



GEOLOGICAL REPORT ON
THE UP 1-18; 33-48; 68-80 CLAIM GROUP
BONNET PLUME RIVER AREA, YUKON TERRITORY
SHEET 106-C-10

LAT. 62°30'N LONG. 132°30'W

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the account of

~~Not recommended~~

For acceptance

J.B. Craig

~~Resident Geologist or Resident Mining Engineer~~

~~Refused under~~

~~Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.~~

By

for Commissioner of Yukon Territory

EDWARD O. CHISHOLM, P. ENG
Vancouver, B.C.

March 15, 1975



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5000

6500

1	2	33	34	65	66
495920	495921	495952	495953	495984	495985
3	4	15	36	67	68
495922	495923	495954	495955	495986	495987
5	6	37	38	69	70
495924	495926	495956	495957	495988	495989
7	8	39	40	71	72
495926	495927	495958	495959	495990	495991
9	10	41	42	73	74
495928	495929	495960	495961	495992	495993
11	12	43	44	75	76
495930	495931	495962	495963	495994	495995
13	14	45	46	77	78
495932	495933	495964	495965	495996	495997
15	16	47	48	79	80
495934	495935	495966	495967	495998	495999
17	18	49	50	81	82
495936	495937	495968	495969	496000	496001
19	20	51	52	83	84
495938	495939	495970	495971	496002	496003
21	22	53	54	85	86
495940	495941	495972	495973	496004	496005
23	24	55	56	87	88
495942	495943	495974	495975	496006	496007
25	26	57	58	89	90
495944	495945	495976	495977	496008	496009
27	28	59	60	91	92
495946	495947	495978	495979	496010	496011
29	30	61	62	93	94
495948	495949	495980	495981	496012	496013
31	32	63	64	95	96
495950	495951	495982	495983	496014	496015

35	36	236
495834	495835	495817
33	34	21
495832	495833	495820
31	32	19
495830	495831	495818
29	30	17
495828	495829	495816
27	28	15
495826	495827	495814
25	26	13
495824	495825	495812
23	24	11

495798	495799		
27	28		
495796	495797		
25	26		
495794	495795		
23	24		
495792	495793		
21	22		
495790	495791		
19	19		
495761	495755	495756	495745
34	27	28	17

MIKE

CLAIM MAP

UP Group, Aston Resources Limited
Mayo District, Y.T.
Part of Sheet 106-C-10
Scale 1 in = 1/2 mi.

SUMMARY

The 50 claim Up group is located ten miles north of a new major zinc discovery in the Bonnet Plume area of the Yukon Territory, made in the summer of 1973 by Barrier Reef Resources Ltd. of Vancouver.

It is classified as an unexplored property underlain by Mid-Devonian dolostone favorable elsewhere in the adjacent area within a mile radius of the claim boundaries for the occurrence of strata-bound zinc-lead deposits. No mineralization has been reported to date on the UP claims group. It is recommended that a staged programme be carried out with expenditures of \$40,000.00.

INTRODUCTION

This report is based on information gathered by the writer from available government and private reports on the area and personal examination of the property. It was prepared at the request of Aston Resources Limited, 418 - 837 West Hastings Street, Vancouver, B.C., owners of the claims. The claims were examined July 28-30, 1974. Their location on the attached plan is approximately correct.

PROPERTY

The Up property comprises a rectangular block of 50 unpatented mining claims two miles long by $1\frac{1}{2}$ miles wide. They were staked on 8th August, 1974 and recorded at Mayo, Yukon Territory. Due date for these claims is August 8th, 1975. Several parts were examined and found to be staked in accordance with the Yukon Quartz Mining Act.

<u>Name of Claims</u>	<u>Grant Numbers</u>	<u>Due Date</u>
Up 1 - 18	Y98920 - Y95937	August 8, 1975
Up 33 - 48	Y98952 - Y95966	August 8, 1975
Up 68 - 80	Y95984 - Y95999	August 8, 1975

LOCATION AND ACCESS

The claims are located approximately 135 miles NE of Mayo, Y.T. near the Snake River. Approximate coordinates are as follows:

LAT. $64^{\circ}35'$ North; LONG. $132^{\circ}30'$ W, NTS Sheet 106-C-10

Access to the property is by helicopter. Fixed-wing aircraft can land on Goz Lake or Goz Creek approximately eight miles southeast of the property.

