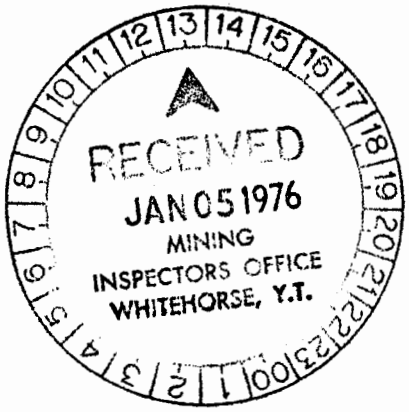
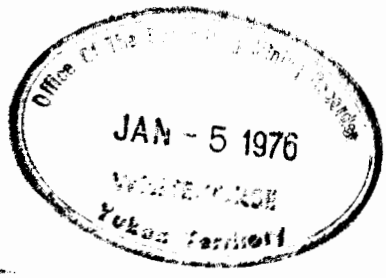
1975 Assessment Report





TITLE	Mount Profeit Pb-Zn Property (Doc 1-150 claims)
AUTHORS	A.C. Hitchins, J.B. Alsen, and G.M. Leary, P.Eng.
DATE	November 1975
COMMODITY	Pb-Zn
LOCATION-Area -Mining Division -Corodinates -NTS	Mackenzie Mountains, Yukon Territory Mayo Latitude 64°49'N Longitude 133°03'W 106 C 14

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representative work to the amount of $12,000.00

Resident Geologist or
~~Resident Mining Engineer~~

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

Mining Recorder

Commissioner of Yukon Territory

AMAX EXPLORATION, INC.
Vancouver Office

01783

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APPENDICES

ILLUSTRATIONS

SUMMARY

The Mount Profeit Property comprises 150 claims located northeast of Pinguicula Lake in the Mackenzie Mountains, Yukon Territory. Claims were staked to cover lead-zinc showings discovered during follow-up of drainage anomalies generated by the 1974 Yukon Pb-Zn Program.

The property is situated within the northern extremity of the Bonnet Plume carbonate mound. It is underlain by a gently easterly dipping sequence of Upper Hadrynian dolomites interbedded with minor shales and siltstones. Dolomite members thin and shale out to the north of the claim block.

Lead-zinc mineralization occurs in vuggy stromatolitic dolomite units over a continuous strike length of greater than 1,500 feet at the main showing (#1) (Figure 5). Galena and lesser sphalerite occur in (1) veins, breccias, and fractures within a transgressive shear and sheet-jointed zone and (2) as widespread vug fillings. A 21 foot sample across a shear zone (#1) assayed 3.48% Pb, 6.60% Zn and 2.00 oz Ag/ton. The lead to zinc ratio is generally 2:1. A high grade pod directly to the east of the main showing assayed 47.2% Pb, 16.0% Zn, and 17.2 oz Ag/ton over 31 feet.

Geological mapping and prospecting of the property at a scale of 1 inch to 500 feet and sporadic geochemical sampling was accomplished during late July and August of the 1975 field season.

DISCUSSION AND RECOMMENDATIONS

The geology and structure of the Mount Profeit area appear favourable for Mississippi Valley type lead-zinc mineralization. The following features are present on the property: (a) a sandstone-conglomerate sequence above an unconformity and beneath a jointed, locally vuggy, shallow water dolomite, and (b) vertical and lateral facies change from dolomite to a shale-siltstone sequence.

The presence of a possible fluid migration route within the conglomerate and unconformity and the presence of extensive mineralization near the dolomite to shale facies change warrants drill testing. Northwest-trending angled drill holes are recommended to explore the shear zone on claims 26 and 42 (Figure 6) for zones of wider and higher grade mineralization.

Drill holes collared near the northwest flowing creek which passes through the eastern portion of claims 42 and 44 (Figure 6) would test for extensions of the #1 and #2 showings towards the lower contact of Hd^1m and also explore the contact between Hd^1m and the overlying Rapitan shales. An initial five thousand feet of drilling in 8 - 10 holes is sufficient to investigate mineralization extensions and controls.

INTRODUCTION

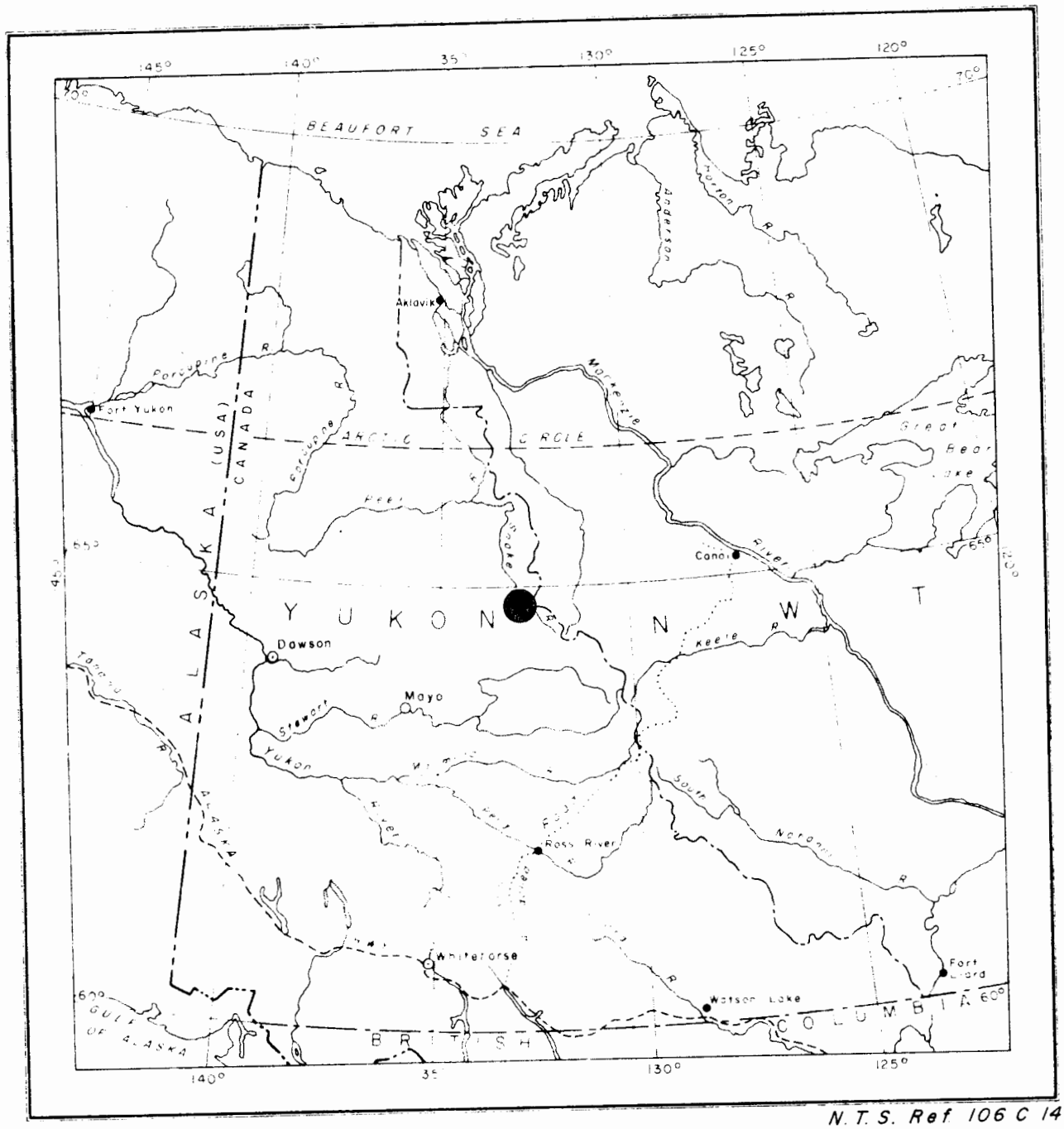
The Mount Profeit Property is located fifteen miles northeast of Pinguicula Lake in the Bonnet Plume Range of the Mackenzie Mountains, Y.T. (Figure 1). The property comprises a northwest-southeast elongate block of 150 claims covering the top and steep flanks of a rugged northwest trending ridge system (Figure 2). Relief within the claim block is 3,500 feet with the highest peaks reaching 7,400 feet. Arctic willow and stunted alpine fir are found in the lower valley bottoms. The entire property is above tree line. Arctic grasses, moss, and a variety of low leafy plants are found on valley sides up to 5,800 feet. Large masses of snow and ice remained in north facing cirques during the summers of 1974 and 1975.

Access is best afforded by fixed wing aircraft from Mayo, Y.T. to Pinguicula Lake, thence by helicopter to the property.

The Doc 1-150 claims were staked on July 19, 20 and 31, 1974 to cover lead-zinc occurrences located in an Upper Hadrynian dolomite unit. The showings were discovered by prospecting lead silt anomalies located during the 1974 Yukon Pb-Zn Program.

Work carried out in 1974 consisted of preliminary mapping and sampling (see Report by G.M. Leary - April 1975).

A four man field party completed mapping and prospecting the Mount Profeit property in August 1975. Field results were plotted on orthographic air photographs and a topographic map, both at a scale of 1" = 500'. Rock exposure is excellent on the ridge tops and flanks; cirque bottoms, lower valley walls and stream beds are overburden covered.



N.T.S. Ref 106 C 14

AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY

MAYO MINING DISTRICT — YUKON

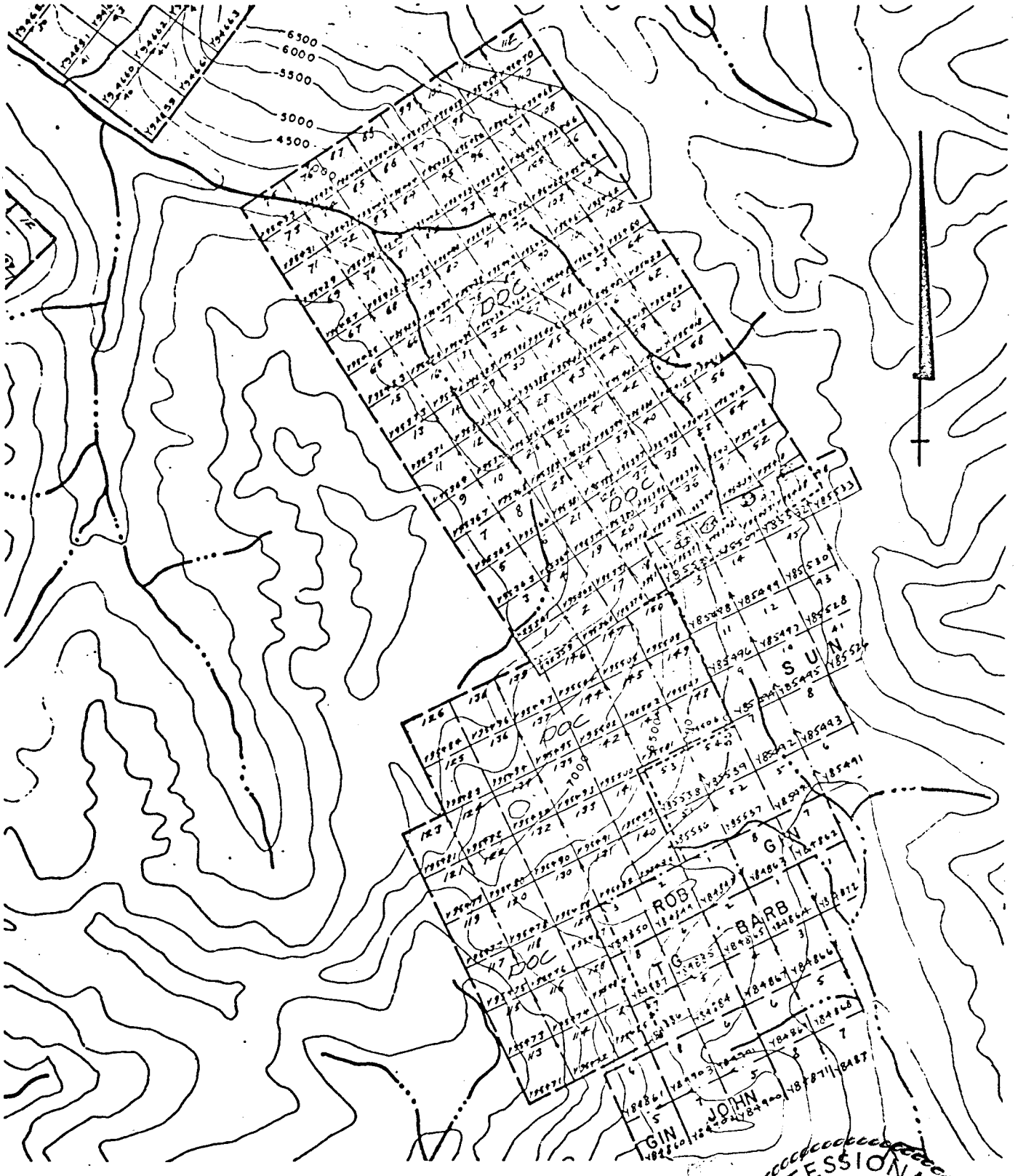
LOCATION MAP

SCALE 1" = 120 MILES

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GEORGE LEARY

Vancouver - H.P.

