4628

Report on

GEOCHEMICAL & RECONNAISSANCE GEOLOGICAL SURVEYS

of

TESS Group, Atlin M. D., B. C.
Lat. 58°03'N., Long. 132°50'W.
110 mi. south of Atlin

by

D. L. Wetmore, P. Eng. (Ont.)
September 25, 1973

Claims held by
NRD Mining Ltd.

Work from
August 14-26, 1973

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Illustrations

SECTION I

INTRODUCTION

The TESS Group of mineral claims were acquired to evaluate copper and molybdenum occurrences near Whiting Lake, as denoted in the Geological Survey of Canada Memoir 362, "Geology and Mineral Deposits of Tulsequah Map-Area, British Columbia," by J. G. Souther dated 1971.

The period of August 14 through 26, 1973 was spent completing a program of geochemical soil sampling and geological reconnaissance of the claims. A description and interpretation of this exploration program forms the subject of this report.

PROPERTY, LOCATION, ACCESS

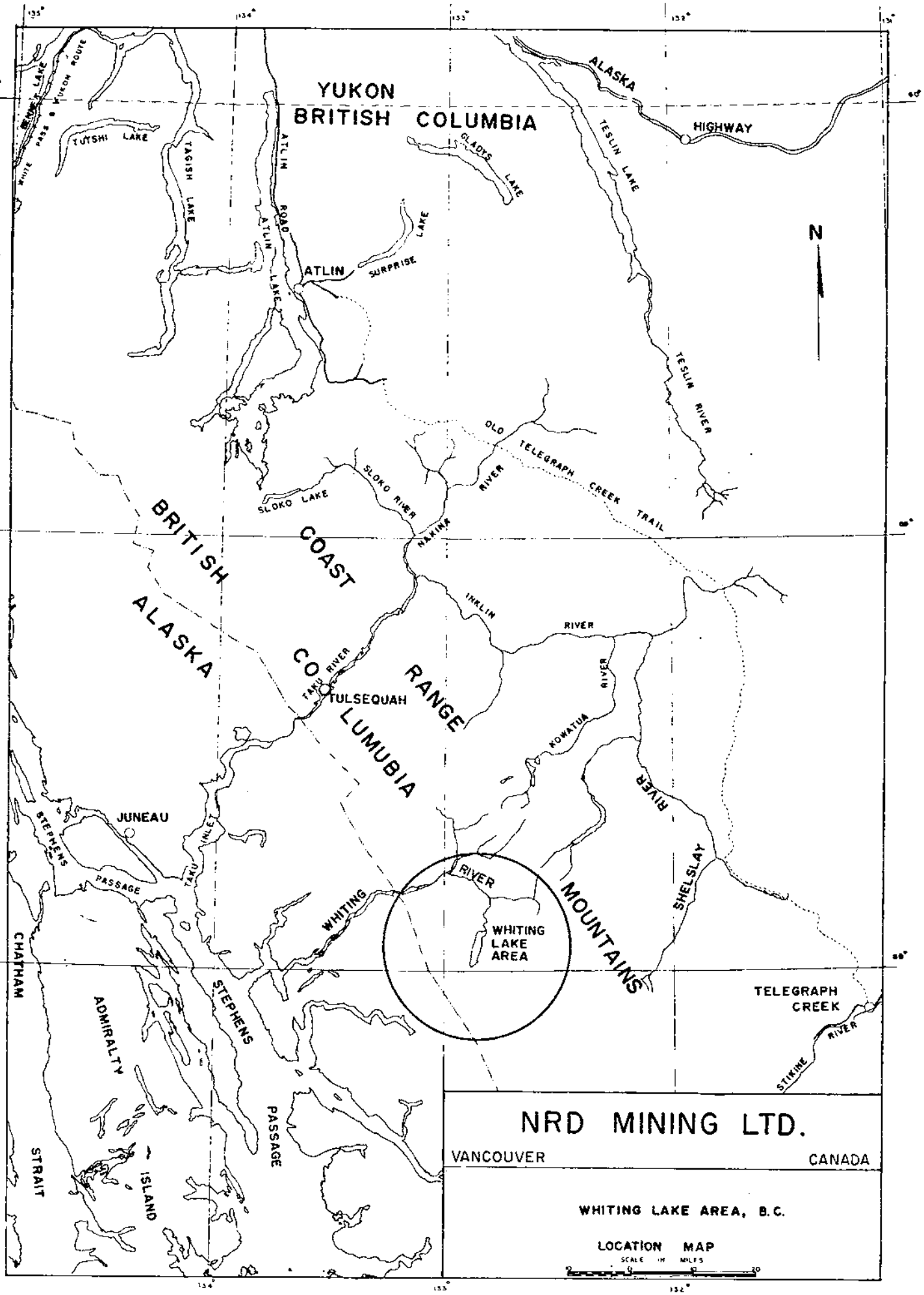
The property consists of a group of 24 contiguous mineral claims, named TESS 1 - 12 and 21 - 32, inclusive. The claims were reduced in number from the original 32 staked, on the basis of geological evaluation and inaccessibility to the 8 claims located over Whiting Lake.

Name of Claims	Date of Location	Date of Recording	Claim Tag No.	Claim Record No.
TESS 1 - 12 incl.	Aug. 27/72	Sept. 5/72	144715M - 144726M	18454-18465
TESS 21 - 32 incl.	Aug. 30/72	Sept. 5/72	144735M - 144746M	18474-18485