Barrier Reef Resources is constructing a winter airstrip in the Creek Valley, about ten miles south of the property. An all-weather strip suitable for DC-3 aircraft is being planned which will greatly improve operating cost in the area. A winter tote road is also planned to the area from Mayo.

The Mayo-Elsa, all-weather highway ends at Keno City, 80 miles south-west of the property. A winter caterpillar road, extends from the end of the Mayo Highway a distance of 40 miles to Kathleen Lake, about 50 miles west of the property.

TOPOGRAPHY

The claim group is located ten miles north of the Goz Creek at elevations from 3,000 to 5,000 feet. The topography is a moderately sloping upland plateau incised by two canyons.

The water supply in the nearby creeks is suitable for all purposes.

HISTORY

The geology of the area was first mapped by Dr. J. O. Wheeler of the Geological Survey of Canada in 1952 (Preliminary Map 53 - 7), at a scale of four miles to the inch and covers the claims group. A more detailed map has recently been completed by S.L. Blusson for release this winter. As early as 1950 lead-zinc occurrences were discovered in dolomite-breccia, similar in many respects to the present finds, by the K.J. Springer interests. In recent years these were further explored by Gordon Dickson, prospector and founder of Rackla River Mines. Further exploration to the east along the belt of Palaeozoic sedimentary rocks, led to the discovery of the Hudson Bay Mining and Smelting stratiform, lead-zinc deposit known as the TOM Property located at McMillan Pass on the Canol Road 160 miles to the south east. Other large stratiform lead-zinc deposits were found by Prospector Airways Co. Ltd. under my direction at Vangorda Creek in the 1950's; and later by Kerr Addison in the 1960's at Swim Lake nearby. The most significant of these was discovered by A, Kulan. It became the ANVIL MINE of Cyprus Mining Corp. and Dynasty Exploration Ltd. and is currently in production at a rate of 7,500 tons per day from a 60 million ton ore body of 10 percent combined Pb-Zn. The Vangorda Swim and Anvil deposits are stratiform lenses in Middle-Upper Cambrian phyllite host rocks. Also discovered during this period was the FORTIN LAKE deposit of Dynasty. It is a 3 mile long zone of zinc mineralization in Silurian dolomitic argillites. Preliminary drilling was done under my direction and later my Mitsui Mining and Smelting Corporation. During the period 1965 to 1972 low metal prices discouraged exploration in this remote area. Then a major find aroused new interest in the belt when CANEX PLACER LTD. discovered a 25 mile long belt of lead-zinc mineralization in tightly folded graphitic argillites Ordovician age. A large staking rush developed in the area and intensive drilling was carried out in 1973, with indications of a possible producer.

Also in 1972 important base metal discoveries were made by Welcome North Mines Ltd. in the Godlin Lakes area in the Northwest Territories, 100 miles to the north of Summit Lake. Numerous major companies conducted work in 1973, such as Cominco, Bethlehem Copper, Conwest and Dynasty. Dr. Clyde L. Smith, a prominent Yukon geologist, who was associated with the development of several of the Yukon deposits reports that the recognition of the GODLIN deposits as excellent examples of the world renowned, MISSISSIPPI VALLEY type deposits, has spurred activity over a 300 mile length, within a belt of open-folded and faulted Lower Palaeozoic carbonate rocks known as the MACKENZIE fold-belt. This laterly resulted in the significant finds in the Bonnet Plume region by Barrier Reef Mines Ltd.

It is believed that the Yukon and adjacent Northwest Territories is entering a period of new and highly active base metal exploration.

The significant find of Barrier Reef, near the confluence of GOZ and DUO Creeks, lies ten miles to the south of the Bar property. The news of this discovery precipitated a staking rush that resulted in the location of over 2,000 contiguous claims in a belt 35 miles long and up to five miles wide. Another significant find has been made by CYPRESS RESOURCES LTD. ten miles to the west of Barrier Reef. Some twelve separate occurrences of zinc-lead mineralization have been reported in the area to date at widely separated areas within the Bonnet Plume staking belt. Six additional occurrences of sphalerite mineralization in flat lying mid-Devonian dolostone and limestone have recently been found on the Bar claims.