FIG. 1



AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY

MAYO MINING DISTRICT — YUKON

CLAIM MAP

SCALE 1 : 50,000

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GEORGE LEARY

N.T.S. Ref. 106 C 14

FIG. 2

CLAIM DATA

Claim Name	Grant Number	Anniversary Date
DOC 1-150 inclusive	Y95359-Y95508 inclusive	August 9, 1975
	Mayo Mining Division	

Enough assessment work was performed to renew 38 claims for one year and 82 claims for two years.

REGIONAL GEOLOGY

The Mount Profeit Property is underlain by lead-zinc occurrences hosted in a Hadrynian dolomite (Unit Hd^1), as shown on Map 106C of Open Files 205 and 206. Unit Hd^1 is part of the Bonnet Plume carbonate mound that developed intermittently from Hadrynian to Lower Cambrian time (Figure 3). The mound is constructed of three carbonate build-ups, a lower Hadrynian unit Hc; a middle Hadrynian unit Hd_1 and a Lower Cambrian unit Ꞓc, each up to 2,000 feet thick. The lower and middle carbonate build-ups are characterized by either domal and columnar or planar stromatolites. Units Hd and Ꞓc are commonly vuggy, pisolitic and/or sandy.

The mound is northwesterly elongate in plan and measures 30 by 50 miles. To the west and southeast of the mound, facies changes indicate a deeper water shale environment. Shallow water clastics including red, purple, brown and green siltstones and shales, ripple marked silty and shaly dolomites and quartzites are interbedded with the mound carbonates and are generally the dominant facies to the northeast. Facies relationships within the mound are illustrated in Figure 4.

Regional Laramide deformation has produced northwest trending open folds cut by numerous parallel reverse, normal, and thrust faults.

Lead-zinc mineralization is regionally associated with each of the three main carbonate units of the Bonnet Plume mound. Lead-zinc occurrences within the Hd and Ꞓc carbonate units are characterized by breccia, vug, fracture and vein fillings in vuggy sucrose dolomite, whereas, those within the Hc carbonate unit are associated with shear-related fracture and vein stockworks in massive and platy dolomite.

PROPERTY GEOLOGY

Property geology at a scale of 1" to 500 feet is illustrated on Figure 5. A stratigraphic column for the property is shown on Figure 4.

The Mount Profeit property occupies part of the northern extremity of the Bonnet Plume mound where Upper Hadrynian dolomite (Unit Hd^1) changes facies northwesterly into dominantly basinal clastics of the Rapitan Group (Hr). Rock units strike north-northwest and dip 20^0- 35^0E on the property. The Hadrynian dolomite and shale unconformably overlie older Hadrynian thin bedded dolomite, siltstones and shale (Unit Hsc).

Several faults with small displacement occur in units Hsc and Hd^1, Northeasterly trending sheet jointing and local shearing occur in the area of the main showing. Small folds are locally present beneath an unconformity in unit Hsc.

The property stratigraphy includes twenty-eight mappable units as shown in Figure 4. They are discussed below in ascending order.

Hc^2 consists of light to medium grey weathering massive fine grained thick bedded dolomite, with minor limestone beds. Locally the dolomite is sucrose and vuggy.

Unit Hc^2 is exposed adjacent to the northwest corner of the claim block where it is in fault contact with Hsc.

LITHOLOG

BONNET PLUME MOUND

Dolomite

Limestone

Sandstone, siltstone, quartzite

Shale

Conglomerate

Stromatolitic

Chert nodules

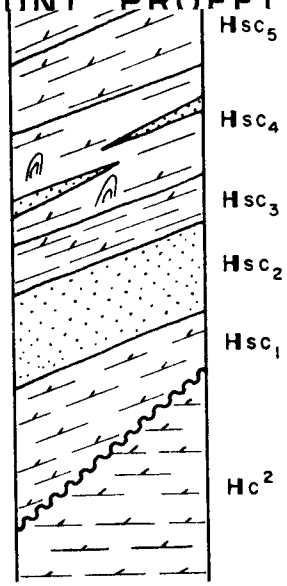
Conformable contact

Fault contact

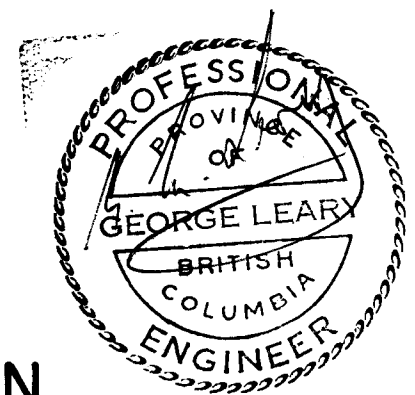
Facies change

Angular unconformity

MOUNT PROFEIT PROPERTY



SCALE 1" = 500'



AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY

MAYO MINING DISTRICT — YUKON

STRATIGRAPHIC COLUMN

Vancouver —

H.P.

N. T. S. Ref. 106 C 14

FIG. 4

Hsq consists of brown shale, siltstone and minor conglomerate and orange weathering platy dolomite exposed in the southwest portion of the property where they are in fault contact with Hsc. Mud cracks and graded bedding are prominent throughout the shale-siltstone portion of this unit.

Hsc comprises a sequence of interbedded brown-black slates and gritty limestone grading upward into tan to rusty weathering platy dolomites, crystalline grey-black limestone, brown to black shales and siltstones and rusty to clean quartzites which can be divided into ten mappable members, Hsc_{1-10}. For a more detailed discussion of these members see Appendix IV.

Since contact relations between some of the members are not always visible, erosional contacts may exist. The contact between Hsc and the overlying conglomerate (Hcgl) is an angular unconformity with considerable erosional relief.

Hcgl is a tan to rusty brown, locally maroon weathering, very coarse to fine grained, basal clastic assemblage up to 600 feet thick. Generally this unit fines upward from a coarse unsorted conglomerate $Hcgl_1$ at the base to the bedded coarse sandstones $Hcgl_2$ and maroon siltstones $Hcgl_3$. A more detailed description is given in Appendix IV.

$Hcgl_1$ unconformably overlies quartzites and dolomites of unit Hsc. Where Hcgl overlies Hsc_{10} the entire Hcgl unit thins and the coarse conglomerate component vanishes, indicating that the resistant quartzite of Hsc_{10} formed paleohills during Hcgl deposition. Hcgl forms an undulating lens that tails out on the property. Twelve miles south of the claim group another similar lens of Hcgl is present (G.S.C. Open File 206). This unit may be a fanglomerate or a coarse channel deposit which would account for its limited lateral

extent and rapid changes in thickness.

Mineralization within $Hcgl_1$ is scattered and minor. Pyrite concretions are scattered vertically and horizontally throughout the matrix of Hcgl. Rare quartzite boulders contain fine disseminated chalcopyrite and possibly tetrahedrite (up to 8000 ppm Cu). Trace lead and zinc are present in Hcgl on claim 10 where a prominent mineralized fracture zone crosses the conglomerate and overlying dolomite.

$\underline{Hd^1}$ consists of a variety of dolomites readily divisible into three members. These include a lower member (Hd^1_l) of light grey weathering, mottled, vuggy, stromatolitic dolomite; a middle member (Hd^1_m) of light yellow weathering, featureless, dolomite and an upper member (Hd^1_u) of massive dark grey to orange weathering stromatolitic dolomite.

$\underline{Hd^1_l}$ dolomite varies considerably along strike. At the north end of the central ridge (claims 25 - 31) the base of the unit is predominantly a dark grey, medium grained dolomite host with a light cream to tan, sucrose, dolomite mottles up to one inch across. Higher up in the section, the mottles increase in size, are recessive weathering and occasionally contain small cores of galena and sphalerite.

Further south, near the centre of the ridge, the mottled dolomite grades into a light to medium grey, sucrose dolomite in which domal stromatolite horizons are still recognizable. Patches of vuggy, sucrose dolomite contain galena as vug fillings (i.e. showing #4).

Near the bottom of the cliff on claims 2 and 146 concentrically laminated spheres of probably algal origin from 1/8 to 24 inches in diameter form the base of Hd^1_l.

The dolomite containing these spheres changes southward into medium bedded, grey micritic dolomite, characterized by abundant fenestrate textures, intercalated with pisolite and intraclast beds. Generally the micritic beds contain numerous open irregular vugs, elongated parallel to the bedding plane and lined with light grey to blue fine grained silica. Crystalline dolomite occasionally fills the vugs; sphalerite is rarely present.

Textures indicate that Hd^1_l changed from a supratidal-intertidal environment in the south to a slightly deeper water environment dominated by domal stromatolites. The development of sucrose dolomite in the northern portion of the ridge has destroyed most of the primary textures.

The contact between Hd^1_l and the overlying yellow, tan weathering, dolomite of Hd^1_m appears to be gradational although scattered outcrops of a three foot thick pisolitic bed locally mark the contact.

Hd^1_m consists of a light yellow tan weathering, fine grained, generally featureless light grey dolomite. Thickness varies up to about 800 feet on claim 144 and gradually decreases towards the shale out on claims 90 - 92. Finely sucrose, vuggy sections that weather a pink-tan colour occur in the upper portion of the unit.

As the contact with the overlying Hd^1_u dolomite is approached Hd^1_m becomes sandy and slightly pyritic. The contact is marked by a shaly quartz pebble conglomerate with minor light grey dolomite fragments. The clasts of quartz are generally well rounded. Where present the conglomerate is up to three feet thick.

Hd^1_u consists of a dark grey to light orange weathering, fine grained, massive stromatolitic dolomite with faint bedding plane markings. Scattered vugs in the lower portion are commonly up to inch across. Thickness varies from greater than 200 feet in the south but gradually decreases in thickness to the north where it shales out into the Rapitan Group (Hr).

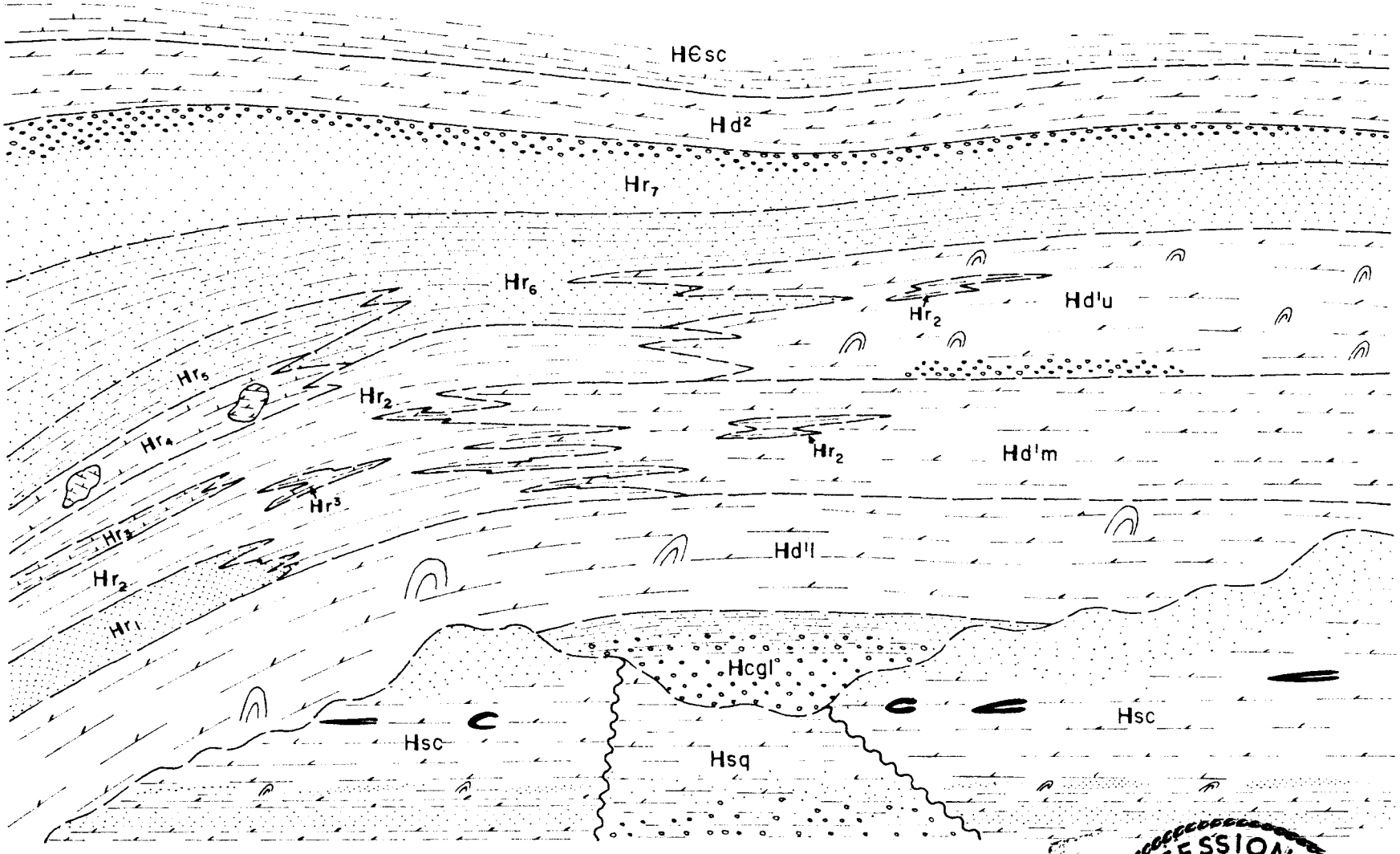
Hr (Rapitan Group) consists of a sequence of shales, quartzite, and carbonate rocks which are readily divisible into seven mappable members. These rocks have a total thickness of greater than 3000 feet. A carbonate conglomerate, within the shales, is thought to be a debris flow from the Hd^1 carbonate mound.

