LEGEND

PALEOZOIC

ORDOVICIAN & SILURIAN

V — Mount Kindle Formation
Light gray dolomite

IV — Sheepbed Formation
Brown to black shale. IVa Blue grey limestone - ferrodolomite, reef detritus breccia

LOWER CAMBRIAN

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen, IIIa Vuggy dolomite, IIIb Buff dolomite with numerous bands of quartz, IIIc Light-dark grey "wavy bedded" dolomite

II — Light grey fine dolomite; IIa Sandy dolomite to quartz arenite with crossbedded and conglomeratic sections

PROTEROZOIC

HADRYNIAN

I — Undifferentiated interbedded dolomite and shale; Ia Interbedded quartz arenite and shale; Ib Dark grey shale - siltstone; Ic Light-dark grey mottled dolomite, fine-medium, local solution collapse breccias

FAULTS, approximate

BEDDING, strike and dip

JOINTS, strike and dip, strike and vertical dip

Contacts, approximate

LIMIT of outcrop in heavily covered areas

MINERALIZED talus; talus

MINERALIZATION sphalerite, galena (PbS), pyrite (py)

FOLDS, syncline; anticline

SECTION 1

SECTION 2

BRITISH NEWFOUNDLAND EXPLORATION LTD.		
GEOLOGY		
CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE DECEMBER '74	SCALE 1" : 400'	DRAWN BY K.B.M.
	MAP NO. G74501-3	TRACED BY
	MAP REF. 106 C/7	CHECKED BY K.B.M.

Pacific Survey Corp. 74-38

10005592 80

LEGEND

PALEOZOIC

ORDOVICIAN & SILURIAN

V — Mount Kindle Formation
Light gray dolomite

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Brown to black shale; IV a Blue grey limestone – ferrodolomite, reef detritus breccia

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FAULTS, approximate

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FOLDS, syncline; anticline

SECTION 1

SECTION 2

BRITISH NEWFOUNDLAND EXPLORATION LTD.		
GEOLOGY		
CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE DECEMBER '74	SCALE 1" : 400'	DRAWN BY K.B.M.
	MAP NO. G74501-3	TRACED BY
	MAP REF. 106 C/7	CHECKED BY K.B.M.

Pacific Survey Corp. 74-38

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SECTION 3

SECTION 4

PALEOZOIC

PROTEROZOIC

LEGEND

ORDOVICIAN & SILURIAN

LOWER CAMBRIAN

HADRYNIAN

V — Mount Kindle Formation
Light gray dolomite

IV — Sheepbed Formation
Brown to black shale; IVa Blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; IIIa Vuggy dolomite; IIIb Buff dolomite with numerous bands of quartz; IIIc Light-dark grey "wavy bedded" dolomite

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I — Undifferentiated interbedded dolomite and shale; Ia Interbedded quartz arenite and shale; Ib Dark grey shale-siltstone; Ic Light-dark grey mottled dolomite, fine-medium, local solution collapse breccias

FAULTS, approximate

BEDDING, strike and dip

JOINTS, strike and dip, strike and vertical dip

CONTACTS, approximate

LIMIT of outcrop in heavily covered areas

X X MINERALIZED talus; talus

MINERALIZATION sphalerite, galena (PbS), pyrite (py)

FOLDS, syncline; anticline

BRITISH NEWFOUNDLAND EXPLORATION LTD.		
GEOLOGY		
CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE DECEMBER '74	SCALE 1" : 400	DRAWN BY K.B.M.
	MAP NO. G-14501-4	TRACED BY
	MAP REF. 106 C/7	CHECKED BY K.B.M.

Pacific Survey Corp. 74-38

10000 559280

V

IV

III

IIIa

IIIc

II

IIa

Ic

Ib

DDH 74-6

DDH 74-3+5

DDH 74-7

SECTION 5

SECTION 6

SECTION 7

LEGEND

ORDOVICIAN & SILURIAN	V	Mount Kindle Formation: Light gray dolomite
	IV	Sheepbed Formation: Brown to black shale; IV a Blue grey limestone-ferrodolomite, reef detritus breccia
PALEOZOIC — LOWER CAMBRIAN	III	Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; III a Vuggy dolomite; III b Buff dolomite with numerous bands of quartz; III c Light - dark grey "wavy bedded" dolomite
	II	Light grey fine dolomite; II a Sandy dolomite to quartz arenite with crossbedded and conglomeratic sections
PROTEROZOIC — HADRYNIAN	I	Undifferentiated interbedded dolomite and shale; I a Interbedded quartz arenite and shale; I b Dark grey shale-siltstone; I c Light-dark grey mottled dolomite, fine-medium, local solution collapse breccias

Faults

Bedding, strike and dip

Joints, strike and dip, strike and vertical dip

Contacts, approximate

Limit of outcrop in heavily covered areas

X X Mineralized talus, talus

Mineralization, sphalerite, galena (PbS), pyrite (py)

Folds, syncline, anticline

4 | 3 | 2 | 1 — SHEET INDEX

N

Approx

Pacific Survey Corp. 74-38

BRITISH NEWFOUNDLAND EXPLORATION LTD.		
GEOLOGY		
CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE: DECEMBER 1974	SCALE: 1" = 400'	DRAWN BY KBM+JH
	MAP NO. G74501-5	TRACED BY D.M.
	MAP REF. 106 C/7	CHECKED BY K.B.M.

1000559280

BRITISH NEWFOUNDLAND EXPLORATION, LTD.		
TOPOGRAPHIC REFERENCE MAP CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE : FEB 1975	SCALE : 1" : 1000'	DRAWN BY D.M.
	MAP G74501-33	TRACED BY D.M
	MAP REF. 106 C/7	CHECKED BY K.B.M.

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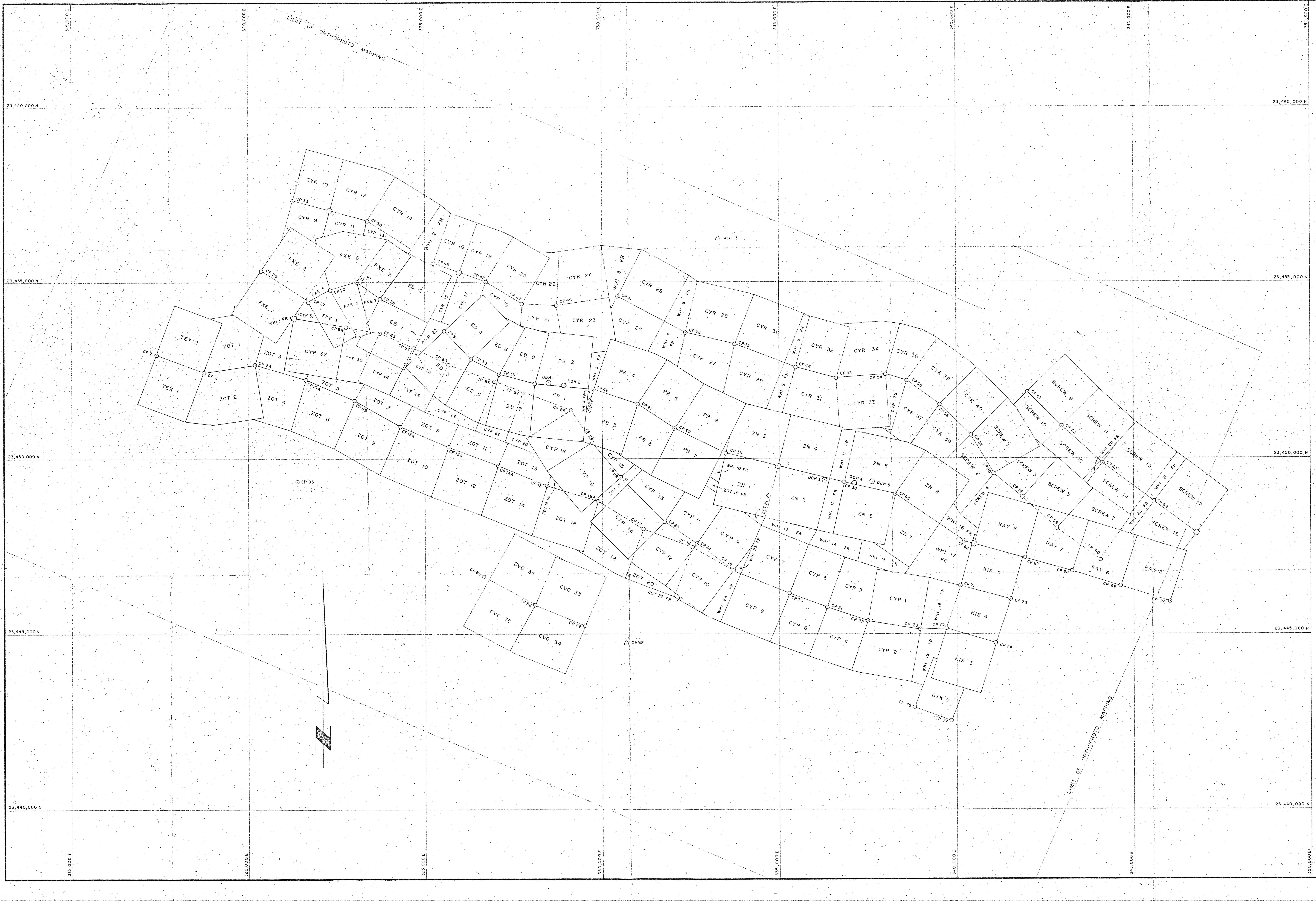


PLAN SHOWING PRELIMINARY CLAIM SURVEY FOR

CYPRESS RESOURCES LTD.
BRITISH NEWFOUNDLAND EXPLORATION LTD.

BONNET PLUME PROJECT

64°30' LATITUDE; 132°55' LONGITUDE (APPROX.)

MAP SHEET 106C-7

YUKON TERRITORY

JUNE, JULY, 1974

SCALE 1" = 1000'

MAP G74501-34

LEGEND:

- ○ Indicates claim posts found and station number.
- ⊙ Indicates diamond drill holes.
- ⊡ Indicates approximate position of claim posts not found or destroyed and station number

Refer to control plan and coordinate list submission for station coordinates and elevations.

Solid lines indicate boundaries of claims surveyed, dotted lines indicate claim boundaries within prior claims.

WHITE, HOSFORD & IMPEY LTD.

BOX 4418

WHITEHORSE, YUKON

1000559280954-74

BRITISH NEWFOUNDLAND EXPLORATION LIMITED

GEOLOGICAL AND GEOCHEMICAL REPORT

CYPRESS RESOURCES LTD. PROPERTY

MAYO MINING DISTRICT

64° 15' 133° NE

By: K.B. McHale, F.G.A.C.

Field Period June 5 to September 10, 1974

Report Period September 10 to December 31, 1974

TABLE OF CONTENTS

ILLUSTRATIONS

INTRODUCTION

The Cypress Resources Limited claims are located in the Bonnet Plume Range of the Wernecke Mountains, approximately 110 miles northeast of Mayo on the north side of the Bonnet Plume River in the Yukon Territory (see Fig. 1). Coordinates of the property are 64° 25' North and 132° 55' West.

Elevations range from 2,800 to 6,500 feet, and local relief is rugged. Tree line is approximately 4,500 feet.

The property is accessible by helicopter and fixed wing aircraft from Mayo. Both Porter Puddle (5 miles southeast of the property) and Rackla Lake (12 miles southwest) are suitable for fixed wing aircraft. However, Porter Puddle is too short to allow take offs with a full load.

Geological and geochemical surveys, and diamond drilling were conducted on the claims during 1974. The field crews were employees of Cypress and the supervisor was employed by Brinex. The drill crew were employees of Arctic Diamond Drilling Limited.

The principals included in the programme were:

Dr. Neil Westoll, Manager - Western Exploration,
British Newfoundland Exploration Limited,
704 - 602 West Hastings Street, Vancouver, B.C. V6B 1P2

Mr. Barry McHale, Project Geologist,
British Newfoundland Exploration Limited,
704 - 602 West Hastings Street, Vancouver, B.C. V6B 1P2

. . . 2

Mrs. Diann McHale, Geologist,
British Newfoundland Exploration Limited,
704 - 602 West Hastings Street, Vancouver, B.C. V6B 1P2

Mr. John Hunter, Geologist,
Department of Geology, University of Leicester,
Leicester, England.

Dr. P.H. Grimley, Vice President - Exploration,
British Newfoundland Exploration Limited,
One Westmount Square, Montreal, Quebec. H3Z 2S2

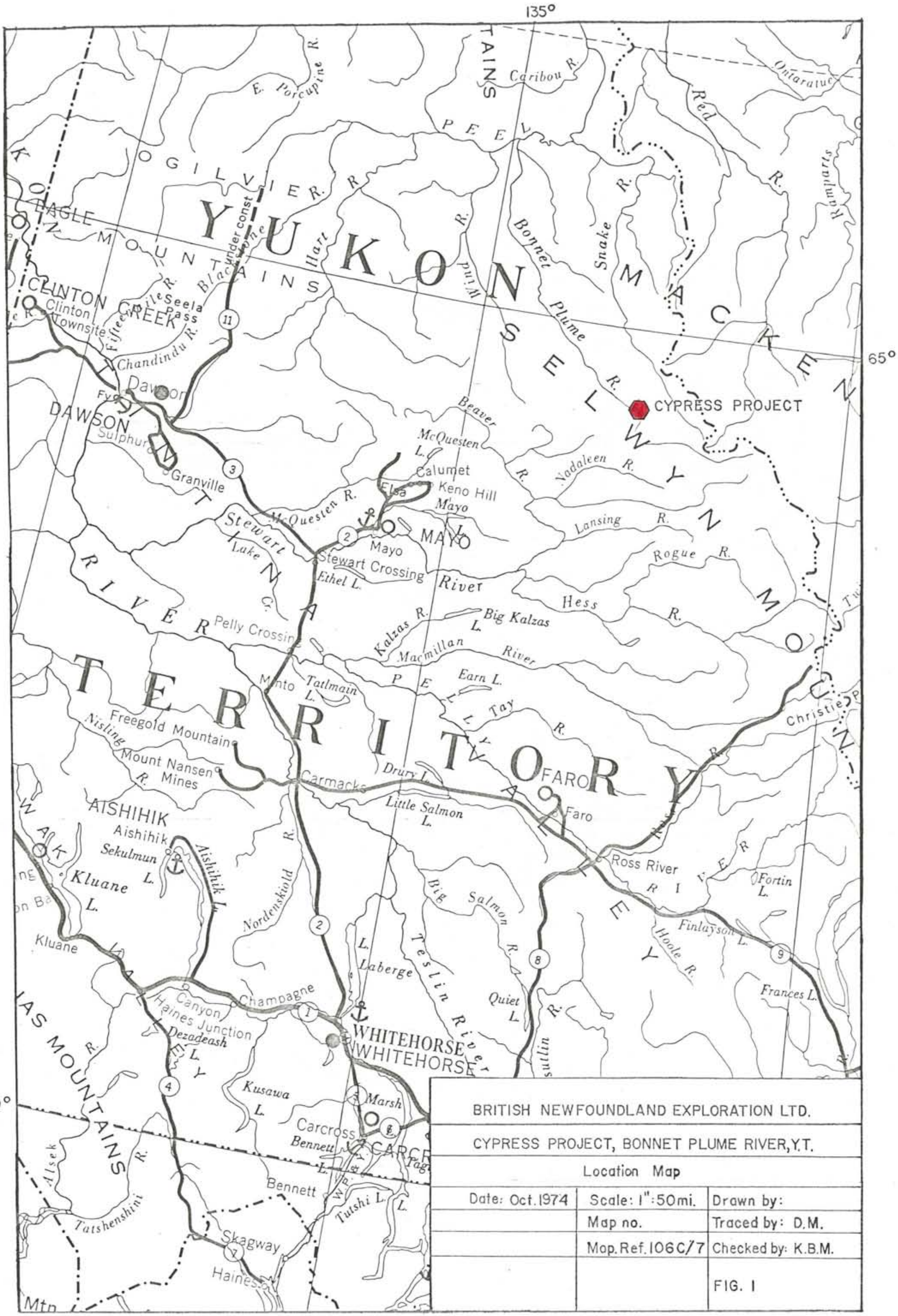
Contributions made by the individual are acknowledged throughout the text.

Respectfully submitted,

K. Barry McHale

K.B. McHale, F.G.A.C.

Vancouver, B.C.
October , 1974



BRITISH NEWFOUNDLAND EXPLORATION LTD.		
CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
Location Map		
Date: Oct. 1974	Scale: 1":50 mi.	Drawn by:
	Map no.	Traced by: D.M.
	Map. Ref. 106C/7	Checked by: K.B.M.
		FIG. 1

SUMMARY

Work done during the field season of 1974 on the Bonnet Plume claim group, located 110 miles northeast of Mayo, Yukon Territory, consisted of geological mapping, diamond drilling, geochemical and geophysical surveys.

Field work during the 1974 season has shown that the upper dolomite unit contains only sporadic, discontinuous mineralized zones that are restricted in size. The zone was tested with seven drillholes and no intersections of sufficient thickness and grade to be economic at this time were encountered. It is recommended that no further work be done on this part of the property in 1975.

Geological mapping and soil sampling on ground that is approximately 2,500 feet stratigraphically lower than the upper dolomite unit has shown that a favourable host rock with associated Pb-Zn soil geochemical anomalies occur in this part of the section. This part of the section is the westward extension of the mineralized unit that outcrops on the Barrier Reef/Great Plains Harrison Creek ground. The field programme for 1975 will consist of detailed mapping, soil sampling and trenching of this zone.

GEOLOGY

A. Regional

The area has been mapped by Dr. S. Blusson of the Geological Survey of Canada. Open File maps were issued in June, 1974. The maps that

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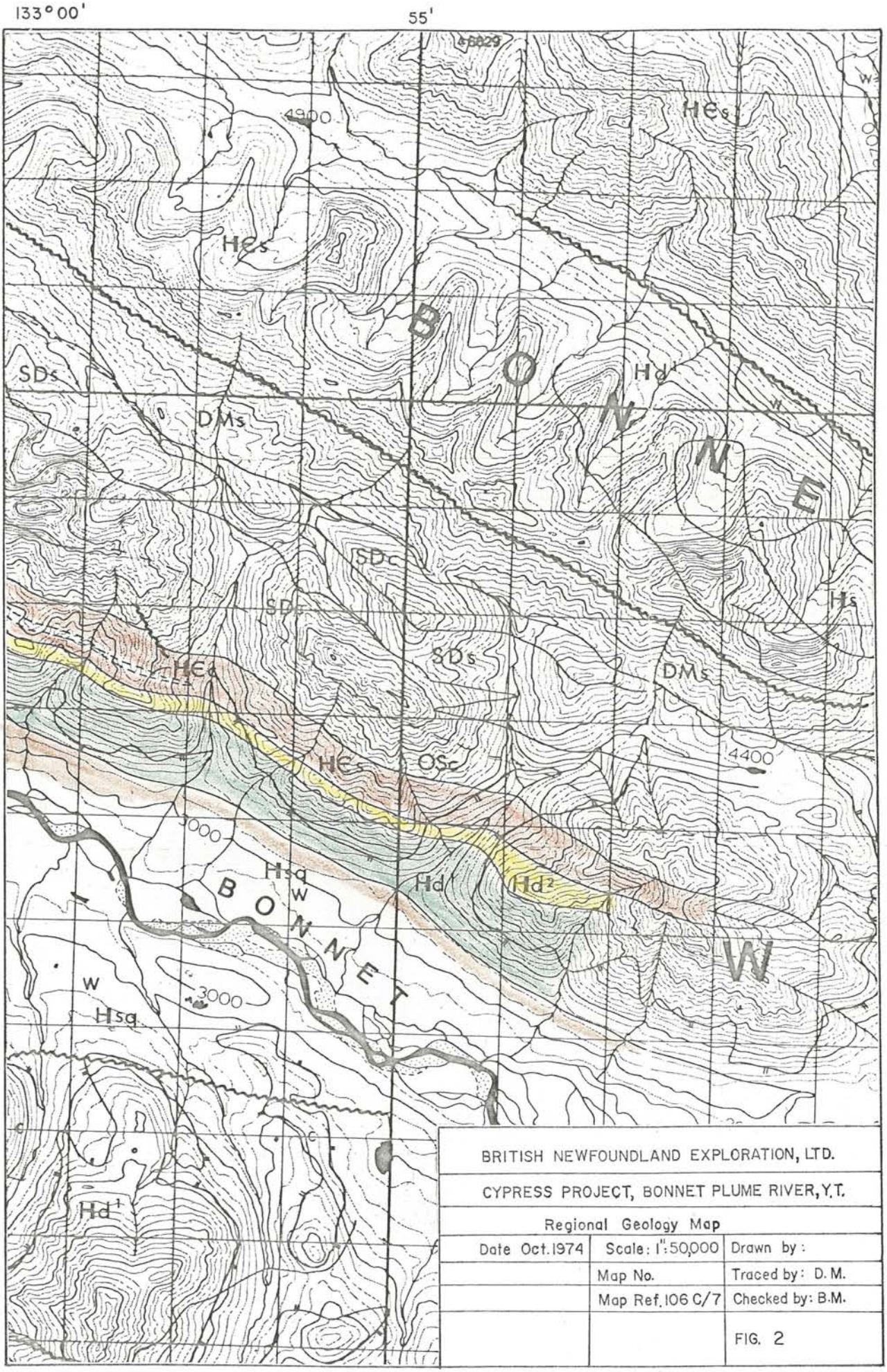

BRITISH NEWFOUNDLAND EXPLORATION, LTD.		
CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
Regional Geology Map		
Date Oct. 1974	Scale: 1":50,000	Drawn by:
	Map No.	Traced by: D. M.
	Map Ref. 106 C/7	Checked by: B.M.
		FIG. 2

L E G E N D

(To Accompany Goz Creek 106^{c}/7 Geology Map)

Paleozoic

DEVONIAN & MISSISSIPPIAN

Besa River Formation: black shale and siltstone, commonly pyritic.

SILURIAN & DEVONIAN

Light grey, well bedded dolomite, minor limestone near top; ODc undivided OSc and SDc.

ORDOVICIAN & SILURIAN

Mount Kindle Formation: light and minor dark grey regularly bedded dolomite; OSc^{1}, light grey dolomite; OSc^{2}, dark grey dolomite; OSc black shale.

LOWER CAMBRIAN

Sekwi Formation: brown and orage weathering thin-bedded dolomite, grey and buff mottled limestone, brown shale and sandstone.

Backbone Ranges Formation: EG, varicoloured quartzite, siltstone and shale, minor silty and sandy dolomite, Ecq buff to orange weathering and mauve dolomite, in part silty and sandy, minor quartzite and shale Ec^{1} pale buff grey weathering poorly bedded in part pisolitic dolomite, minor quartzite. Ec^{2} buff yellow weathering, in part porous fine-grained dolomite. May be Hadrynian in part.

Proterozoic

HADRYNIAN

Sheepbed Formation: brown and black recessive slate, siltstone minor quartzite, conglomerate and light grey carbonate.

1. Grey weathering, medium to thick bedded fine-grained dolomite; basal dark brown conglomerate Hcgl.

2. Light grey buff weathering, porous fine-grained dolomite.

Hsq, brown shale, siltstone and conglomerate, minor orage weathering platy dolomite.

pertain to the area are Nadaleen River (106C, scale 1:250,000) and Goz Creek (106 c/7, scale 1:50,000) (see Fig. 2).

The area is underlain by a thick sedimentary sequence ranging in age from Hadrynian to Mississippian. The sediments strike northwesterly and dip steeply to the Northeast.