GENERAL GEOLOGY

The area of the recent staking along the Bonnet Plume River is underlain by closely folded rocks of probable Cambrian or earlier age. Recent mapping places them as Proterozoic in age. The most widespread and believed to be the oldest formation, is composed of reddish-brown weathering dolomite and sandy dolomite, with minor amounts of grey limestone, dark grey slate, and quartzite. The sandy, cherty or argillaceous facies stand out in relief over the dolomite facies, to produce a very rough surface. The rock is composed mostly of fine-grained, dolomite. The dolomite does not react to hydrochloric acid. Some bands contain considerable proportions of dark clay, minerals and local chert nodules. There are numerous quartz veinlets 2 to 3 inches wide.

Most rocks show irregular banding. They have a rough, sandy texture. Concretions are common.

A distinctive feature is the presence of concentric, banded, circular forms 4 to 6 inches across and up to 14 inches. Some are columnar. These are believed to be algal structures, and they appear in great numbers suggesting colonies that form bioherms.

These structures are believed to be important from the standpoint of mineral deposition and sphalerite often replaces them locally.

Within the dolomitic formation are a few beds of grey limestone, bluish grey, platy, pyritic slates, and quartzites. A banded pale-green, chloritic, limestone overlies the algal bearing dolomites in places and elsewhere a grey weathering pale grey limestone occurs. Also dark grey and black slates, associated with varying amounts of grey and white quartzite, overlie the dolomite conformably at many localities.

The thickness of this sequence of dolomites, grey limestone and slates is not known. Smith (15) states the principal lead-zinc deposits of the larger sedimentary belt known as the Selwyn Basin and Mackenzie Fold Belt fall within two distinct classes: stratiform types of marine-volcanic association (ANVIL, TOM, HOWARD PASS, FORTIN); and MISSISSIPPI VALLEY TYPE (BARRIER REEF, GODLIN, NAHANNI).

Preliminary mapping of the Barrier Reef Property Bonnet Plume area, has outlined a breccia zone of high grade Zn-Pb averaging about 20% combined metal having a strike length of greater than 1,800 feet and a width of 30-40 feet. More detailed sampling, and diamond drilling is required to assign tonnage and grade to the deposit. Extensive outcrops, containing zinc sulphides in bedded carbonate rocks, have been found elsewhere on the claims by preliminary prospecting. These outcrops represent a mineralized "belt" about $5\frac{1}{2}$ miles in length according to company reports.

MINERALIZATION

Mineralization on the Barrier Reef and other properties in the area generally is comprised of light buff-colored, to reddish-brown, sphalerite in porous dolostone, with aggregates and irregular patches of galena and minor quantities of possibly Jamesonite mineralization, are reported in higher grade zones.

Most of the high-grade mineralization is associated with breccia zones, but some occurs parallel to bedding planes with very little associated quartz.

GENERAL DISCUSSION OF GEOLOGY ON UP CLAIMS

The Up claims are underlain by a flat-lying pile of Middle Devonian limestone and dolomite sediments. Their age has been definitely determined by the identification of the presence of mid-Devonian brachiopod fossils in dark grey limestone beds overlying a bioherm algal deposit in which the sphalerite replacement occurs. The unit is quite regular to the south and east but shows thrust faulting and attitude change to the north.

The unit is overlain by black to brown shale, locally well shattered. It forms rounded hummocks up to 500 feet or so in height. It may be Upper Devonian in age. The sequence of Devonian limestone and dolomites, overlain by black shales, resembles the Upper Devonian shale/mid-Devonian limestone/unit of the Pine Point area, well known for the prolific lead-zinc deposits within the Presqu'ile sediments.

The presence of algal reef fragments replaced by massive sphalerite in colliform structures, also characteristic of the Pine Point deposits, supports this view.

The claim group is located on a gently sloping upland, plateau for the most part, on which rounded hills of upper black shale provide the principal topographic relief.

The plateau is incised at the edges by creek canyons that lead into the main north-south tributary of the Snake River

that borders the plateau on the east. The mineralized showings found to date in the area occur outside the UP claims boundary within a mile radius and lie on the gently sloping limestone shelf within a few feet of surface.

The mineralization so far encountered elsewhere in the area occurs in two principal modes:

- 1] Massive light-brown resinous sphalerite often in colliform masses up to two inches in thickness, replacing fragments of algae from a bioherm reef.
- 2] Veinlets and intergrowths of resinous sphalerite and white, coarse grained calcite in brecciated zones. Sphalerite often makes up to 50 percent of the zone. Galena is sparingly present but no pyrite.