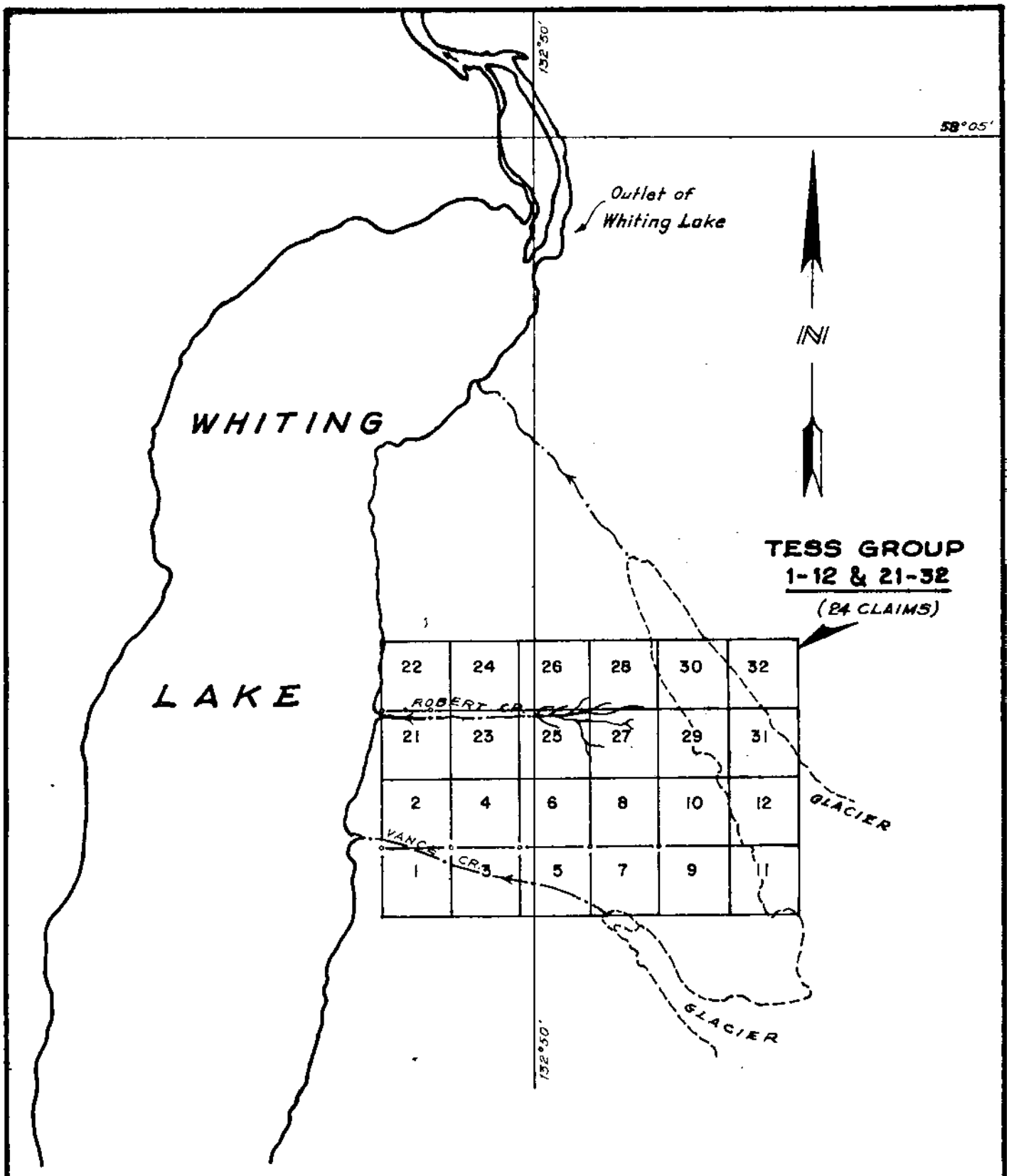
The property is located along the east side of Whiting Lake, approximately 110 miles at 164° astronomic azimuth from Atlin, in the Atlin Mining Division, British Columbia. It is approximately 25 miles directly east of tidewater along the Alaska Panhandle. Whiting Lake drains into Whiting River which flows into Port Snettisham Inlet along Stephens Passage, some 30 miles south-east of Juneau, Alaska. The co-ordinates are:

Latitude 58°03' N.; Longitude 132°50'W.

The property may be attained from Atlin, British Columbia, by float/ski equipped aircraft. Atlin is connected by an all-weather gravel road to the north a distance of 60 miles to Jakes Corner, located at mile 863 on the Alaska Highway, 55 miles south-east of Whitehorse, Yukon Territory. The drive from Atlin to Whitehorse requires some 2.5 hours. Whitehorse is the commercial and transportation centre for the Yukon Territory and north-western British Columbia. Supplies and charter aircraft to support a program of exploration at Whiting Lake predominantly come from Whitehorse,


YUKON
BRITISH COLUMBIA
ALASKA
HIGHWAY
TUTSHI LAKE
TAGISH LAKE
ATLIN ROAD
ATLIN LAKE
ATLIN
SURPRISE LAKE
GLADYS LAKE
TESLIN LAKE
TESLIN RIVER
N
OLD TELEGRAPH CREEK TRAIL
SLOKO LAKE
SLOKO RIVER
NAKINA RIVER
INKLIN RIVER
BRITISH COLUMBIA COAST RANGE
ALASKA
TAKU RIVER
TULSEQUAH
KOWATUA RIVER
JUNEAU
STEPHENS PASSAGE
TAKU INLET
WHITING RIVER
WHITING LAKE AREA
SHELSLAY RIVER
MOUNTAINS
TELEGRAPH CREEK
STIKINE RIVER
CHATHAM STRAIT
ADMIRALTY ISLAND
STEPHENS PASSAGE
NRD MINING LTD.
VANCOUVER
CANADA
WHITING LAKE AREA, B.C.
LOCATION MAP
SCALE IN MILES

4628-M1



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4628 MAP #2

NRD MINING LTD.

TESS GROUP, CLAIM MAP

WHITING LAKE AREA

0 3000 6000 9000

ATLIN M.D. BRITISH COLUMBIA

although incidental supplies and, in the summer season, charter fixed-wing and helicopter service is generally available in Atlin.

A road to Whiting Lake could be established from existing facilities along the east shore of Atlin Lake, some 15 miles south of Atlin. The continuation of this road to Whiting Lake would cover some 150 miles and follow mountain passes up to 4,000 feet in elevation. Construction and maintenance of such a road would be expensive. An apparently more feasible route would follow the Whiting River valley a distance of some 50 miles to tidewater along the Whiting Arm of the Port Snettisham Inlet, located some 30 miles south-east of Juneau, Alaska, along Stephens Passage. Port facilities are not known to exist along this immediate area of the Alaska Panhandle.

CLIMATE, LOCAL RESOURCES, TOPOGRAPHY

The Whiting Lake area is in the center of the rain belt of the Coast Range. At the village of Tulsequah (500 ft. elevation) precipitation averages 150 inches per year and snowfall, 10 feet. Rain and snowfall increase with elevation and mountain passes will have up to 30 feet of snow in the winter. Whiting Lake at 900 feet in elevation and the upper reaches of Whiting River (a potential land access route) will probably accumulate 12 to 15 feet of snow in the

winter, while the high ground on either side of the lake will receive much more.