B. Property (See Figs. 3, 4 ,5, 33)

The Hadrynian to Mississippian rocks on the property strike N 70° W and dip 40° to 70° northeasterly. Field work was confined to the Hadrynian-Lower Cambrian portion of the sequence, which has a thickness of at least 4,500 feet and can be divided into four distinct units (see Figs. 6 - 13), that overlie each other conformably.

Unit One - Middle Hadrynian

This unit, lowermost in the section, is poorly exposed, with the majority of the outcrops confined to the creeks on the property. The extimated thickness is at least 3,200 feet. There is not enough exposure to enable a complete general stratigraphic section to be drawn for the unit. Based on limited information it appears that there are facies changes between the western and eastern parts of the property as the unit becomes more shaly to the west.

1. Western Part of Property

In Wolverine Creek the section consists of interbedded dolomite

. . . 5

and siltstone-shale. The dolomites are dark grey, fine-medium crystalline and within the dolomite there are zones of what appear to be "solution collapse breccias" and "zebra" texture developed. The siltstone-shales are thin bedded, and dark brown in colour.

2. Eastern Part of Property

Here, the unit is better exposed and appears to be divisible into a lower and upper section:

i Lower Section

This portion consists primarily of thin bedded siltstone and shale with minor interbeds of quartz arenite and impure dark grey black limestone.

ii Upper Section

This part of the unit is primarily a dark grey fine-medium crystalline dolomite that is in places oolitic to pisolitic. A dolomite breccia of probable "solution collapse" origin is exposed in one creek gully east of Grayling Creek. The breccia zone may be up to 100 feet in thickness. Based on float occurrences the section also contains blue grey shaly dolomite, dolomitic shale, impure limestone and limestone breccia. This section appears to become shaly to the west.

Unit Two - Upper Hadrynian

This unit is moderately well exposed on the property and its thickness varies from 1,800 to 2,400 feet. The unit thins both to the east and

. . . 6

west on the property. It is predominantly a light grey aphano to fine crystalline medium to thick bedded dolomite. In places, there are moderate amounts of frosted detrital quartz grains and traces of disseminated pyrite. Locally the unit has minute lenticular vugs that are sub parallel to bedding and were probably formed by some dissolution process. Within the unit, there are some fairly consistent, but discontinuous, lensoidal subunits. The major subunit is a sandy dolomite to dolomitic quartz arenite that varies in thickness from 100 to 400 feet and occurs 100 to 600 feet below the top of the unit. It exhibits strong crossbedding and graded bedding, and east of Grayling Creek, becomes conglomeratic. Locally there is oolitic to pisolitic dolomite above and below the sandy dolomite, which is also oolitic in places. West of Grizzly Creek a few narrow sandy dolomite clastic dikes were noted at the same stratigraphic position.

Unit Three - Upper Hadrynian - ? Lower Cambrian

This unit is well exposed and has, over most of the property, an average thickness of 450 to 500 feet. West of Barite Hill, however, the unit thins rapidly and on Ptarmigan Ridge is 250 feet thick.

In the area west of Grayling Creek, the unit consists primarily of a porous, buff, fine to medium crystalline dolomite with both lateral and vertical facies variations. There are local areas of probable "solution collapse" cavity breccia and vug development but these are minor and restricted in size. In general the breccias are cemented and the vugs filled with quartz and minor dolomite and sulphides.

. . . 7

But on Barite Hill, and to the west, the vugs are filled predominantly with coarse white crystalline barite. On Ptarmigan Ridge the unit can be subdivided into several sub units of which a zone, in the upper part, with 1-5 feet thick bands of quartz is the most distinctive. East of Ptarmigan Ridge, in the middle to upper part of the unit, there are, locally, zones with quartz bands parallel to bedding, but these are not continuous and cannot be used as a marker horizon.

East of Grayling Creek, the unit is a repetitive sequence of porous buff dolomite and dark "wavybedded" dolomite. The wavy bedded dolomite comprise most of the section and is thought to be a product of a "sab kha" environment. The wavy bedded texture results from alternating broken bands of light and dark dolomite. In the unit there are good examples of solution channel in-filling with dark sandy material which shows that a dissolution process was at work. As in the eastern part, the major cement in the breccias is quartz with minor sulphides.

Unit Four - Lower Cambrian

Unit Three is up to 1,600 feet thick and consists of strongly cleaved thinbedded brown to black shale. The lower contact is gradational to Unit Three with dark impure dolomite that contains intraformational breccias and moderate to abundant pyrite. Within this unit and near the base there is a blue grey fossiliferous (archaeocyathids, trilobites) limestone to ferro dolomite reefal detritus breccia that varies from 40 to 100 feet in thickness.

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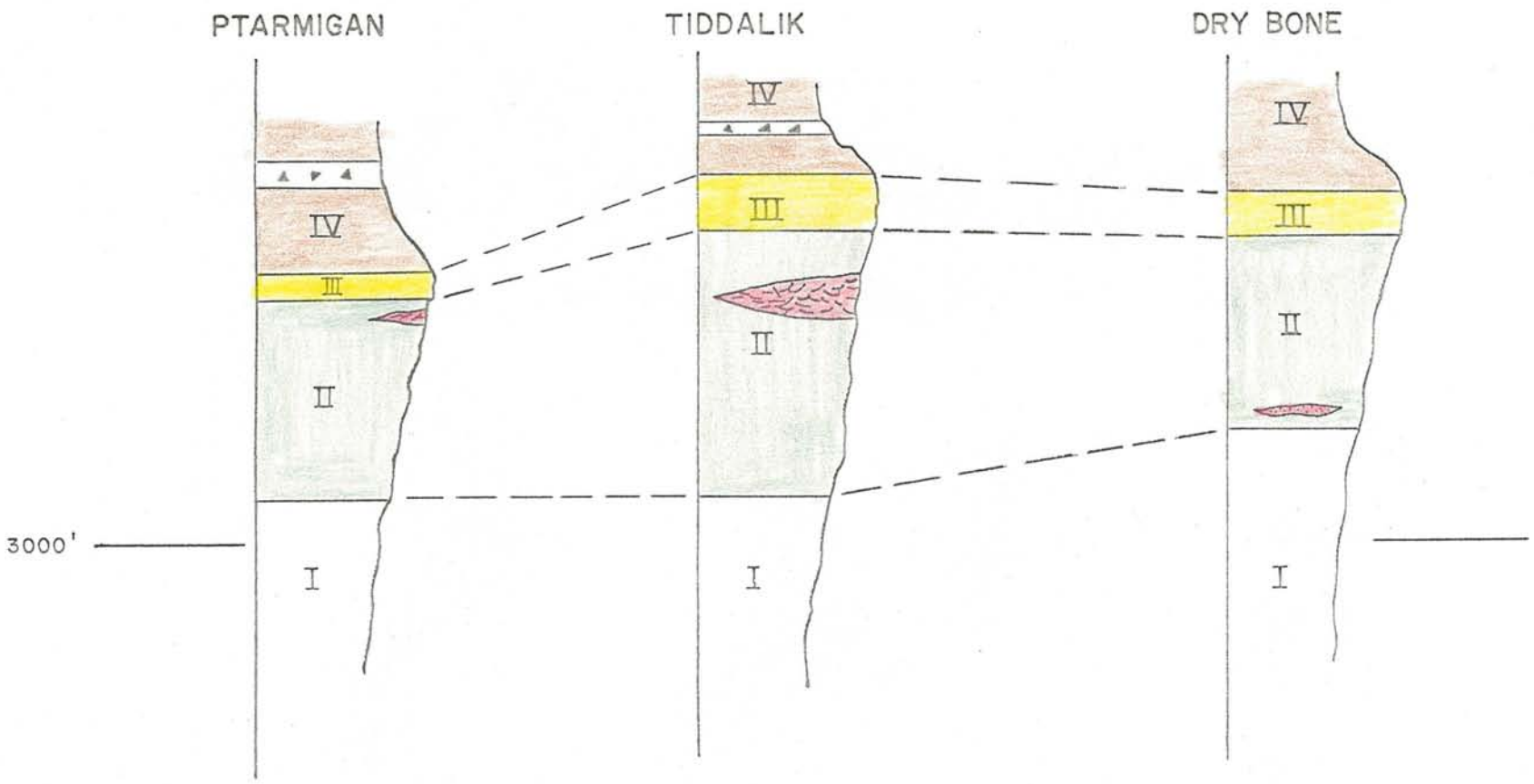
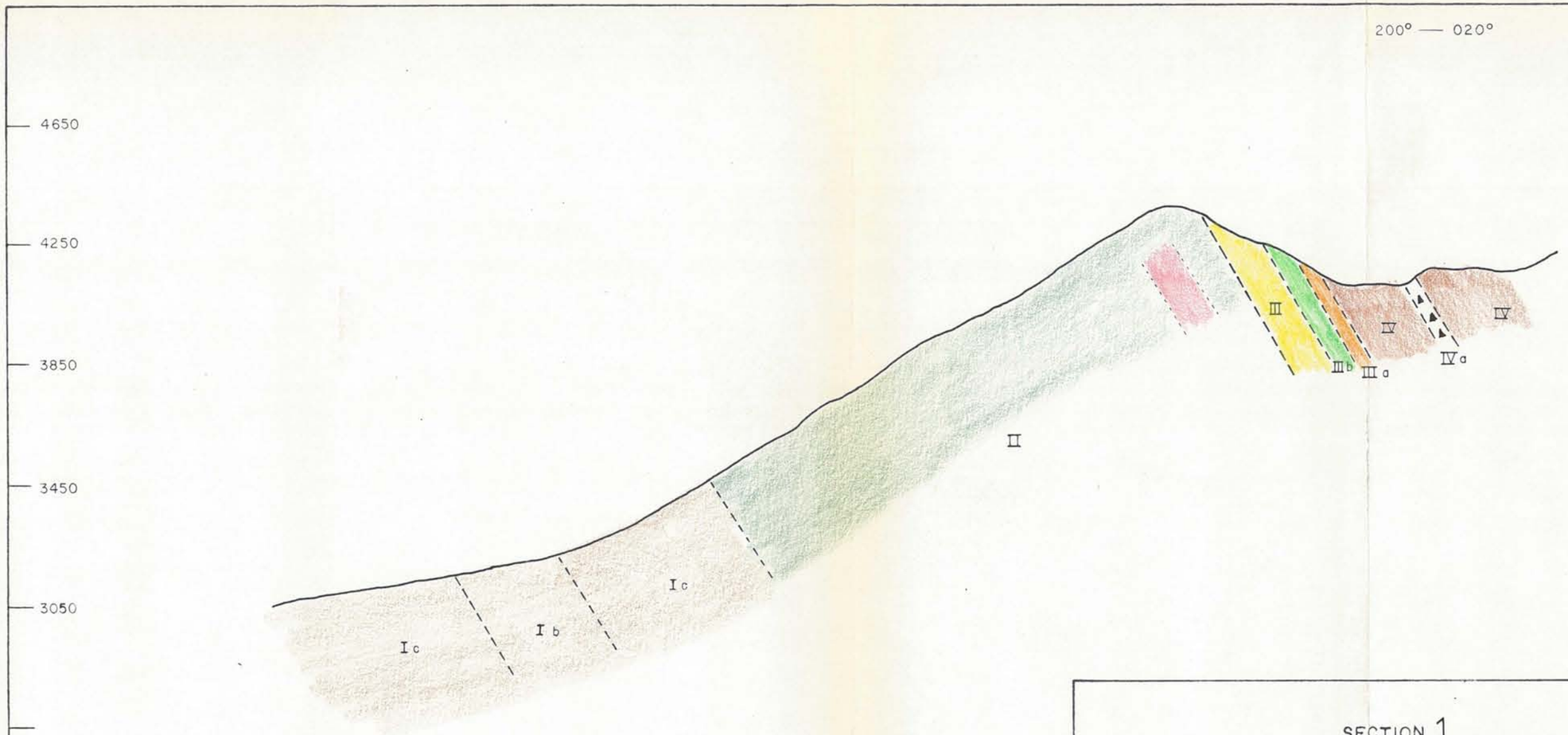


STRATIGRAPHIC SECTIONS

2000'

FIG. 6



SECTION 1

LOOKING NORTHWEST

scale 1": 400'

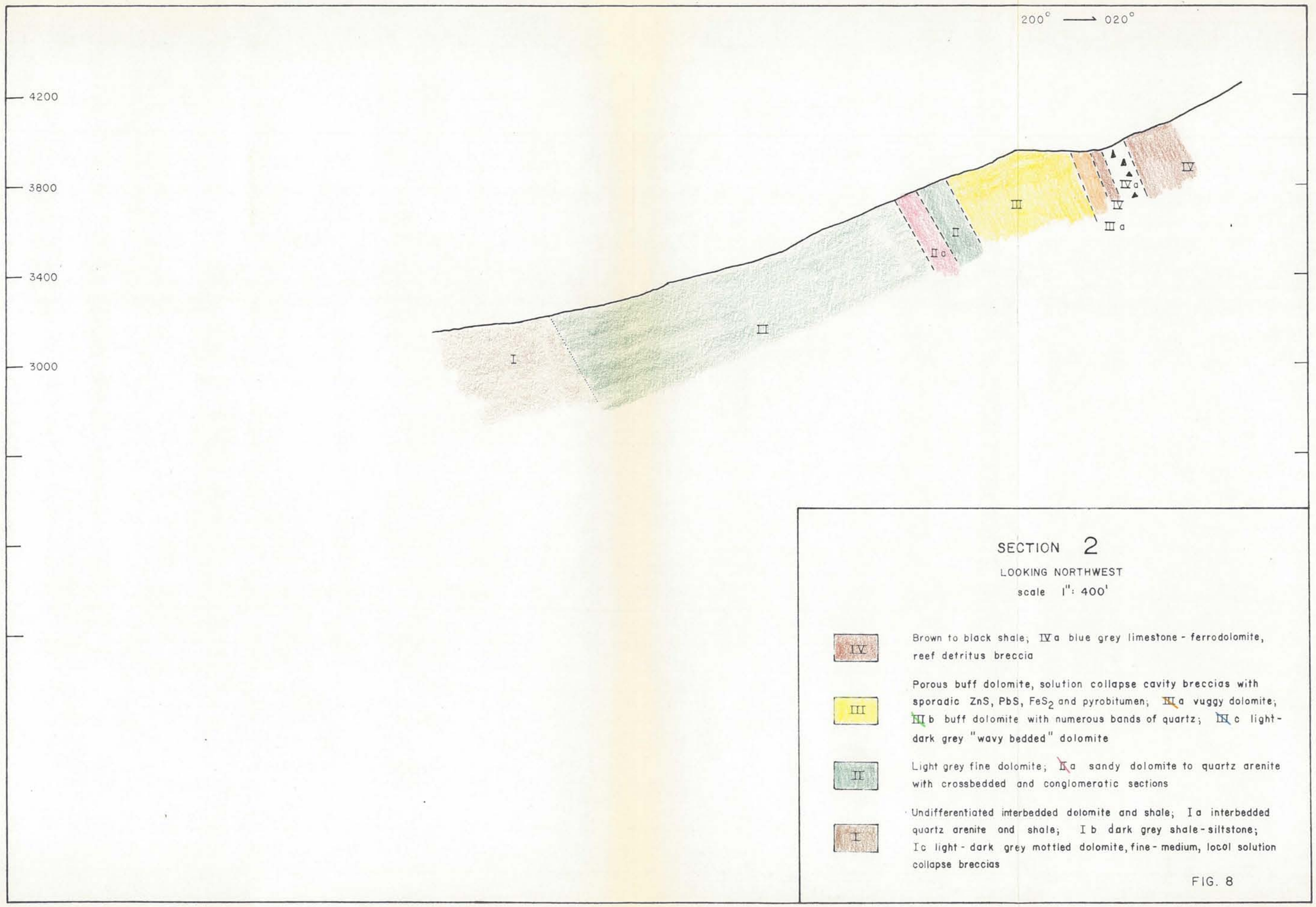
IV — Brown to black shale; IVa blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; IIIa vuggy dolomite; IIIb buff dolomite with numerous bands of quartz; IIIc light - dark grey "wavy bedded" dolomite

II — Light grey fine dolomite; IIa sandy dolomite to quartz arenite with crossbedded and conglomeratic sections

I — Undifferentiated interbedded dolomite and shale; Ia interbedded quartz arenite and shale; Ib dark grey shale - siltstone; Ic light - dark grey mottled dolomite, fine - medium, local solution collapse breccias

FIG. 7



SECTION 2

LOOKING NORTHWEST

scale 1": 400'

IV — Brown to black shale; IVa blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; IIIa vuggy dolomite; IIIb buff dolomite with numerous bands of quartz; IIIc light-dark grey "wavy bedded" dolomite

II — Light grey fine dolomite; IIa sandy dolomite to quartz arenite with crossbedded and conglomeratic sections

I — Undifferentiated interbedded dolomite and shale; Ia interbedded quartz arenite and shale; Ib dark grey shale - siltstone; Ic light - dark grey mottled dolomite, fine - medium, local solution collapse breccias

FIG. 8

200° — 020°

RESISTIVITY
ρ_a (OHM-METERS)
6000
4000
2000
1000
800
600
400
200
100

CHARGEABILITY
M_a (NANOSECONDS)
40
20
0

SOIL GEOCHEMISTRY
ZINC IN PPM
40
20
0

5000'
4000'
3000'

SECTION 3

LOOKING NORTHWEST

scale 1": 400'

IV — Brown to black shale; IVa blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; IIIa vuggy dolomite; IIIb buff dolomite with numerous bands of quartz; IIIc light-dark grey "wavy bedded" dolomite

II — Light grey fine dolomite; IIa sandy dolomite to quartz arenite with crossbedded and conglomeratic sections

I — Undifferentiated interbedded dolomite and shale; Ia interbedded quartz arenite and shale; Ib dark grey shale-siltstone; Ic light-dark grey mottled dolomite, fine-medium, locol solution collapse breccias

FIG. 9

200° ⟶ 020°

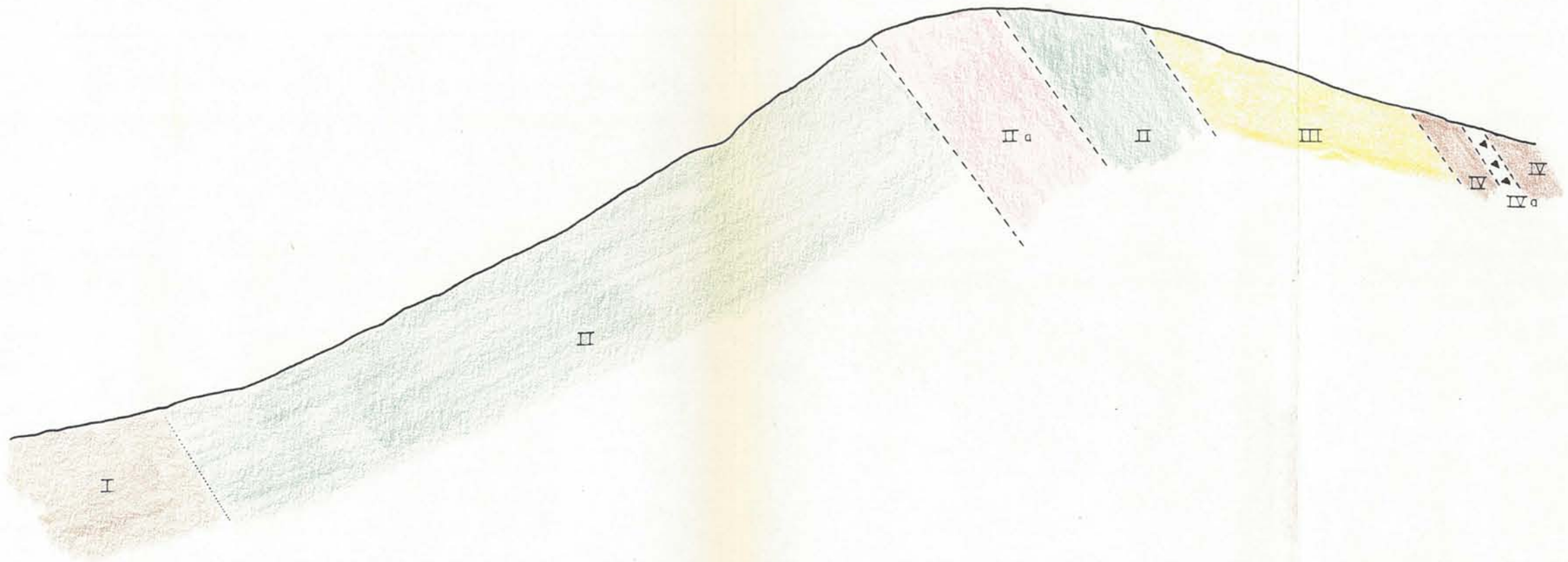
4400

4000

3600

3200

2800



SECTION 4

LOOKING NORTHWEST

scale 1": 400'

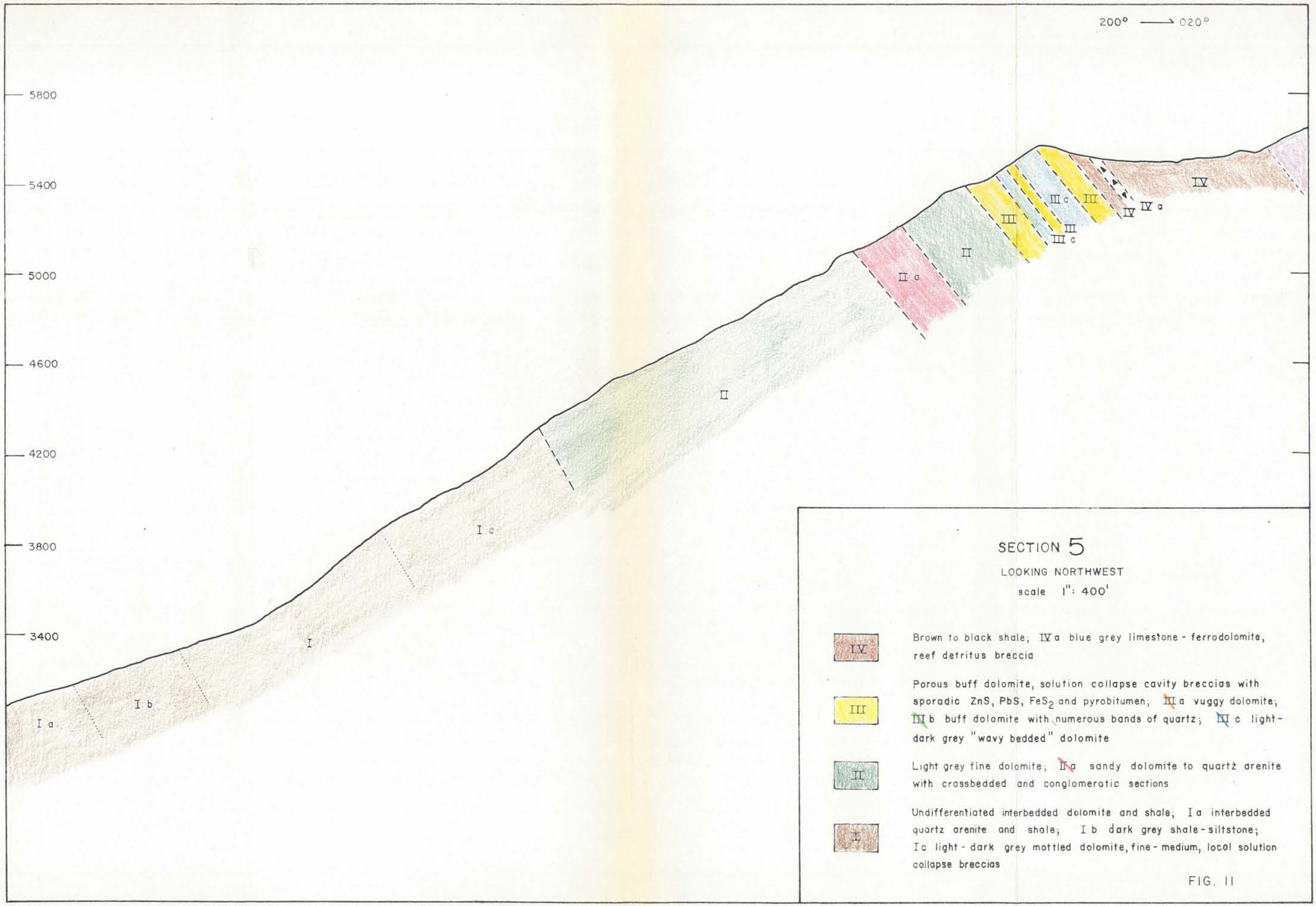
IV — Brown to black shale; IV a blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; III a vuggy dolomite; III b buff dolomite with numerous bands of quartz; III c light-dark grey "wavy bedded" dolomite