In the discovery zone on claims ten miles southeast both types of occurrence are present. These modes of occurrence resemble the main deposit at the Barrier Reef property ten miles to the south although they occur there in dolostones of Proterozoic age stratigraphically much lower than the Up group.

In many respects the occurrences resemble those of such well known lead-zinc fields as the Tristate deposits in the Mississippi Valley, Pine Point, and elsewhere; and warrant careful detailed exploration.

A possible explanation for the formation of this type

of occurrence in carbonate basins has been recently proposed by A. R. Renfro in an article in ECONOMIC GEOLOGY, Vol. 59, 1974, pp. 33-45. As an aid to identification of similar conditions, it is quoted as follows:

" GENESIS OF EVAPORITE-ASSOCIATED STRATIFORM METALLIFEROUS DEPOSITS - A SABKHA PROCESS

A. R. Renfro

Abstract

Stratiform metalliferous deposits underlain by continental red beds or other oxidized strata and overlain by evaporites account for approximately thirty percent of the world's copper production. The origin of such deposits, including those in the Kupferschiefer of Germany and the Roan of Zambia and Rhodesia, long has been a controversy that defies explanation by traditional means. Recently discovered sedimentary and geochemical processes of coastal sabkhas provide the foundation for a hypothesis that successfully explains the genesis of these deposits.

Coastal sabkhas are evaporite flats that form along the subaerial landward margins of regressive seas. Because of their unique position, coastal sabkhas are nourished by subsurface flow of landward migrating, low Eh-high pH sea water and by seaward-migrating, high Eh-low pH terrestrial water. Commonly they are bordered on the seaward by intertidal mudflats and lagoons that are carpeted by leather-like mats of sediment-binding, blue-green algae. Fetid ooze consisting of interbedded decaying algae and detrital sediment occurs immediately beneath the living algal mat. On the landward side, the coastal sabkhas give way to, and initially rest on, sterile, oxygenated desert sediments.

Coastal sabkhas and their related evaporite facies prograde seaward across adjacent algal-mat facies. Upon burial the algal-mat facies become saturated with hydrogen sulfide generated by anaerobic bacteria. Concurrently, the trailing, landward edges of coastal sabkhas are buried by prograding terrigenous clastics of the desert. As sabkhas migrate basinward, terrestrial-formation water

" eventually must pass upward through the buried, strongly reducing algal mat in order to reach the surface of evaporation.

Terrestrial-formation water initially has low pH and high Eh and thus can mobilize and transport trace amounts of such elements as copper, silver, lead, and zinc. As terrestrial-formation water passes through the hydrogen sulfide-charged algal mat, its load of solute metals is reduced and precipitated interstitially as sulfides. Resulting metal deposits generally are conformable to the geometry of hydrogen sulfide-bearing host strata. Such deposits contain suites of metals that are zoned from landward to seaward according to their relative solubilities in the presence of hydrogen sulfide. These deposits are underlain by oxidized continental strata and are overlain by dolomite, gypsum, anhydrite, and/or halite. Grade and size of the deposits are dependent upon:

(1) quantity of available reductant, (2) duration of the sabkha process, and (3) quantity and chemistry of the metal-bearing, terrestrial water. "

Identification of the reef structures themselves in the sedimentary sequences is a requisite for further exploration and once it has been identified, careful prospecting within it for sphalerite replacements should follow. This is greatly facilitated by equipping prospectors with the new dithizone sprays that immediately identify zinc-oxide coatings on the rocks. Since pyrite is absent, gossans in the dolostones are rare, and the sphalerite is difficult to identify by eye. It has remained undetected in this area until the modern geochemical methods were used. Placing the field geochemical sprays in the hands of the prospecting personnel themselves; and guiding them to the correct geological environment will continue to turn up many new deposits of zinc in the vast carbonate basin sequence of the Bonnet Plume River and surrounding areas.

The flatness of the limestone beds on the Up group do not indicate as a whole any apparent structural disturbances of

the beds. However, the large thrust fault on the north side of the group may have caused pressure on the block and subjected it to compressive stresses that opened up later tensional fracturing which provided channel ways for ore solutions. The overlying black shales may be the source beds from which percolating surface water brought the zinc ions into the reef areas where they were precipitated by sulphides generated from algal decomposition, in which case the contact between the shales and the underlying limestone would be good areas to search in detail.