Breakup occurs in the latter part of June and freeze up, in November. The winter rainy season begins the 1st of September and mid-July through August is considered the best time to complete field work (and for air access).

Ample water and, along the valley systems, timber are available locally. Hydroelectric power might be developed in the area, but no power facilities currently exist.

The elevation of Whiting Lake is approximately 900 feet. This area of the Coast Range is characterized by rugged topography with local relief reaching 5,000 to 7,000 feet. Relief is up to 4,000 feet within 1 mile of either side of Whiting Lake. The peaks are steep jagged spires cut by glaciers into narrow saw-toothed ridges. The deeply incised valleys are all glacial formed and terminate in precipitous cirques occupied by glaciers.

Peaks reach 8,000 feet in elevation with general glacial fields above 5,000 to 6,000 feet. Near Whiting Lake the high country to the south-east and east is occupied by the Cheja Glacier, while the area west and south-west contains the Sawyer Glacier. The Whiting River valley, less than 1/2 mile wide in its British Columbia portion,

cuts the mountain range to the north and north-west. Arms of the glaciers descend the valleys as low as 2,000 feet in elevation. The valley glacier front on the Tess No. 7 and 8 claims is at approximately 2,500 feet in elevation. All of these valley tongues are receding, badly crevassed and dangerous to attempt to traverse.

Whiting Lake is some 6 miles long by 1/1/2 miles wide and is accessible by all sizes of float/ski-equipped, fixed-wing aircraft. The lake water is turbid due to the inflow of streams carrying glacial rockflour.

The topography necessitates helicopter support of most field programs. However, the steep slopes, precipitous ridges and heavy vegetation cover below the tree line results in its usage being difficult and inefficient. The tree line commonly occurs at some 3,000 feet in elevation and the valleys below this are very heavily vegetated with spruce and balsam trees with alder-type undergrowth. Locally stunted trees are found at elevations up to 4,000 feet. Trails must commonly be cut for access over the property.

SECTION II

HISTORY

The Whiting Lake area lies in the extreme southern portion of the Tulsequah Map-Area, in the center of the Boundary Ranges. It is some 50 miles south of the Taku River area - the site of the only previous mining or exploration in the area. As a result, the geological potential at the Whiting Lake area was apparently unknown prior to field work done by the Geological Survey of Canada in 1958, 1959 and 1960. This work was published as Memoir 362, "Geology and Mineral Deposits of Tulsequah Map-Area, British Columbia", by J. G. Souther in 1971. An open file on this work was available as early as the mid 1960's and, in fact, rumors of numerous mineral occurrences found by the G. S. C. circulated through the Yukon in 1961-2. Modest helicopter-supported exploration by some of the major exploration companies was reported in the early 1960's following the rumors of the G. S. C. finds.

The northern portion of the Tulsequah Map-Area - specifically the Taku River area has been well known and prospected (in terms of the historical prospector) since the 1930's. However, in terms of modern exploration methods, the whole map-area has received little

attention - principally due to the extremely difficult topography and access.

Several of the mineralized areas recorded by the G. S. C. have subsequently been drilled. The latest of these being a project by Plateau Metals and Industries Ltd. on a molybdenite prospect approximately 6 to 8 miles due south of Trapper Lake. Six drill holes were rumored to have been drilled in the spring of 1972 without success and the property abandoned. Dolmage Campbell & Associates Ltd. reportedly completed the work on contract. This area is approximately 20 miles northeast of Whiting Lake.

SECTION III

GENERAL GEOLOGY

The Boundary Ranges of the Whiting Lake area of north-western British Columbia are predominantly composed of a complex of intrusive crystalline rocks varying from pyroxene diorite to leucogranite and of late Cretaceous to Tertiary age (reference: Tulsequah and Juneau, Cassiar District, B. C. - G. S. C. Map 1262A). They are map-indexed as units 13, 14, 15 & 16.

The Sloko Group volcanics (map unit 14) are described as light coloured rhyolite, dacite and trachyte flows with related pyroclastic rocks and with locally derived sediments. They form angular unconformities with underlying Jurassic and older rocks. The pyroclastic varieties predominate and vary from coarse explosion breccias and agglomerates to fine grained finely banded vitric tuffs and ignimbrites. The thickness of the Sloko Group varies considerably but is at least 3, 500 feet just east of Whiting Lake.

The central plutonic complex of igneous rocks is principally granodiorite and quartz diorite of pre-upper Cretaceous age. The granodiorite is a common hornblende and biotite variety with a predominance of grey plagioclase and minor potash feldspar. The

complex includes large areas of quartz diorite and diorite, with the latter predominating in the Whiting Lake area. This is map unit 13 on the G. S. C. Geologic Map No. 1262A. It is differentiated in the field from younger similar intrusives principally by being stressed and foliated due to subsequent deformation associated with the emplacement of the younger intrusives.

Map units 15 and 16 are early Tertiary intrusives (G. S. C. dates them at 69 million years) comprised principally of quartz monzonite, quartz monzonite porphyry and a quartz feldspar porphyry. Map unit 16 is a fresh quartz monzonite, little disturbed and forming most of the highest peaks in the Coast Range. Hornblende predominates over biotite and a flesh coloured orthoclase is discernible in hand specimens, although very minor in content as compared with a light grey to white plagioclase.

Map unit 15 is local variations of the quartz monzonite of number 16 and usually forms distinct intrusive dykes, sills and stocks in the quartz monzonite. It is mainly quartz feldspar porphyry. The groundmass is aphanitic with phenocrysts of quartz and occasionally flesh coloured feldspar, probably orthoclase.

Structurally, the Whiting Lake area is dominated by early Tertiary deformation that accompanies the emplacement of the early

Tertiary intrusives. The deformation is randomly oriented conforming to local stock and batholiths of the intrusives with the overall north-west grain of the Coast Range being the only predominate structural direction in the area. Sloko Group volcanics show large displacements across normal faults and this appears to be the main type of deformation in the area.