Hd^2 is a yellow-tan, weathering light grey, fine grained, dolomite occasionally thin bedded. A narrow black shale band Hd^2_s is restricted to one exposure on claim 16. Although contacts with over and underlying rocks are not exposed they appear to be conformable and sharp.

$H\epsilon_{sc}$ (Sheepbed Formation) consists of a lower light to dark grey weathering, dark grey laminated, thin bedded, micritic limestone with interbedded dark grey, shaly limestone and an overlying section of dark grey to black recessive shales and minor siltstones. Locally, up to 5% pyrite is present as nodules and disseminations within the limestone.

The Figure 7 sketch illustrates facies changes and contact relations on the property.

The angular unconformity beneath the Hcgl conglomerate may change to a disconformity off of the property. Coarse conglomerate of limited areal extent fills small basins within the less resistant lithologies of Hsc. A channel deposit or fanglomerate best explains observed textures within the conglomerate.



AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY

MAYO MINING DISTRICT — YUKON

PROPERTY LITHOFACIES SKETCH

SECTION LOOKING EAST

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
GEORGE LEARY

Vancouver, B.C. HP

N. T. S. Ref 106 C 14

FIG. 7

Above the Hsc and Hcgl units a thick assemblage of Hd^1 dolomite grades laterally into deeper water shale and siltstone of the Rapitan Formation. The wide variation in textures within the dolomite suggest that both reef and bark reef environments existed during the development of the Hd^1 carbonate mound. At the north end of the central ridge (claims 27 to 32) dolomitization destroyed original textures and produced a vuggy sucrose dolomite. Local erosion and addition of clastic material took place prior to development of the stromatolitic unit Hd^1_u.

Within the recessive weathering shales and siltstones of the Rapitan Formation a chaotic carbonate conglomerate up to 200 feet thick forms light grey weathering cliffs. Deposition by a debris flow from disintegration of the reef is suggested as an origin for this unit.

The reef dolomite and deeper water shales are overlain by a clean quartzite and micritic dolomite of uniform thickness.

MINERALIZATION

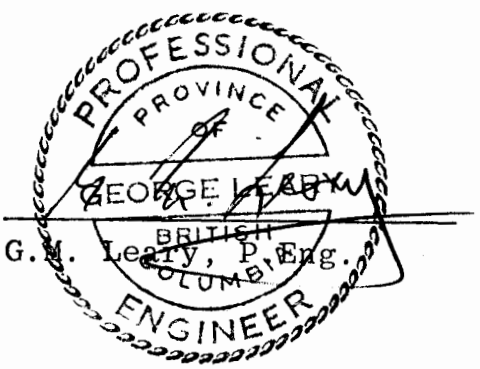
Thirty-four lead-zinc occurrences were located within the claim block in 1975 and are summarized in the following table. Location of the occurrences and assay data are given on Figure 5 and Figure 6 respectively. Only the first eight showings listed in the table are considered significant.

Sulphides occur as massive pods (showing #2), breccia and fracture fillings in shear and sheet jointed zones (#1 and #3), irregular replacement patches (#5 and #7), vug fillings or linings (#4) and stratabound bedding plane and fracture fillings (#8). All of the occurrences, except #8 and #26 are hosted in Hd^1 dolomites, generally within 1,000 feet of the Hd^1_l - Hd^1_m contact. Although a large part of the sulphides

occur in fractures, shears and breccia zones and thus appear to be structurally related, the clustering of occurrences near the Hd^1_l - Hd^1_m contact demonstrates stratigraphic control.

A.C. Hitchins

J.B. Alsen



G.N. Leary, P.Eng.

TABLE OF MINERAL OCCURRENCES

NO.	LOCATION	MINERALIZATION	HOST ROCK	DESCRIPTION
1	DOC 26	Galena sphalerite pyrite marcasite (smithsonite hydrozincite)	Hd^1_l	Hosted in vuggy upper portion of Hd^1_l on east facing dip slope; dominantly galena with lesser amounts of pale green and red sphalerite that is commonly leached and altered to smithsonite in varying degrees. Mode: breccia and fracture fillings along narrow (are 14' wide) shear zones. Assays (>1700' in length) of 2.24% Pb, 0.91% Zn, 0.62 oz/T Ag.
2	DOC 42	Galena sphalerite tetrahedrite (hydrozincite malachite)	Hd^1_l	Massive (31'x27') pod of galena and red-green sphalerite with minor tetrahedrite. Assays yielded: 31' @ 16.8% Zn, 47.2% Pb, 17.2 oz/T Ag; 27' @ 9.6% Zn, 52.0% Pb, 20.8 oz/T Ag.
3	DOC 26	Galena pyrite marcasite	Hd^1_l	Coarse grained galena with minor sphalerite, tetrahedrite and marcasite in a dolomite breccia that is exposed in an area 4'x30'. Breccia contacts with massive dolomite vary from sharp to crackled. Breccia grades 30% Pb and 4 oz/T Ag over 15'.
4	DOC 25	Galena	Hd^1_l	Galena and minor tetrahedrite fill vugs in a vuggy, sucrose Hd^1_l dolomite over an area 15'x10' by <10' thick, est. <5% Pb.
5	DOC 23	Sphalerite (galena)	Hd^1_l	Green ZnS, PbS and quartz occur as pods along an E-W fracture zone. Splotches and disseminations of red sphalerite replace grey, fine grained to stromatolitic dolomite over strike length of 15' and up to 3' wide. A grab sample of replacement sphalerite graded 24% Zn.
6	South of DOC 19/ 20	Sphalerite (galena)	Hd^1m	Red and green coarsely, crystalline sphalerite, galena, pyrite and minor tetrahedrite with crystalline dolomite fill fractures in a finely sucrose, dense dolomite. Mineralization over an area 2'x25' ZnS>>PbS.
7	DOC 18	Galena sphalerite	Hd^1m	Red sphalerite and galena, as splotches and disseminations have replaced yellowish, Hd^1m dolomite. Mode of occurrence is very similar to that of #5. ZnS>PbS.

8	DOC 82	Sphalerite (hydrozincite) ± pyrite	Hsc_3	Consists of a sphalerite bearing strata-bound zone in a shaly dolomite bed overlain by shale within the upper part of Hsc. Sphalerite occurs along cross fractures and bedding planes, closely associated with thin interbeds of dolomite-arenite. A 3' channel sample across the zone assayed 4.00% Zn strike length >12'; dip length unknown.
9	DOC 80	Sphalerite, galena, minor tetrahedrite (malachite)	Hd^1_1	Sphalerite pods with scattered galena blebs in a coarse white crystalline dolospar within the upper portion of Hd^1_1.
10	DOC 82/ 91	Marcasite galena minor sphalerite (smithsonite hydrozincite)	Hd^1_1	Irregular ribbons of marcasite enveloped by thin rinds of galena with minor sphalerite within a coarse white crystalline dolospar of the lower portion of Hd^1_1.
11	DOC 46	Galena sphalerite (hydrozincite)	Hd^1m	Widespread vug fillings of galena and sphalerite in upper portion of Hdm.
12	DOC 46	Sphalerite (hydrozincite)	Hd^1m	Fracture and vug fillings of pale green sphalerite in upper portion of Hd^1m.
13	DOC 42	Galena sphalerite	Hd^1m	Similar occurrence as #11 and #12.
14	DOC 33	Galena (PbO)	Hd^1m	Scattered blebs and fracture fillings in massive sandy dolomite within the lower portion of Hd^1u.
15	DOC 33	Tetrahedrite	Hd^1m	Similar occurrence as #14.
16	DOC 150	Sphalerite (smithsonite hydrozincite)	Hd^1m	Fracture fillings in Unit Hd^1u believed to be a shear zone similar to occurrence #1.
17	DOC 150	Tetrahedrite (malachite)	Hd^1m	Similar to occurrence #16.
18	DOC 150	Sphalerite (hydrozincite)	Hd^1m	Similar to occurrence #16 & 17 and all (16,17,18) are believed to be the same or parallel shear zone.
19	DOC 18	Galena	Hd^1m	Minor galena and marcasite occur in a small fault zone.
20	DOC 18	Sphalerite	Hd^1m	Float occurrence of green sphalerite filling vugs.

21	DOC 18	Sphalerite	Hd^1m	Yellow-green sphalerite with quartz and red dolomite fill vugs.
22	DOC 17	Hydrozincite	Hd^1_1	Hydrozincite occurs along fractures near the upper contact of Hd^1_1.
23	DOC 23	Sphalerite	Hd^1_1	Sphalerite and minor galena fill fractures, small crackle breccias and vugs over a strike distance of 30' near top of cliffs.
24	DOC 23	Sphalerite	Hd^1_1	Green sphalerite with calcite and dolomite fill scattered vugs, fractures and pods up to 8" wide over a vertical distance of 60'.
25	DOC 27	Sphalerite (Hydrozincite)	Hd^1_1	Pale red and green sphalerite and trace galena in widespread vug and fracture fillings in Hd^1_1.
26	DOC 10	Sphalerite (hydrozincite)	$Hcgl_2$	Minor red sphalerite in voids between clasts in sand-pebble conglomerate.
27	DOC 10	Sphalerite trace galena	Hd^1_1	Float occurrence believed to be related to occurrence #4 or #24. Vug fillings in Hd^1_1.
28	DOC 147	Sphalerite Tetrahedrite (hydrozincite malachite)	Hd^1u	Red to brown sphalerite along laminations in upper sandy dolomite. Tetrahedrite smears on fractures and portion of Hd^1u.
29	DOC 137	Sphalerite	Hd^1_1	Green sphalerite partially fills 2" vugs in boulders of fenestrate textured dolomite.
30	DOC 141	Galena tetrahedrite sphalerite (malachite)	Hd^1_1	Scattered vug fillings and fracture smears in a gossanous outcrop of massive vuggy dolomite in Hd^1_1 (much quartz present).
31	DOC 35	Galena	Hd^1m	Galena with minor marcasite and tetrahedrite occur in quartz veins and coat fractures in a pisolitic grey dolomite. Mineralization exposed over 12'x15'.
32	DOC 26	Galena	Hd^1m	Small galena filled fractures. Probably an extension of showing #3.
33	DOC 33	Sphalerite tetrahedrite	Hd^1m	Minor red and green sphalerite and tetrahedrite occurs in a small fracture zone with quartz and dolomite.
34	DOC 33	Sphalerite tetrahedrite	Hd^1m	Green sphalerite and tetrahedrite fill vugs in a narrow ravine. Mineralized vugs in float are present for 200' above showing.

REFERENCES

LEARY, G.M.

1975: 1974 Report on the Mount Profeit Pb-Zn Property AMAX Company Report.