Although the massive sphalerite itself is a poor conductor, there is locally enough galena present to warrant the use of the induced polarization geophysical method in the search for ore deposits. Frequency tests were carried out on a well mineralized specimen of sphalerite from the area containing less than 1% galena and no pyrite. A rating of 100 units was obtained. This compares with 300 units on a similar test of good conductive rock from another area. The I.P. method could thus be of value in searching for ore deposits.

CONCLUSIONS & RECOMMENDATIONS

The limestone pile may contain a series of sphalerite bearing strata as flat-lying exposures at various locations over a 4,500 foot horizontal distance. Careful topographic and geological mapping is needed to evaluate the claims. Judging from the extensive lateral and vertical spread of individual high grade showings on the Bar Group to the east it is apparent that significant strataform zinc deposits occur in the area in favorable Middle Devonian limestone-dolomite sediments. The most important of these on the Bar group to the east is a zinc bearing bed in a hackly surfaced grey dolomitic limestone that is flat-lying or dips gently east. This horizon contains collapse breccia zones and bioherm reef structures that have replacements

of heavy calcite containing light brown sphalerite with minor galena. Local concentrations of economic grade material averaging 15 to 20% zinc are present. The mineralized beds vary from 12 to 25 feet in thickness and lengths up to 500 feet have been indicated. Continuity between various showings has not yet been established. The possibility of finding a substantial strata-band lead-zinc deposit on the Up property is considered excellent and a detailed exploration program including topographic, geological, geochemical and geophysical survey followed by trenching and diamond drilling is recommended. The cost is estimated at \$40,000.00. The program could be completed this season in two months.

ESTIMATED COST

An initial exploration programme is warranted on the claims, totalling \$15,000.00 as follows:

Phase I:

Geological Survey	\$ 2,500.00
Geochemical Survey	2,000.00
Prospecting and Trenching	2,000.00
Helicopter - 10 hours @ \$200	2,000.00
Fixed Wing	2,000.00
Camp and Supplies	2,000.00
Contingencies	<u>2,500.00</u>
Total Phase I	\$15,000.00

Phase II:

Diamond Drilling	
1,000 feet @ \$25.00/foot	<u>25,000.00</u>
Total Phases I & II	<u>\$40,000.00</u>

Respectfully submitted,

E. O. Chisholm, M.A., P.Eng.

Vancouver, B.C.

March 15, 1975

E. O. CHISHOLM
COLUMBIA
ENGINEER

APPENDIX NO. 1

1. J.O. Wheeler - GSC Paper 53-7
A Geological Reconnaissance of the Northern
Selwyn Mountains.
2. GSC Report of Activities 1969-1970.
3. Mineral Industry Report 1969-1970 Vol. 1
4. S.L. Blusson GSC Paper 71-22
Sekwi Mountain Map Area, Yukon Territory and
District of McKenzie.
5. 1972 Composite Geological Map of the Yukon Territory.
6. Statement of Material Facts. Barrier Reef
Resources Ltd. July 24, 1973.
7. Barrier Reef Resources Ltd. (N.P.L.) Report to
Shareholders Nov. 23, 1973.
8. E.O. Chisholm P.Eng. Private Report Rackla River Mines
Ltd., Yukon Territory dated March 30, 1968.
9. P.W. Sevensma P.Eng. Report Rackla River Mines Ltd.
dated Sept. 13, 1969.
10. R.E. Chaplin P.Eng. Report on Barrier Reef Mines Ltd.
Bonnet Plume lead-zinc property dated Aug. 15, 1973.
11. R.E. Chaplin P.Eng. Report of HELI Claims Godlin
Lakes Area N.W.T. dated March 15, 1973.
12. John S. Brock V.P. Welcome North Mines Ltd.,
Exploration Progress Report dated Aug. 29, 1973.
13. R.E. Chaplin P.Eng. Report on PAL (1-51)
Mineral claims, Bonnet Plume-Goze Creek Area,
Yukon Territory dated Aug. 15, 1973.
14. R.E. Chaplin P.Eng. Report on Ann 1-64 Mineral Claims
Bonnet Plume - Goze Creek Area dated Aug. 15, 1973.
15. G.C. Guttrath P.Eng. Report on CYPRESS Resources property
Bonnet Plume zinc-lead property dated Sept. 1973.
16. Clyde L. Smith Ph.D P.Eng. Report on Ogilvie Joint
Venture dated Dec. 1973.
17. A Harman, Harman Management Ltd. Personal Communications.