II — Light grey fine dolomite; II a sandy dolomite to quartz arenite with crossbedded and conglomeratic sections

I — Undifferentiated interbedded dolomite and shale; I a interbedded quartz arenite and shale; I b dark grey shale - siltstone; I c light - dark grey mottled dolomite, fine - medium, local solution collapse breccias

FIG. 10



SECTION 5

LOOKING NORTHWEST

scale 1": 400'

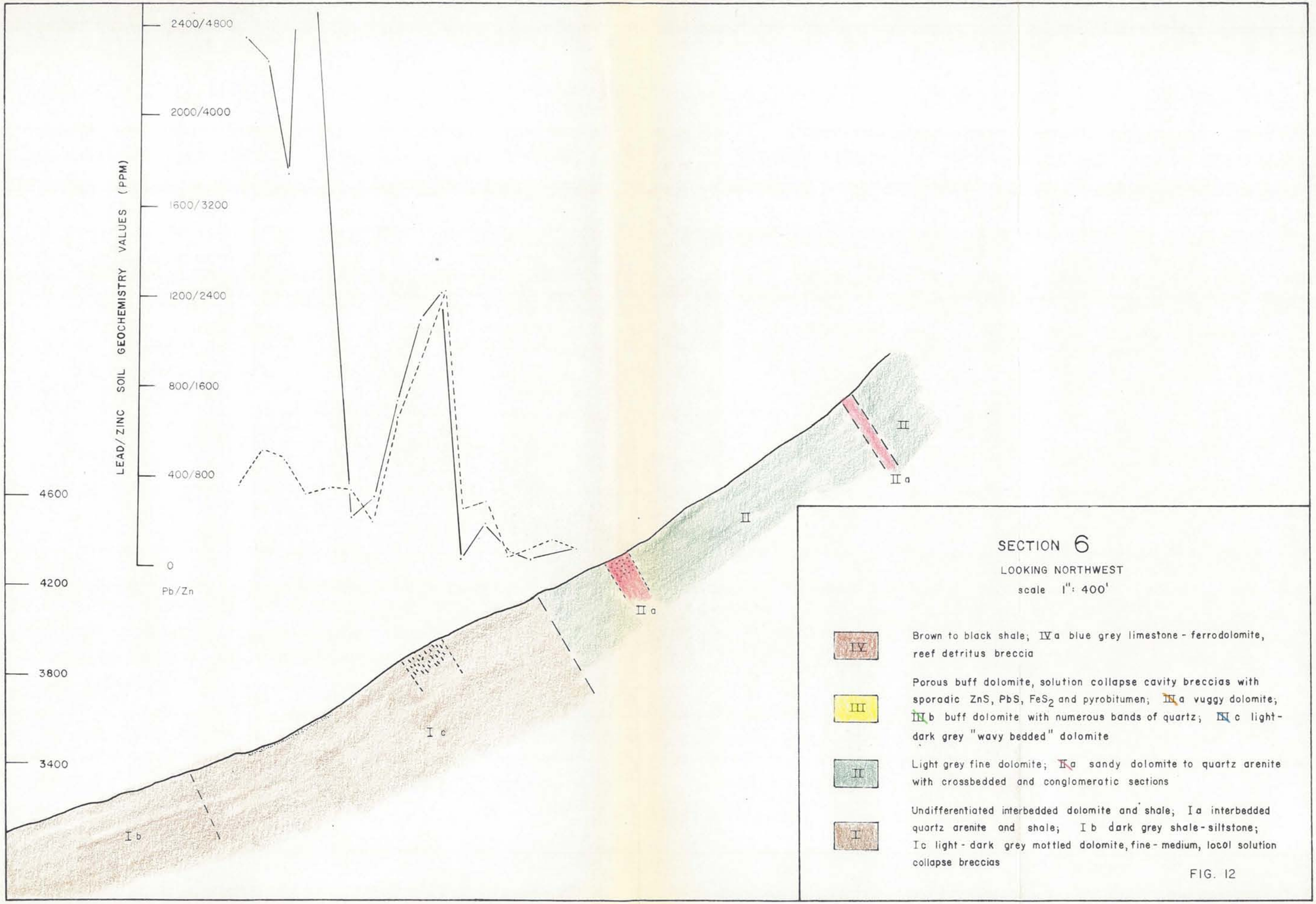
IV — Brown to black shale; IV a blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; III a vuggy dolomite; III b buff dolomite with numerous bands of quartz; III c light-dark grey "wavy bedded" dolomite

II — Light grey fine dolomite; II a sandy dolomite to quartz arenite with crossbedded and conglomeratic sections

I — Undifferentiated interbedded dolomite and shale; I a interbedded quartz arenite and shale; I b dark grey shale - siltstone; I c light - dark grey mottled dolomite, fine - medium, local solution collapse breccias

FIG. 11



SECTION 6

LOOKING NORTHWEST

scale 1": 400'

IV — Brown to black shale; IV a blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; III a vuggy dolomite; III b buff dolomite with numerous bands of quartz; III c light-dark grey "wavy bedded" dolomite

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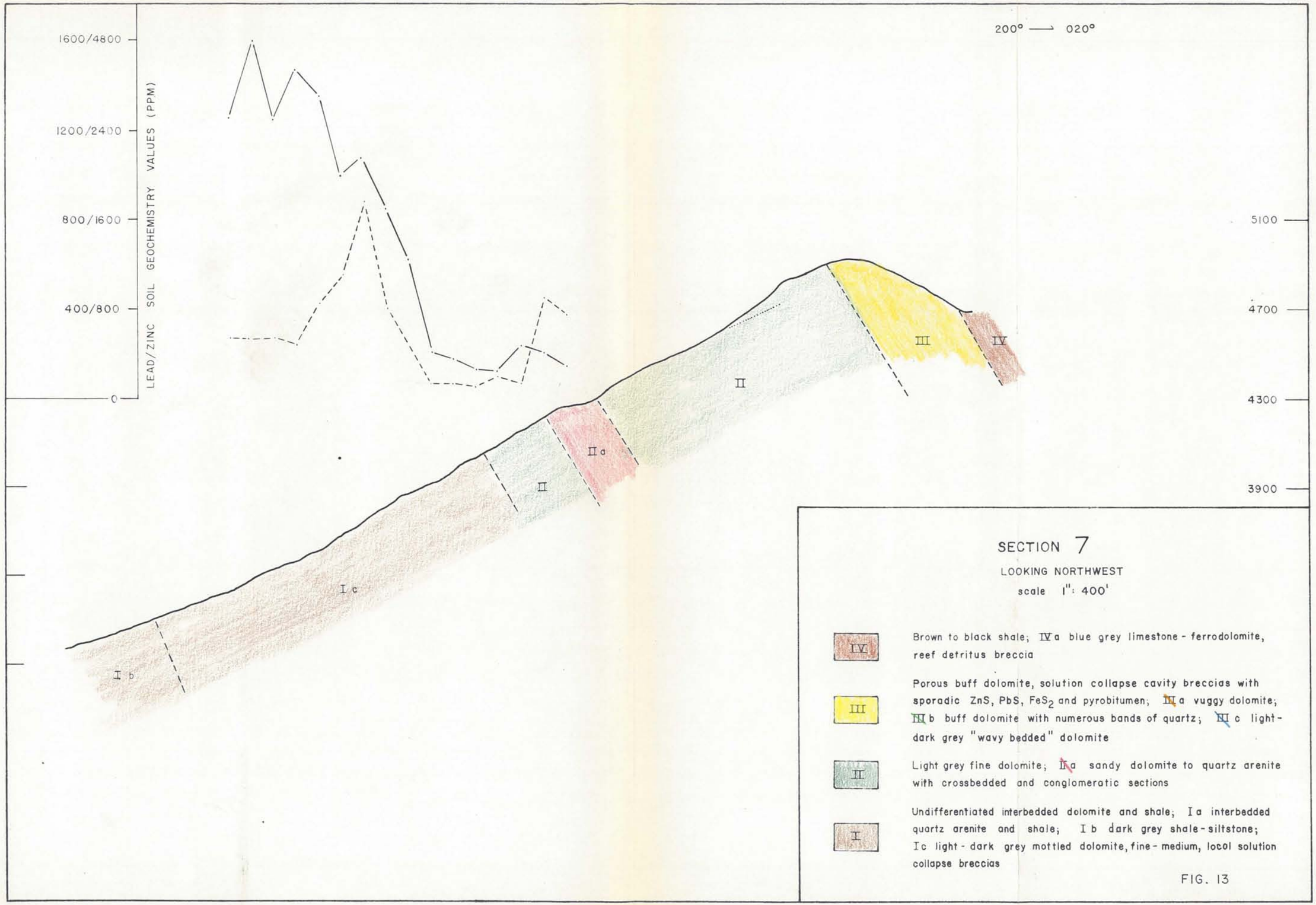
FIG. 12



SECTION 7

LOOKING NORTHWEST

scale 1": 400'

IV — Brown to black shale; IVa blue grey limestone - ferrodolomite, reef detritus breccia

III — Porous buff dolomite, solution collapse cavity breccias with sporadic ZnS, PbS, FeS_2 and pyrobitumen; IIIa vuggy dolomite; IIIb buff dolomite with numerous bands of quartz; IIIc light-dark grey "wavy bedded" dolomite

II — Light grey fine dolomite; IIa sandy dolomite to quartz arenite with crossbedded and conglomeratic sections

I — Undifferentiated interbedded dolomite and shale; Ia interbedded quartz arenite and shale; Ib dark grey shale-siltstone; Ic light-dark grey mottled dolomite, fine-medium, locol solution collapse breccias

FIG. 13

MINERALIZATION

Sulphide mineralization is found throughout the whole sequence. The types and nature of mineralization for each unit will be discussed separately.

Unit One

The only sulphide found in situ in this unit, to date, is pyrite. Usually the pyrite is strongly oxidized and occurs as masses in cavities or in narrow bands, sub-parallel to bedding. However, east of Grayling Creek, float with sphalerite and galena has been found. The gossanous material associated with this unit assayed 3.2% zinc.

Unit Two

The major sulphide present is pyrite. The pyrite occurs as diseminated crystals and is more predominant near the base of the unit. West of Duo Hill, minor sphalerite, galena and pyrite mineralization with quartz and dolomite crystals may occur in isolated solution cavities that are close to strong cross-cutting fracture zones. The largest cavity is approximately two feet thick and 20 feet long, and thus the mineralization is of no importance from an economic viewpoint.

Unit Three

The majority of the mineralization so far observed on the property occurs in this Unit. The main sulphide mineral present is sphalerite with minor galena, pyrite and smithsonite, and the gangue is composed of quartz, dolomite, minor barite and calcite. The sulphide mineralization is found

. . . 9

in solution cavities and local collapse breccias, solution channel in-fillings, primary bedded material and also in late stage cross cutting structures, and each type of occurrence is described separately.

1. Solution Cavities and Collapse Breccias

The major occurrence of mineralization is in the breccias, but these are discontinuous and restricted in size. Maximum outcrop thickness is approximately 20 feet.

The best mineralized breccias occur east of Grayling Creek, where the dolomite fragments are cemented with sphalerite and quartz. The sphalerite varies in colour from white, through pale yellow to a yellow green. Some of the cavities are filled mostly with quartz (as botryoidal chalcedonic, massive white and clear to white subhedral crystals) and dolomite with only minor sulfides. Galena is not as common as sphalerite and usually occurs as discrete crystalline masses separate from the sphalerite.

West of Grayling Creek the mineralization is confined primarily to solution cavity in-fillings. The cavities are usually less than 6 inches in length, and are filled with clear to milky white quartz crystals, dolomite crystals and coarse euhedral galena and fine crystalline white to pale yellow sphalerite. On Barite Hill the cavities are filled with coarse crystalline white barite and minor coarse crystalline galena with traces of fine grained white sphalerite.

. . . 10

2. Solution Channel In-Fillings

This type of mineralization seems to be a product of dissolution of the rock after mineral deposition. Sphalerite grains and detrital quartz have been carried into the solution channels where they are redeposited. Textures show laminated and graded bedding. This type of mineralization was found only on Vega Hill.

3. Primary (?) Bedded Mineralization

This type of occurrence is minor and was noticed in only two areas. On Knob Hill fine to medium crystalline galena is present in discontinuous bands in a folded fine grained dolomite. The mineral occurs over a 5 to 10 feet length with ½ to ¼" bands of galena approximately every 12 inches over a thickness of 5 feet. The other occurrence of this type of mineralization is east of Grizzly Creek, on the lower slope of Tiddalick Ridge, where a few ¼" bands, parallel to bedding, of pale yellow fine grained sphalerite occur over a 30 foot width.

4. Late Stage Structures

Galena is the most common sulphide in-filling of cross cutting joints. It is coarsely crystalline, forming masses up to 6 inches across, and the best occurrence of this type of mineralization is on Knobb Hill. In the mineralized breccia zones east of Grayling Creek remobilized pale yellow sphalerite often occurs along cross cutting joints. The veinlets are usually less than ¼" in width.

. . . 11

Unit Four

Pyrite occurs as disseminations along bedding and as large fragments in small scale sedimentary breccias in the dark impure dolomite at the base of this unit. Minor sphalerite was noted in one drillhole (74-6)

SAMPLING AND ASSAY RESULTS

Surface rock chip sampling was carried out over mineralized sections in Unit Three. The samples were taken both over outcrop and talus (see Figs. 14-18), and all samples were taken on a six inch spacing along a fixed sample line. The samples were analyzed (by atomic absorption) for zinc, and for lead when galena mineralization was present. In general, the assay results were not encouraging and show that the grade of mineralization is erratic and discontinuous.

Some of the sample lines run in 1973 by Cypress Resources Ltd. were re-sampled and the results for the higher grade sections differ from the previous work by as much as 1,200 percent (see Fig. 18). This discrepancy can be attributed to the difficulty of obtaining representative surface samples and the erratic distribution of the mineralization.

Gossan float and outcrop samples were collected from various parts of the property, and were analyzed for Pb-Zn (and some also for Ag, Mn and Fe). The results are given in Table I, and suggest that the gossan material is related to mineralization that consisted of pyrite, sphalerite and galena. The manganese content of the samples is low, and there does not therefore, appear to have been any scavenging of Pb and Zn by manganese.

. . . 12

TABLE I

GOSSAN SAMPLES

	ppm Pb	ppm Zn	ppm Ag	ppm Mn	%Fe
24733	3,000	7,000			
24734	2,400	1,800			
24736	600	70	2.5	309	46.3
24737	835	16,400	4.0	88	56.6
24738	1,060	8,900	2.5	235	49.7
24739	1,800	4,800	3.0	485	52.4
24740	1,000	5,000	3.5	291	55.4
24741	449	13,900	4.5	35	53.6
24148	6,600	24,800			
24149	800	32,000	8.0		57.6

B/L 62W

BARITE HILL

B/L 44W

28' 0.16% Zn

DUO

B/L 37W

25' N.A./0.28

10' .01/.09

19' .02/.33

MARMOT

B/L 30W

B/L 28W

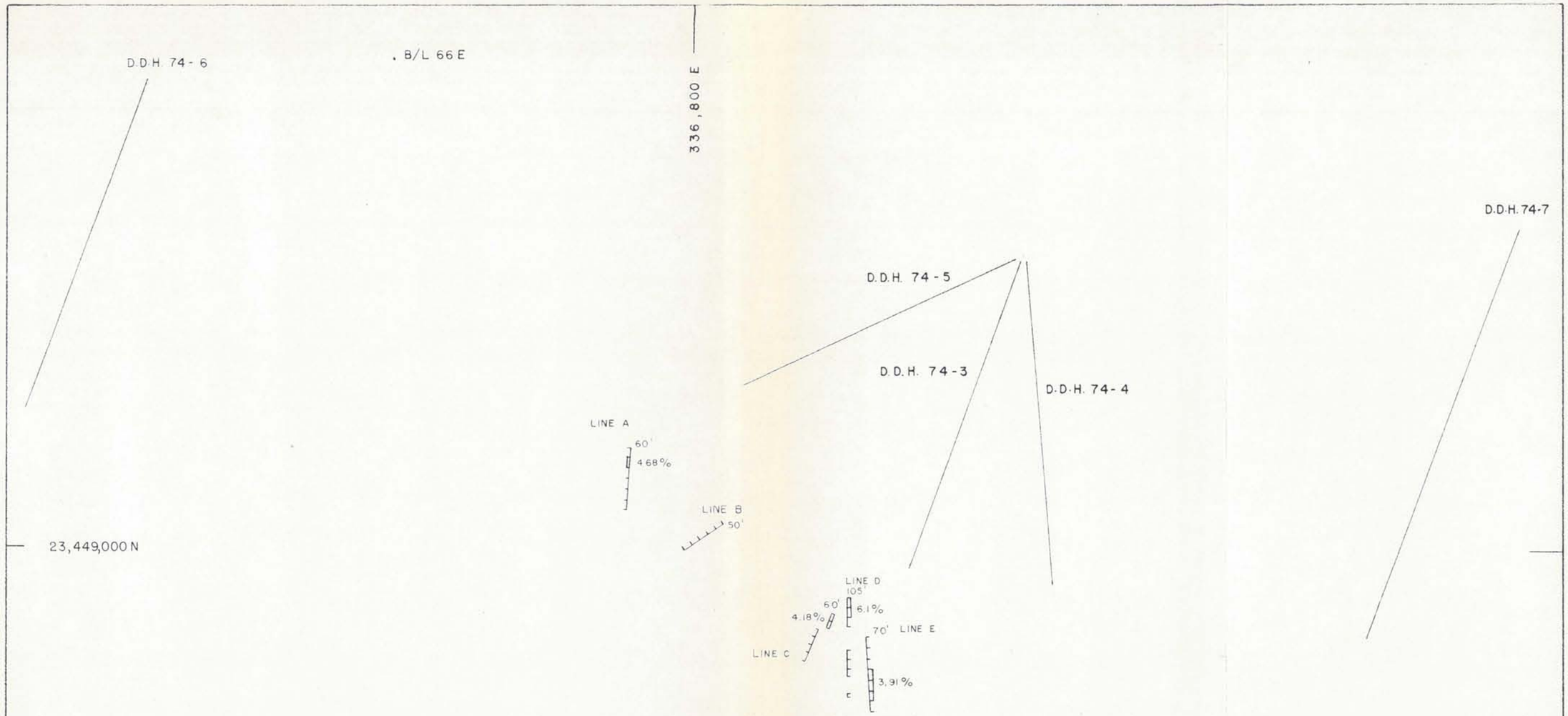
KNOB

B/L 35E

1.60%

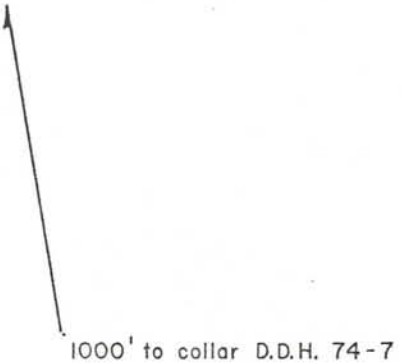
TIDDALICK

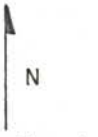
BRITISH NEWFOUNDLAND EXPLORATION, LTD.		
SAMPLE LOCATION MAP CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
Date: Oct. 1974	Scale: 1" : 100'	Drawn by K.B.M.
	Map no. 14	Traced by D.M.
	MAP REF. 106 C/7	Checked by K.B.M.

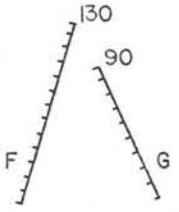


ASSAY VALUES - % ZINC									
LINE A		LINE B		LINE C		LINE D		LINE E	
0-10'	0.04	0-10'	0.38	0-10'	1.60	0-3'	0.37	0-10'	0.92
10-20'	0.04	10-20'	0.53	10-20'	0.23	22-30'	0.61	10-20'	2.32
20-30'	0.34	20-30'	0.33	20-30'	0.20	30-40'	0.07	20-30'	7.90
30-40'	0.29	30-40'	0.60	30-40'	0.09	40-50'	0.13	30-40'	1.52
40-50'	4.68	40-50'	0.34	40-50'	3.32	75-85'	0.29	40-50'	0.75
50-60'	0.58			50-60'	5.04	85-95'	4.20	50-60'	0.66
						95-105'	8.40	60-70'	0.08

BRITISH NEWFOUNDLAND EXPLORATION, LTD.		
SAMPLE LOCATION MAP CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE : OCT. 1974	SCALE 1" : 100'	DRAWN BY : B.M.
	MAP No. 15	TRACED BY : D.M.
	MAP REF. 106 C/7	CHECKED BY : B.M.