Copper and molybdenum deposits known in the Tulsequah Map-Area display a common association with the quartz monzonite and quartz feldspar porphyry intrusions, and this association holds true in the Whiting Lake area. The G. S. C. mapping indicates that the mineralization east of Whiting Lake is associated with diorite of the Central Plutonic Complex (map unit 13), Sloko Group volcanics (map unit 14), and early Tertiary quartz feldspar porphyry (map unit 15); while north-west of Whiting Lake a molybdenum show is associated with quartz feldspar porphyry intruding quartz monzonite (map unit 16).

There appears to be a definite N10^{o}W trend to the mineralized zones visible in the Tulsequah area. The zones are readily evidenced by varying degrees of limonitic alteration and, upon scrutiny exhibit strong silicification, sericitization and kaolinization. Relatively narrow, irregular dykes of intermediate to commonly basic composition intrude

the mineral showings. Widths of the gossan zones vary to in excess of one mile and may be evidenced over several miles along strike.

SECTION IV

GEOCHEMICAL SURVEY

Contemporaneous programs of geochemical soil sampling and reconnaissance geological surveying were determined to provide the most feasible means of exploration of the TESS Group claims. The topography, vegetation cover and climate, as it pertains to aircraft-supported field programs, of the property and area would not permit conventional grid-pattern surveying. Therefore, geochemical traverses were conducted by two-man crews along flagged, compass-orientated but topographically modified lines. Aerial photographs were used to aid in the plotting of each traverse. A constant station interval of 100 feet, measured by chain-field compensated to approximate horizontal distance, was maintained along each line. Sample locations were denoted by flagging tape on which the line and sample station number, corresponding to the sample number, were marked by permanent-ink marking pens.

Soil samples were obtained with the use of a mattock. A hole was generally dug to a depth that permitted exclusion of organic material. Normally samples were taken at depths from 10 to 30 inches below ground level and contained in plastic sample bags. Field notes

were made of each sample and describe, in the absence of defined soil horizons, amount of contained organic material, colour and relative size of material, and depth of procurement.

The samples were prepared and analysed by the Whitehorse Assay Office Limited. Sample preparation included transferring the samples to paper envelopes, drying, screening to obtain the minus 80 mesh faction and weighing. The analysis procedure employed hot nitric digestion and determination of parts per million (ppm.) copper and molybdenum using atomic absorption spectrometry. Duplicate samples have been filed at the Whitehorse Assay Office and will remain available for additional testing until at least May, 1974. Any sample containing observed organic material after sample preparation has been so indicated on the assay certificate by the assayer.

In conjunction with the reconnaissance geological survey, rock samples were also obtained for geochemical analysis. Sample location was determined using aerial photographs. The preparation and analytical procedure for the rock samples was identical to that of the soil samples with the addition of sample comminution prior to screening.

DISCUSSION

No defined soil horizons are present on the property. A description of soil sample material was limited to the absence or relative presence of contained organics, colour and relative fineness of the soil granules. A typical sample location contained moss and other organic debris covering talus-like rock fragments with finer admixed ground rock and soil materials. Recent and over-grown slide areas were common along the upper portions of the traverses. All soil survey lines progressed from the lake shore to the uphill limit of climbing. Slopes commonly varied from some 20 degrees from the horizontal near the lake to in excess of 35 degrees near the eastern end of the traverses. To provide additional evaluation of the claims helicopter-supported traverses of the accessible areas of the eastern portion of the property were undertaken to collect rock samples. Every effort was used to provide the most complete coverage and exploration of the gossan area within the claim group.

Analysis of the plotted samples indicates an average value per sample of 11.4 ppm. copper and 2.03 ppm. molybdenum. Using a minimum contour interval of 40 ppm. copper, solely three non-adjacent samples exceed the threshold criteria. Similarly with the molybdenum, five samples returned 10 ppm. Mo or higher. No anomalies exist for

copper or molybdenum as a result of the exploration geochemical program.

GEOLOGICAL RECONNAISSANCE SURVEY

To permit appriasal of the eastern claims and general Whiting Lake area, a helicopter-supported reconnaissance geological survey was undertaken. Available map control was provided by G. S. C. Geology Map 1262A, Topographic Plan 104K and aerial photographic coverage of the general Whiting Lake area. A three day program was completed.

Due to the rugged topography of the region, access was restricted to areas where the helicopter could be landed and traverses were made from this point. Of primary interest was the zone of alteration exposed crossing the claims (refer photographs appended). Other mineral occurrences noted on the G. S. C. Map 1262A in the Whiting Lake area were explored.

The zone of alteration on the claims strikes 350° astro azimuth and, where visible along the eastern hanging wall contact, dips some 25° east. The zone is exposed intermittently from the claim group in a northerly direction and is in evidence along the immediate eastern

shoreline of the lake north of the claims and again to the north-west of the lake . The zone varies in width up to approximately one mile and may be traced along strike for some 8 miles. The degree of alteration varies with location. The hosting formations are strongly silicified and sericitization and kaolinozation of the formations makes megascopic determination of the rock types difficult. The pyritic content of the zone varies from some 10 percent by volume down to less than 1 percent. Oxidization of the pyrite along the surface of the exposures may indicate misleading sulphide content. The pyrite appears to be roughly banded, similar in attitude to that of the zone itself. Minor occurrences of chalcopyrite, with attendant alteration to malachite, were observed along Vance Creek. Helicopter access to Robert Creek was impossible and evaluation of the alteration zone along this creek was resultantly left to the geochemical program.

Samples of rock taken along the continuation of the alteration zone to the north-west of Whiting Lake returned values in ppm. copper and molybdenum similar to those of samples from the claim group. The molybdenum showing indicated on G. S. C. Map 1262A some 4 miles north-northwest of Whiting Lake was investigated. Disseminated molybdenum was observed in quartz monzonite rocks in glacial debris in the valley. It was not possible to investigate rock exposures along the valley sides nor immediate hill tops due to

inaccessibility. A minor copper occurrence was located some 11 miles north-west of Whiting Lake. Quartz veins and older quartz monzonite irregularly intruded a granodiorite formation. The chalcopyrite was associated with the quartz veins and veinlets and did not exhibit economic potential.