CERTIFICATE

I, Harold Arthur Quin of the City of Vancouver in the Province of British Columbia, hereby certify that:

1. I am a geologist with offices at 8-784 Thurlow Street, Vancouver, B. C.
2. I am a graduate of Queen's University, Kingston, Ontario: B.Sc. in Mining Engineering, 1941 and M.Sc. in Geology, 1942.
3. I am a graduate of Cornell University, Ithaca, N. Y., U.S.A.: Ph.D., 1950.
4. I am a member of the associations of Professional Engineers of Ontario, British Columbia, Alberta and Yukon.
5. This report on the Up Group claims of Aston Resources Ltd., in the Bonnet Plume River Area, Yukon Territory, is based on study of published and unpublished reports on the area and on my experience in the area.
6. I have no direct, indirect or expected interest in the properties or securities of Aston Resources Ltd.
7. I have read the report attached entitled Geological Report on the UP 1-18; 33-48; 68-80 Claim Group, Bonnet Plume River Area, Yukon Territory by Edward O. Chisholm, P.Eng., dated March 15th, 1975. Based on my own experience and my knowledge of the quality of work performed by Mr. E. O. Chisholm, I concur with the conclusions and recommendations in the report.

DATED AT VANCOUVER, BRITISH COLUMBIA
March 15, 1975.



H. A. Quin

Harold A. Quin, Ph.D., P.Eng.

CERTIFICATE

I, Edward O. Chisholm of the City of Vancouver, in the Province of British Columbia, hereby certify that:

- 1] I am a geologist with offices at #821 - 602 West Hastings Street, Vancouver 2, British Columbia.
- 2] I am a graduate of the University of Toronto, Ontario, Master of Arts, 1945.
- 3] I am a member of the Professional Engineers of Ontario and British Columbia.
- 4] I have no direct or indirect interest in the Up group of claims of Aston Resources Limited, 418 - 837 West Hastings Street, Vancouver, B.C., in the Bonnet Plume Area, Yukon Territory, nor in the securities of Aston Resources Limited.
- 5] Permission is granted for submission of the report to the Vancouver Stock Exchange.
- 6] This report is based on my personal visit to the Yukon Area and published geological literature.

DATED at Vancouver, British Columbia this 15th day of March, 1975.



Edward O. Chisholm, P. Eng.

PROSPECTOR'S SUMMARY OF WORK CARRIED OUT 1975 SUMMER SEASON

UP GROUP

Scattered zinc mineralization in reefoidal limestone was found on the eastern portion of the claims near the limestone-shale contact.

The centre and western part of the claim block was a massive sequence of limestones [fossiliferous, to the east becoming argillaceous to the west].

In the area covered no significant mineralization was observed or indicated.

APPENDIX II

COSTS

Prospecting	\$790.00
Geological Mapping	1120.00
Transportation fixed wing	525.80
" helicopter	<u>2670.25</u>
Total	\$5106.05

APPENDIX III

Warner Gruenwald, project manager, salary \$1500.00 per month, employed from July 1-15, 1975

Mike Toporowski, Prospector, salary \$750.00 per month, employed from July 1-30 1975

Colin Stefanik, Prospector, salary \$700.00 per month, employed from June 25- July 10, 1975