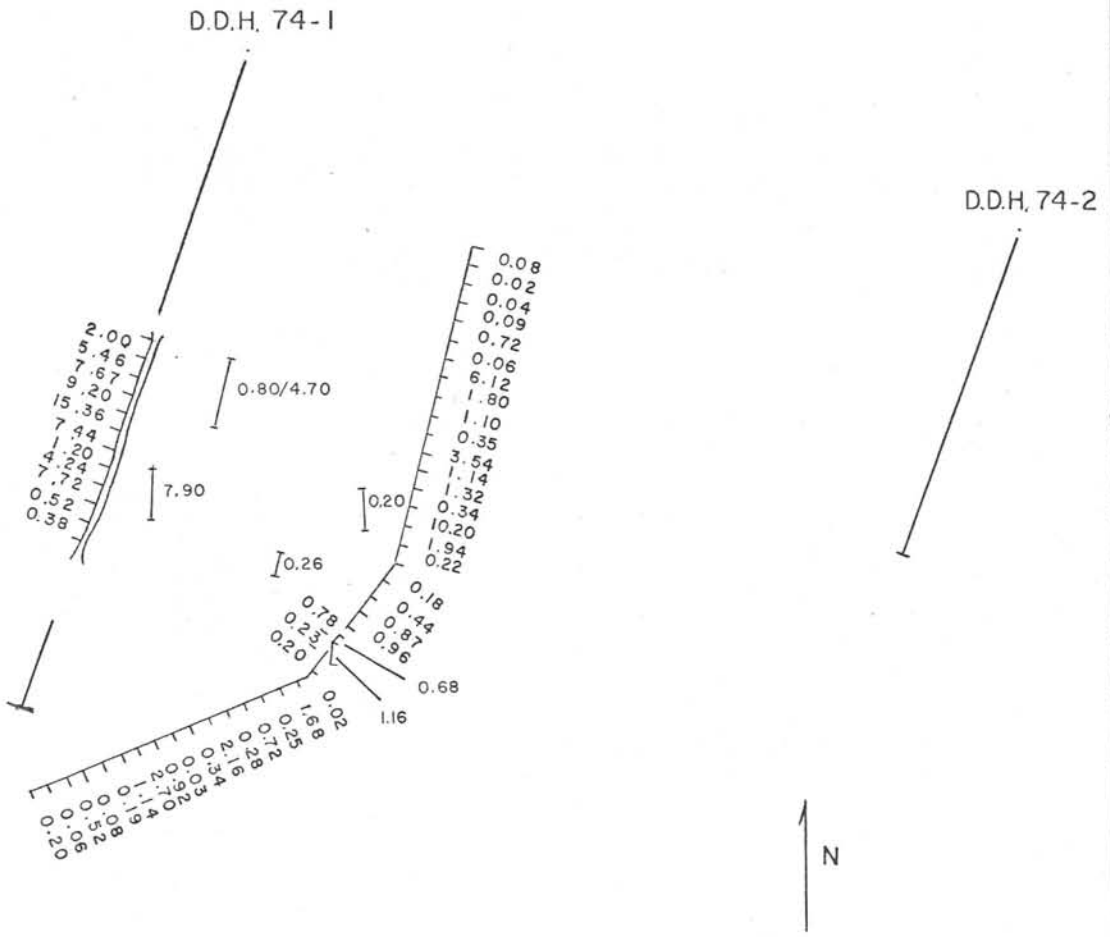




SAMPLE LOCATION MAP

Line	F % Z_n	Line	G % Z_n
0-10'	3.88	0-10'	0.18
-20	5.24	-20	0.25
-30	2.28	-30	3.84
-40	2.72	-40	0.10
-50	3.80	-50	0.15
-60	2.20	-60	0.04
-70	1.28	-70	0.09
-80	0.90	-80	0.64
-90	5.28	-90	0.10
-100	0.76		
-110	0.20		
-120	0.14		
-130	1.48		

fig. 16



SAMPLE LOCATION MAP

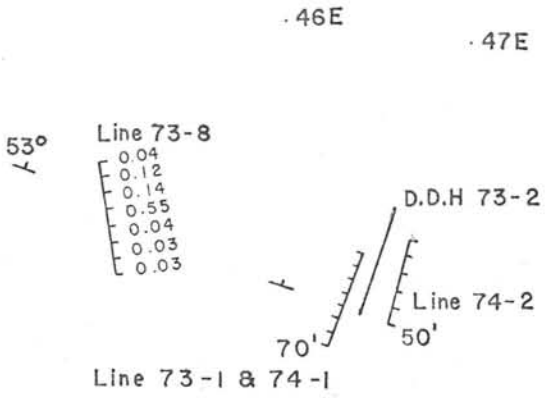
VEGA HILL

Scale 1": 100'

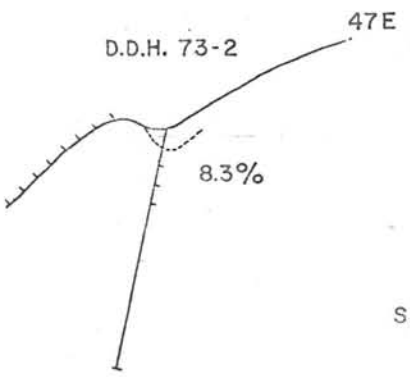
.08/4.00 : % Pb/Zn

1.70 : % Zn

fig. 17



LINE	74-1	73-1	74-2
0-10	4.00	9.85	1.68
10-20	1.32	5.40	0.18
20-30	0.38	4.80	0.46
30-40	0.16	0.07	0.28
40-50	0.04	0.04	0.26
50-60	0.04	0.03	
60-70	0.04	0.03	



SAMPLE LOCATION MAP
% ZINC

scale 1" : 100'

fig.18

GEOCHEMISTRY

A limited amount of geochemical survey work, consisting of stream silt and soil sampling, was done on the property.

A. Stream Silt Sampling (See Figs. 19-20)

Wolverine, Grizzly and Grayling Creeks were sampled at intervals of 500 feet, to examine the dispersion pattern developed by the lead-zinc mineralization present in Unit Three, and to test for anomalous values where the streams flowed over ground underlain by Unit One. The -80 mesh fraction was analyzed (by atomic absorption) for lead and zinc.

The results were analyzed statistically (Fig. 21) and the various categories are shown in Table II. Although there are only a limited number of samples for the statistical plot, it is felt that the results are reliable based on field observations. The results are what one would expect based on the known mineralization in Unit Three and the amount of downstream transport of mineralized boulders. However, the values obtained from the lower part of Grayling Creek where it cuts through Unit One are definitely anomalous both in lead and zinc which supports the proposed further work on Unit One for 1975.

B. Soil Sampling

Three areas of the property (Vega Grid, Line 34W Grid and BRF Extension Grid) were soil sampled during 1974. Most of the samples were taken from the C Horizon, but where possible the B Horizon was taken. The

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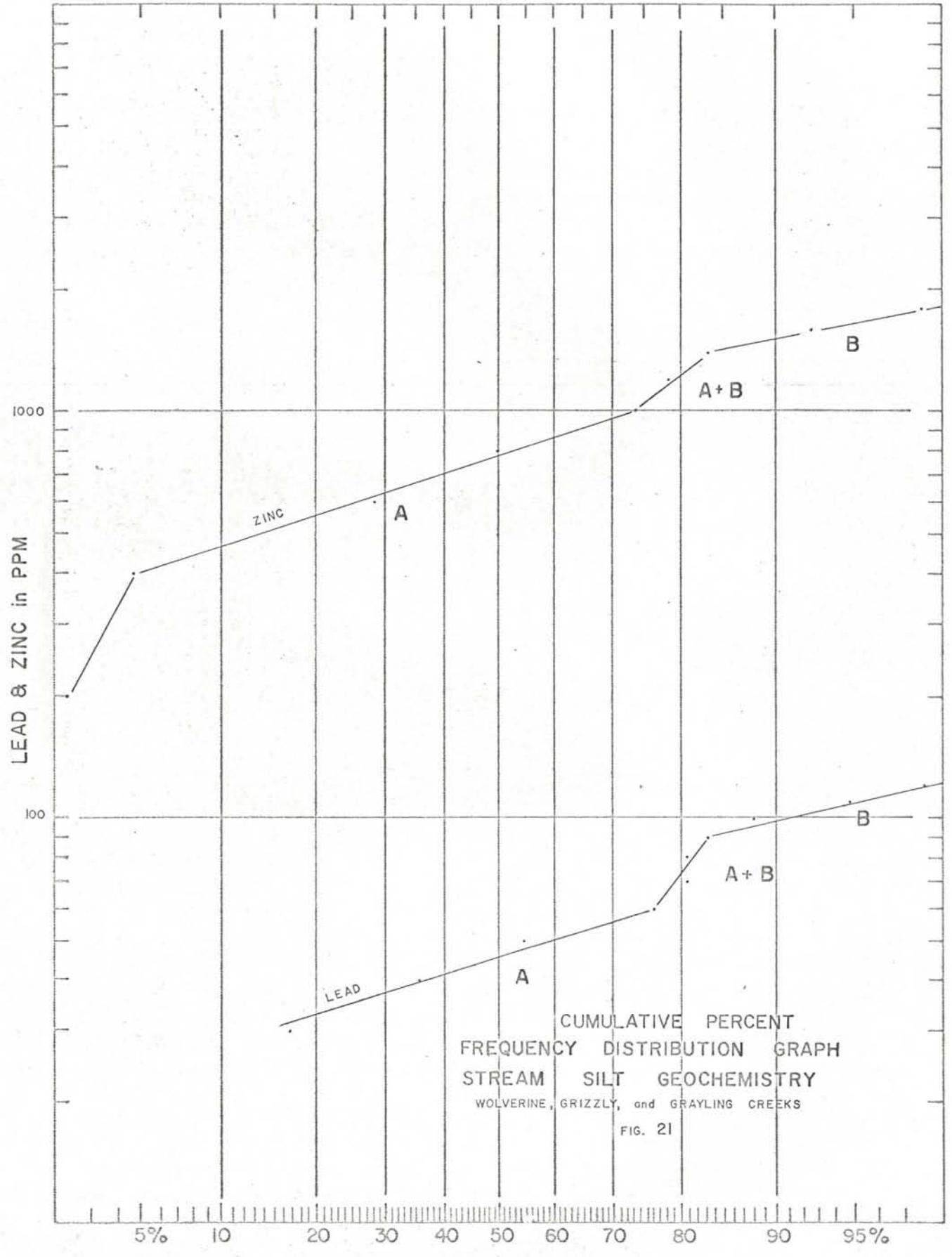

CUMULATIVE PERCENT
FREQUENCY DISTRIBUTION GRAPH
STREAM SILT GEOCHEMISTRY
WOLVERINE, GRIZZLY, and GRAYLING CREEKS

FIG. 21

TABLE II

STREAM SILT ANALYSIS

	Zinc	Lead
Background	0 < 800 ppm	0 < 60
Prob. Anomalous	> 800 < 1,400	> 60 < 100
Anomalous	> 1,400	> 100

majority of the samples collected contained a moderate amount of organic matter. The samples were dried and the -80 mesh fraction was analyzed (by atomic absorption) for zinc, and some also for lead. The results for each are discussed separately.

1. Vega Grid (See Fig. 22)

A soil sampling survey was done on the eastern slope of Vega, east of the known mineralization, to test for a possible covered extension of the mineralized zone. The grid was set up with lines 100 feet apart and sampled at intervals of 100 feet. The values were statistically analyzed (Fig. 22) and the results are shown in Table III. The zinc anomaly present is a classic example of downslope migration of zinc, with the lower boundary being the small creek that cuts through the area. Based on the results of the diamond drilling (74-1 and 74-2), this anomaly is not considered to be important and warrants no further follow-up work.

2. Line 34W Grid (See Fig. 22)

A series of trial lines, with a linespacing of 500 feet and sample spacing of 200 feet, were run along and adjacent to Line 34W (West of Grizzly Creek). This work was done to search for geochemical expression of the possible induced polarization anomaly (see later) situated on ground underlain by Unit One. It would appear that the weak anomaly developed may be due to downslope migration of zinc as the anomaly lies in a drainage depression that also cuts

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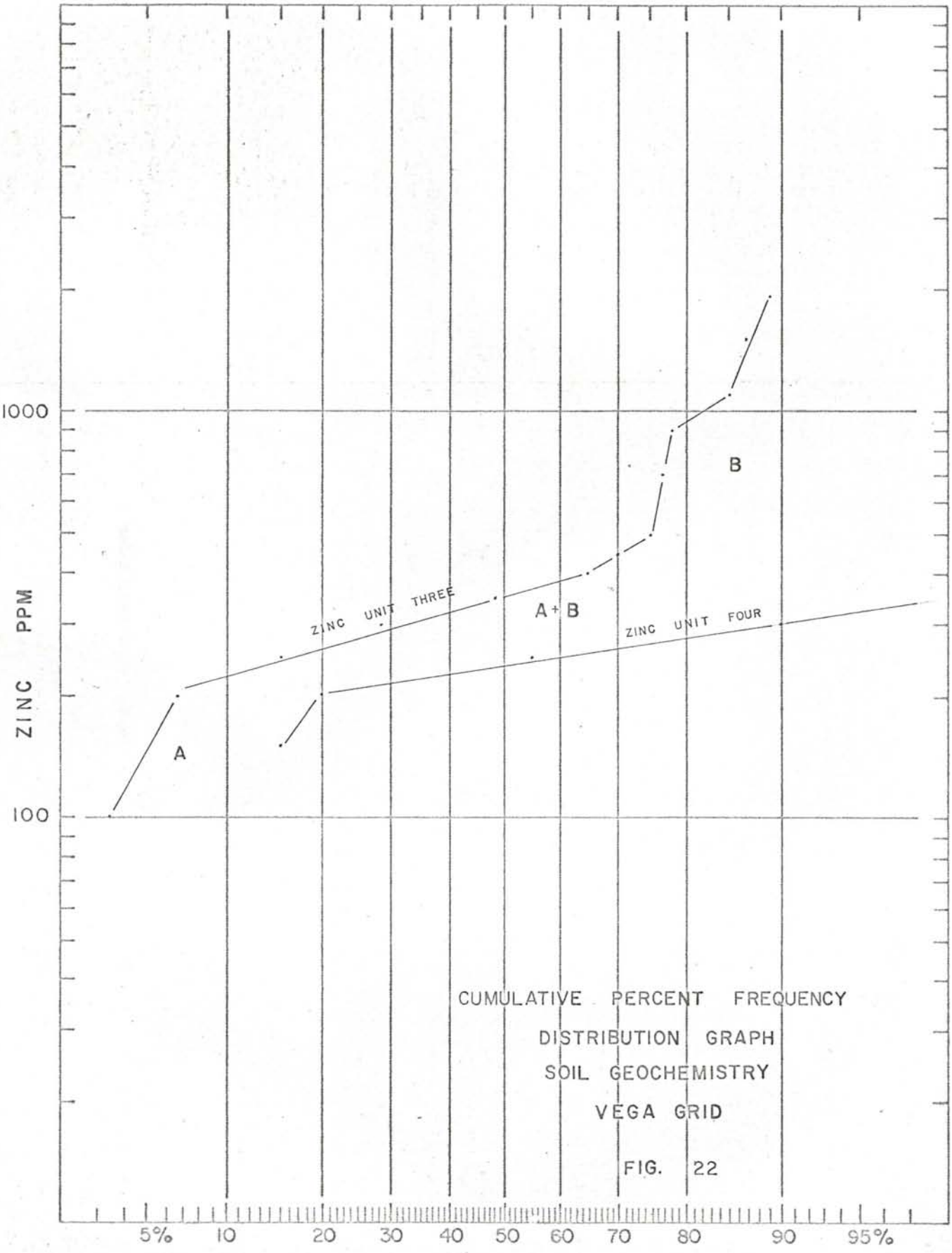

CUMULATIVE PERCENT FREQUENCY
DISTRIBUTION GRAPH
SOIL GEOCHEMISTRY
VEGA GRID

FIG. 22

through Unit Three. However, this area will be further sampled during the 1975 field season.

3. BRF Extension Grid (See Figs. 23, 24)

Soil sampling was done over the ground (area 2,800' x 1,600'), predominantly underlain by Unit One, that was considered to be on strike with the Barrier Reef/Great Plains showings in Harrison Creek. The lines were spaced approximately 650 feet apart and samples were collected at intervals of 100 feet. A total of 83 samples was collected, each from a depth of 6 to 12 inches, and generally from the C horizon; where possible the B horizon was sampled. Coincident Pb-Zn anomalies occur in this area (see Figs. 23, 24) and mineralized float has been found on Line 23E. One sample from the large gossan covered area on Line 21 assayed 3.2% zinc, 0.08% lead and 0.24 oz/ton silver. A favourable host rock for mineralization exists in this area (see discussion of geology, Unit One) and additional sampling and trenching is warranted.

The values were statistically analyzed (Fig. 25) and the results are shown in Table III. There is a fairly good correlation between the threshold value over this area and the adjoining ground (see Table III). The zinc anomaly is at least 4,000 feet long, of which 3,300 feet is on the Cypress ground and is open in three directions. The lead anomalies are more restricted in size but need further work to define their limits.

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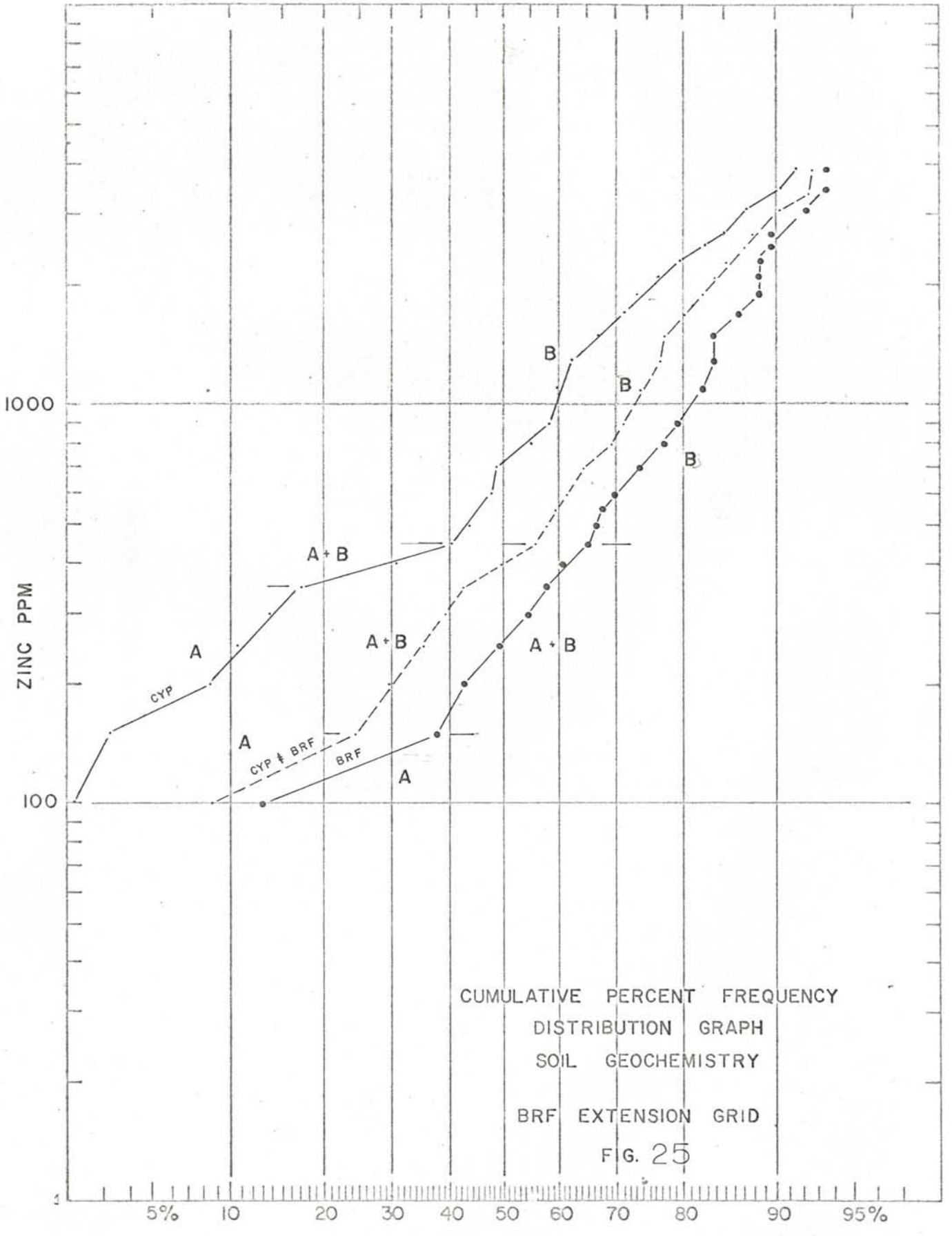
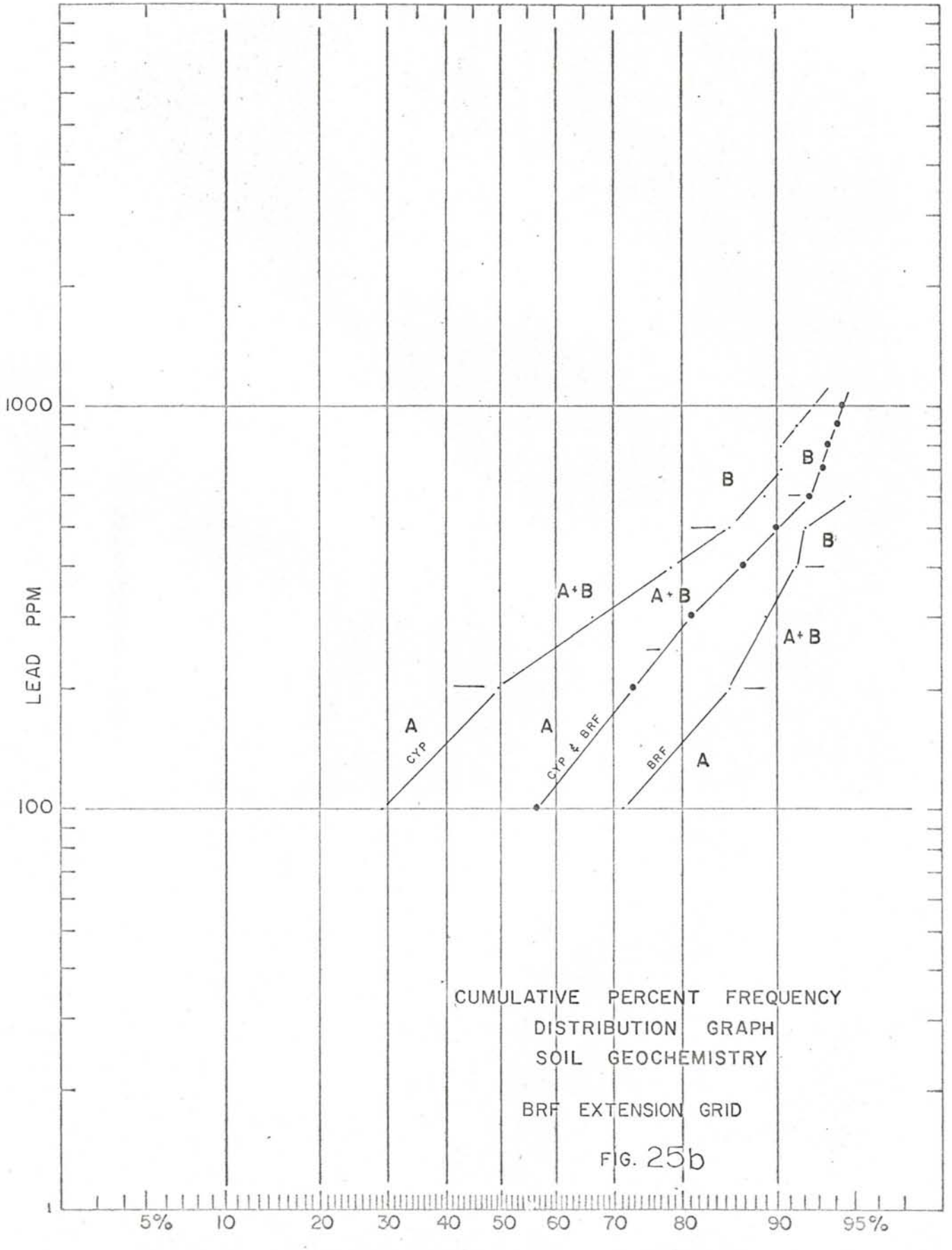


CUMULATIVE PERCENT FREQUENCY
DISTRIBUTION GRAPH
SOIL GEOCHEMISTRY

BRF EXTENSION GRID

FIG. 25



CUMULATIVE PERCENT FREQUENCY
DISTRIBUTION GRAPH
SOIL GEOCHEMISTRY

BRF EXTENSION GRID

FIG. 25b

TABLE III

STATISTICAL ANALYTICAL RESULTS

SOIL SAMPLING

A. BRF GRID EXTENSION AND L 34W GRID

Zinc	CYP	BRF	CYP + BRF
Background	0 < 350 ppm	0 - 150 ppm	0 - 150 ppm
Mixing	> 350 < 450	150 - 450	150 - 450
Anomalous	> 450	> 450	> 450

Lead	CYP	BRF	CYP + BRF (B)
Background	0 - 200 ppm	0 - 200	0 - 300
Mixing	200 - 500	200 - 400	300 - 600
Prob. Anomalous	> 320 < 500	> 280 < 400	> 425 - 600
Anomalous	> 500	> 400	> 600

B. VEGA GRID

Zinc	CYP
Background	0 < 500 ppm
Anomalous	> 500 ppm

DIAMOND DRILLING

The upper dolomite unit (Unit Three) was tested with seven BQ diamond drill-holes totaling 3,000 feet. The pertinent data, along with assay results, are listed in Table IV.