The reconnaissance geological program confirmed the broad aspects of the geology of the Whiting Lake area as described by G. S. C. Memoir 362 by J. G. Souther and accompanying Map 1262A. The alteration zone on the property occurred at or near the contact of the quartz-feldspar porphyry-quartz diorite to monzonite complex on the west and acidic predominantly rhyolite, flow rocks and pyroclastics on the east. The alteration zone was well silicified and the pyrite occurred both in the form of disseminated cubic crystals and amorphously. Along the hill front traverse to the east of the alteration zone, the Sloko Group volcanics were unaltered and competent relative to mineral host rocks. Hypabyssal doleritic intrusions were observed at several locations within the alteration zone. Their attitude conforms generally with that of the limonite zone, they appear fresh, and are assumed post mineral in age.

SECTION V

SUMMARY & CONCLUSIONS

The TESS property comprises a contiguous group of 24 mineral claims located on the east-central shore of Whiting Lake, 110 miles S 16° E of Atlin in the Atlin Mining Division, British Columbia. The claims are held by NRD Mining Ltd. of Vancouver.

The property is located in the Boundary Range where local topographic relief is considerable and where access is by float/ski-equipped, fixed-wing aircraft or by helicopter. Precipitation is heavy and at Tulsequah averages 150 inches annually and snowfall, 10 feet. Both rain and snowfall increase with elevation.

A gossan zone, up to a mile wide and traceable for some 8 miles along strike, crosses the claim group. To evaluate the zone an exploration program was undertaken. The geochemical survey for copper and molybdenum did not produce any values appreciably above the threshold established for copper or molybdenum. The reconnaissance geological survey determined the gossan zone predominantly to result from the oxidation and hydration of pyrite, estimated to vary between 10 to less than one percent by volume and disseminated in the formations occurring at a quartz monzonite-quartz-feldspar porphyry complex and Sloko Group rhyolitic flow and pyroclastic contact. Minor occurrences of chalcopyrite

were observed within the claim group and as a result of the area reconnaissance geological program. A molybdenum occurrence noted by the G. S. C. was examined but, excluding disseminated molybdenum being found in quartz monzonite rocks contained in glacial debris at the reported site, no in-situ mineralization was observed.

In summary, no anomalous copper or molybdenum values were encountered in the geochemical or geological surveys and no further program of exploration is recommended for the claim group at this time. The claim group, however, should be retained as a locational prospect and its status periodically reviewed.

Respectfully submitted,

D. L. Wetmore, P. Eng. (Ont.)

APPENDIX

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
TO WIT:

In the Matter of MINERAL ACT OF BRITISH COLUMBIA

I, DAVID L. WETMORE

of 507 - 1095 Bute Street, Vancouver,

in the Province of British Columbia, do solemnly declare that

the attached statement "Schedule of Project Costs, TESS Group, Atlin M. D., B. C." to accompany and an integral part of "Report on Geochemical & Reconnaissance Geological Surveys" by me and dated September 25, 1973 is correct and valid.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 26th day of September, 1973, A.D.

D L Wetmore

Ken Paul Sub-mining Recorder

A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.

SCHEDULE OF PROJECT COSTS

TESS Group, Atlin M. D., B. C.

Mobilization - Vancouver office to Whitehorse - Aug. 14-16/73 incl. - drive Company vehicle			
3 days - G. F. Warnock, P. Geol.	@ $250/day incl. expenses	$750	
3 days - D. L. Wetmore, P. Eng.	@ 75/day incl. expenses	225	
3 days - G. Warnock Jr., assistant	@ 50/day incl. expenses	150	
3 days - Vehicle expense - gas, etc.	@ 25/day	75	$1,200.00
Aug. 17/73 - purchase field camp supplies, arrange flight, etc.			
1 day - G. F. Warnock	$250/day		
1 day - D. L. Wetmore	75/day		
1 day - G. Warnock, Jr.	50/day		375.00
Aug. 18/73 - fly Whitehorse - Whiting Lake; establish camp			
1 day - Warnock, Wetmore, Warnock Jr. Jack Worsell, field assistant @ $50/day incl. expenses			425.00
Charter Flights - T. N. T. A. - incl. fuel, radio rental			1,303.30
	Total Mobilization		$3,303.30

Geochemical Survey

Aug. 19-25/73 incl.	- 7 days - Warnock, Jr. & J. Worsell @ $100/day incl. expenses	700.00
Aug. 23, 24/73	- 2 days - Warnock & Wetmore @ $325/day	650.00
Assaying - Whitehorse Assay Laboratories Ltd.		207.90
	Total Geochemical	$1,557.90

Reconnaissance Geology Survey

Aug. 19-22/73	- 5 days - Warnock & Wetmore @ $325/day incl. expenses	1,625.00
Aug. 20-22/73 incl.	- Vancouver Island Helicopters Ltd.	1,212.50
	Total Geological	$2,837.50

Demobilization - Whiting Lake to Whitehorse - August 26/73

Charter Flights - T. N. T. A.	$ 634.00
1 day - Warnock, Wetmore, Warnock, Jr., Worsell	425.00
Total Demobilization	$1,059.00

Note: Mobilization from and to Vancouver has been allocated to two Company projects. Demobilization from Whitehorse to Vancouver has therefore been charged to the second project, PAM Group, Chilkat Pass Area, Atlin M. D., B. C.

Other Direct Expenses

1.	Governmental Publications - Reports, Maps, etc.	10.00
2.	National Air Photo Library, D. E. M. R., Ottawa - Aerial Photos. est.	25.00
3.	Colour Prints in Report	9.45
4.	Drafting - Mr. C. Donders 7.5 hrs. @ $6.00/hr.	45.00
5.	Report Preparation - D. L. Wetmore, P. Eng. Sep. 10-14, 17 & 18/73	
	7 days @ $60/day - writer	420.00
	- Ms. D. Hyssop, secretary - Sep. 13, 18, 21, 25	
	4 days @ $25/day - typing, etc.	100.00
6.	Reproduction of Drawings - Van Cal Reproductions Ltd. - est. *	6.26
	Total Other Direct	$615.71
	GRAND TOTAL	$9,373.41

* invoice not received; cost estimated

Total Paid to:

Mr. G. F. Warnock, P. Geol., Consultant		
13 days @ $250/day incl. expenses		$3,250.
Mr. D. L. Wetmore, P. Eng. (Ont.)		
13 days @ $75/day incl. expenses	$975.	
7 days @ $60/day	420.	$1,395.
Mr. G. Warnock, Jr., assistant		
13 days @ $50/day incl. expenses		$650.
Mr. J. Worsell, assistant		
9 days @ $50/day incl. expenses		$450.
(Ms.) D. Hyssop, secretary		
4 days @ $25/day		$100.