A. Fabbro, Prospector, salary, \$700.00 per month, employed from July 1-15, 1975.

AFFIDAVIT

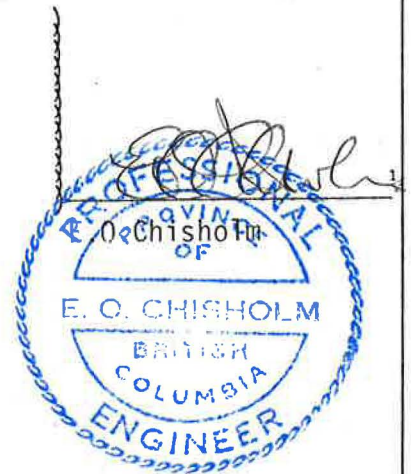
Supporting Summary of Costs

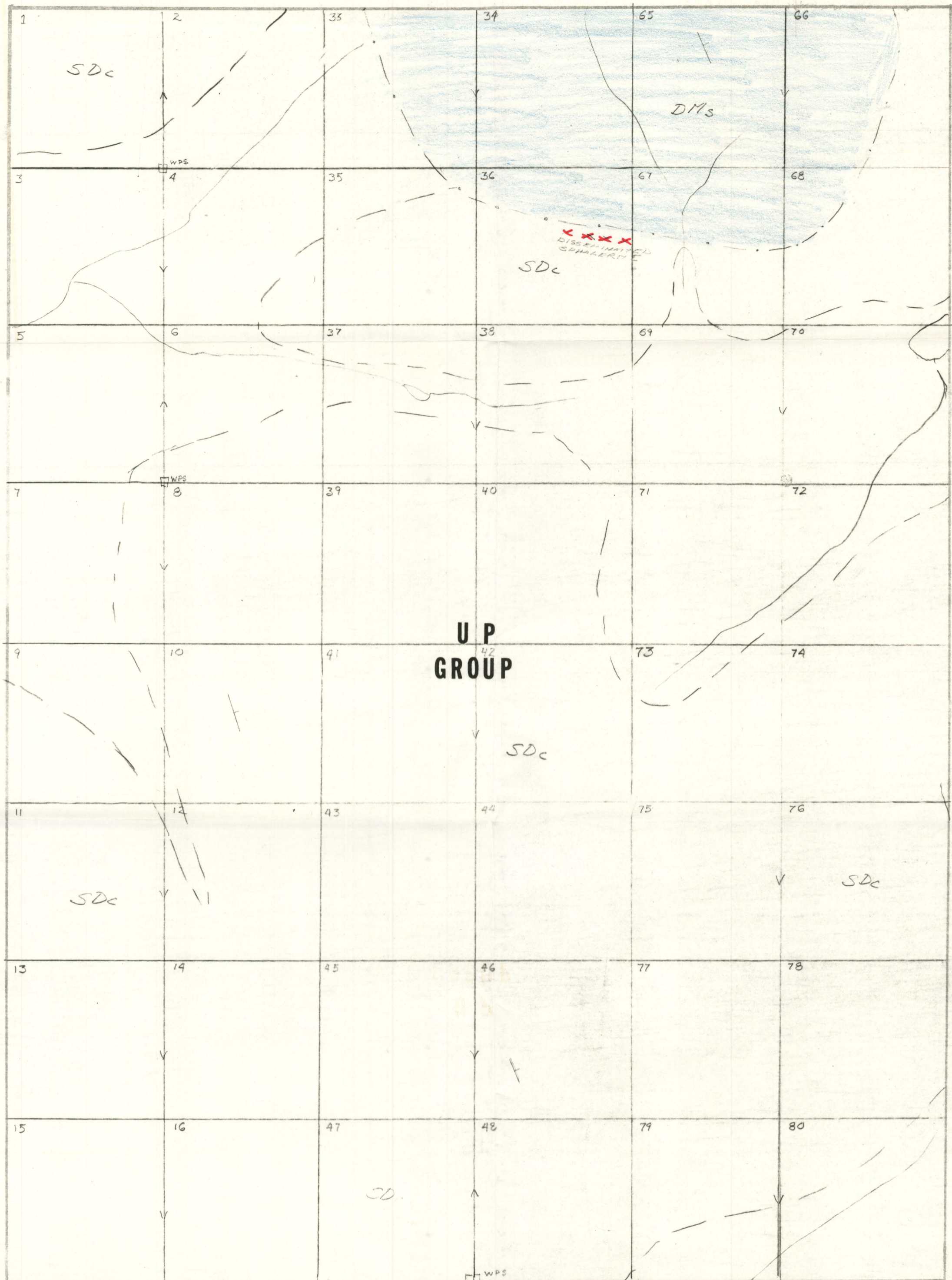
I, E.O. Chisholm, Consulting Geologist, 821-602 West Hastings St.
Vancouver British Columbia, do hereby state that to the best of my
knowledge the statement of costs presented in this report is correct.

Dated at Vancouver, 28th day of August 1975.

Sworn before me at Vancouver,
British Columbia 28th day of August, 1975

J. H. Brown





COMPOSITE GEOLOGICAL PLAN,
 Snake River Properties
 Mayo Mining Division, Yukon

Manning Control from enlarged Aerial Photo
 No. 20694-191 National Air Photo Library
 aided by tape and compass survey of claims.
 Map scale approx. 800 ft to 1 in.

TABLE OF FORMATIONS

DMs - Devonian Missoula shale and siltstone
 SDc - Devonian limestone and dolomite, bedded