A. Drill Core Geology

There is a fairly good correlation between surface geology and drill-hole geology. Sections (see Figs. 26 to 32) for the drillholes are enclosed with the report. The drill-logs are included in Appendix II .

B. Drill Core Assays

Mineralized sections of the drillcore were split and assayed (by atomic absorption) for zinc. The assay results are shown in Table IV, from which it can be seen that no economic or even encouraging intersections were encountered in the drillholes. The drillcore assays also deomonstrate that the sulfide mineralization is erratic and discontinuous both downdip and along strike.

GEOPHYSICS

A trial induced polarization survey was carried out on part of the property. The main area tested was over Unit Three, west of Grizzly Creek. The I.P. response over this area was not encouraging and slight anomalies are explained by geologic contacts. As a result no further I.P. work was done on Unit Three. One trial line (line 34W) (see Fig. 9) was run over the

whole stratigraphic section and an anomalous result was obtained over ground underlain by Unit One. Depending on the results of additional geochemical soil sampling and trenching over ground underlain by Unit One, further I.P. work may be done on the property.

TABLE IV

DIAMOND DRILLING RESULTS

D.D.H.	Northing	Easting	Elevation	T.D.	Bearing	Inclination	Assay Results Footage Interval	Assay Results % Zn
1	23,452,183.29	328,509.69	4102.3	511'	200°	-45°	90-100	1.14
							100-108	2.20
							143-152.5	0.31
							177-185	0.14
							185-194	0.92
							260-270	0.62
							270-280	0.80
2	23,452,103.33	328,907.40	3898.5	252'	200°	-45°	14- 25	0.04
							25- 35	0.23
							35- 45	0.05
							45- 55	0.04
							44- 65	0.08
							65- 75	0.03
							75- 85	0.03
							85- 95	0.17
							95-105	0.01
							105-115	0.06
							115-125	0.04
							125-135	0.03
3	23,449,284.97	337,109.18	5458.2	398'	200°	-40°	170-180	0.59
							265-270	0.03
							280-285	0.04
							292.1-298.6	0.27
							298.6-302.9	20.00
							302.9-310	0.06
							320-330	0.23

TABLE IV (CONTINUED)

D.D.H	Northing	Easting	Elevation	T.D.	Bearing	Inclination	Assay Results Footage Interval	Assay Results % Zn
4	23,449,284.97	337,109.18	5458.2	433'	175°	-45°	313-322.5	1.38
							350-355	0.11
							355-360	0.09
							367-372	0.14
							375-380	0.22
							390-395	0.84
							395-400	0.69
							410.4-414	1.06
5	23,449,284.97	337,109.18	5458.2	406'	245°	-45°	211.8-216.8	0.47
							216.8-220	1.01
							220-225	0.29
							335-340	0.04
							341-346	0.02
							363-368	0.15
							371-374	0.04
							385-390	0.55
							390-395	0.16
6	23,449,408.38	336,279.19	5560.6	465'	200°	-45°	27- 35	0.18
							35- 40	1.94
							172-176	0.16
							290-296	0.20
							339-343	0.49
							415-420	0.57
							420-430	2.03
							430-433	2.00
7	23,449,349.10	337,580.06	5226.5	535'	200°	-40°	181-186	1.28
							305-315	1.44
							323-334	1.15
							338.5-347.5	1.58
							360-370	2.09
							370-380	0.20

APPENDIX I

CLAIM STATUS

The property, at the start of the field season, consisted of 120 claims. However, serious staking irregularities were noted during field work and as a result it was necessary to have the property covered by a partial legal survey. As a result of the survey, 27 fractions and 17 claims were staked by White, Hosford and Impey Limited (see Fig. 2), and seven recorded claims were found not to exist. The existing claims are listed in TABLE A. A copy of the claim map is included with the report.

TABLE A

CLAIM	RECORD NUMBER	EXPIRY DATE
CYP 1-18	Y70173-Y70190	Aug. 22, 1977
CYP 20	Y70192	" "
CYP 22	Y70194	" "
CYP 24-26	Y70196-Y70198	" "
CYP 28	Y70200	" "
CYP 30-40	Y84602-Y84612	" "
ED 1-8	Y70149-Y70156	Aug. 22, 1977
CYR 9-40	Y70109-Y70140	Aug. 22, 1977
PB 1-8	Y70157-Y70164	Aug. 22, 1977
ZN 1-8	Y70165-Y70172	Aug. 22, 1977
SCREW 1-5	Y85947-Y85951	Sept. 9, 1977
SCREW 7	Y85953	" "
SCREW 9-16	Y85955-Y85962	" "
FXE 1-8	Y70141-Y70148	Aug. 22, 1977
WHI FR. 1-24		Aug. 6, 1975
ZOT 1-14		Aug. 15, 1975
ZOT 15 FR		" "
ZOT 16		" "
ZOT 17 FR		" "
ZOT 18		" "
ZOT 19 FR		" "
ZOT 20		" "
ZOT 21 FR		" "
ZOT 22 FR		" "

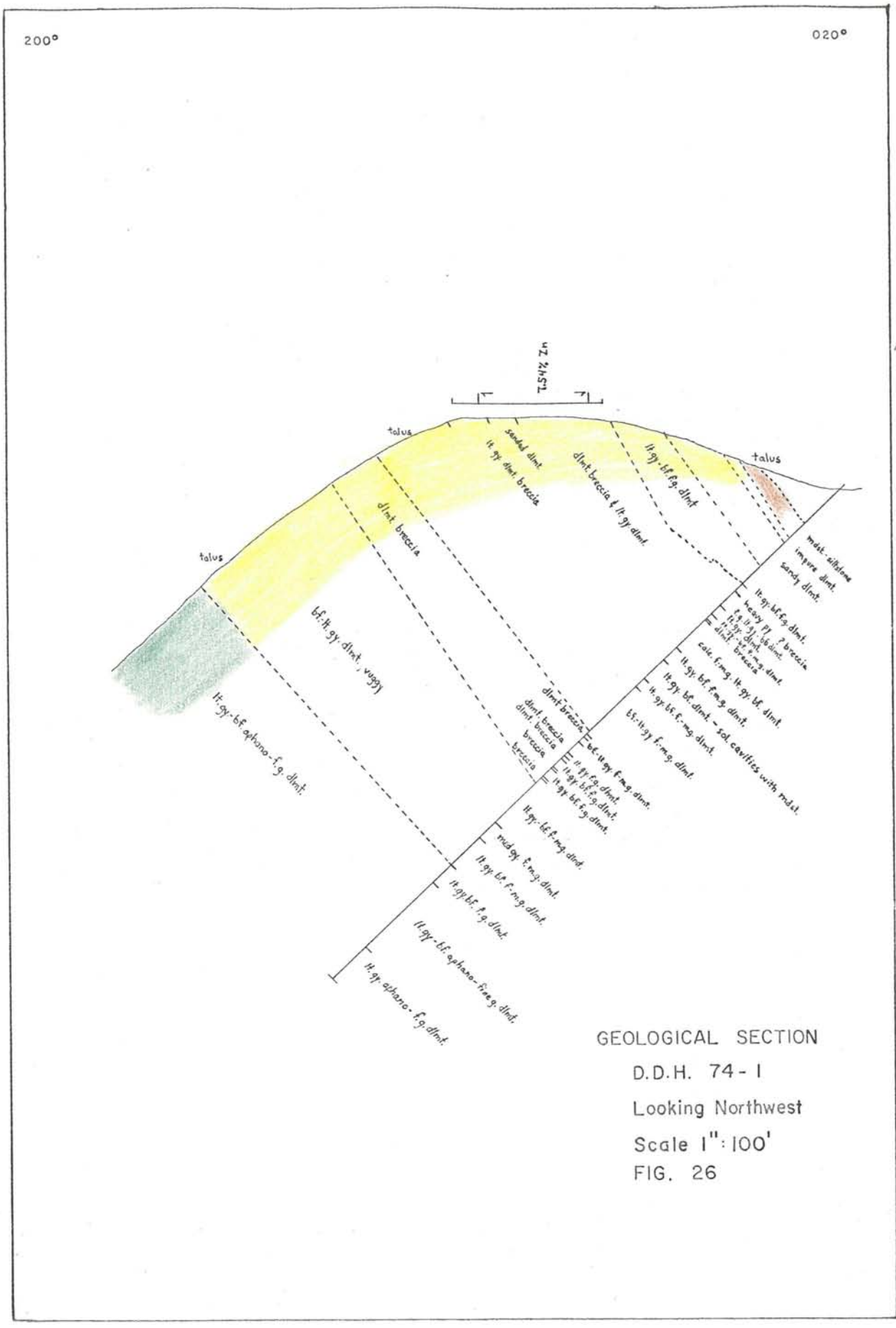
TABLE B

The following claims are part of the original 120 claims optioned from Cypress. The claim survey has established that these claims do not exist, although three years assessment work has been applied to them.

CLAIM	RECORD NUMBER	EXPIRY DATE
CYP 19	Y70191	August 22, 1977
CYP 21	Y70193	August 22, 1977
CYP 23	Y70195	August 22, 1977
CYP 27	Y70199	August 22, 1977
CYP 29	Y84601	August 22, 1977
SCREW 6	Y85952	September 9, 1977
SCREW 8	Y85954	September 9, 1977

APPENDIX II

DRILL LOGS & CROSS SECTIONS



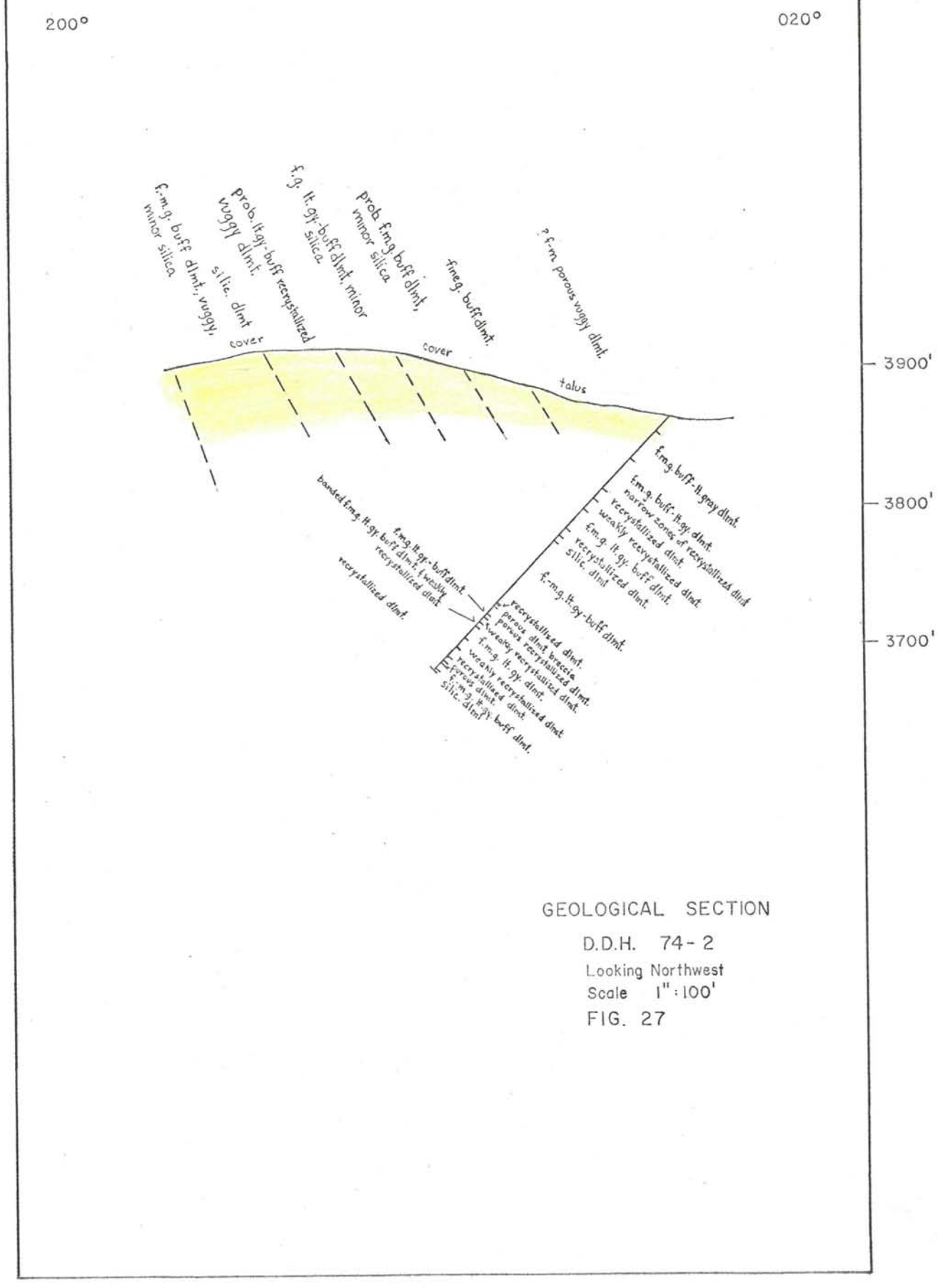
GEOLOGICAL SECTION

D.D.H. 74 - 1

Looking Northwest

Scale 1" : 100'

FIG. 26



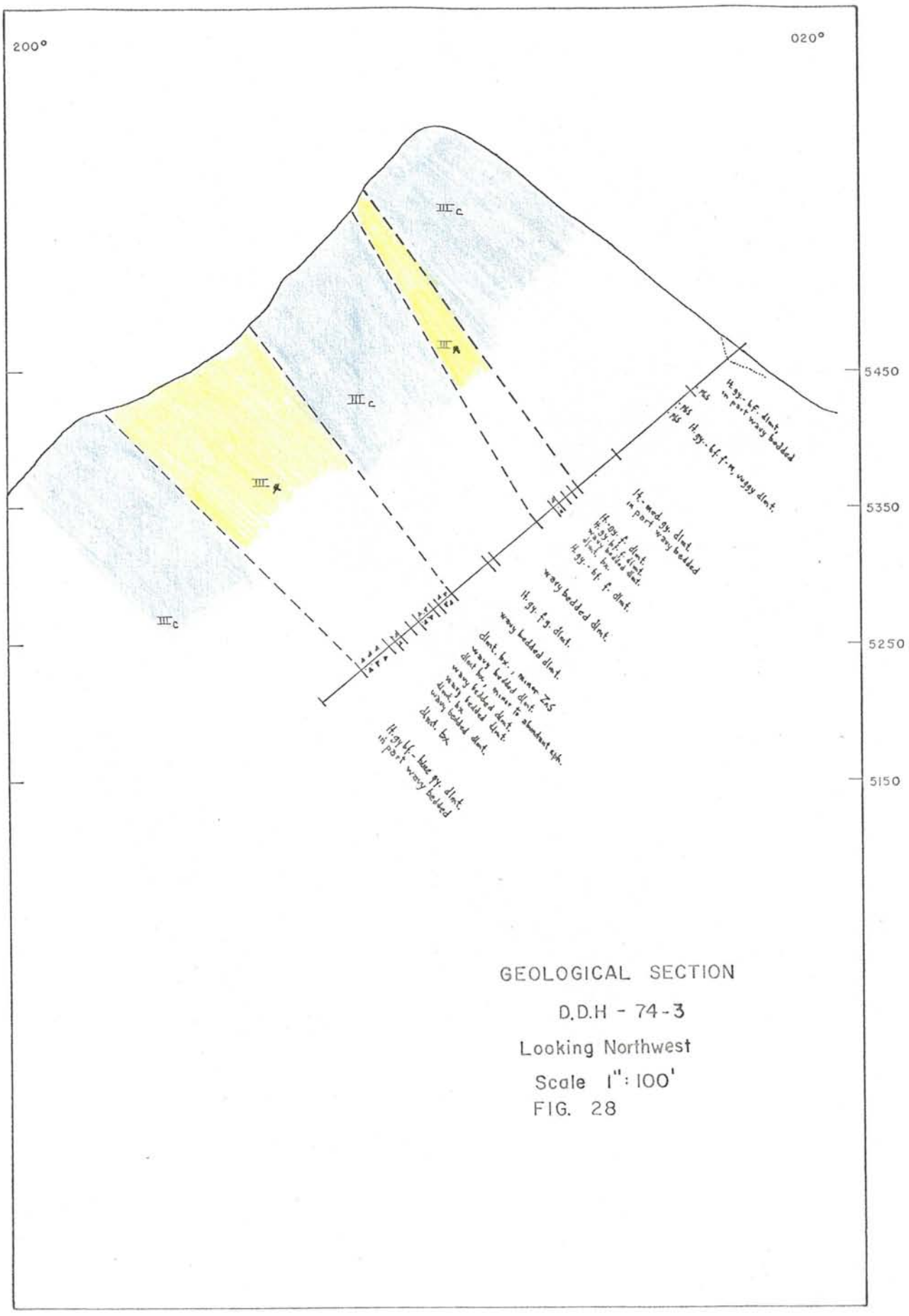
GEOLOGICAL SECTION

D.D.H. 74-2

Looking Northwest

Scale 1" : 100'

FIG. 27



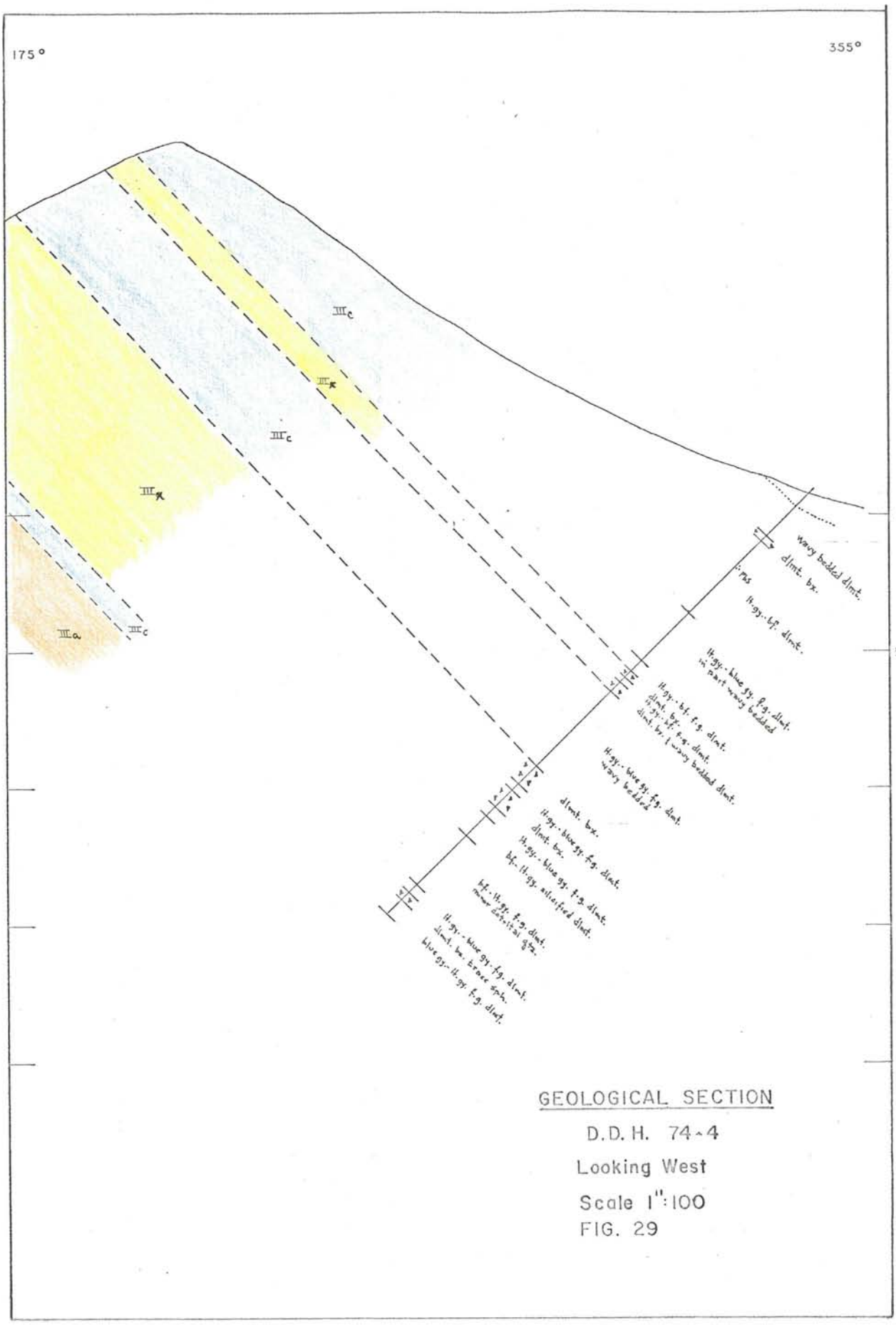
GEOLOGICAL SECTION

D.D.H - 74-3

Looking Northwest

Scale 1": 100'