APPENDIX I-STATEMENT OF COSTS

Period of Work July 14 - 20, 1975
July 28 - August 9, 1975

Summary of Work Geological and Geochemical Survey

Personnel

A.C. Hitchins, Geologist, 1998 Cedar Crescent, Vancouver, B.C. 20 days @ $58.08/day	$1,161.60
J.B. Alsen, Geologist, 3555 West 2nd Avenue, Vancouver, B.C. 20 days @ $39.78/day	795.60
L.V. Penco, Sr. Asst., 6570 Raleigh Street, Vancouver, B.C. 20 days @ $32.55/day	651.00
J.K. Mortensen, Sr. Asst., 1208 W 8th Street, Vancouver, B.C. 20 days @ $30.75/day	615.00
H.W. Sellmer Sr.Staff Geologist, 601-535 Thurlow St., Vancouver, B.C. 2 days @ $130.36/day	260.72

Room & Board

82 man days @ $17.50/day	1,435.00

Transportation

Helicopters -	Bell 206B 8.5 hrs. @ $300/hour and fuel	2,586.80
	Hughes 500 5.3 hrs. @ $250/hour	1,325.00
Aircraft -	Float Plane Otter 576 mi @ $1.55/mi (50% of Invoice #6686 & 10273)	892.80
	Turbo Beaver 220 mi @ $1.35/mi	297.00
	CP Air (20% of Invoice #90226, 091246-49, 103807-8.)	390.40
	Northward Air	92.40
	Fuel	431.85

Geochemistry

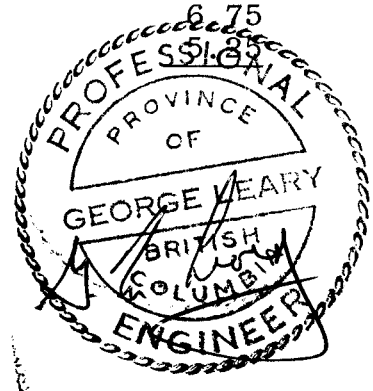
28 Geochemical Analyses (Mo,Cu,Ni,Co,Mn,Fe,Ag,Zn,Pb)	@	$3.20	89.60
19 Sample Preparation	@	.10	1.90
9 Rock Preparation	@	.75	6.75
7 pH Analyses	@	.75	5.25
			103.50

Assays

20 Assays (Pb,Zn,Cu,Ag)@ $17.50	350.00

Orthographic Maps

1,667.25



Report Preparation

Writing	733.33
Drafting, Typing and Reproduction	400.00
SUB TOTAL	$14,189.25

Post Anniversary Date August 9, 1975

Period of Work August 10-17, 1975
August 21-22, 1975

Summary of Work Detailed Mapping

Personnel

A.C. Hitchins, Geologist, 1998 Cedar Crescent, Vancouver, B.C. 3 days @ $58.08/day	174.24
J.B. Alsen, Geologist, 3555 W 2nd Avenue, Vancouver, B.C. 10 days @ $39.78/day	397.80
L.V. Penco, Sr. Asst., 6570 Raleigh Street, Vancouver, B.C. 3 days @ $32.55/day	97.65
J.K. Mortensen, Sr. Asst., 1208 W 8th Street, Vancouver, B.C. 10 days @ $30.75/day	307.50
G.M. Leary, P.Eng. 601-535 Thurlow Street, Vancouver, B.C. 2 days @ $94.62/day	189.24
H.M. Meixner, Geologist, 675 West 32nd Ave., Vancouver, B.C. 2 days @ $68.64	137.28

Room and Board

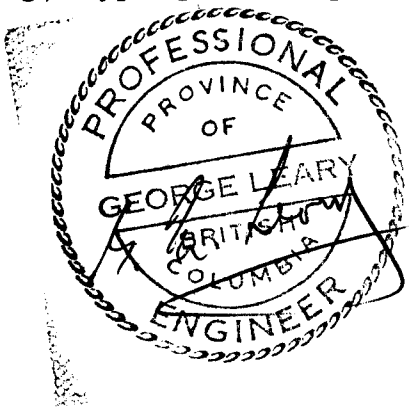
30 man days @ $17.50/day	525.00

Transportation

Helicopter - Bell 206B	9.6 hrs. @ $300/hour and fuel	2,971.65
Float Plane - Otter	262 miles @ $1.55/mile	406.10
- Beaver	220 miles @ $1.35/mile	297.00

Report Preparation

Writing	366.67
Drafting, Typing and Reproduction	250.00
SUB TOTAL	$6,120.13
TOTAL	$20,309.38



We wish the above work to be applied to the following claims

1 Year - Doc 1, 2, 4, 6, 8, 10, 12, 14, 16, 49-52 incl., 66, 68, 70, 72, 77, 79, 81, 83-86 incl., 114, 116, 118, 120, 122, 124, 130, 132, 134-137 incl., 139 and 146.

2 Years - Doc 17-48 incl., 53-64 incl., 78, 80, 82, 89-98 incl., 101-110 incl., 127-129 incl., 131, 133, 140-145 incl., and 147-150 incl.

Contractor's Invoices for Period July 14 - 20, 1975 and
July 28 - August 9, 1975

NORTHERN MOUNTAIN HELICOPTERS INC.

CHARTER AND CONTRACT TICKET

Charge To:						Date	Feb 29/95	
						P.O.		
Pilot		Base			Cash	Cheque	Charge	
A/C Type 206B		CF			Area			

From	To (1)
To (2)	To (3)
To (4)	To (5)
To (6)	To (7)
To (8)	To (9)
To (10)	To (11)

Charter Rate 2.0	Hours at $ 300.00		$ 600	00
Contract Rate	Hours at $			
Fuel Charge	23 gals @ 80¢		18	40
Pilot Expenses				
Other				
I personally guarantee payment of this charter. Authorized by:		TOTAL CHGE.	618	40

This ticket is expressly subject to the conditions printed on the reverse side of ticket and which are hereby accepted: (Passengers' Signature)

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.
12.

№ 1071

MAIN BASE
P.O. Box 368
Prince George, B.C.
Phone 963-9622
Telex 047-8027

2 BASE
P.O. Box 280
Fort St. James, B.C.
Phone 996-7208

No. of Departures	No. of Passengers	No. of hours flown	Base or designated Pt.

Lbs. cargo	Miles flown	Class of flying

NORTHERN MOUNTAIN HELICOPTERS INC.

CHARTER AND CONTRACT TICK

Charge To:

Date July 27/

P.O.

Pilot		Base			Cash	Cheque	Charge	
A/C Type 206B		CF			Area			

From

To (1)

To (2)

To (3)

To (4)

To (5)

To (6)

To (7)

To (8)

To (9)

To (10)

To (11)

Charter Rate 3.6	Hours at $ 300.00		$ 1080	—
Contract Rate	Hours at $			
Fuel Charge				
Pilot Expenses				
Other				
I personally guarantee payment of this charter. Authorized by:		TOTAL CHGE.	1080	—

This ticket is expressly subject to the conditions printed on the reverse side of ticket and which are hereby accepted: (Passengers' Signature)

Nº 1072

1. 7.

2. 8.

3. 9.

4. 10.

5. 11.

6. 12.

MAIN BASE
P.O. Box 368
Prince George, B.C.
Phone 963-9622
Telex 047-8027

2 BASE
P.O. Box 280
Fort St. James, B.C.
Phone 996-7208

No. of Departures	No. of Passengers	No. of hours flown	Base or designated Pt.

Lbs. cargo	Miles flown	Class of flying

NORTHERN MOUNTAIN HELICOPTERS INC.

CHARTER AND CONTRACT TICKET

Charge To:						Date		
						P.O.		
Pilot		Base			Cash	Cheque	Charge	
A/C Type 206 B		CF			Area			

From	To (1)
To (2)	To (3)
To (4)	To (5)
To (6)	To (7)
To (8)	To (9)
To (10)	To (11)

Charter Rate 2.9	Hours at $ 300.00		$ 870	00
Contract Rate	Hours at $			
Fuel Charge	23 gals @ 80¢		18	40
Pilot Expenses				
Other				
I personally guarantee payment of this charter. Authorized by:		TOTAL CHGE.	888	40

This ticket is expressly subject to the conditions printed on the reverse side of ticket and which are hereby accepted: (Passengers' Signature)

1.	7.
2.	8.
3.	9.
4.	10.
5.	11.
6.	12.

No. 1077

MAIN BASE
P.O. Box 368
Prince George, B.C.
Phone 963-9622
Telex 047-8027

2 BASE
P.O. Box 280
Fort St. James, B.C.
Phone 996-7203

No. of Departures	No. of Passengers	No. of hours flown	Base or designated Pt.
	Lbs. cargo	Miles flown	Class of flying

TRANSWEST HELICOPTERS (1965) LTD.

2792 NORLAND AVENUE, NORTH BURNABY, B.C. V5B 3A6 CANADA PHONE: AREA (604) 291-7578

AMAX

AUG 20 1975

Amax Explorations Inc
601- 535 Thurlow St.,
Vancouver, B.C.

DATE: August 18,1975

INVOICE NO.: 300 ... OFFICE

Flite report 4075
July 20th

2.0 hrs. @250.00

Sg. Guy Hitchins

. . . . . .$ 500.00

---

cust fuel.

ADD & EXT CORRECT

APPROVED			DATE
PROJECT	ACCOUNT CLASS	SUB CLASS	AMOUNT
671	8634		500.00

Helicopter Hughes 500
CF-BUH
M Hofius, Pilot
Area 9.0

4539 AUG 21 '75

TOTAL

CUSTOMER'S SIGNATURE

TRANSWEST HELICOPTERS (1965) LTD.

2792 NORLAND AVENUE, NORTH BURNABY, B.C. V5B 3A6 CANADA PHONE: AREA (604) 291-7578

Amax Explorations
601- 535 Thurlow St
Vancouver, B.C.

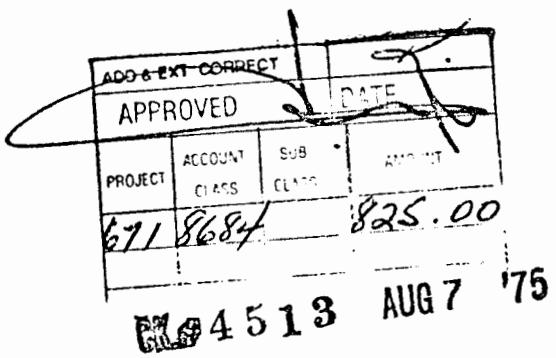
DATE: July 30th, 1975

INVOICE NO.: 265

Flight report 4066
July 14th,

- 3.3 hrs @ 250 00

.....$825.00 ✓



Helicopter Hughes 500
CF-BUH
M Hofius
Area 9.0

TRANS NORTH TURBO AIR (1971) LTD.
BOX 4338, WHITEHORSE, YUKON
TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER: 60
10347

CHARTERER: Amax Northwest Mining
BILLING ADDRESS: 601 535 Thurlow, Vancouver

INVOICE DATE: 30 07 75
RECEIVED AUG 5 1975 VANCOUVER OFFICE

A/C TYPE: DHC-3
AIRCRAFT REGISTRATION: FSUB
FLIGHT DATE: DAY 28 MONTH 07 YEAR 75
PURCHASE ORDER NO.:

FUEL & OIL: TNTA ✓ CUST.
TNTA FUEL USED — HRS.-GALS. — FROM

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM MAYO				
TO PINGUICULA LK	110			3 PAX & GEAR
MAYO	110			

APPROVED — DATE

Project Number	Group Code	Activity Code	Account Class	Sub Class	Amount
671	—	—	8684		341.00 ✓

W Project

SEP 11 75 — 4563

SUB		AMOUNT
333602		341.00

	@		
	@		
220	@ 1.55		341.00
	@		
WAITING TIME	@	/HR.	
FUEL:	@	/GAL.	
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

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

CHARTERER'S SIGNATURE

PILOT'S SIGNATURE

ENGINEER'S NAME

TOTAL $ 341.00

INVOICE

671 ✓

TRANS NORTH TURBO AIR (1971) LTD.

BOX 4338, WHITEHORSE, YUKON

TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER: 10273

CHARTERER: AMAX Northwest Mining

BILLING ADDRESS: 60 / JUL 25 1975 Thurlow St Vancouver B.C.

INVOICE DATE: 21 / 07 / 16 / 75

A/C TYPE: DHC-3

AIRCRAFT REGISTRATION: FSUB

FLIGHT DATE: DAY 24 MONTH 06 YEAR 75

PURCHASE ORDER NO.: 671

FUEL & OIL — TNTA ✓ CUST. — GALS. USED: 4.6 — FROM: MA

FROM	TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
MAYO	PINGUICULA LK.	110			GROC & FUEL
	N. PALMER LK	136			—
	PINGUICULA LK	136			GMP MOVE
	MA	110			EMPTIES

ADD & EXT. CORRECT — APPROVED — DATE

PROJECT	ACCOUNT CLASS	SUB CLASS	AMOUNT
671	8684		762.60

50% applicable to Alx Project

Done

SUB	G.L.	AMOUNT
313	5602	762 60

CM 4479 JUL 9 '75

492 ✓	@ 1.55		762 60 ✓
	@		
WAITING TIME	@	/HR.	
FUEL:	@	/GAL.	
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

TOTAL $ 762 60 ✓

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

CHARTERER'S SIGNATURE

PILOT'S SIGNATURE

C. TINGLEY

ENGINEER'S NAME

INVOICE

TRANS NORTH TURBO AIR (1971) LTD.
BOX 4338, WHITEHORSE, YUKON
TELEPHONE (403) 668-2177 • TELEX 036-8-290

ACCOUNT NUMBER: 60 6686

INVOICE DATE: 01 05 75

AREA: B.C. YUKON NWT ALTA

CHARTERER: ~~AMAX NORTHWEST MINING~~ AMAX EXPLORATION, INC.

BILLING ADDRESS: 601 - 535 THURLOW STREET, VANCOUVER, B.C.

A/C TYPE: DHC-3

AIRCRAFT REGISTRATION: FSUB

FLIGHT DATE: DAY 02 MONTH 05 YEAR 75

PURCHASE ORDER NO.:

FUEL $ OIL-X TNTA	CUST.	TNTA FUEL USED	HRS.-GALS.	FROM
✓		2.0		MA

FROM	TO	MILES	HOURS	ZONE	FREIGHT LBS.	NO. OF PASS. - REMARKS
~~TNTA~~ MAYO	PINGUICULA LK	110			FUEL	HAUL
	MAYO	110				

50% applicable to U.I. Profit

Project Number	Group Code	Activity Code	Account Class.	Sub Class.	AMOUNT

SUB	G.L.	AMOUNT
335	602	341 00

220 @ 1,55 = 341 00 ✓

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

WAITING TIME @ /HR.

ADDITIONAL CONSUMABLES @ /GAL.

APPROVED DATE @ /GAL.