TESS GROUP
WHITING LAKE
ATLIN M.D.
B.C.

WHITEHORSE ASSAY OFFICE
BOX 346
WHITEHORSE, YUKON

Samples from: N.R.D

Lot. No.: A-569-192

	Cu	Mo			Cu	Mo.	
L-4-STA-3	8	2		L-5-S-14	4	2	
4	8	2		15	8	3	
5	4	2		16	4	2	
6	4	2		17+00E	12	2	
7	8	2		L-6-S-1	12	2	
8	8	1		-2+00	8	2	
9	8	2		3+00	4	2	
10	4	3		4+00	16	2	
11	12	3		5+00	4	TR	
12	12	2		6+00	4	2	
13	16	2		L-6+60N-7+00	8	4	
14	16	3		8+00	8	5	
15	12	3		9+00	8	3	
16	12	1		10+00	8	2	
17	16	3		11+00	8	3	
18	12	TR		12+00	8	1	
19	12	3		13+00	8	2	
20	16	4		14+00	8	2	
22 (1)	12	2		15+00	8	2	
22 (2)	4	2		16+00	8	2	
25	16	2		17+00	8	3	
26	16	2		18+00	12	2	
27	20	2		6501	8	2	
28	20	2		6502	24	2	
29	16	2		6503	8	TR	
30	16	2		6504	8	TR	
No NUMBER	12	3		6505	4	TR	
L-5-S-1	4	2		6506	12	TR	
2	4	2		6507	12	TR	
3	4	TR		6508	20	4	
4	4	1		CHARACTER	20	TR	TRACE GOLD
5	4	1		8/20/1	24	2	
6	4	2		/2	52	16	
7	6	1		/3	24	2	
8	8	2		4	12	TR	
9	8	2		5	16	TR	
10-E	16	2		6	12	TR	
11	12	2		7	20	TR	
12	4	2		8	12	TR	
13	8	4		9	12	TR.	
		73			476	78	

80 Cu Mo .406
1 - Au

Date: Aug - 31 - 73

Assayer: Geo. Spalding

3P

WHITEHORSE ASSAY OFFICE
BOX 346
WHITEHORSE, YUKON

Samples from: N. R. D

Lot. No.: A-569

	Cu	Mo			Cu	Mo	
L-1-STA-1	72	2		L-3-STA-2	8	3	
-2	8	TR		3	4	2	
-3 ①	8	1		4	8	2	
-3 ②	12	2		5	8	2	
-4	8	1		6	16	2	
5	8	1		7	12	2	
6	4	2		8	12	3	
7	8	1		9	8	3	
8	12	2		10	12	4	
9	8	3		11	12	3	
10	4	14		12	4	4	
11	8	3		13	8	1	
12	12	3		14	4	2	
13	8	1		15	4	3	
14	16	1		16	20	15	
15 ①	12	2		17	16	1	
15 ②	12	1		18	12	1	
16	12	1		19	8	TR	
17	12	2		19-A	4	TR	
19	16	2		20	12	3	
20	8	2		21	8	2	
22	12	2		22	12	4	
23	12	4		23	12	3	
L-2-STA-1	16	TR		24	8	3	
-2	8	4		25	4	1	
-3	4	1		26	12	1	
-4	4	1		27	8	2	
-5	4	1		28	4	1	
-6	8	1		29	12	3	
-7	8	2		30	12	4	
8	4	2		31	12	2	
O 9	12	1		32	8	1	
O 10	8	1		33	24	1	
11	20	1		34	8	4	
12	8	1		35	4	TR	
13	16	8		36	8	3	
14-A	52	12		37	8	2	
14-B	20	10		38	8	1	
-15	24	10		L-4-STA-1	10	1	
L-3-STA-1	8	2		L- -STA-2	12	3	
Bo Cu Mo.	216	111		?	326	8	

Date: Aug-31-73

Assayer: Geo. Spaulding

O – ORGANICS

BP

WHITEHORSE ASSAY OFFICE
BOX 346
WHITEHORSE, YUKON

Samples from: N. R. D

Lot. No.: A-569

	Cu	Mo			Cu	Mo	
8/20/10	24	TR					
11	16	TR					
12	12	TR					
13	12	TR					
8/21/1	12	TR					
2	8	TR					
3	4	TR					
8/21/9	8	TR					
10	8	2					
11	24	2					
12(ABC)	28	TR					
13	1840	TR	✓				
14	60	2					
8/22/2	20	2					
3	16	2					
4	20	TR					
5	12	TR					
6	8	2					
7	8	TR					
8	4	TR					
9	8	TR					
10	16	2					
11	16	2					
12	16	TR					
L-2-STA-15	8	TR					
L-2-"-14C	12	TR					
ROCK NO TAG	16	TR					
L-4-STA-23	4	TR					
CLIFF FACE	28	TR					
L-?-STA-39	16	TR					
L-2-STA-15	28	2					
L-1-STA-23	4.	TR					
	[illegible]						
	[illegible]	[illegible]					
	[illegible]	[illegible]					

3 2 - Cu Mo 2116/4700 1/387

Date: AUG - 31 - 73

Assayer: Geo. Spalding

BP

DEPARTMENT OF MINES
AND PETROLEUM RESOURCES

MINERAL ACT
(Section 51)
FORM B

SUB - MINING RECORDER
RECEIVED
SEP 5 1973
M.R. # ..... $ .....
VANCOUVER, B. C.

Affidavit on Application for Certificate of Work

1. I, David L. Wetmore (Name) Agent for Mr. G. F. Warnock, Mr. J. M. Wigley (Name)

#305 - 535 Thurlow Street (Address) — #305 - 535 Thurlow Street (Address)

Vancouver 5, B. C. — Vancouver 5, B. C.

Free miner's Certificate No. 123304 — Free Miner's Certificate No. 118376 119244

Date issued August 6, 1973 — Date issued Aug. 21/72 Sept. 18/72

make oath and say:

2. I have done, or caused to be done, work on the TESS 1 through 12 inclusive, and TESS 21 - 32 inclusive Mineral Claim(s)

Record No.(s) 18454 through 18465 and 18474 through 18485

situate at Whiting Lake in the Atlin Mining Division,

to the value of at least Seven Thousand Five Hundred dollars. Work was done from the 14 day

of August 1973, to the 26 day of August 1973

3. The following is a detailed statement of such work done in the twelve months in which such work is required to be done.