FIG. 28



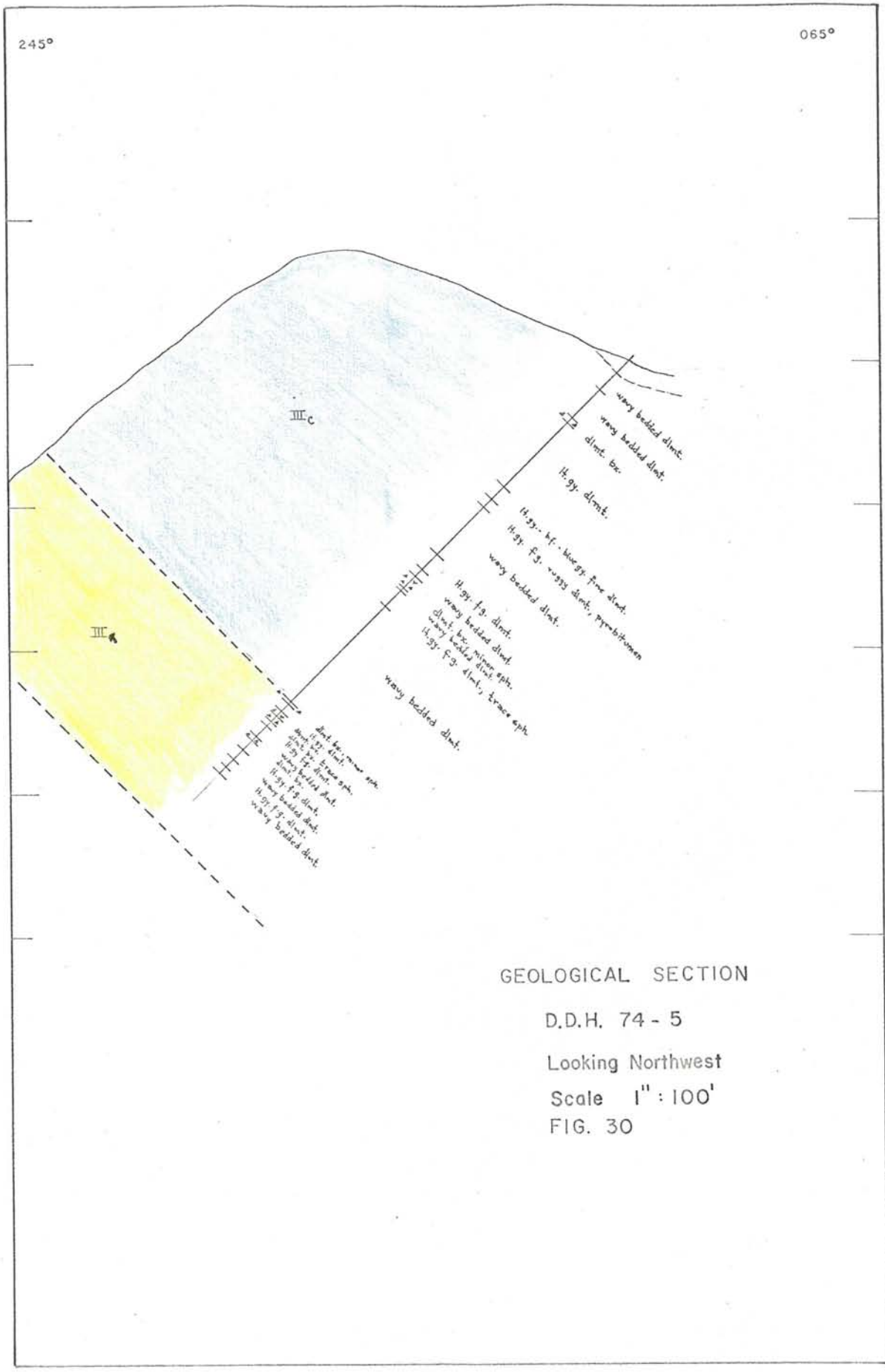
GEOLOGICAL SECTION

D.D.H. 74-4

Looking West

Scale 1":100

FIG. 29



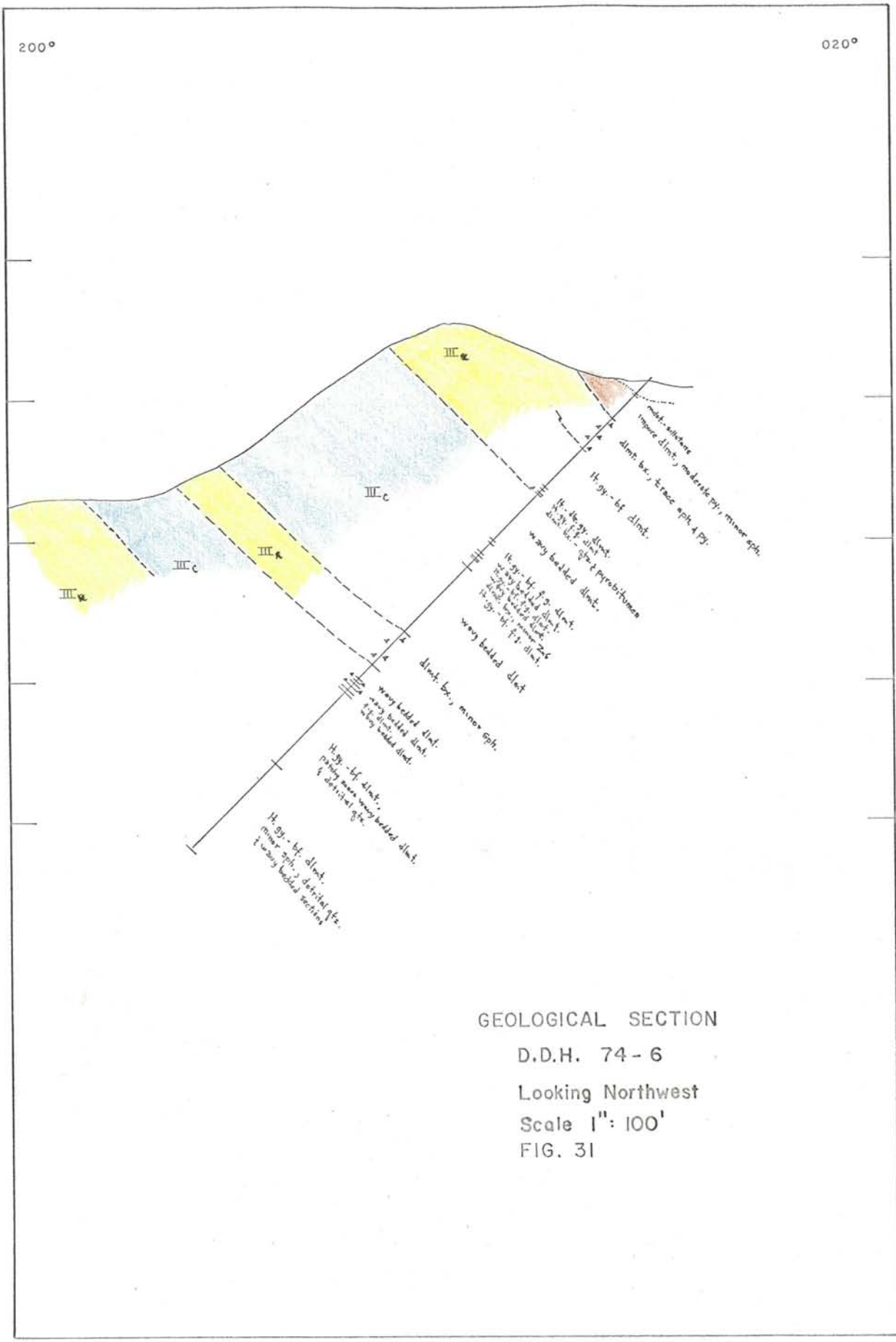
GEOLOGICAL SECTION

D.D.H. 74 - 5

Looking Northwest

Scale 1" : 100'

FIG. 30



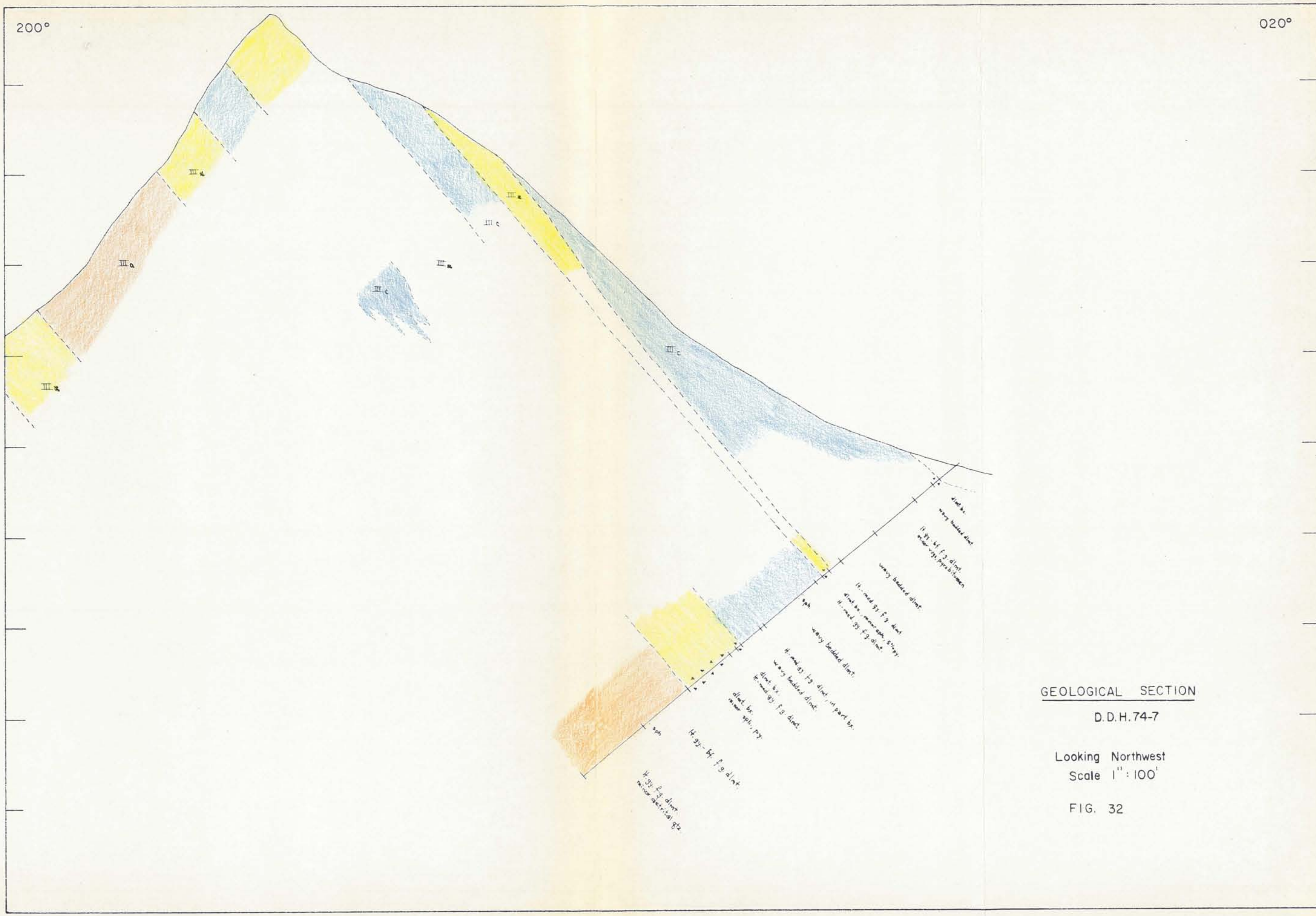
GEOLOGICAL SECTION

D.D.H. 74 - 6

Looking Northwest

Scale 1": 100'

FIG. 31



GEOLOGICAL SECTION

D.D.H. 74-7

Looking Northwest
Scale 1" : 100'

FIG. 32

Brinex

HOLE No. 74-1 PROJECT Cypress / Brinex Bonnet Plume River Page 1 of 9

LOCATION: Vega, Bonnet Plume River
COORDINATES: 23,452,183.29 N , 328,509.69 E
ELEVATION: 4102.3
INCLINATION: -45° AZIMUTH: 200°
LENGTH: 511 ft.
HORIZ. PROJ.: VERT. PROJ.:
CORE SIZE: BQ RECOVERY: 90.8 %

SURVEY		
LENGTH	DIP	AZIMUTH

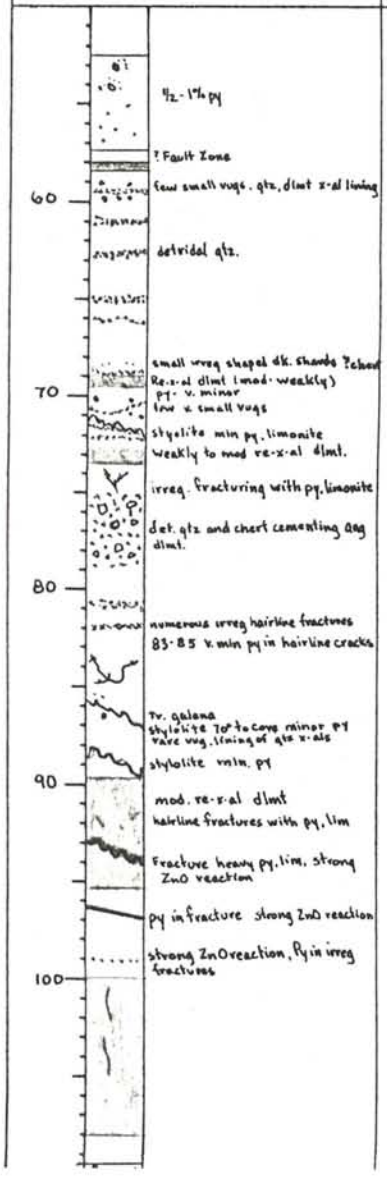
HOLE STARTED: July 18, 1974
HOLE COMPLETED: July 27, 1974
DRILLED BY: ARCTIC
BRINEX REPORT No.:
N.T.S. 106 C/7 U.T.M.
SCALE: 1:10'
LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			
0 10 20 30 40 thinly bedded mdst-siltst	0-37' OVERBURDEN Drilling from 16-37 thru talus boulders. Rx types include re-x-al vuggy dolomite, mdst-siltst and sh 37 - 52.5 Mudstone - Siltstone Greenish brown to dk. brown and dk. grey mdst-siltst., slightly calcareous in part, mica flakes along bedding planes. Some small scale soft sediment deformation. Bedding 80°-90° to core. Limonitic staining along fractures. Indistinct bedding except for small sections of v. thinly bedded and banded mdst.-siltst.								

Brinex

HOLE No. 74-1 PROJECT Cypress / Brinex Page 2 of 9

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1": 10' LOGGED BY: D.E. McHale



37 - 52.5' Mudstone - Siltstone

52.5 - 57.5 IMPURE DOLOMITE

f. - m.g., massive, buff impure dolomite

Rare tear drop shaped vugs with limonitic lining. Fragment dk. grey, pyrich 1¼" long, ½" wide, py v.f.g. containg other rounded blebs of py rich rx, also contains speckling of py which are rounded all in a breccia like mass.

57.5 - 58.0 Fault zone?

58.0 - 58.5 Re-x-al Dolomite lt. grey and mod. grey, f.g. - m.g., few small vugs

58.5 - 81.0 SANDY DOLOMITE

buff - lt. gray, f.g. mass. Sandy Dlmt. subang to subrounded detridal qtz grains in 1-2 inch bands Also some dk gray Rx frag ? chert or jasper Mod ZnO reaction in some cracks

66.1 & 67.5 py. limonite in irreg. hairline cracks

68.5 - 77.5 weak to mod ZnO reaction. Heavier reactions occur along fractures and in re-x-al dlmt

77.5 - 81 No reaction to weak ZnO

81.0 - 120.9 F.G. LT. GREY - BUFF DOLOMITE

81-90 Weak-mod reaction ZnO Heavier reactions along fractures and in re-x-al rx

v. rare vug in 81 - 120.9 section

91 - 95.5 Weakly re-x-al dlmt.

91 - 95 Mod - strong ZnO reaction esp along fractures

92 - 93 Small qtz. blebs

95.5 - 99.5 Dolomite cut by numerous cross cutting fractures. poss. very weakly re-x-al sucas. qtz. bleb

95 - 99.5 Weak ZnO reaction

100 - 105 Poss. weakly Re-x-al Dolomite with numerous py filled fractures

py. limonite up to 5% in narrow veinlets or fractures, general trend parallel to core, qtz in stringers and blebs. Some sections are heavily oxidized, friable and limonitic Mod to strong ZnO reaction

105 - 108 Broken and crumbly core, ext. heavy oxidation (limonitic) friable, May be in part brecciated fractures contain some py

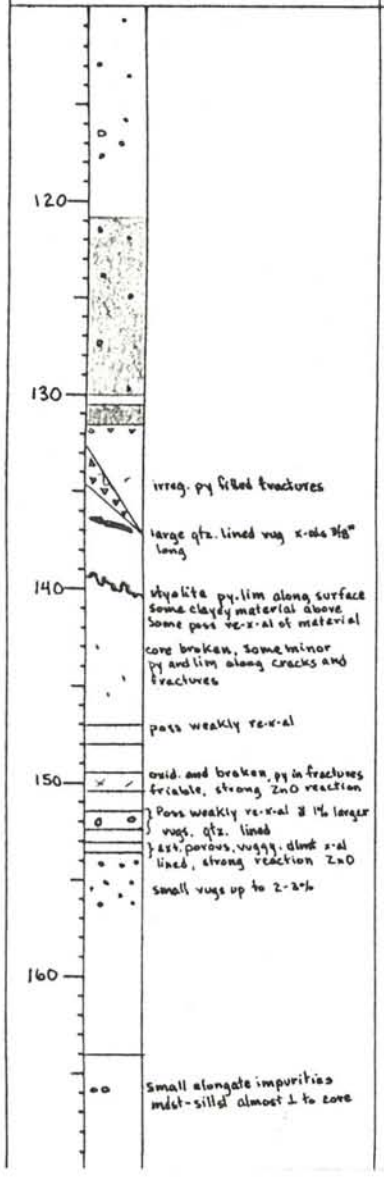
108 f.g. lt. grey - buff dlmt, 1-2% small vugs past 109.5, minor qtz blebs (v. small) No reaction to weak reaction ZnO sol.

SAMPLING No.	FROM	TO	FEET	ASSAY Zn
24676	90'	100'	10'	1.14%
24677	100	108	8'	2.20%

Brinex

HOLE No. 74-1 PROJECT Cypress/Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: D.E. McHale



DESCRIPTION

108 - 120 No reaction to ZnO solution

120.9 - 130 Weak to mod. Re-x-al Dolomite

1-2% small vugs often qtz lined No-weak reaction ZnO sol

130 - 135 F.G.-M.G. BUFF - LT. GREY DOLOMITE

½% - 1% small vugs

130.5 - 131.5 Heavily oxidized, friable, crumbly dlmt. Mod reaction ZnO, some py in fractures

131.5 - 132 Poss brecciated or re-x-al dolomite, rounded py and py in fractures ⊥ to ∥ to core

131.5 - 148 Mod-Strong ZnO reaction

135 - 135.9 Breccia Ang. frags ¼" - 1½" long Cementing material & frags calcareous

135 - 164 CALCARECOUS F.G.-M.G. LT. GREY - BUFF DOLOMITE

148 - 164 Mod-strong reaction ZnO sol.

164 - 177 F.G.-M.G. LT. GREY - BUFF DOLOMITE

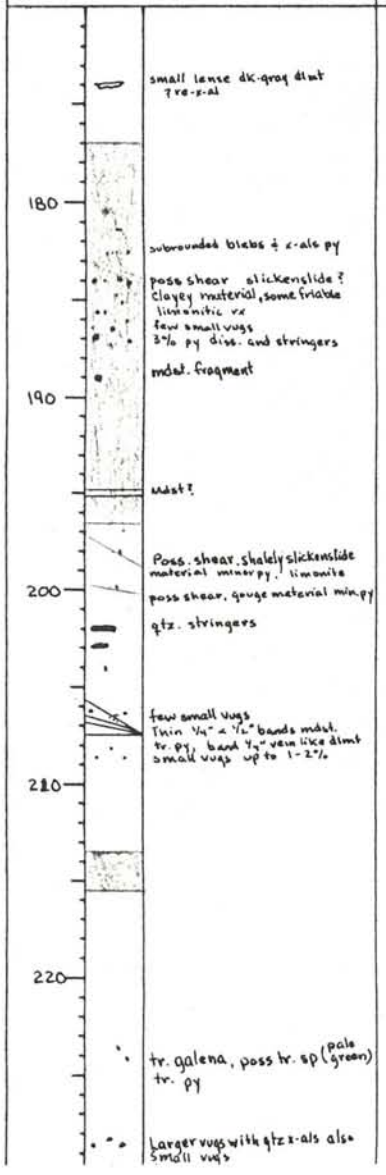
reacts mod well ZnO sol in cracks and fractures. rx reacts weakly Minor very small vugs, very few fractures approx parallel to core

SAMPLING No.	FROM	TO	FEET	ASSAY Zn
24678	143	152.5	9.5	0.31

Brinex

HOLE No. 74-1 PROJECT Cypress | Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: D.E. McHale



SECTION

DESCRIPTION

164 - 177 F.G.-M.G. LT GRAY - BUFF DOLOMITE

177 - 196.5 RE-X-AL. DOLOMITE

first 4½' weakly; vuggy infillings; 1% py also limonite
Amt of qtz varies greatly. small amt in blebs; larger amts as veinlets and in part sil dlmt.? poss smithsonite, reacts weakly - mod with ZnO
177 - 181 core fairly broken

196.5 - 206 F.G. - M.G. BUFF - LT. GREY DOLOMITE

occas small vugs No reaction - weak reaction ZnO sol.
206 - 212.5 No reaction - weak reaction ZnO sol.

206 - 255 F.G. - M.G. BUFF - LT. GRAY DOLOMITE

Some small vugs

213.5 - 215.5 WEAKLY RE-X-AL. DLMT

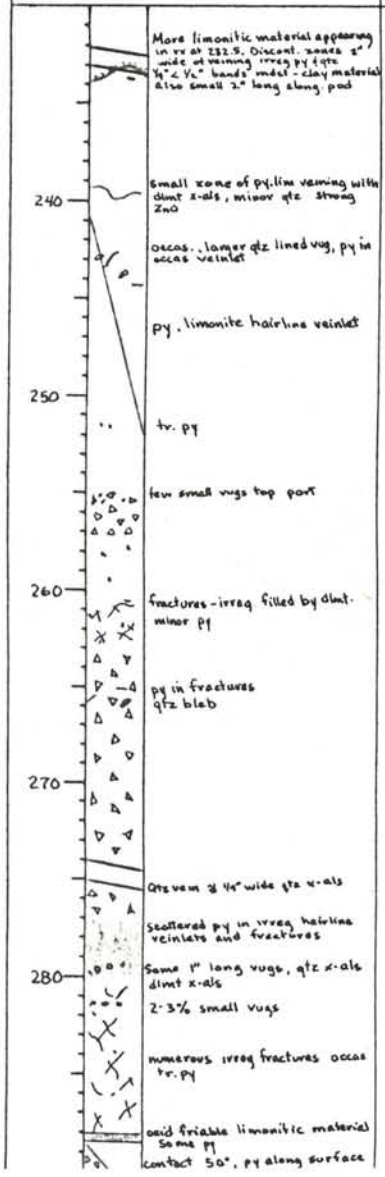
Mod ZnO reaction esp along cracks, veinlets goes to strong
215.5 - 224 Weak to no reaction ZnO sol.
224 - 226 Weak to no reaction Mod in cracks or fractures
226 - 227 Weak to no reaction ZnO sol.
227 - 232.5 Mod reaction on broken surfaces, cracks

SAMPLING No.	FROM	TO	FEET	ASSAY Zn
24679	177	185	8.0	0.14
24680	185	194	9.0	0.92

Brinex

HOLE No. 74-1 PROJECT Cypress/Brinex Page 5 of 9

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: D.E. McHale



DESCRIPTION

206 - 255 F.G. - M.G. BUFF - LT. GRAY DOLOMITE

232.5 - 234 strong to ext. strong reaction ZnO in small py, qtz veins

234 - 239 No reaction to weak reaction ZnO

239 - 249 No reaction to weak reaction except along cracks where mod.

strong ZnO along veinlet

249 - 255 Mod to strong on some fracture or crack surfaces. Rx is generally weakly reactive

255 - 257.5 DOLOMITE BRECCIA

Lt. gray ang. dlmt (up to 1" long) in blue gray f.g. groundmass
Mod. reaction ZnO to strong reaction along fractures

257.5 - 263 F.G. - M.G. BUFF - LT. GRAY DOLOMITE

mod. strong ZnO reaction

263 - 274 DOLOMITE BRECCIA

Lt. gray ang frags some quite large up to 2" long, most ½" in blue grey groundmass
Mod - strong ZnO reaction Tr. py

274 - 275.5 Aphanocrystalline DOLOMITE

Extremely dense, reacts weakly - mod.