PROJECT	ACCOUNT CLASS	MEALS & LODGING CODE	AMOUNT
671	8684	OTHER	341,00
		OTHER	

CHARTERER'S SIGNATURE

PILOT'S SIGNATURE

04366 MAY 15 7

TINGLEY
ENGINEER'S NAME

Terry Hitchins

TOTAL $ 341 00 ✓

INVOICE

TRANS NORTH TURBO AIR (1971) LTD.
BOX 4338, WHITEHORSE, YUKON
TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER 11099

CHARTERER: AMAX Northwest Mining

BILLING ADDRESS: 601 535 Thurlow St Vancouver

INVOICE DATE: 21507 75

A/C TYPE: DHC-2T

AIRCRAFT REGISTRATION: FVPV

FLIGHT DATE: DAY 22 MONTH 07 YEAR 75

PURCHASE ORDER NO.: 671

FUEL & OIL-X TNTA	FUEL & OIL-X CUST.	TNTA FUEL USED	HR. TOTAL	FROM
✓		JP-4	1.8	MA

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM Mayo				
TO Penguicula Lk.	110			4/45's
Mayo	110			1 PASS. & CAMP EQUIP.

ADD'S EXT CORRECT
APPROVED DATE

PROJECT	ACCOUNT CLASS	SUB CLASS	AMOUNT
671	8684		297.00

AUG 7 '75

Ltd Project

SUB	G.L.	AMOUNT
33	4602	297 00

220 ✓	@ 1.35		297 00 ✓
	@		
	@		
WAITING TIME	@	/HR.	
FUEL:	@	/GAL.	
FUEL:	@	/GAL.	
OIL & GREASING			
OTHER			
OTHER			
TOTAL			$ 297 00

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

CHARTERER'S SIGNATURE

PILOT'S SIGNATURE ☐

ENGINEER'S NAME ☐

INVOICE

018 4100 90226

CP Air

Billet de passage et bulletin de bagages. Soumis aux conditions de la page 4

Origine

Destination

Endos (Carbone)

Issued in Exchange For / Emis contre

19 SEP 75

Passenger Coupon / Coupon du passager

J ARSEN

C.P.A.
71-9 9020
WHITEHORSE, CAN.
AP - 1M

671

31 Agent

Date and Place of Issue / Date et lieu d'emission

Non valable pour transport

…HORSE	Y	2 PCS	CP	016 Y	19 SEP	1000 A	OK
…OUVER							

Bge chk'd. / Unck'd / Bges enr. / n. enr.

Form of Payment / Mode de paiement: CASH

OCT 2 Rec'd

Total: CAD 109.00

A HICHINS VANCOUVER

Flt / Class Vol / Classe	Date	Time / Heure
15	MAY 27	0700

USED

Flight Coupon
Good for Passage
Coupon de vol
Valable pour transport

WHITEHORSE

For Airline Use Only / Réservé au transporteur

Non Refundable / Non remboursable

Excess Excedent: 101.00 / 5.00
Total: 106.00

Ticket Designator
4449 JUN 24'75

Form & Serial Number
1 018 4080091249 0

C10270

Passenger Ticket and Baggage Check Subject to Conditions of Contract on Page 2 — Billet de passage et bulletin de bagages Soumis aux conditions de la page 4

Issued by / Emis par: CP Air

Endorsements (Carbon) - Endos (Carbone)

018 4100 902

Name of Passenger: HITCHINS / T

Date: 19 SEP 75

Passenger Coupon du passager

From - De	Fare Basis		Carrier	Flight / Class	Date	Time	Status
WHITEHORSE	Y	2 PS	CP	016 Y	19 SEP	1000 A	OK
To/A VANCOUVER							

Fare / Prix: CAD101.00
Tax / Taxe: 8.00
Total: CAD 109.00

(22)
C.P.A
71-9 90
WHITEHORSE,
AP-1M

671

31 Agent — Date and Place of Issue

Form of Payment: CASH

OCT 2 Rec'd

MR J MORTENSEN

VANCOUVER

Flt / Class Vol / Classe	Date	Time / Heure
15	MAY 27	0700

USED

Flight Coupon
Good for Passage
Coupon de vol
Valable pour transport

WHITEHORSE

For Airline Use Only / Réservé au transporteur

Non Refundable / Non remboursable

Excess Excedent: 101.00 / 5.00
Total: 106.00

Ticket Designator
4449 JUN 24'75

Form & Serial Number
1 018 4080091247 5

C10270

J. MORTENSEN

WHITEHORSE

VANCOUVER

Flt / Class	Date	Time
16	AUG 28/75	1000

USED

Flight Coupon
Good for Passage
Coupon de vol
Valable pour transport

For Airline Use Only / Réservé au transporteur

Account / compte

Non Refundable / Non remboursable

Total: CAD 107

Ticket Designator

Form & Serial Number
1 018 4080103808 1

C10270

50

3966 SEP 24'75

Passenger Name Nom du passager en capitales

L. PENCO

Signature

Flight Coupon
Good for Passage
Coupon de vol
Valable pour transport

De

WHITEHORSE

16 Y

VANCOUVER

USED

Non Refundable / Non remboursable

C1C270

1 018 4080103807 0 ¤

Billet de passage et Bulletin de bagages. Soumis aux conditions de la page (3)

U-Ticket

Issued By / Emis par CP Air 018 4080 091248

WRITE YOUR OWN TICKET
À REMPLIR

PASSENGER COMPLETES WHITE AREA ONLY
LE PASSAGER NE REMPLIT QUE LA CASE EN BLANC

Passenger Name / Nom du passager en capitales

MR. L. PENCO

Signature

Flight Coupon
Good for Passage
Coupon de vol
Valable pour transport

Flt / Class Vol / Classe	Date	Time Heure
15	MAY 27	0700

VANCOUVER

USED

Non Refundable / Non remboursable

WHITEHORSE

For Airline Use Only / Réservé au transporteur

4449

JUN 24 '75

C1C270

Total 158.00

1 018 4080091248 6 ¤

Baggage Conditions

Billet de passage et Bulletin de bagages. Soumis aux conditions de la page (3)

U-Ticket

Issued By / Emis par CP Air 018 4080 09124

WRITE YOUR OWN TICKET
À REMPLIR

PASSENGER COMPLETES WHITE AREA ONLY
LE PASSAGER NE REMPLIT QUE LA CASE EN BLANC

Passenger Name / Nom du passager en capitales

MR J ALSEN

Signature

Flight Coupon
Good for Passage
Coupon de vol
Valable pour transport

De

Flt / Class Vol / Classe	Date	Time Heure
15	MAY 27	0700

VANCOUVER

USED

Non Refundable / Non remboursable

WHITEHORSE

For Airline Use Only / Réservé au transporteur

4449

JUN 24 '75

C1C270

21.00
5.00

Total 106.00

1 018 4080091246 4 ¤

NORTHWARD

NORTHWARD AIRLINES LIMITED

#705 10240 — 124 STREET, EDMONTON, ALBERTA T5N 3W6 PHONE: 488-4895

22/8/75

DATE OF INVOICE		INVOICE NO.
August 31,1975		AM 18351

IN ACCOUNT WITH

Amax Exploration
601 - 536 Thurlow Street
Vancouver, 5 B.C.
Proj. #005

AUG 29 1975

VANC

TERMS: NET 30 DAYS.
PLEASE PAY ON RECEIPT OF INVOICE.
INTEREST AT 1% PER MONTH (12% P.A.) CHARGED ON OVERDUE ACCOUNTS.

DATE	TICKET NO.	PASSENGER F / R	PASSENGER AIRCRAFT	WARRANT NO. BASE	MILES OR HOURS	RATE	AMOUNT
	TRAVEL WARRANTS:						
	1A 70109					46.20	
	1A 69129					46.20	
	W. Sellmer Whitehorse - Mayo R/T $92.40						$92.40

ACCEPTED DATE

Project Number	Group Code	Activity Code	Account Class	Sub Class	Amount
005	—	—	8624		92.40

CHI 8875 SEP 2-'75

12393

INVOICE COPY

WHITE PASS PETROLEUM SERVICES
THE BRITISH YUKON NAVIGATION CO., LTD.
P.O. Box 4070, Whitehorse, Yukon
510 W. Hastings St., Vancouver 2, B.C.

STATION: Mayo
DATE: Aug 28 197
SHIPPED TO
TRUCK NO.
TRIP NO.

23 1975

SOLD TO (PRINT): Amax (671)
3464
CUSTOMER'S ORDER OR REQ. NO.: 03464
ADDRESS
VANCOUVER OFFICE
W.P. NO.
LOC.
DELIVERED BY: Chattr...
CODE

PRODUCTS DELIVERED	SIZE OF PACKAGE	CODE	QUANTITY	PRICE	AMOUNT
JP4	Bulk		135	815	174.15
			Correct Amount		110.03

671	—	—	8684	112.73
671	—	—	8689	75.00
				187.73

TAX (SPECIFY): 135 GALS. @
DRUM CHARGES: 3 — 25.00 — 75.00
DRUM CREDITS
TERMS - NET CASH (NO DISCOUNT) TOTAL 269.22

PRODUCTS RECEIVED: Chattr
BY: Stirling Expediting
APPROVED
CHECKED

RECEIVED PAYMENT
CASH
CHEQUES
EXCH.
TOTAL

FORM PET 853 65M 73

Project

CREDIT MEMO

NO. 29849

WHITE PASS PETROLEUM SERVICES
THE BRITISH YUKON NAVIGATION CO., LTD.
P.O. Box 4070, Whitehorse, Yukon
510 W. Hastings St., Vancouver 2, B.C.

STATION: Whse
DATE: Sept 30 19
SHIPPED TO
TRUCK NO.
TRIP NO.

SOLD TO (PRINT): Amax
OCT 7 3464
CUSTOMER'S ORDER OR REQ. NO.
ADDRESS
VANCOUVER OFFICE
W.P. NO.
LOC.
DELIVERED BY

PRODUCTS DELIVERED	SIZE OF PACKAGE	CODE	QUANTITY	PRICE	AMOUNT
To adj Inv 932180 dd Aug 28					
Extension Error					
Inv Reads JP4			135	815	191.52
Inv S/Read JP4			135	815	110.03

APPROVED
BY
TAX
GALS @
DRUM CHARGES
81.49

CREDIT MEMO

P 859 10M 9 71

THE BRITISH YUKON NAVIGATION CO., LTD.
P.O. Box 4070 Whitehorse, Yukon
510 W. Hastings St. Vancouver 2, B.C.

THIS IS YOUR INVOICE

DELIVERY INVOICE NO. 932480

STATION Mayo

DATE July 20 19 7

SHIPPED TO

TRUCK NO.

TRIP NO. 671

SOLD TO (PRINT) Amax

ADDRESS

3964

CUSTOMER'S ORDER OR REQ. NO. 03964

WP. NO. LOC. DELIVERED BY L. Hutton

PRODUCTS DELIVERED	SIZE OF PACKAGE	CODE	QUANTITY	PRICE	AMOUNT
J.P.4	3 Drs		135.	1.19	160 4
hauling to Stonehock	3 Drs		3 Drs	1.00	3 00
TAX (SPECIFY)					
PRODUCTS RECEIVED			135 GALS. @	02	2 70
			3	25.00	75 00

APPROVED DATE

Project Number	Group Code	Activity Code	Account Class	Sub Class	Amount
671			868		75.00
671			864		108.17
					183.17

RECEIVED PAYMENT
CA
DRUM CHARGES
DRUM CREDITS

BY

APPROVED CHECKED

TERMS - NET CASH (NO DISCOUNT) TOTAL 183 1

FORM PET 835 65M '73

Profit.

THE BRITISH YUKON NAVIGATION CO., LTD.
P.O. Box 4070 Whitehorse, Yukon
510 W. Hastings St. Vancouver 2, B.C.

THIS IS YOUR INVOICE

DELIVERY INVOICE NO. 932641

STATION Mayo

DATE Aug. 9 1975

SHIPPED TO AMAX

TRUCK NO.

TRIP NO.

SOLD TO (PRINT) Amax Expl. AUG 18 1975

ADDRESS

3964

CUSTOMER'S ORDER OR REQ. NO. 03964

WP. NO. LOC. CODE

DELIVERED BY L. Clifton

PRODUCTS DELIVERED	SIZE OF PACKAGE	QUANTITY	PRICE	AMOUNT
VANCO				
J.P. 4	2 Drs	90	759	68 31
Hauling to Dock		2 Drs	1.00	2 00
BG 4540 AUG 21 '75				
TAX (SPECIFY)		90 GALS. @ 02		1 80
		2	25.00	50 00
				( )

ADD & EXT CORRECT
APPROVED DATE

PROJECT	ACCOUNT CLASS	SUB CLASS	AMOUNT
611	8684		72 11
611	8687		50.00
611			

PRODUCTS RECEIVED BY Hooker Sills

RECEIVED PAY CASH CHEQUES EXCH. TOTAL

DRUM CHARGES

DRUM CREDITS

APPROVED CHECKED

TERMS - NET CASH (NO DISCOUNT) TOTAL 122 11

FORM PET 855 65M 73

THE BRITISH YUKON NAVIGATION CO., LTD.
P.O. Box 4070 Whitehorse, Yukon
510 W. Hastings St. Vancouver 2, B.C.

THIS IS YOUR INVOICE

DELIVERY INVOICE NO. 932536

STATION Mayo

DATE July 28 19 75

SHIPPED TO

TRUCK NO.

TRIP NO.

