\_

811235

TITLE:

BUSTER LAKE PROSPECT, BOSS MOUNTAIN AREA CARIBOO MINING DIVISION, B.C.

ESTIMATED COST:

	EXPENDITURE to 31/12/69	APPROVED BUDGET 1969 AFE # 14-69	PROPOSED AFE # 1970	ESTIMATED TOTAL COST
Acquisition Costs	7,549	8,300	-	7,549
Salaries & Wages	min .	1,850	7,000	7,000
Surveying & Mapping	26,380		5,000	31,380
Geophysics	3,668	7,400	12,000	15,668
Geochmistry	1,417	2,780	10,000	11,417
Outside Contract Services	92	14,800	3,000	3,092
Drilling	_	north	_	_
Excavation	-	_	3,000	3,000
Assaying & Sampling		940	500	500
Travel		1,390	3,000	3,000
Miscellaneous	4	1,390	1,000	1,000
Totals	*39,110	38,850	44,500	83,610

<sup>\*</sup> Includes an over-expenditure of \$260

PROJECT DESCRIPTION:

The Buster Lake prospect is located 50 miles east of Williams Lake, B.C. immediately north of Noranda's Boss Mountain molybdenum mine. Williams Lake is a road and rail head on the route Prince Rupert-Vancouver. The property was originally staked on the extension of an aeromagnetic "low" adjacent to the Boss Mountain mine.

During 1969 a total of 204 mineral claims were staked in a roughly east-west belt from just west of Buster Lake to east of the Boss Mountain mine access road along the northeast margin of the Takomkane Batholith and its contact with basic and andesitic volcanics. Preliminary magnetometer work and reconnaissance silt sampling, geological mapping and photo studies outlined four areas of further interest within the claim boundaries. These areas are based largely on geological formation, the presence of fractures and vein structures parallel to and of similar type to the mineralization systems at Boss Mountain, and the presence of unusually high molybdenum in silt samples. Of these, two may be the result of contamination from the mine slimes dam and road construction, but of the remainder, one occurs in an area of intense major fractures as seen on aerial photographs and on the ground, while the second embraces an area in which rock types identical to the Boss Mountain stock have been recognized and

which may represent a distinct pluton in the more widespread quartz-diorite underlying most of the claim area.

At the present time the property is 100% owned by Cyprus. A small group of 18 claims (Trooper Group) on the southeast side of Buster Lake is privately owned, and partly overstaked by Cyprus. Pending further work it may be advantageous at some stage to purchase or form a working agreement with the owners, but at present, these claims do not impinge directly on to any of the above-mentioned areas of interest.

## WORK PROGRAM:

To outline and delineate specific drill targets within the claim boundaries and carry out further reconnaissance in the general area, the following work program is required:-

- 1. The preparation of 1" = 1,000' contour map to facilitate mapping and sampling.
- Detailed geological mapping within the areas of interest.
- 3. Detailed silt sampling on the basis of the I" = 1,000' map with analyses for molybdenum and copper.
- 4. Geochemical soil sampling of areas drained by streams giving anomalous values by silt sampling methods, and in the vicinity of Boss Mountain stock type outcrops.
- 5. Ground magnetometer work.
- 6. I.P. surveying over geochemically anomalous, and/or other favourable areas.
- 7. Preparation of a photo interpretation of areas to the north and east of the area staked.

Reconnaissance silt sampling to be carried out in the areas showing intensive fracture patterns within the intrusive rock, and/or indications of smaller stocks within the batholith.

## JUSTIFICATION:

The reconnaissance work in 1969 revealed areas of significant interest within the claim boundaries, specifically with regard to the moly content of silt samples; the presence of a number of different types of intrusive rocks and areas of intense veining and

fracturing. Molybdenum values in four consecutive silt samples just west of Buster Lake are among the highest recorded by Barringer Research during their extremely widespread activities throughout B.C. during the summer. The geological environment and specific anomalous situations as described above combined with the juxtaposition of known mining potential at Boss Mountain amply justifies the proposed expenditures.

RECOMMENDATION:

For Management Committee

DATE:

We recommend the expenditure of up to \$44,500 in 1970 to carry out the exploration program outlined above.

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		J.B. 6awyer C.A. Mark
		J.G. Hansen
APPROVED:		

TITLE:

BUSTER LAKE PROSPECT, BOSS MOUNTAIN AREA CARIBOO MINING DIVISION, B.C. DIAMOND DRILLING

ESTIMATED COST:

		PROPOSED A.F.E. # 70	PROPOSED A.F.E. # 70	EXPENDITURE to 31/12/69	ESTIMATED TOTAL COST
(1)	Diamond Drilling BQ, 3,500' at \$15/ft.	52,500	<b>u</b> na	_	-
(2)	Site preparation, etc	1,500	-	-	-
(3)	Assaying core samples	1,500		NAME AND	
	TOTAL	55,000	44,500	39,110	138,610

PROJECT DESCRIPTION:

The Buster Lake prospect is located 50 miles east of Williams Lake, B.C. immediately north of Noranda's Boss Mountain molybdenum mine. Williams Lake is a road and rail head on the route Prince Rupert-Vancouver. The property was originally staked on the extension of an aeromagnetic "low" adjacent to the Boss Mountain mine.

During 1969 a total of 204 mineral claims were staked in a roughly east-west belt just west of Buster Lake to east of the Boss Mountain mine access road along the northeast margin of the Takomkane Batholith and its contact with basic and andesitic volcanics.

At the present time the property is 100% owned by Cyprus. A small group of 18 claims (Trooper Group) on the southeast side of Buster Lake is privately owned, and partly overstaked by Cyprus. Pending further work it may be advantageous at some stage to purchase or form a working agreement with the owners, but at present, these claims do not impinge directly on to any of the above-mentioned areas of interest.

A work program designed to follow up the 1969 exploration has been submitted under A.F.E. # 70, and includes detailed geochemical and geophysical surveys and geological mapping to outline specific drill targets.

WORK PROGRAM:

Using the Boss Mountain Mine data as a guide, the likely targets are areas of brecciated and mineralized country rock in the vicinity of late quartz-monzonite stocks. Indications from the 1969 work on the property are that at least two such stocks may exist within the claim boundaries, which together with high molybdenum counts in silts in the vicinity of these rock types and also immediately west of Buster Lake suggests three potential drilling targets. Confirmation of these and others by the 1970 program of field work will require immediate follow-ups to a minimum of 1,000 feet of diamond drilling at each site.

JUSTIFICATION:

The 1969 reconnaissance and comparisons with the Boss Mountain Mine strongly suggest that two or more drilling targets could be outlined by the 1970 field program by the end of July. It is, therefore, desirable that funds be available for preliminary exploration drilling on outlined targets within the current fiscal year.

RECOMMENDATION:

We recommend funds of up to \$55,000 be made available for drilling on the Buster Lake project in 1970.

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-	J.	G.	Hansen	

APPROVED:

For	Management	Committee
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