275.5 - 277 DOLOMITE BRECCIA

Mod - strong reaction

277 - 280 Very weakly Re-x-al in part? brecciated DOLOMITE

Mod. ZnO reaction, except in cracks and vugs where strong

280 - 289.3 Aphano - M.G. LT. GRAY - BUFF DOLOMITE

In part may be very slightly re-x-al. Appears to have been fractured then re-cemented Weak ZnO reaction

289.3 - 290.2 ? DOLOMITE BRECCIA

½" long frags lt. grey dlmt in blue grey dlmt.
Weak ZnO reaction

SAMPLING No.	FROM	TO	FEET	ASSAY Zn
24681	260	270	10	0.62%
24682	270	280	10	0.80%

Brinex

HOLE No. 74-1 PROJECT Cypress / Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
290						
py and limonite 2-3%	289.3 - 290.2 ? DOLOMITE BRECCIA					
scattered oxid py	290.2 - 299 Aphano - M.G. LT. GREY - BUFF DOLOMITE Highly fractured and may in part be weakly brecciated or re-x-al weak - no reaction ZnO stronger ZnO (to mod reaction) near py					
limonitic friable material <1/2% py	299 - 300 DOLOMITE BRECCIA small lt. grey ang. frags (up to 0.5 in long) in blue grey groundmass (dlmt.) weak ZnO reaction					
300						
about 30% acid. material py limonite in irreg networks strong ZnO reaction	300 - 347 F.G. - M.G. LT. GREY - BUFF DOLOMITE weak to no reaction, numerous hairline cracks, fractures Heavier reaction along some cracks with py					
306-307 About 40-50% limonitic material strong ZnO reaction						
307-311 Sil portions usually as blebs						
	313-317 ? Poss. weakly re-x-al dolomite local conc of up to 2-3% py in irreg bands or veinlets weak ZnO reaction					
310						
tr. py.						
vugs up to 2% with occas large vugs lined by qtz, dlmt						
320						
py dissem and veinlets up to 5%						
stylolites minor py minor vugs						
330						
340	347-363 MED GREY F.G. - M.G POSS VERY WEAKLY RE-X-AL DOLOMITE mottled colouring No reaction to weak reaction ZnO					
core broken, limonitic friable material mod strong ZnO						
few qtz lined vugs						
stylolite						

Brinex

HOLE No. 74-1 PROJECT Cypress/Brinex Page 7 of 9

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1"=10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
350						
py along ? fracture surface						
minor small vugs	347 - 363 Fine grained - medium grained, poss weakly recrystallized DOLOMITE					
360						
stylolite, tr. py along surface oxid. lim. material few vugs	363 - 390 Fine grained, medium grained DOLOMITE lt. grey - buff no reaction to weak reaction ZnO solution					
370						
minor small vugs						
narrow bands poss? recrystallized dolomite						
380						
1" wide band clayey material with small dolomite rhombs ? auth. dolomite						
irr	390 - 410 Aphano. fine grained, lightgrey - buff DOLOMITE minor small vugs					
390						
minor small vugs						
400						
min. py along fracture surfaces						

Brinex

HOLE No. 74-1 PROJECT Cypress / Brinex Page 8 of 9

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: DE McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
410						
tr. py	410 - 477 Aphano - fine grained, lt. grey-buff DOLOMITE					
minor py limonite	few minor vugs, some quartz lined, small segments weakly recrystallized, py in poorly developed infrequent stylolites					
420						
poss. recrystallized dolomite minor py	421 - 428 ? Weakly recrystallized DOLOMITE					
430						
poss. recrystallized dolomite 436 quartz slickenslide surface parallel to core over 2"						
440						
poss. weakly recrystallized dolomite	445 - 456.5 Moderate reaction with ZnO solution, especially where cracked and pyrite is present.					
irreg. veinlet of dolomite, py crystals fairly porous						
irreg. veinlet, poss. stylolite, py along surface at 445.3 irreg veinlet of dolomite minor py. porous						
450						
poss weakly recrystallized dolomite 451-453 Sil. dolomite, quartz in large blebs						
few large vugs, quartz, dolomite crystals line vug						
460						

Brinex

HOLE No. 74-1 PROJECT Cypress / Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
470 — badly fractured above 471 quartz veinlet	477 - 511 Aphano, fine grained light grey dolomite occas. vugs, occas "veinlets" of coarse dolomite crystals, no reaction to weak reaction ZnO solution, moderate reaction in some cracks					
stylolite, minor clay along surface, minor py, poss. weakly recrystallized dolomite						
480 — poss. weakly recrystallized dolomite						
490						
500	501 - 502, 507 - 507.5 } Moderate ZnO reaction along cracks					
numerous small fractures						
numerous small fractures tr. py.						
510 — 511 END OF HOLE						

Brinex

HOLE No. 74-2 PROJECT Cypress/ Brinex Page 1 of 5

LOCATION: Vega, Bonnet Plume River
COORDINATES: 23,452,103.33 N , 328,907.40 E
ELEVATION: 3898.5
INCLINATION: -45° AZIMUTH: 200°
LENGTH: 252 ft.
HORIZ. PROJ.: VERT. PROJ.:
CORE SIZE: BQ RECOVERY: 87 %

SURVEY		
LENGTH	DIP	AZIMUTH

HOLE STARTED: July 31, 1974
HOLE COMPLETED: August 1, 1974
DRILLED BY: Arctic
BRINEX REPORT No.:
N.T.S. 106 c/7 U.T.M.
SCALE: 1" : 10'
LOGGED BY: D.E. McHale

SECTION	DESCRIPTION		SAMPLING No.	FROM	TO	FEET	ASSAY Zn
0	0 - 14'	OVERBURDEN					
10 — 14.9-15.0 Breccia? frag. up to 0.5", subrounded, subang extremely weakly recrystallized dolomite	14 - 41	DOLOMITE fine grained - medium grained, light grey dolomite no reaction - weak reaction ZnO sdution					
			24683	14	25	11	.04
20 — stylolite							
recrystallized dolomite, large vugs with quartz crystals, minor clay ? Smithsonite poss. v. weakly recrystallized dolomite			24684	25	35	10	.23
30 — poss. fault, angle to core can not be determined because of broken core, clayey gouge material on some surfaces, weakly recrystallized dolomite	32.5-35.0	Limonitic, dense, aphano - fine grained DOLOMITE in part, Similiar to Vega Trench rock Weak ZnO reaction					
small-medium sized vugs recrystallized (weakly) dolomite	41 - 71	DOLOMITE fine grained - medium grained, light grey - buff dolomite small vugs ≃ 1%, could be weakly recrystallized in some portions no reaction to weak reaction Mod ZnO 57-58; 63-64	24685	35	45	10	.05
40 — few small vugs							

Brinex

HOLE No. 74-2 PROJECT Cypress/Brinex

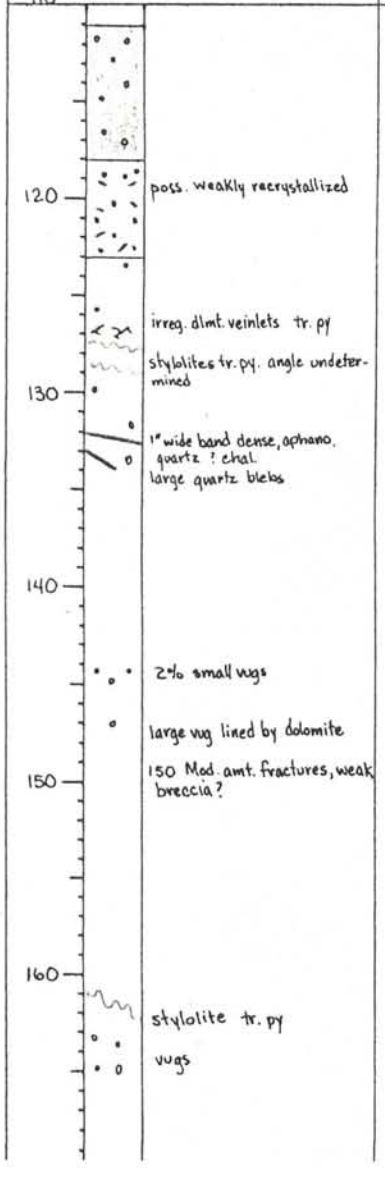
INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY Zn
50 stylolite	51.8 - 55.5 Recrystallized DOLOMITE irreg. spaced small vugs, blebs of quartz up to 0.5 in. long weak ZnO reaction	24686	45	55	10	.04
tr. py.						
weakly - mod. limonitic broken core, clayey material ? shear, angle uncertain, tr. py						
60 clayey material, poss. shear core broken		24687	55	65	10	.08
weakly recrystallized or poss. brecciated tr. py						
poss. breccia?						
large vugs, very porous, vugs lined by dolomite crystals, also small vugs						
70 Large vugs, porous, in part recrystallized; some vugs dolomite lined trace galena	71 - 81.5 DOLOMITE recrystallized, in part silicified few small vugs weak to no reaction ZnO solution (80.5 - 81.5 moderate reaction)	24688	65	75	10	.03
few small vugs						
80	81.5 - 92 DOLOMITE weakly recrystallized few small vugs weak ZnO	24689	75	85	10	.03
90	92 - 111 DOLOMITE fine grained - medium grained, light grey - buff dolomite Some sections maybe weakly recrystallized 92-93 Moderate - strong ZnO reaction weak to no reaction ZnO solution, occas. mod. along some cracks.	24690	85	95	10	.17
limonite-py hairline veinlet						
stylolite, minor py						
dolomite crystals in veinlets minor py in veinlets						
100		24691	95	105	10	.01
dolomite veinlets						
trace py small section may be recrystallized						
stylolite, py tr. also recrystallized dolomite minor pyro-bitumen						

Brinex

HOLE No. 74-2 PROJECT Cypress/Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: D.E. McHale



SECTION

DESCRIPTION

111 - 118 DOLOMITE

recrystallized, 2-3% small vugs, lined by dolomite or quartz
no reaction or weak reaction ZnO, heavier reaction along some crack surfaces

118- 123 DOLOMITE

weakly recrystallized, silicified, 10-15% quartz as blebs, fine grained - medium grained, mottled buff - light grey, 5-7% small vugs no reaction - weak reaction ZnO solution

123- 186 DOLOMITE

fine grained - medium grained, buff - light gray dolomite occas. veinlet of dolomite, few scattered vugs, maybe very slightly recrystallized in part
weak to no reaction except along some cracks were moderate

SAMPLING				ASSAY			
No.	FROM	TO	FEET	Zn			
24692	105	115	10	.06			
24693	115	125	10	.04			
24694	125	135	10	.03			

Brinex

HOLE No. 74-2 PROJECT Cypress/Brinex Page 4 of 5

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1"=10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
limonite, minor py stylolite, minor limonite, py weakly recrystallized dolomite stylolites, limonite along surfaces	123 - 186 DOLOMITE (SEE previous page) 163 - 185 no reaction - weak reaction, poor reaction even where py occurs 186 - 204 weak - no reaction ZnO solution					
180						
quartz blebs in recrystallized dolomite, unusual blue colour stylolite limonite and py, large vug lined by quartz, dolomite limonite, py, large cavity py. limonite lined	186 - 187 Recrystallized DOLOMITE					
	187 - 188 Porous DOLOMITE Breccia					
	188 - 196 Porous Recrystallized DOLOMITE					
hollow cavities, limonite, py	196 - 199.5 Fine grained - medium grained buff - light grey DOLOMITE					
190	199.5 - 200 Porous recrystallized DOLOMITE					
limonite, py	200 - 203 Weakly recrystallized DOLOMITE					
	203 - 204 fine grained - medium grained buff - lt. grey DOLOMITE					
minor pyrite	204 - 205.5 Weakly recrystallized DOLOMITE					
200	205.5 - 206.5 fine grained - medium grained buff - light grey DOLOMITE					
	206.5 - 207.5 weakly recrystallized Dolomite					
large cavity, dolomite lined	207.5 - 217 fine grained medium grained light grey DOLOMITE					
	217 - 217.5 recrystallized DOLOMITE					
	217.5 - 218 fine grained medium grained light grey DOLOMITE					
210	218 - 227 weakly recrystallized DOLOMITE					
	(204 - 227 weak to no reaction ZnO, except for some py, vug and limonite, around which reaction is mod. to strong.)					
stylolites, pyrite, limonite clay along surface ¼" thick						
220						
stylolites, minor py, some limonite						

Brinex

HOLE No. 74-2 PROJECT Cypress/Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
230						
	227- 242 DOLOMITE recrystallized, contains numerous hairline cracks occas. large vug, some small vugs ; stylolites common with minor pyrite along some					
240	242- 245 Dolomite Porous 10- 15% vugs. small- medium sized, irreg. shaped					
porous dolomite	245- 250 DOLOMITE fine grained, medium grained, light gray- buff					
250 contact relationships unknown	245.5- 246.5 Porous Dolomite					
	250 - 252 Chal Quartz veining? Sil. Dolomite aphanocrystalline, lt.grey - bluish gray, lithologies alternate, dolomite contains 5-7% vugs no reaction ZnO solution					
	252 END OF HOLE					

Brinex

HOLE No. 74-3 PROJECT Cypress / Brinex Page 1 of 7

LOCATION: Bonnet Plume River
COORDINATES: 23,449,284.97N , 337,109.18E
ELEVATION: 5458.2
INCLINATION: -45° AZIMUTH: 200°
LENGTH: 398
HORIZ. PROJ.: VERT. PROJ.:
CORE SIZE: BQ RECOVERY: %

SURVEY		
LENGTH	DIP	AZIMUTH

HOLE STARTED: August 5, 1974
HOLE COMPLETED: August 7, 1974
DRILLED BY: Arctic
BRINEX REPORT No.:
N.T.S. 106 C/7 U.T.M.
SCALE: 1" : 10'
LOGGED BY: D.S. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
0 10 dark grey dolomite large quartz filled vug wavy banded dolomite 20 sharp "contact" light grey dolomite, lower contact" stylolite frpy. small quartz blebs 30 quartz in blebs occasionally 40 large quartz vugs minor galena stylolite 40-47 20% quartz as blebs	0 - 10 OVERBURDEN 10 - 47 DOLOMITE strongly recrystallized mottled light grey - buff and medium grey porous, vuggy, locally 5-7%, average 2-3% generally small vugs no reaction to weak reaction ZnO solution 47 - 117.5 DOLOMITE Weakly recrystallized, medium - fine grained light grey - buff porous, vuggy, 5% small vugs 2%? quartz in blebs no reaction to weak reaction ZnO					

Brinex

HOLE No. 74-3 PROJECT Cypress/Briner Page 2 of 7

INCLINATION: -40° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
60 galena along stylolite trace galena, as blebs minor galena, as blebs large quartz blob blebs galena under stylolite 70 80 trace pyrobitumen minor pyrite 90 1-2% pyrobitumen quartz asblebs related to pyrobitumen? minor fg pyrobitumen (minor) 100	47 - 117.5 DOLOMITE Weakly recrystallized, medium - fine grained light grey - buff porous - vuggy 5% small vugs 2% quartz in blebs no reaction to weak reaction ZnO					

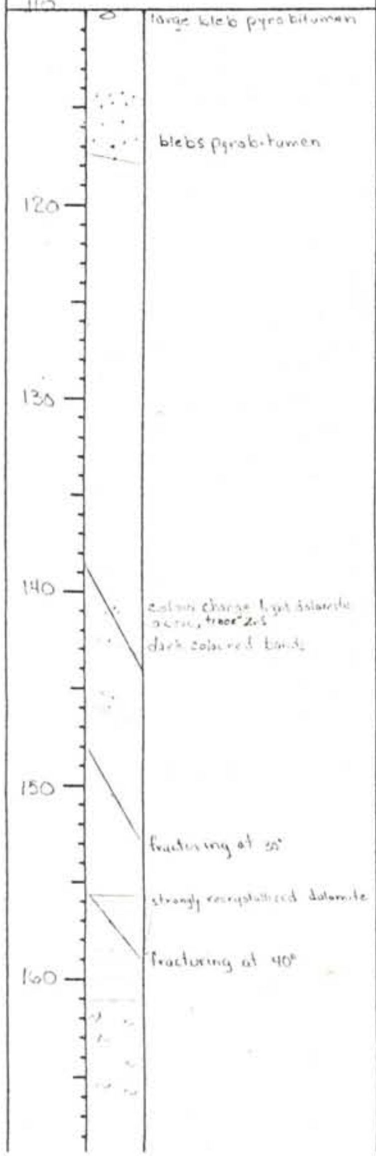
Brinex

HOLE No. 74-3 PROJECT Cypress/Brinex

INCLINATION: -40° AZIMUTH: 200° COORDINATES: , SCALE: 1:10' LOGGED BY: DeMich

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			

SECTION



DESCRIPTION

47 - 117.5 DOLOMITE

(f.g. light gray - buff dolomite)
(Refer to page 2)
porosity decreases 104 - 117.5
104-117.5 No reaction to weak reaction ZnO solution

117.5 - 155.5 DOLOMITE

Moderately to strongly recrystallized
Medium gray to mottled medium gray and light gray
a few vugs
No reaction to weak reaction ZnO solution
Some rock approaches wavy banding
no

155.5 - 161 DOLOMITE

Weakly recrystallized except for two small sections of strongly recrystallized dolomite.
Aphanocrystalline to fine grained
< 1/2 % small vugs. strongly recrystallized areas show more and larger vugs.
No reaction ZnO solution

161 - 166.5 DOLOMITE

Weakly to moderately recrystallized
mottled bluish gray and light gray
< 1/2 % small vugs
fine grained - v. fine grained
No reaction ZnO

166.5 - 194 DOLOMITE (light gray - buff, finegrained)

See next page

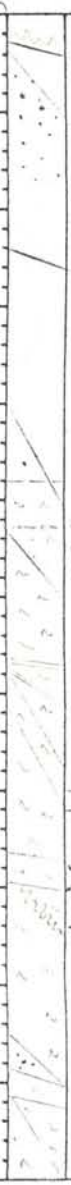
Brinex

HOLE No. 74-3 PROJECT Cypress/Brinex

INCLINATION: -40 AZIMUTH: 200° COORDINATES: ______ , ______ SCALE: 1":10' LOGGED BY: DEMcH

SECTION

170



180

190

200

210

220

stylolite
fracture

[illegible] and pyrite
strongly recrystallized
[illegible] quartz infilling
trace [illegible] rimming
"fragments"
weak-moderate ZnO solution
locally strong

fracture

limonite, trace py in irregular
fracture

[illegible] band
parallel banding
narrow light coloured band

light coloured band

light coloured band

core broken / ground

2" light coloured dolomite
bands, upper ½" in each
band is silicified
← stylolite with heavy
limonite / minor pyrite

porous vuggy, large quartz bleb,
minor pyrobitumen

light coloured wispy banded

DESCRIPTION

166.5 - 194 DOLOMITE

Weakly recrystallized, except for section 173 - 178.5
light gray - buff, aphanocrystalline - fine grained
1-2% small vugs
weak to no reaction ZnO

194 - 236 DOLOMITE

Moderate to strongly recrystallized
Mottled bluish grey and light grey
Wavy banded, parallel thin [illegible] bands
banding approximately 80-90° to core
Weak to no reaction ZnO

SAMPLING No.	FROM	TO	FEET	ASSAY Zn			
24709	170	180	10'	0.59%			

Brinex

HOLE No. 74-3 PROJECT Cypress/Brinex Page 5 of 7

INCLINATION: -40° AZIMUTH: 200° COORDINATES: ____, ____ SCALE: 1":10' LOGGED BY: D.E McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY Zn
230						
minor limonite, pyrite in fractures two narrow bands light coloured dolomite	236 - 241 DOLOMITE Massive, fine grained, dense no reaction ZnO solution					
trace sphalerite	241 - 275 DOLOMITE Moderately to strongly recrystallized mottled bluish gray and light gray very kinked, thin beds or bands almost 90° to core weak to no reaction ZnO solution					
240						
light coloured rock, ? bedding						
light coloured dolomite with bands bluish gray dolomite						
250						
260	275 - 288 ? DOLOMITE BRECCIA ? moderately recrystallized angular fragments in light gray groundmass ≅ 1% vugs, small to 1½ inches long some quartz lined or filled. Trace amounts sphalerite weak to moderate ZnO reaction, especially in vugs or cracks or where material was introduced	24707	265	270	5.0	0.03%
¼" violet dolomite crystal with trace sphalerite						
270						
280		24708	280	285	5.0	0.04%
py in fracture						
	288 - 293 DOLOMITE Similar to 241-275, wavy banded weak to no reaction					

Brinex

HOLE No. 74-3 PROJECT Cypress/Brinex Page 6 of 7

INCLINATION: -40° AZIMUTH: 200° COORDINATES: ____, ____ SCALE: 1" : 10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING				ASSAY			
		No.	FROM	TO	FEET	Zn			
290									
trace sphalerite, sp amount quartz at 295	293 - 306.8 DOLOMITE BRECCIA Strongly recrystallized buff - blush grey up to 10% in top portion, as vugs and infillings 1-2% vugs, except were sphalerite rich, dense	24704	292.1	298.6	6.5	0.27			
300 1-2% sphalerite in veinlets	300 - 301.1 10% sphalerite	[illegible]	[illegible]	[illegible]	[illegible]	20.00			
sphalerite as infilling	301.1 - 302.8 30% sphalerite								
1-2% sphalerite	306.8 - 314 DOLOMITE moderate to strongly recrystallized mottled bluish grey and light grey wavy banded, thin beds or band, approx. 80-90° to core weak to no reaction ZnO solution	24705	302.9	310	7.1	0.06			
310									
Breccia 2-3% small vugs	314 - 336 Alternating wavy Banded Dolomite, Dolomite Breccia and Weakly - Moderately Recrystallized Dolomite Wavy banded dolomite, described 306.8-314								
wavy banded dolomite									
Breccia 5% small vugs, 1-2% qtz									
320 wavy banded dolomite									
Breccia, minor quartz sp <1% weakly-moderately recrystallized dolomite, ½-2% sphalerite, 2-3% small vugs	DOLOMITE BRECCIA Recrystallized, angular and irregular shaped fragments (dark in colour) in light coloured groundmass. Fragments .1 inch long to a few inches long. Some limonitic stain reacts moderately to strongly	24706	320	330	10.0	0.23%			
Breccia - 1-2% vugs 2-3% quartz infillings or blebs sphalerite along fragment edges ½-1%, pyrite	DOLOMITE Weakly, moderately recrystallized light grey in colour Cut by narrow dolomite crystal lined veinlets Weak to no reaction ZnO solution								
330 wavy banded dolomite									
wavy banded dolomite minor sphalerite									
340 quartz grains	336 - 362.5 DOLOMITE BRECCIA Weakly, strongly brecciated, some small sections wavy banded dolomite, Also some sections with high quartz content, some rounded quartz grains weak to moderate ZnO reaction								
wavy banded dolomite									
wavy banded dolomite									

Brinex

HOLE No. 74-3 PROJECT Cypress / Brinex Page 7 of 7

INCLINATION: -40° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			
350									
quartz grains minor sphalerite quartz grains and blebs heavily silicified	336 - 362.5 DOLOMITE BRECCIA Weakly, strongly brecciated, some small sections wavy banded dolomite. Also some sections with high quartz content, some rounded quartz grains Weak to moderate ZnO reaction								
360									
?wavy banded dolomite minor sphalerite, quartz vein or infilling quartz infilling, minor sphalerite, running fragments	362.5 - 398 DOLOMITE Recrystallized and in part brecciated dolomite, Lt. grey, buff and blush grey Some sections quartz rich with quartz in blebs or infillings; 2-3% vugs Weak or no reaction ZnO solution								
wavy banded dolomite									
authigenic dolomite									
stylolite wavy banded dolomite									
wavy banded dolomite									
wavy banded dolomite									
wavy banded dolomite									
quartz bleb or grains poss. fault ?									
398 END OF HOLE	398 END OF HOLE								

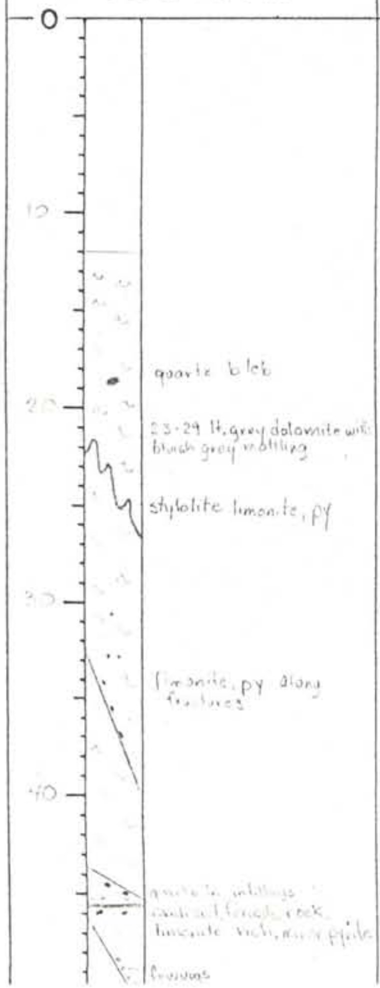
Brinex

HOLE No. 74-4 **PROJECT** Cypress / Brinex **Page** 1 **of** 8

LOCATION: Bonnet Plume River	HOLE STARTED: August 8, 1974
COORDINATES: 23,449,284.97 N , 337,109.18 E	HOLE COMPLETED: August 11 1974
ELEVATION: 5458.2	DRILLED BY: Arctic
INCLINATION: -45° AZIMUTH: 175°	BRINEX REPORT No.:
LENGTH: 433'	N.T.S. 106 C/7 U.T.M.
HORIZ. PROJ.: VERT. PROJ.:	SCALE: 1:10'
CORE SIZE: BQ RECOVERY: 89 %	LOGGED BY: D.E. McNab

SURVEY		
LENGTH	DIP	AZIMUTH

SECTION



DESCRIPTION

0 - 10 OVERBURDEN

10 - 12 TALUS BOULDERS

Mostly recrystallized dolomite and soil.