SOLD TO (PRINT) Amax Exploration

CUSTOMER'S ORDER OR REQ. NO. 03964

ADDRESS

WP. NO. | LOC. | CODE

DELIVERED BY T. Hudson

PRODUCTS DELIVERED	SIZE OF PACKAGE	QUANTITY	PRICE	AMOUNT
Naptha	pail	2	6.92	13.84
#671				

ADD & EXT CORRECT
APPROVED DATE

PROJECT	ACCOUNT CLASS	SUB CLASS	AMOUNT
671	8692		13.84

DAT 25 AUG 21 '75

TAX (SPECIFY)

GALS. @

PRODUCTS RECEIVED BY Nelson

RECEIVED PAYMENT
CASH
CHEQUES
EXCH.
TOTAL

DRUM CHARGES

DRUM CREDITS (13.84)

TERMS - NET CASH (NO DISCOUNT) TOTAL

APPROVED | CHECKED

FORM PET 855 65M 73

Profit

Bossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

AMAX MINERALS EXPLORATION

601-535 Thurlow Street

Vancouver, B.C.

re. project # 671, order #

DATE Oct. 23, 1975

INVOICE NO. 5120

CERTIFICATE NO. 5123

ITEM	DESCRIPTION		SUB-TOTAL	TOTAL
83	Geochem. analysis, 9 elements,	@ $ 3.20	$ 265.60	
77	Sample prep.	0.10	7.70	
6	Rock sample prep.	0.75	4.50	
11	pH analysis	0.75	8.25	
	Freight as per invoice		23.92	
				$ 309.97

671 - - 8691 309.97

OCT 23 '75

TERMS – NET 30 DAYS

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

2225 S. SPRINGER AVE.,
BURNABY, B. C.
CANADA
TELEPHONE: 299-6910
AREA CODE: 604

AMAX MINERALS EXPLORATION
601-535 Thurlow Street
Vancouver, B.C.
re. project # 671, order #

DATE ~~Oct. 23, 1975~~
INVOICE NO. ~~5120 A~~
CERTIFICATE NO. ~~5123~~

ITEM	DESCRIPTION		SUB-TOTAL	TOTAL
33	Geochem. Analysis, 9 elements, @	$ 3.20	$ ~~108.90~~ 105.60	
15	Sample prep.	0.10	1.50 ✓	
18	Rock sample prep	0.75	13.50 ✓	
6	pH analysis	0.75	4.50 ✓	

Laura

671 - - 8691 - 125.10 ✓

REC'D OCT 23 '75

125.10 Laura

$ 125.10

TERMS – NET 30 DAYS

Rossbacher Laboratory

GEOCHEMICAL ANALYSTS & ASSAYERS

CANADA
TELEPHONE: 299 6910
AREA CODE: 604

AMAX MINERALS EXPLORATION
601-535 Thurlow St.
Vancouver, B.C.
Project 671 order 2252

DATE Oct 21, 1975
INVOICE NO. 5149
CERTIFICATE NO. 5119

M	DESCRIPTION		SUB-TOTAL	TOTAL
20	Assays for Zn @	$ 5.00	$ 100.00	
20	Assays for Pb	5.00	100.00	
20	Assays for Ag	4.00	80.00	
15	Assays for Cu	3.50	52.50	
	Jawa			
	671 - - 8691	332.50		
	461 0012375			$ 332.50

TERMS – NET 30 DAYS

Prepaid weight charge	Prepaid valuation charge	Due carrier	Total other prepaid charges / Due agent	Total prepaid	For carrier's use only at destination
	V	C	A	P	21.02

Other charges (except weight charge and valuation charge)
Insurance Charge:
Cartage Charge:

Collect charges in destination currency: 2.90

VRA2306

COD amount

LEASE PROTECT M.A.L. CHARGES OF 10.00

Total charges

Collect weight charge	Collect valuation charge	Due carrier	Total other collect charges / Due agent	COD amount	Total collect
11.02	V	C	A 10.00	Z	23.92

C. Rossbacher

PACIFIC SURVEY CORPORATION

Formerly

LOCKWOOD SURVEY CORPORATION LTD.

1409 WEST PENDER STREET VANCOUVER, B. C., CANADA V6B 2S4 TELEPHONE 683-6501

INVOICE

Amax Exploration Inc.,
535 Thurlow Street,
Vancouver, B.C.

AMAX
JUL 2 1975
VANCOUVER OFFICE

INVOICE No.	9093
DATE	27 June 1975
YOUR ORDER No.	2126
JOB No.	75-43
PACKING SLIP No.	
SHIPPED VIA	

ANTITY	DESCRIPTION	UNIT PRICE	TOTAL
	TO: Completion:		
	1. Topographic mapping in pencil manuscript form of the following areas at a scale of 1-inch equals 1000 feet with 100 foot contours: a) Sekwi Brook, N.W.T. b) Doll Creek (N), Y.T. c) Divide, Y.T. d) Dolores Creek, Y.T. e) Mt. Profeit, Y.T. as per packing slips 8367, 83333: Lump sum		$4,070.00
	2. 3 orthophotos of the following areas at a scale of 1-inch equals 400 feet: a) Sekwi at 1-inch equals 400 feet b) Doll Creek (N) at 1-inch equals 1000 feet c) Doll Creek (S) at 1-inch equals 400 feet d) Divide at 1-inch equals 400 feet e) Dolores Creek at 1-inch equals 400 feet including one set of KP5 prints of each: Lump sum 5% Provincial Sales Tax	$1,130.00 56.50 ✓	1,186.50 ✓

/over to page 2

TERMS: NET CASH. INTEREST CHARGED ON OVERDUE ACCOUNTS

PACIFIC SURVEY CORPORATION

Formerly

LOCKWOOD SURVEY CORPORATION LTD.

1409 WEST PENDER STREET VANCOUVER, B. C., CANADA V6B 2S4 TELEPHONE 683-6501

Amax Exploration Inc.,
535 Thurlow Street,
Vancouver, B.C.

AMAX
JUL 2 1975
VANCOUVER OFFICE

INVOICE

INVOICE No.	9093 Page 2
DATE	27 June 1975
YOUR ORDER No.	2126
JOB No.	75-43
PACKING SLIP No.	
SHIPPED VIA	

ANTITY	DESCRIPTION	UNIT PRICE	TOTAL
	3. Two additional sets of KP5 prints of each of (a), (b), (c), (d), (e) and Four additional sets of KP5 prints of (e): as per packing slips 8417, 8384, 8372		
	Lump sum	$680.00	
	12% Federal Sales Tax	81.60 ✓	
		$761.60 ✓	
	5% Provincial Sales Tax	38.08 ✓	799.68 ✓
			$6,056.18 ✓

ADD & EXT CORRECT
APPROVED DATE

PROJECT	ACCOUNT CLASS	SUB CLASS	AMOUNT
671	8626		6056.18

VG#4470 JUL 4/75

TERMS: NET CASH. INTEREST CHARGED ON OVERDUE ACCOUNTS

Contractor's Invoices for Period August 10-17, 1975 and
August 21-22, 1975

NORTHERN MOUNTAIN HELICOPTERS INC.

CHARTER AND CONTRACT TICKET

Charge To:						Date		
						P.O.		
Pilot		Base			Cash	Cheque	Charge	
A/C Type 206 B		CF			Area			

From	To (1)
To (2)	To (3)
To (4)	To (5)
To (6)	To (7)
To (8)	To (9)
To (10)	To (11)

Charter Rate 38	Hours at $ 300.00		$ 1140 00
Contract Rate	Hours at $		
Fuel Charge 23 GAL @ 80¢			18 40
Pilot Expenses			
Other			
I personally guarantee payment of this charter. Authorized by:		TOTAL CHGE.	1158 40

This ticket is expressly subject to the conditions printed on the reverse side of ticket and which are hereby accepted: (Passengers' Signature)

1.	7.
2.	8.
3.	9.
4.	10.
5.	11.
6.	12.

№ 1082

MAIN BASE
P.O. Box 368
Prince George, B.C.
Phone 963-9622
Telex 047-8027

2 BASE
P.O. Box 280
Fort St. James, B.C.
Phone 996-7208

No. of Departures	No. of Passengers	No. of hours flown	Base or designated Pt.

Lbs. cargo	Miles flown	Class of flying

NORTHERN MOUNTAIN HELICOPTERS INC.

CHARTER AND CONTRACT TICKET

Charge To:					Date Aug 12/75			
					P.O.			
Pilot		Base			Cash	Cheque	Charge	
A/C Type 206B		CF			Area			

From	To (1)
To (2)	To (3)
To (4)	To (5)
To (6)	To (7)
To (8)	To (9)
To (10)	To (11)

Charter Rate 2.8 Hours at $ 300.00		$ 840	00
Contract Rate Hours at $			
Fuel Charge 46 gal @ .80¢		36	80
Pilot Expenses			
Other			
I personally guarantee payment of this charter. Authorized by:	TOTAL CHGE.	876	80

This ticket is expressly subject to the conditions printed on the reverse side of ticket and which are hereby accepted: (Passengers' Signature)

№ 1083

1.	7.
2.	8.
3.	9.
4.	10.
5.	11.
6.	12.

MAIN BASE
P.O. Box 368
Prince George, B.C.
Phone 963-9622
Telex 047-8027

2 BASE
P.O. Box 280
Fort St. James, B.C.
Phone 996-7208

No. of Departures	No. of Passengers	No. of hours flown	Base or designated Pt.

Lbs. cargo	Miles flown	Class of flying

NORTHERN MOUNTAIN HELICOPTERS INC.

CHARTER AND CONTRACT TICKET

Charge To:						Date	Aug 22/75	
						P.O.		
Pilot		Base			Cash	Cheque	Charge	
A/C Type	206B	CF			Area			

From	To (1)
To (2)	To (3)
To (4)	To (5)
To (6)	To (7)
To (8)	To (9)
To (10)	To (11)

Charter Rate	30 Hours at $	300.00 + fuel	$	900
Contract Rate	Hours at $			
Fuel Charge	45 gal @ 81¢/gal			36 45
Pilot Expenses	Carpet (7)			
Other				
I personally guarantee payment of this charter.		TOTAL CHGE.		936 45
Authorized by:				

This ticket is expressly subject to the conditions printed on the reverse side of ticket and which are hereby accepted: (Passengers' Signature)

1. _____ 7. _____
2. _____ 8. _____
3. _____ 9. _____
4. _____ 10. _____
5. _____ 11. _____
6. _____ 12. _____

№ 0574

MAIN BASE
P.O. Box 368
Prince George, B.C.
Phone 963-9622
Telex 047-8027

2 BASE
P.O. Box 280
Fort St. James, B.C.
Phone 996-7208

No. of Departures	No. of Passengers	No. of hours flown	Base or designated Pt.

Lbs. cargo	Miles flown	Class of flying

NORTH TURBO AIR (1971) LTD.
X 4338, WHITEHORSE, YUKON
TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER: 60

11153

INVOICE DATE: 14/2/75

AREA: B.C. / YUKON / NWT / ALTA.

CHARTERER: AMAX Northwest Mining
BILLING ADDRESS: 601 535 Thurlow St
Vancouver B.C.

A/C TYPE: DHC-II T
AIRCRAFT REGISTRATION C-: - V P V

FLIGHT DATE: DAY 12 MONTH 08 YEAR 75

PURCHASE ORDER NO.: 671

FUEL & OIL-X TNTA	CUST.	TNTA FUELED	HRS.-GALS.	FROM
X		ALL	1.8 HRS	MA.

AUG 25 1975

VANCOUVER OFFICE

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM MAYO				
TO PINGUICULA LK.	110	.9		
MAYO	110	.9		1 MAN & GEAR

Mt Profit.

APPROVED — DATE

Project Number	Group Code	Activity Code	Account Class		Amount
671	—	—	8684		297.00

4588 SEP 11 75

SUB	G.L.	AMOUNT
334	662	297.00

	@		
	@		
220	@	1.35	297.00
	@		
WAITING TIME	@	/HR.	
FUEL:	@	/GAL.	
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			

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

Matthew Sills O.K
CHARTERER'S SIGNATURE

Dave Reid
PILOT'S SIGNATURE

TINGLEY
ENGINEER'S NAME

TOTAL $ 297.00

INVOICE

A

TNT TRANS NORTH TURBO AIR (1971) LTD.
BOX 4338, WHITEHORSE, YUKON
TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER: 60

10432

CHARTERER: AMAX NORTHWEST AMAX MINING

BILLING ADDRESS: 601-535 THURLOW STREET, VANCOUVER

SEP 12 1975
VANCOUVER OFFICE
MA

INVOICE DATE:

AREA: B.C. / YUKON / NWT / ALTA.

A/C TYPE: DHC 3 | AIRCRAFT REGISTRATION: CF-SCB

FLIGHT DATE: DAY 05 | MONTH 09 | YEAR 75

PURCHASE ORDER NO.: 671

FUEL & OIL-X TNTA	CUST.	TNTA FUEL USED	HRS.-GALS.	FROM
✓				

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM MAYO TO PALMER LK	182			1 PAX
~~TO PALMER LK~~				~~[illegible]~~
TO PENGUICULA	140			" "
~~TO MAYO~~	~~118~~ 110			" "

APPROVED / DATE

Project Number	Group Code	Activity Code	Account Class	
671	—	—	8684	669.60

Mayo – Penguicula – Mayo = 220 applicable to 671 Project.