(COMPLETE APPROPRIATE SECTION(S) A, B, C, BELOW)

A. PHYSICAL (Trenching, drilling, tunnelling, and overburden removal.)
(State dimensions of trenching, open pits, etc., footage drilled, and diameter of hole for drilling.)

None

	COST
TOTAL	

I wish to apply $..... of this work to the claims listed below.
(State number of years to be applied to each claim.)

N/A

(For B and C Sections please turn over)

5/IX/3.

B. ROAD OR TRAIL WORK (Give length and average width of road or trail.)

None	COST
TOTAL	

I wish to apply $..... of this work to the claims listed below.
(One year only to each claim and within the first three years of its life.) (Sec. 51 (3) M.A.)

N/A

C. GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL (Includes line cutting)
(State type of work)

	COST
GEOCHEMICAL - along flagged, taped-distance	
compass-orientated lines - approximately	$5,500.
GEOLOGICAL - helicopter supported - approximately	2,000.
TOTAL	$7,500

I wish to apply $ 7,500 of this work to the claims listed below.
(State number of years to be applied to each claim.)

TESS 1 - 12 inclusive & 21 - 32 inclusive (Total 24 contiguous claims)
At $100./year required assessment work per claim, I apply for three years of credit as assessment work for each of the aforementioned twenty-four mineral claims.

NOTE—Dollar value of work done under A, B, or C sections, totalling $100, may be applied to a certificate of work.

Make a sketch of claims showing location of work declared in A or B above
(if insufficient space, attach a sketch).

N/A

* N/A - not applicable

4. That I have not and will not use the work declared herein in any way for the purposes of obtaining tax exemption on a Crown-granted mineral claim under the terms of the *Taxation Act*.

SWORN and subscribed to at Vancouver
this 5 day of September
19 73, before me—
* B. Wattmore

B Wattmore

* This affidavit may be taken by a person empowered to take affidavits by the *Evidence Act* of British Columbia.

DEPARTMENT OF MINES AND PETROLEUM RESOURCES

MINERAL ACT

FORM I

SUB - MINING RECORDER
RECEIVED
SEP 5 1973
M.R. # ..... $ .....
VANCOUVER, B. C.

NOTICE TO GROUP

Mining Division Atlin Location Whiting Lake - south central

Tulsequah Sheet 104K

Name of group TESS

We, the undersigned owners* of the following adjoining mineral claims, desire to group them according to the provisions of the *Mineral Act*:—

NAME OF CLAIM	Record No. or Lot No.	SIGNATURE OF OWNER*	Free Miner's Certicate No.
TESS 1	18454		~~GFW-118376~~ JMW-119244
TESS 2	18455		
TESS 3	18456		
TESS 4	18457		
TESS 5	18458		
TESS 6	18459		
TESS 7	18460		
TESS 8	18461		
TESS 9	18462		
TESS 10	18463		
TESS 11	18464		
TESS 12	18465		
TESS 21	18474	for J. M. Wigley	
TESS 22	18475		
TESS 23	18476		
TESS 24	18477		
TESS 25	18478		
TESS 26	18479		
TESS 27	18480		
TESS 28	18481		
TESS 29	18482		
TESS 30	18483		
TESS 31	18484		
TESS 32	18485		

* May be signed by agent on behalf of owner.

5/IX/3

CERTIFICATE

I, David L. Wetmore, do hereby certify:

1. I am employed by NRD Mining Ltd., with offices at 305 - 535 Thurlow Street, Vancouver 5, B. C.

2. I am a graduate of Michigan Technological University, Houghton, Michigan, U.S.A. with the degree of Bachelor of Science in Geological Engineering, 1965.

3. I hold current memberships in the following professional/technical societies:

   - Association of Professional Engineers of the Province of Ontario - Mining Division - P. Eng.
   - Association of Professional Engineers of the Province of British Columbia - P. Eng. applied.
   - Geological Association of Canada - Fellow
   - Canadian Institute of Mining and Metallurgy - Member

4. I have practised my profession as Geologist and Engineer continually since graduation and have acted in a responsible professional position throughout this period. For the preceding five years I have been an independent consulting engineer or a principal of a consulting engineering company.

5. This certificate is part of the attached "Report on Geochemical & Reconnaissance Geological Surveys, TESS Group, Atlin M. D., B. C." dated September 25, 1973.

6. The accompanying report is based on my personal field supervision of the surveys described herein and the use of all available governmental and private reports, maps, photographs, or other pertinent data. The field work was completed between August 14-26, 1973.

Dated in Vancouver
this 25th day of
September, 1973.

D. L. Wetmore, P. Eng. (Ont.)

Whiting Lake, Atlin M. D., B. C.
- view to north -

Helicopter Survey, Whiting Lake
- view to east, from west side -

TESS Group, Whiting Lake
- general view, alteration zone -
Robert & Vance Creeks, from left

Alteration Zone, TESS Group
- Vance Creek, centre foreground -

G. WARNOCK
403 Simms Building
Albuquerque, New Mexico

NRD Mining Ltd. (N.P.L.)
#305 - 535 Thurlow Street
Vancouver 5, B. C.

September 6, 1973

STATEMENT

For Services rendered as follows:

Whiting Lake Project	
17 days @ $200	$3,400.00
Expenses	1,009.82
	$4,409.82
Sixty Mile Project	
3 days @ $200	$ 600.00
Expenses	262.31
	$ 862.31
Chilkat Pass Project	
9 days @ $200	$1,800.00
Expenses	577.42
	$2,377.42
	$7,649.55
Less Advance	500.00
Less	83.00
Total	$7,066.55

G. Warnock

T
N
T

TRANS NORTH TURBO AIR LTD.

BOX 4338 PHONE 668-2177 TELEX 036-8-290
WHITEHORSE, YUKON

TO: N.E.D. Mining
#305 - 535 Thurlow Street
Vancouver, B.C.

DATE: August 27, 1973 INVOICE NO. 9074-3

P.O. NO.

TO:	Charge you with the charter of Beaver Aircraft CF-FHC Pilot: R. Duncan	
FLYING:	August 18 & 26, 1973 Daily Flight Report Nos. 12499 & 12515	
	1492 miles at $1.00 per mile (Zone L rate when carrier supplies fuel)	$1,492.00
PLUS:	Excess cost of fuel at Atlin Charterer assessed with cost of fuel over $.52 per gallon	
	116 gallons at $.98 per gallon	113.68
PLUS:	100/130 AvGas supplied by charterer at Atlin 135 gallons at $1.25 per gallon	168.75
PLUS:	Radio Rental	85.00
PLUS:	Charges as per T.N.T.A. Sales Slip Nos. 19070 & 19185	77.87
	INVOICE TOTAL	$1,937.30

Mobilization $1,937.30
Demobilization cost -

TERMS: ONE PERCENT INTEREST PER MONTH WILL BE CHARGED ON ALL INVOICES NOT PAID WITHIN 30 DAYS OF DATE ISSUED.

STATEMENT

WHITEHORSE ASSAY OFFICE LTD.
P. O. BOX 4518
WHITEHORSE, YUKON TERR.

DATE August 31 1973

A. R. D. Mining Co. Ltd.,
305-555 Burlow Street,
Vancouver 5, B.C.

DATE	DETAILS	DEBIT	CREDIT	BALANCE
	A-569-192	$		
	19.2 Cu Mo @ 1.50	288.00		
	1 Au (FIRE)	3.00		
		231.00		
				Canadian $
	Total Debt			$231.00
				-23.10
				$207.90

RECEIVED: Sept. 4/73

	C.C.	ATT'N	GEN
JMW			
DLW			
N.Y.			
ALB.			

FILE: LESS 10% DISCOUNT

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305 - 535 THURLOW ST.,
VANCOUVER 5, B.C.

REFERENCE INV. NOS 1262,1263,1264

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BASE OF OPERATION TELEGRAPH CREEK

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____ HOURS	@ $ ____ PER HR	$
5:25 HOURS	@ $ 150.00 PER HR	812.50
2:30 HOURS V.I.H. FUEL	@ $ 160.00 PER HR	400.00
MINIMUM CHARGES (IF APPLICABLE)		
CREW EXPENSES		
ADDITIONAL CHARGES ____		
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Vancouver 1, B.C.

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Vancouver 5, B. C.

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PPD. COLL.

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			TESS & PAM 50-50				

SUB-TOTAL	10.	80
FED. TAX @ 11%	1.	19
LIC. NO. SUB-TOTAL		
S.S. TAX @ 5%	0.	54
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see D.L.W.

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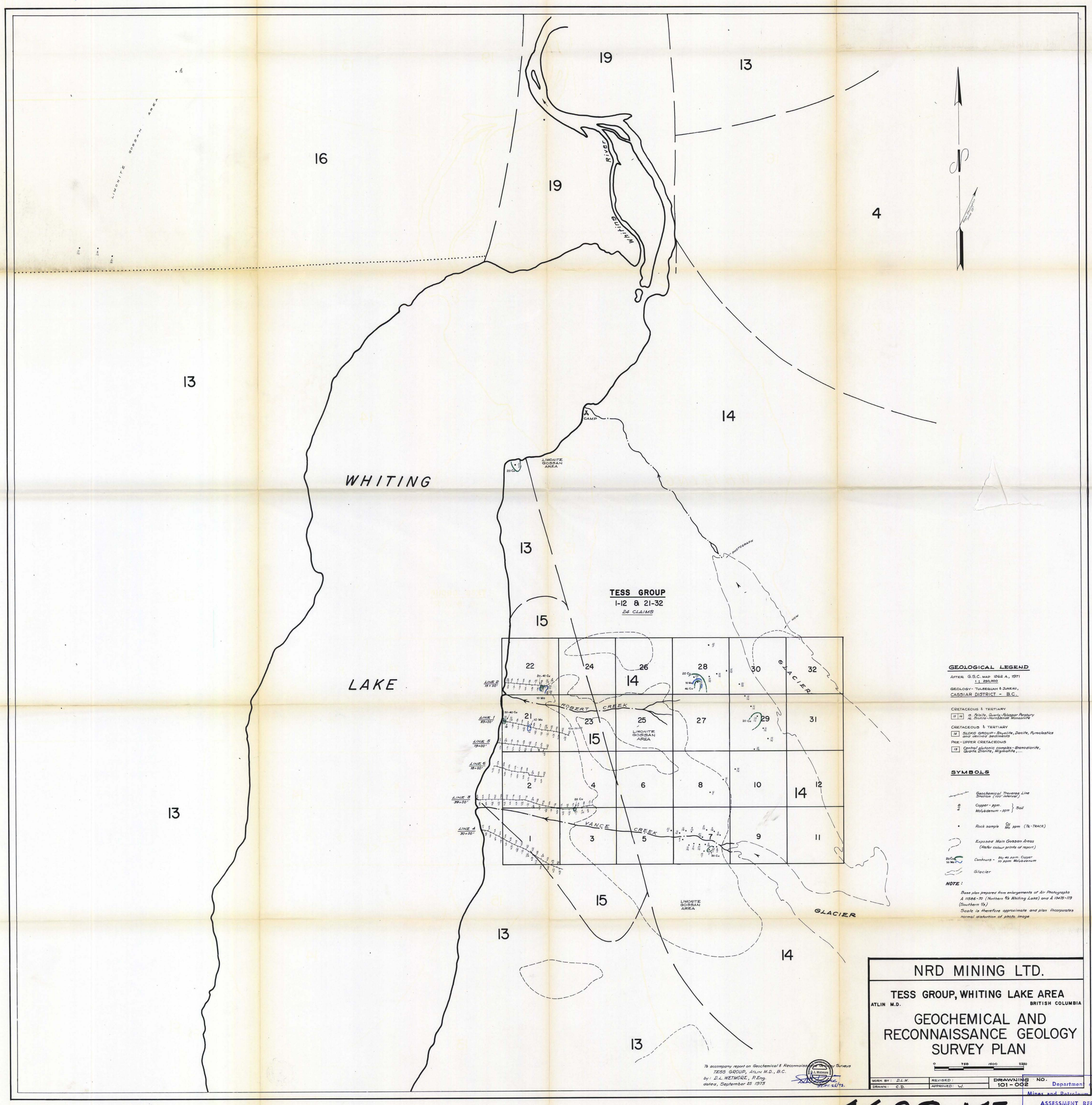

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