457 SEP 11 '75

SUB	G.L.		AMOUNT
335	602		669.60

432	@ 1.55	669.60
WAITING TIME	@ /HR.	
FUEL:	@ /GAL.	
FUEL:	@ /GAL.	
MEALS & LODGING		
OTHER		
OTHER		

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

CHARTERER'S SIGNATURE

PILOT'S SIGNATURE

C. TINGLEY
ENGINEER'S NAME

TOTAL $ 669.60

FLIGHT REPORT
CUSTOMER COPY

TRANS NORTH TURBO AIR (1971) LTD.
BOX 4338, WHITEHORSE, YUKON
TELEPHONE (403) 668-5111 • TELEX 036-8-290

ACCOUNT NUMBER: F 60 10398

INVOICE DATE: 15 07 75

AREA: B.C. YUKON N.W.T. ALTA.

CHARTERER: AMAX Northwest Mining

BILLING ADDRESS: 601 535 Thurlow AMAX Vancouver

A/C TYPE: DHC-3

AIR CRAFT REGISTRATION C: F S U B

FLIGHT DATE: DAY 16 MONTH 08 YEAR 75

PURCHASE ORDER NO.: 671

FUEL & OIL-X: TNTA ✓ CUST.

TNTA FUEL USED: AUG 28 1975 HRS.-GALS. .4 FROM MA

VANCOUVER OFFICE

FROM / TO	MILES	HOURS	ZONE	REMARKS - NO. OF PASS - FREIGHT LBS.
FROM KATHLEEN				
TO PINGUICULA.	42			3 Dems JPH

M. Project.

SPLIT TICKET
#s 10397 - 10399
$10400.

APPROVED DATE

Project Number	Group Code	Activity Code	Account Class	Sub Class	Amount
671	—	—	8684	—	65.10

SUB	G.L.	AMOUNT
335	6012	65 10

DR 4586 SEP 11 '75

42	@	1.55	65 10
	@		
WAITING TIME	@	/HR.	
FUEL	@	/GAL.	
FUEL:	@	/GAL.	
MEALS & LODGING			
OTHER			
OTHER			
TOTAL		$	65 10

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

Matthew Sills
CHARTERER'S SIGNATURE

PILOT'S SIGNATURE

C. TINGLEY
ENGINEER'S NAME

INVOICE

APPENDIX II

STATEMENT OF QUALIFICATIONS

A.C. Hitchins

BASc. Geological Engineering, Univeristy of Toronto, 1970, M.Sc. Geology, University of Toronto, 1973
Experience includes; geological assistant with AMAX Minerals Exploration 1968-1969, geologist with AMAX Minerals Exploration 1970 to present.

J.B. Alsen

B.Sc. Honour Geology, University of British Columbia, 1975
Experience includes; student summer employment with Texas Gulf Sulfur Co. 1968, Canex Placer Ltd. 1969-1970, Junior for Archer, Cathro & Associates, 1971, Senior for Amoco Canada Petroleum Co. Ltd. 1972, senior for Imperial Oil Ltd. 1973-1974
Currently geologist with AMAX Minerals Exploration.

L.V. Penco

BASc. Geological Engineering, University of British Columbia, expected 1976.
Experience includes; geologist assistant for Pechiney Development Co. 1970, prospecting for Newmont Company of Canada Ltd. 1971, assayer for Granduc Operating Co. 1972, junior for AMAX Minerals Exploration 1974-1975.
Currently enrolled at U.B.C. for final year.

J.K. Mortensen

BASc. Geological Engineering, University of British Columbia, expected 1977.
Experience includes; student employment with Conwest Exploration in 1972, warehouseman with Climax Molybdenum (B.C.) Ltd. in 1973, drillers helper for Connors Drilling 1973, geological assistant for AMAX Minerals Exploration 1974-1975.
Currently enrolled at U.B.C.

APPENDIX III - LIST OF CLAIMS

Claim Name	Grant Number	Anniversary Date
DOC 1	Y95359	August 9, 1976
2	Y95360	"
4	Y95362	"
6	Y95364	"
8	Y95366	"
10	Y95368	"
12	Y95370	"
14	Y95372	"
16	Y95374	"
17-48 incl.	Y95375-Y95406 incl.	August 9, 1977
49-52 incl.	Y95407-Y95410 incl.	August 9, 1976
53-64 incl.	Y95411-Y95422 incl.	August 9, 1977
66	Y95424	August 9, 1976
68	Y95426	"
70	Y95428	"
72	Y95430	"
77	Y95435	"
78	Y95436	August 9, 1977
79	Y95437	August 9, 1976
80	Y95438	August 9, 1977
81	Y95439	August 9, 1976
82	Y95440	August 9, 1977
83-86 incl.	Y95441-Y95444 incl.	August 9, 1976
89-98 incl.	Y95447-Y95456 incl.	August 9, 1977
101-110 incl.	Y95459-Y95468 incl.	"
114	Y95472	August 9, 1976
116	Y95474	"
118	Y95476	"
120	Y95478	"
122	Y95480	"
124	Y95482	"
127-129 incl.	Y95485-Y95487	August 9, 1977
130	Y95488	August 9, 1976
131	Y95489	August 9, 1977
132	Y95490	August 9, 1976
133	Y95491	August 9, 1977
134-137 incl.	Y95492-Y95495	August 9, 1976
139	Y95497	"
140-145 incl.	Y95498-Y95503	August 9, 1977
146	Y95504	August 9, 1976
147-150 incl.	Y95505-Y95508	August 9, 1977

APPENDIX IV

DETAILED ROCK DESCRIPTIONS

Hsc_1 consists of interbedded brown-black slate and gritty limestone with minor dolomite grading downward into black, medium-coarse grained, thinly to thickly bedded, crystalline limestone.

Hsc_2 consists of finely laminated rusty black slate with minor limy mudstone that often exhibit soft sediment deformation.

Hsc_3 is a light orange to tan weathering, medium bedded dolomite with shale interbeds.

Hsc_4 consists of tan-grey weathering, massive dolomite with local interbeds of black to dark grey, fine grained, calcareous sandstone up to 40 feet thick. Scattered calcite filled vugs are surrounded by a stockwork of calcite and minor quartz stringers. Minor iron sulphides are associated with the dolomite beds. The lower portion is characterized by "zebra" textured dolomite and barite and minor planar stromatolites in contrast to the upper portion which contains abundant domal stromatolites.

Hsc_5 consists of coarse crystalline mottled massive thick bedded dark grey to black weathering, cliff forming dolomite with minor limestone.

Hsc_6 is a stromatolitic, bright orange to red weathering, grey, dolomite with beds up to two feet thick interbedded with black shale beds up to ten feet thick. The shale also forms partings between individual stromatolitic laminae. Domal and columar stromatolites are common throughout the dolomite; minor planar stromatolities occur in the lower portion.

Hsc_7 is a finely laminated, grey weathering dolomite in beds up to four feet thick that often contain rip-up clasts and load casts. Black lenticular and irregular pods of chert up to six inches thick and six feet long and occasionally sinuous in outline are indicative of the unit. Dark grey shale locally forms parting planes within dolomite.

Hsc_8 consists of light orange to tan weathering, medium to dark grey, finely laminated, medium bedded dolomite. Ripple marked shaly partings separate the dolomite beds. Occasional vugs are filled with quartz and calcite.

Where the dolomite is directly overlain by conglomerate of Unit Hcg_1 vertical cracks and irregular cavities within the dolomite are often filled with pebbles similar in composition to pebbles in the conglomerate, indicating that incipient karstification of the dolomite took place before deposition of the conglomerate.

Hsc_9 consists of a rusty brown to black weathering dark grey quartzite beds less than two feet thick separated by narrow dark grey shale beds. Although Unit Hsc_9 appears to generally underlie the clean quartzites of Hsc_{10}, it may grade laterally and/or vertically into Hsc_{10}.

Hsc_{10} consists of a massive, thick, bedded, resistant, light grey, light brown to purplish weathering, medium to coarse grained, light coloured orthoquartzite. Cross beds and laminations are rare. Hematite staining is concentrated in outcrops close to the unconformity with the overlying Hcgl. In a large outcrop on the northern portion of claim 137 the upper contact of the quartzite is hummocky and the hollows are filled with angular to subrounded quartzite boulders that grade rapidly upwards into more typical Hcgl. Fractures, extending down into the quartzite from the erosion surface often contain angular to rounded quartzite fragments.

$Hcgl_1$ is a brown weathering, cliff forming polymictic conglomerate. Clasts within the conglomerate vary from 1 - 48 inches across but average 8 - 10 inches and are usually subrounded to well rounded. At least 85 per cent of the clasts are identical to the quartzite of Unit Hsc_{10}, even where $Hcgl_1$ directly overlies dolomite. The remaining fragments consist of varying proportions of rusty sandstone-orange dolomite, and grey dolomite from the underlying Hsc units.

$Hcgl_2$ consists of buff to yellow weathering pebble conglomerate, sandstone, grit and siltstone overlying the more resistant $Hcgl_1$. Individual beds, often exhibiting graded bedding and ripple marks, vary in thickness from several inches to over five feet. Generally the upper part of $Hcgl_2$ is a quartz pebble conglomerate with a dolomite matrix in which the dolomite clast content increases as the upper contact is approached. Although only locally exposed, the contact between the clastic dolomite and overlying massive dolomite appears conformable.

$Hcgl_3$ consists of lenses of well bedded maroon siltstone and shale up to 20 feet thick near the upper contact $Hcgl_2$.

Hr_1 is a rusty, medium to fine grained quartzite with up to 5 - 10% disseminated pyrite. This lithology is prominent in the northeast corner of the property but pinches and shales out into Hr_2 to the south. Thickness reaches a maximum of 400 feet.

Hr_2 consists of brown, black and grey-blue shale and forms the dominant rock type in the lower portion of the Hr Group. This shale is the facies equivalent of Hd^1_m and Hd^1_u.

Hr_3 is a thinly bedded, black to grey, coarse grained limestone which grades into Hr_2 towards the south. Small lenses of Hr_3 occur within Hr_2.

Hr_4 is a cliff forming chaotic carbonate conglomerate containing clasts of limestone and dolomite which vary in shape from very angular through tabular to sub-rounded and range in size from 1/8 inch pisolites to blocks ten feet across. The majority of pebbles and boulders are limestone but dolomite boulders identical to the three dolomite members of Hd^1 are conspicuous within the conglomerate. At many exposures the fragments are grain supported with only minor amounts of dark grey micritic to coarsely crystalline limestone matrix which has a fetid odour on fresh surface.

Scattered through the conglomerate are commonly contorted lenses of a black, slightly calcareous recessive weathering shale. At the base of the conglomerate and included in map unit Hr_4 is a thin bedded dark grey limestone.

Within the property the conglomerate occupies a stratigraphic position equivalent to the upper dolomite of Hd^1. The presence of fragments of dolomite units lower in the section implies considerable relief either original or erosional on the reef forming dolomite nearby. Although the conglomerate is not in contact with the reef dolomites, the wide range in clast shape and size and lack of sorting indicates possible origin by debris flows from the reef.

Hr_5 is a finely laminated, dark brown to black shale with minor silty interbeds. Hr_5 appears to grade into Hr_6 to the south.

Hr_6 is a thin bedded, dark brown, green or purple assemblage of siltstone and silty shales with minor fine grained quartz rich sandstone. Locally the beds are calcareous and/or dolomitic. Towards the northern property boundary this unit thickens to greater than 1,200 feet.

Hr_7 consists of white to light grey, often rusty weathering coarse grained quartzite and quartz pebble conglomerate. Greater than 90% of the clasts are subangular to well rounded quartzite or white vein quartz fragments. Near the fault zone on claim 62 the quartzite is stained a bright red from oxidizing pyrite. Along strike to the north, Hr_7 becomes darker and the content of black shale, chert and feldspar clasts increases.

APPENDIX V

ASSAY AND GEOCHEMICAL DATA

Sample Number	% Cu	% Zn	% Pb	oz/T Ag	Length (Feet)
53922	-	24.0	0.06	0.16	0.5
53927	0.02	0.06	49.5	9.20	8
53928	<0.01	0.06	29.6	4.40	15
53929	<0.01	0.02	23.2	4.00	2
53930	<0.01	0.01	49.6	9.20	3
53931	<0.01	0.02	22.4	4.00	17
53932	0.04	0.16	16.0	3.20	12
53933	<0.01	0.12	0.40	0.20	10
53934	<0.01	0.04	0.72	0.36	12
53935	<0.01	0.24	0.12	0.16	9
53936	<0.01	6.64	3.48	2.00	21
53937	<0.01	1.30	4.00	2.48	15
53938	<0.01	0.20	2.08	1.00	14
53939	0.16	16.0	47.2	17.2	31
53940	0.04	9.60	52.0	20.8	27
53941	0.01	0.04	6.00	2.08	18
53923	-	4.00	0.06	0.16	3
53924	-	0.02	0.02	0.08	2
53925	-	0.16	0.02	0.12	3
53926	-	0.04	0.16	0.08	2.5

BURNABY LABORATORY - 2225 SPRINGER AVE. - BURNABY 2, B.C.

DATE Oct 1971 — TYPE SAMPLES Soil/Silt/Rock

PROJECT 671 — LOCATION

REQUESTED BY T. HITCHINS — DISPOSITION OF REJECTS

11	L36	7.2	2	12	16	20	320	1.3	1.0	62	80				11
12	S37		2	12	16	22	20	>10.0	1.0	42	134				12
13	T38		2	12	16	18	500	2.2	.6	116	86				13
14	L39		2	28	26	24	260	3.2	1.0	80	60				14
15	L40		2	26	22	22	100	3.5	.6	54	40				15
16	S41		2	28	20	18	160	3.8	.8	30	46				16
17	L42	7.2	2	24	20	18	80	3.2	.8	60	42				17
18	L43		2	36	38	30	560	3.4	.8	110	138				18
07	L48	7.5	2	24	30	26	640	2.6	1.0	100	50				07
08	49		2	20	20	22	360	2.6	1.0	52	40				08
09	50		2	12	20	18	400	1.5	.8	232	100				09
10	T51		24	5000	114	1100	360	2.4	1.4	62	28				10
11	L52	7.4	2	32	24	24	380	2.6	1.0	60	46				11
12	L53		2	26	26	20	160	2.8	.8	66	30				12
13	S54		2	16	14	14	80	2.4	.6	30	30				13
14	S55		2	20	30	20	120	3.3	.6	40	38				14
15	S56		2	16	14	16	20	3.6	.6	32	52				15
16	L57	7.5	2	18	24	20	500	1.6	.8	50	40				16
22	L32	7.5	2	12	20	16	400	0.7	.6	140	80				22
23	L33		2	24	24	20	420	2.9	.8	40	30				23
24	T34		2	6000	30	44	880	1.3	>12.0	4100	66				24
25	L35	7.5	2	22	22	20	460	1.8	.8	130	110				25
26	T36		2	84	40	30	3600	2.8	1.0	68	36				26
27	T37		2	20	26	20	560	0.6	1.0	40	36				27
28	T38		2	16	22	30	60	1.4	.2	12	10				28
29	T39		2	16	26	30	60	1.2	.2	90	14				29
30	T40		2	14	26	32	60	1.0	.2	12	14				30
31	T41		2	8	30	20	500	1.0	1.0	28	38				31
29															29
30															30
31															31
32															32
33															33
34															34
35															35
36															36
37															37
38															38
39															39
40															40

COMMENT:

DATE SAMPLES RECEIVED

DATE REPORTS MAILED

ANALYST

BONNET PLUME MOUND CARBONATE UNITS

LOWER CAMBRIAN

€s — *Brown and orange weathering dolomite, limestone and shale.*

€c — *2. Buff yellow weathering porous dolomite.*
1. Grey weathering pisolitic dolomite.

UPPER HADRYNIAN

Hd — *2. Porous light grey weathering dolomite.*
1. Grey weathering dolomite; Hcgl basal conglomerate.

Hc — *2. Grey weathering massive dolomite and limestone.*
1. Orange weathering banded dolomite and limestone.

SYMBOLS

Limit of mapping and/or outcrop.

Geological contact.

Fault.

Synclinal fold axis.

Outline of claims held by AMAX.

NOTE —
After Geological Survey of Canada Open File Publication No. 205, modified.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA GEORGE LEARY

AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY
MAYO MINING DISTRICT — YUKON

REGIONAL GEOLOGY

SCALE 4 0 4 MILES
1 : 250,000

To accompany "1975 GEOLOGICAL REPORT ON THE MOUNT PROFEIT PROPERTY" by: A. C. Hitchins and J. B. Alsen, supervised by G. M. Leary

Vancouver — H.C.P.

N. T. S. Ref. 106 C 14

FIG. 3

L E G E N D

UPPER HADRYNIAN

- **HЄsc** SHEEPBED FORMATION — HЄsc$_2$ *Dark gray to black shale and siltstone.* HЄsc$_1$ *Interbedded gray micritic and silty limestone.*
- **Hd^2** *Yellow weathering, laminated, fine grained dolomite.* Hd^{2}s *Black shale.*
- **Hr** RAPITAN GROUP — Hr$_7$ *Rusty to light gray quartzite and pebble conglomerate.* Hr$_6$ *Rusty green-brown siltstone and shale.* Hr$_5$ *Black shale and siltstone.*
  - **Hr$_4$** *Limestone - dolomite conglomerate.*
  - Hr$_3$ *Black, coarse grained limestone.* Hr$_2$ *Black shale.*
  - **Hr$_1$** *Quartzite.*
- **Hd'** *Dolomite.*
  - **Hd'u** *Pink-gray weathering, sandy stromatolitic dolomite.*
  - **Hd'm** *Yellow weathering, massive, fine grained dolomite.*
  - **Hd'l** *Light gray weathering, mottled, stromatolitic dolomite.*
- **Hcgl** Hcgl$_3$ *Maroon siltstone and shale.* Hcgl$_2$ *Yellow weathering pebble conglomerate, sandstone and grit.* Hcgl$_1$ *Brown boulder conglomerate.*
- **Hsc** Hsc$_{10}$ *Light coloured quartzite.* Hsc$_9$ *Rusty brown quartzite with shale partings.* Hsc$_8$ *Light orange weathering, medium bedded dolomite with minor shale.* Hsc$_7$ *Light gray weathering, well bedded dolomite with chert nodules.* Hsc$_6$ *Bright orange weathering dolomite and black shale.* Hsc$_5$ *Coarse crystalline, massive, dark gray dolomite.* Hsc$_4$ *Gray weathering, massive, stromatolitic dolomite with minor sandstone beds.* Hsc$_3$ *Light orange weathering, medium bedded dolomite with minor shale.* Hsc$_2$ *Rusty black slate with minor limy mudstone.* Hsc$_1$ *Interbedded brown-black slate and gritty limestone.*
- **Hc^2** *Light gray weathering dolomite with minor limestone.*

S Y M B O L S

Limit of outcrop.
Geological contact.
Fault showing down throw side, or shear.
Bedding attitude (inclined, vertical).
Top of beds.
Jointing attitude (inclined, vertical).
Lineation.
Anticlinal fold axis showing direction of plunge.
Synclinal fold axis.
(24)● Zn *Mineral occurrence showing number.*
5NJ41 ○40,54,26,0.6 *Soil sample site, sample number; p.p.m. Pb, Zn, Cu, Ag.*
5NJ40 □46,30,28,0.8 *Silt sample site, sample number; p.p.m. Pb, Zn, Cu, Ag.*
5NT36 ⊕36,68,84,1.0 *Rock chip sample site, sample number; p.p.m. Pb, Zn, Cu, Ag.*
Claim post, claim location line.
Claim boundary.
Stream.
5000 *Topographic contour (contour interval 100').*

NOTE —
SUN 13-16 mineral claims owned by Yukon Revenue Mines Ltd.
ROB 3 mineral claim owned by Consolidated Coast Silver Mines Ltd.

CROSS SECTION
LOOKING NORTHWEST

CROSS SECTION
LOOKING NORTHWEST

— KEY —

GEORGE LEARY

AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY
MAYO MINING DISTRICT — YUKON
090054
DOC CLAIMS
GEOLOGICAL MAP
SOUTH SHEET

SCALE 500 0 500 FEET
200 0 200 METERS

DATE REVISED	DATE PRINTED	Drawn by:	FIG. 5a
		Date	
		N.T.S. File 106 C 14	

To accompany "1975 GEOLOGICAL REPORT ON THE MOUNT PROFEIT PROPERTY" by: A.C. Hitchins and J.B. Alsen, supervised by G.M. Leary.

L E G E N D

UPPER HADRYNIAN

Hesc — *SHEEPBED FORMATION* — $Hesc_2$ *Dark gray to black shale and siltstone.* $Hesc_1$ *Interbedded gray micritic and silty limestone.*

Hd² — *Yellow weathering, laminated, fine grained dolomite.* Hd^2s *Black shale.*

Hr — *RAPITAN GROUP* — Hr_7 *Rusty to light gray quartzite and pebble conglomerate.* Hr_6 *Rusty green-brown siltstone and shale.* Hr_5 *Black shale and siltstone.*

Hr_4 *Limestone - dolomite conglomerate.*

Hr_3 *Black, coarse grained limestone.* Hr_2 *Black shale.*

Hr_1 *Quartzite.*

Hd¹ — *Dolomite.*

Hd^1u *Pink-gray weathering, sandy stromatolitic dolomite.*

Hd^1m *Yellow weathering, massive, fine grained dolomite.*

Hd^1l *Light gray weathering, mottled, stromatolitic dolomite.*

Hcgl — $Hcgl_3$ *Maroon siltstone and shale.* $Hcgl_2$ *Yellow weathering pebble conglomerate, sandstone and grit.* $Hcgl_1$ *Brown boulder conglomerate.*

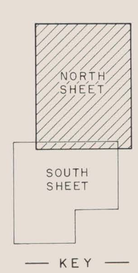
Hsc — Hsc_{10} *Light coloured quartzite.* Hsc_9 *Rusty brown quartzite with shale partings.* Hsc_8 *Light orange weathering, medium bedded dolomite with minor shale.* Hsc_7 *Light gray weathering, well bedded dolomite with chert nodules.* Hsc_6 *Bright orange weathering dolomite and black shale.* Hsc_5 *Coarse crystalline, massive, dark gray dolomite.* Hsc_4 *Gray weathering, massive, stromatolitic dolomite with minor sandstone beds.* Hsc_3 *Light orange weathering, medium bedded dolomite with minor shale.* Hsc_2 *Rusty black slate with minor limy mudstone.* Hsc_1 *Interbedded brown-black slate and gritty limestone.*

Hc² — *Light gray weathering dolomite with minor limestone.*

S Y M B O L S

- *Limit of outcrop.*
- *Geological contact.*
- *Fault showing down throw side, or shear.*
- *Bedding attitude (inclined, vertical).*
- *Top of beds.*
- *Jointing attitude (inclined, vertical).*
- *Lineation.*
- *Anticlinal fold axis showing direction of plunge.*
- *Synclinal fold axis.*
- *Mineral occurrence showing number.*
- *Soil sample site, sample number; p.p.m. Pb, Zn, Cu, Ag.*
- *Silt sample site, sample number, p.p.m. Pb, Zn, Cu, Ag.*
- *Rock chip sample site, sample number; p.p.m. Pb, Zn, Cu, Ag.*
- *Claim post, claim location line.*
- *Claim boundary.*
- *Stream.*
- *Topographic contour (contour interval 100').*

NOTE —
SUN 13-16 mineral claims owned by Yukon Revenue Mines Ltd.
ROB 3 mineral claim owned by Consolidated Coast Silver Mines Ltd.



PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — GEORGE LEARY

AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY
MAYO MINING DISTRICT — YUKON
DOG CLAIMS

GEOLOGICAL MAP
NORTH SHEET

SCALE 200 0 200 400 0 500 FEET METERS

DATE REVISED		DATE PRINTED	Drawn by	FIG. 5b
			Date	
			N.T.S. File 106 C 14	

To accompany "1975 GEOLOGICAL REPORT ON THE MOUNT PROFEIT PROPERTY" by A.C. Hitchins and J.B. Aisen, supervised by G.M. Leary

L E G E N D

UPPER HADRYNIAN

Hd² *Yellow weathering, laminated, fine grained dolomite.*

Hr *RAPITAN GROUP — Hr_7 Rusty to light gray quartzite and pebble conglomerate. Hr_6 Rusty green brown siltstone and shale. Hr_3 Black coarse grained limestone. Hr_2 Black shale.*

Hd¹ *Dolomite.*

- Hd¹m *Yellow weathering, massive, fine grained dolomite.*
- Hd¹l *Light gray weathering, mottled stromatolitic dolomite.*

Hcgl $Hcgl_3$ *Maroon siltstone and shale.* $Hcgl_2$ *Yellow weathering pebble conglomerate sandstone and grit.* $Hcgl_1$ *Brown boulder conglomerate.*

S Y M B O L S

Limit of outcrop.

Geological contact.

Fault showing down throw side.

50 *Bedding attitude*

80 *Jointing attitude (inclined, vertical).*

(23) ● Pb, Zn *Mineral occurrence showing number.*

0.12,0.14,0.16(9') *Selected chip sample; % Pb, % Zn, oz/ton Ag (footage).*

Claim boundary.

Claim post, claim location line.

5000 *Topographic contour, (contour interval 100')*

Stream.

GEORGE LEARY
BRITISH COLUMBIA
ENGINEER

AMAX EXPLORATION INC.

MOUNT PROFEIT PROPERTY
MAYO MINING DISTRICT — YUKON
DOC CLAIMS
GEOLOGICAL MAP
MAIN SHOWING

SCALE 200 0 200 FEET
100 0 100 METERS

DATE REVISED		DATE PRINTED		Drawn by: Date N. T. S. File 106 C 14	FIG. 6

To accompany "1975 GEOLOGICAL REPORT ON THE MOUNT PROFEIT PROPERTY" by: A.C. Hitchins and J.B. Alsen supervised by G.M. Leary.

090054