12 - 44.5 DOLOMITE

Recrystallized, major part show solution breccia effects.
mottled light gray and bluish gray
vugs: 1-2% small, minor quartz blebs, infillings
no reaction except for some surfaces weak-moderate

44.5 - 48.5 DOLOMITE BRECCIA

Recrystallized and moderately to strongly brecciated (may be solution brecciation)
mottled buff, light bluish grey and light gray
minor vugs, but over small fractions 2-3%
weak reaction ZnO solution, many moderate

48.5 - 123.7 DOLOMITE

Weakly recrystallized
mottled light gray and buff, blebs of bluish gray
vugs 2-3%, small,
weak reaction to no reaction ZnO solution

SAMPLING				ASSAY			
No.	FROM	TO	FEET				

Brinex

HOLE No. 74-4 PROJECT Cypress/Brinex

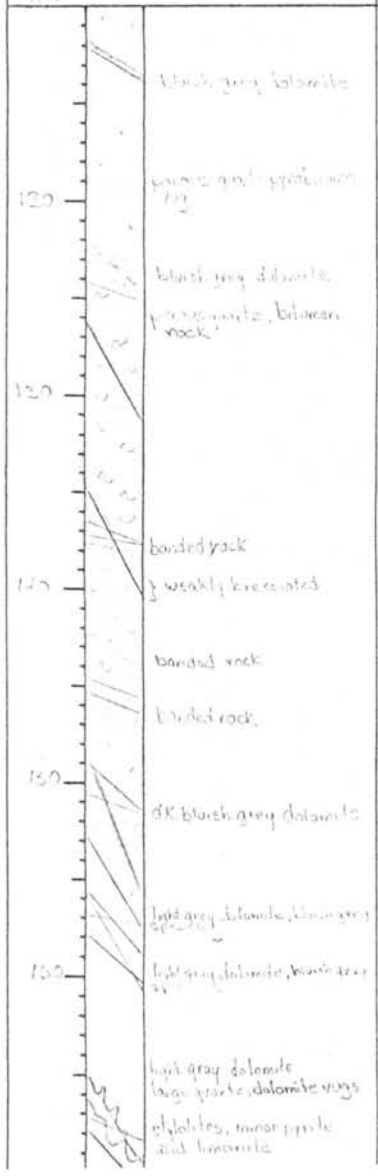
INCLINATION: -45° AZIMUTH: 175° COORDINATES: ______ , ______ SCALE: 1":10' LOGGED BY: D.F.H.H.

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			
60 — [illegible] quartz blebs	43.5 - 123.7 DOLOMITE								
quartz blebs	from 39.5 predominately buff - lt. gray [illegible]								
70 — blebs of galena	from black-grey section and hairline cracks								
blebs galena [illegible] quartz blebs	generally fine grained								
80 — Brown gray dolomite	*Refer to previous page								
90 — Black gray dolomite									
Brown gray dolomite; [illegible] inclusions along [illegible]									
100 — large quartz vein, minor [illegible]									
quartz pyrobitumen [illegible]									

Brinex

HOLE No. 74-4 PROJECT Cypress/Brinex Page 3 of 8

INCLINATION: -45 AZIMUTH: 175° COORDINATES: , SCALE: 1"=10' LOGGED BY: DsMcH

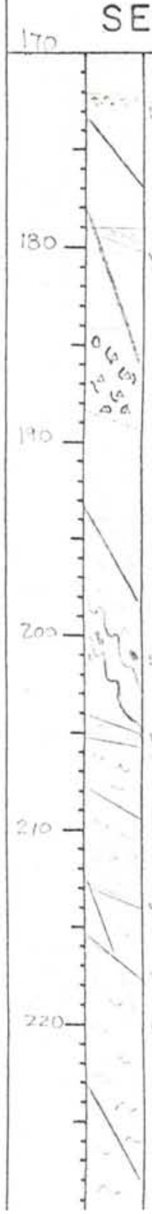
SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			
	48.5 - 123.7 DOLOMITE Refer to previous pages 123.7 - 172 DOLOMITE Moderately - weakly recrystallized, fine grained dk bluish grey - lt. grey and mottled some very porous quartz and pyrobitumen sections minor numbers of small vugs no reaction ZnO wavy banded in some parts								

Brinex

HOLE No. 74-4 PROJECT Cypress/Brinex

INCLINATION: -45° AZIMUTH: 175° COORDINATES: ______ , ______ SCALE: [illegible] LOGGED BY: [illegible]

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			



Section notes:

porous section light grey dolomite

dark [illegible] dolomite [illegible] by [illegible] and dark dolomite

solution breccia? [illegible]

light grey [illegible] thin [illegible] grey banding

206-214 light grey dolomite [illegible] grey banding

solution [illegible]

soft sediment deformation and [illegible]

veinlet dolomite crystals [illegible]

veinlet dolomite crystals [illegible]

Description:

123.7 - 172 DOLOMITE

See previous pages

172 - 184 DOLOMITE

Weakly recrystallized, light grey to buff, fine grained
minor small vugs no reaction ZnO solution

184 - 189 DOLOMITE

Strongly to extremely strongly recrystallized
white quartz infilling between [illegible]
dolomite
some large vugs
weak to moderate ZnO reaction, strong in small areas.

189 - 194 DOLOMITE (f.g. light grey)

Similiar to 172 - 184

194 - 204 DOLOMITE

Moderately recrystallized
mottled bluish gray and light gray
massive, in part may be wavy banded
no reaction ZnO solution

204 - 281 DOLOMITE

Moderately recrystallized
mottled light grey and bluish grey
dense, fine grained
sections of light, thinly banded by bluish
grey dolomite

Brinex

HOLE No. 74-4 PROJECT Cypress/Brinex

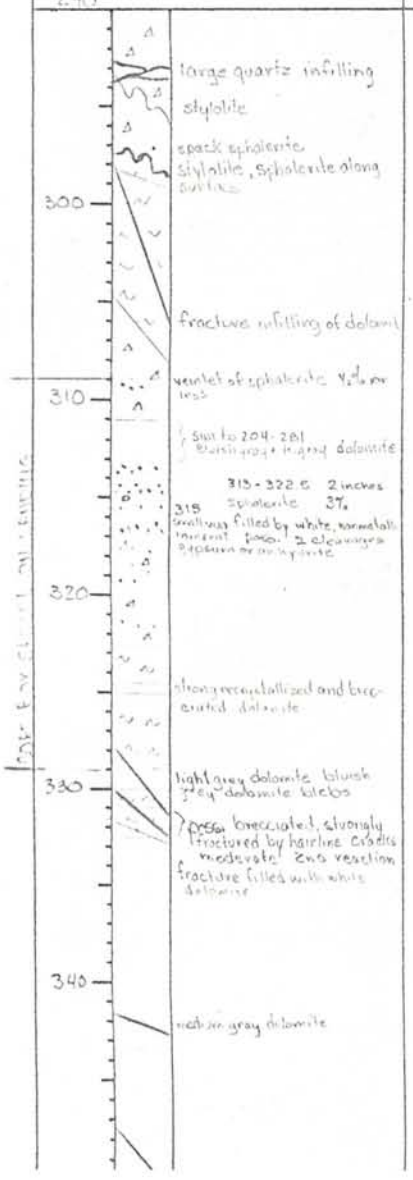
INCLINATION: -45° AZIMUTH: 175° COORDINATES: ______ , ______ SCALE: 1" = 10' LOGGED BY: De Mell

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			
 solution breccia and wavy banded sections; wavy banded; [illegible] recrystallized banded rock; fracture filling of white dolomite; banded rock; banded rock; stylolite; colour change to predominantly [illegible] groundmass [illegible] irregular shaped [illegible] of dolomite; [illegible] sphalerite	204 – 281 DOLOMITE Moderately recrystallized mottled light gray and bluish gray dense, fine grained Sections of light, thinly banded by bluish grey dolomite no ZnO reaction 281 - 298.5 DOLOMITE Strongly recrystallized, colloform texture, quartz infillings sphalerite along "rims" of fragments also along stylolite solution brecciation textures in some areas. rock is predom. buff in colour, <½% vugs, usually small weak ZnO reaction, except where mineralized strong								

Brinex

HOLE No. 74-4 PROJECT Cypress/Brinex Page 6 of 8

INCLINATION: -45° AZIMUTH: 175° COORDINATES: ____, ____ SCALE: 1" = 10' LOGGED BY: DsMcM

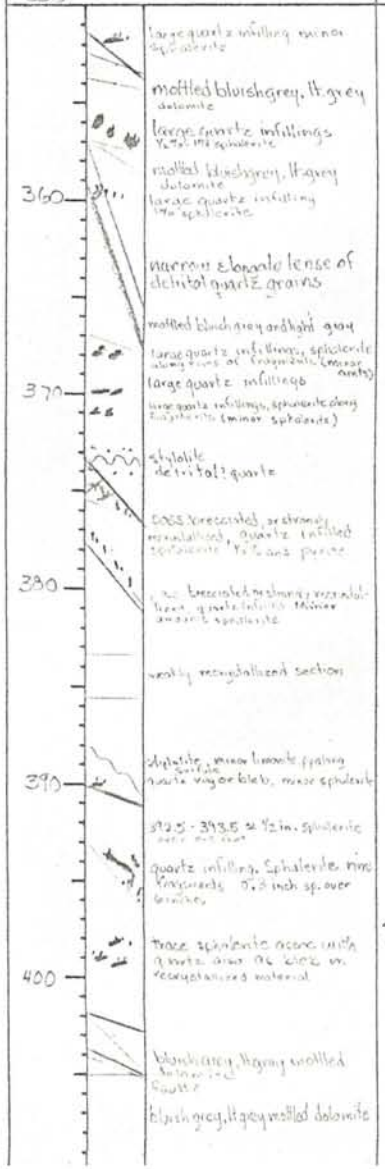


SECTION	DESCRIPTION	SAMPLING				ASSAY			
		No.	FROM	TO	FEET	%Zn			
	281 - 298.5 DOLOMITE Strongly recrystallized, colloform textures, quartz infillings, sphalerite along "rims" of fragments, also along stylolite, solution brecciation textures in some areas. Rock is predominately buff in colours, ½% vugs, usually small, weak ZnO reaction, except where mineralized strong								
	298.5 - 306 DOLOMITE Moderately recrystallized, mottled light gray and bluish gray, dense, fine grained, no ZnO reaction	24006	313	322.5	9.5'	1.38			
	306 - 322.5 DOLOMITE Similiar to 281 - 298.5 strongly recrystallized								
	322.5 - 332 DOLOMITE Moderately recrystallized, mottled light gray and bluish gray, dense, fine grained, no ZnO reaction								
	332 - 352 Silicified DOLOMITE weakly recrystallized, few small areas moderate; mottled buff and light grey, small vugs ½ - 1%, no reaction ZnO solution, Silicified in blebs but also massive								

Brinex

HOLE No. 74-4 PROJECT Cypress/Brinex Page 1 of 8

INCLINATION: -45 AZIMUTH: 175° COORDINATES: ____, ____ SCALE: 1:10' LOGGED BY: DeMcH.



SECTION

DESCRIPTION

352 - 402 DOLOMITE

Similar to 332 - 352 but not silicified as completely. Quartz occurs as infillings, as dense masses also as small rounded blebs (poss. detrital quartz grains
mottled buff and light gray; weakly recrystallized
no reaction ZnO solution

2.0 in. sp 397.5 - 398
0.5 in sp 398.8 - 399.6

402 - 410.5 DOLOMITE

Moderately to weakly recrystallized
mottled bluish gray and light gray, some sections predom. lt. gray
No reaction ZnO solution

SAMPLING				ASSAY
No.	FROM	TO	FEET	% Zn
24697	350	355	5.0	0.11
24698	355	360	5.0	0.09
24699	367	372	5.0	0.14
24700	375	380	5.0	0.22
24701	390	395	5.0	0.84
24702	395	400	5.0	0.69

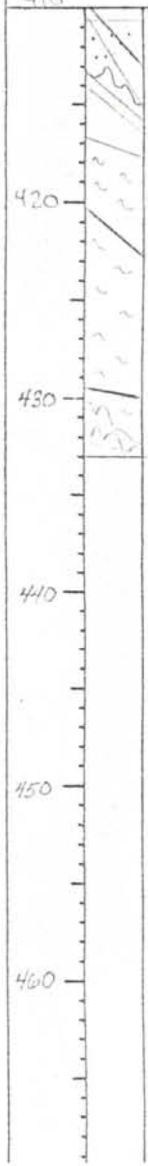
Brinex

HOLE No. 74-4 PROJECT Cypress / Brinex

INCLINATION: −45 AZIMUTH: 175' COORDINATES: ______, ______ SCALE: 1:10' LOGGED BY: DEMcH

SECTION

410



DESCRIPTION

402 - 410.5 DOLOMITE

Moderately to weakly recrystallized
mottled bluish gray and lt. gray, some sections predom. lt gray
No reaction ZnO solution

410.5 - 417.5 DOLOMITE

strongly recrystallized, colloform texture
limonite, quartz as infillings
Sphalerite rims fragment edges, maybe associated
with quartz (sp. pale yellow green)
minor amounts sphalerite from 410.5 - 412.5
(0.4in sp) ; 1% vug space (cavities)
moderate ZnO reaction were mineralized

417.5 - 433 DOLOMITE

Moderately to weakly recrystallized
mottled bluish gray and light gray.
No reaction ZnO solution

433 END OF HOLE

SAMPLING No.	FROM	TO	FEET	ASSAY % Zn			
24703	410.4	414	3.6	1.06			

Brinex

HOLE No. 74-5 PROJECT Cypress/Brinex Page 1 of 7

LOCATION: Bonnet Plume River
COORDINATES: 23,449,284.97 , 337,109.18
ELEVATION: 5458.2
INCLINATION: -45° AZIMUTH: 245°
LENGTH: 406
HORIZ. PROJ.: VERT. PROJ.:
CORE SIZE: BQ RECOVERY: 95 %

SURVEY		
LENGTH	DIP	AZIMUTH

HOLE STARTED: August 13, 1974
HOLE COMPLETED: August 25, 1974
DRILLED BY: Arctic
BRINEX REPORT No.:
N.T.S. 106 C/7 U.T.M.
SCALE: 1" : 10'
LOGGED BY: D. E. McHale

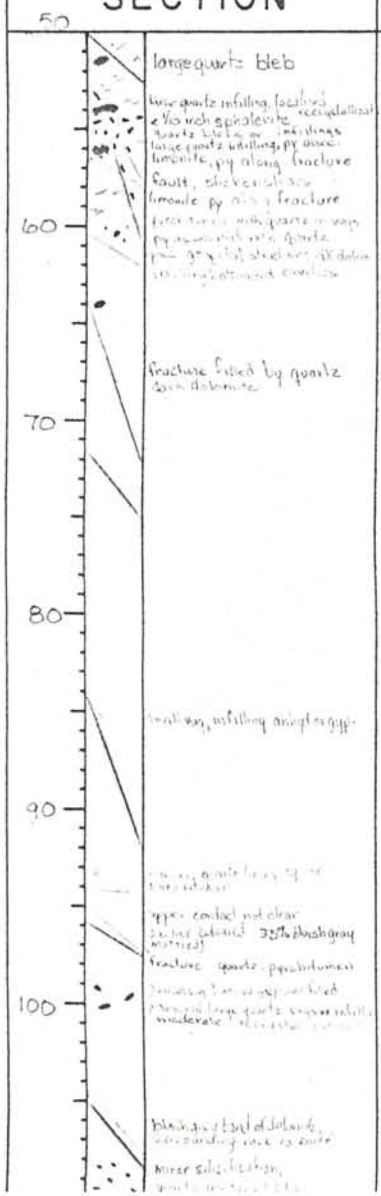
SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
0	0 - 12 Overburden					
	12 - 15 Talus Boulders Mostly similiar to 15-28. Few pieces heavily oxidized material					
10	15 - 28 Dolomite Moderately recrystallized fine grained. mottled lt. grey and bluish grey no ZnO reaction					
20	28 - 55.5 DOLOMITE Moderately recrystallized fine grained, mottled bluish grey and lt. grey weak to no reaction ZnO 1-2% small vugs some vugs are quartz lined					
	small section bluish grey and lt. grey dolomite					
30	irregular limonite, py veinlets large limonite, py veinlet parallel to core					
	} weakly calcareous					
40	two small vugs filled with gypsum or anhydrite					
	large irregular quartz bleb					

Brinex

HOLE No. 74-5 PROJECT Cypress / Brinex

INCLINATION: -45° AZIMUTH: 245° COORDINATES: ______ , ______ SCALE: 1":10' LOGGED BY: DE McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			



55.5 - 61.0 DOLOMITE

Strongly recrystallized, in places colloform.
Some very large quartz infilling some with pyrite along traces of infilling
occassional vug
weak reaction ZnO solution

61.0 - 125.0 DOLOMITE

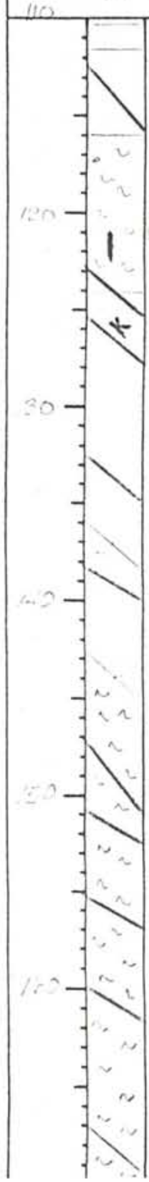
Weakly recrystallized, lt. grey dolomite
up to 5-7% small vugs, most of core quite porous.
wispy medium gray dolomite somewhat like tension gash fillings in some portions of core
no reaction ZnO solution

Brinex

HOLE No. 74-5　　PROJECT Cypress [illegible] Brinex　　

INCLINATION: -45°　　AZIMUTH: 245°　　COORDINATES: ______ , ______　　SCALE: 1":10'　　LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	SAMPLING FROM	SAMPLING TO	SAMPLING FEET	ASSAY			



[illegible] black [illegible] irregular [illegible] patches, [illegible] contacts not [illegible]

mottled lt. grey and bluish grey dolomite small vug. pyrobitumen

large [illegible], pyrobitumen [illegible]

quartz, pyrobitumen, [illegible] grey dolomite fracture filling

pyrobitumen in small vugs [illegible] along same [illegible]

wispy banded dolomite

61.0 - 125 DOLOMITE

(see previous page)

125 - 137 DOLOMITE

Weakly or very weakly recrystallized fine grained, light grey, buff and grey blue buff colour could be [illegible] effect; becomes predom. grey-blue, [illegible] recrystallized at 130

137 - 144 DOLOMITE

Weakly recrystallized fine grained [illegible], light grey, small vugs [illegible] to 10% often [illegible] pyrobitumen [illegible], [illegible] fractures with pyrobitumen
no reaction [illegible] weak reaction ZnO solution

144 - 191 DOLOMITE

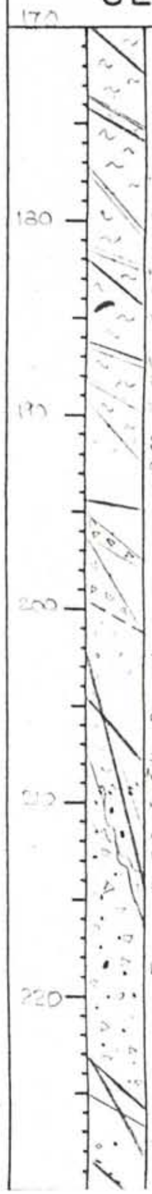
Moderately recrystallized, fine grained, wavy and [illegible] mottled lt grey and bluish grey [illegible] no reaction ZnO solution

Brinex

HOLE No. 74-5 PROJECT Cypress/Brinex

INCLINATION: -45° AZIMUTH: 245° COORDINATES: , SCALE: 1":10' LOGGED BY: D.E. McHale

SECTION



[illegible] grey rock (? [illegible]) with [illegible] broken off of upper [illegible] [illegible] breccia surface [illegible]

narrow band of light grey dolo [illegible] early brecciation of [illegible] banded rock?

narrow band [illegible] light grey dlmt with green, subang subrounded [illegible] dlmt. quartz? [illegible]

two narrow [illegible] grey bands [illegible] top band may be silicified

light grey dolomite

relatively vuggy, quartz lined [illegible]

angle uncertain, below contact [illegible] grey dolomite with bluish grey [illegible]

Breccia

fault? small breccia zone [illegible] (1-2%)

contact 206 at 20°

[illegible] prominent fracture

fracture infilled by white dolomite

[illegible] fractures, [illegible]

narrow band of bluish grey dolomite infillings of quartz stylolites

trace fresh pyrite, trace sp?

6.5' to 218.5 = .7 in (1%)

blk galena

.5 in sp in 218.5 - 224 (1%)

white dolomite in fracture [illegible]

DESCRIPTION

144 - 191 DOLOMITE

See previous page

191 - 206 DOLOMITE

weakly recrystallized, fine grained, light grey to light grey with bluish grey patches, small vugs [illegible], some fine quartz linings. rock may be silicified.

206 - 212 DOLOMITE

Moderately recrystallized - fine grained bluish grey and light grey mottled relatively hard, wavy banded to wispy

212 - 224 DOLOMITE BRECCIA

strongly recrystallized and brecciated, light grey mottled by medium grey and bluish grey
First 5' feet appear to be transition zone (also few [illegible])
geopetal structures
weak to no reaction ZnO solution
quartz infillings

211 - Large stylolite with residue above stylolite surface. ? geopetal structure. other possible geopetal features [illegible] above stylolite. Fragments of rock are floating [illegible] stylolite surfaces giving a breccia like appearance

224 - 226 DOLOMITE

similar to 206 - 212

226 - 242.5 DOLOMITE

weakly to moderately recrystallized, fine grained light grey patchy with bluish grey, some mineralization, 1-2% small vugs
weak - no reaction ZnO

SAMPLING / ASSAY

No.	FROM	TO	FEET	Zn
24710	211.8	216.8	5.0	0.47%
24711	216.8	220	3.2	1.01%
24712	220	225	5.0	0.29%

Brinex

HOLE No. 74-5 PROJECT Cypress/Brinex Page 5 of 7

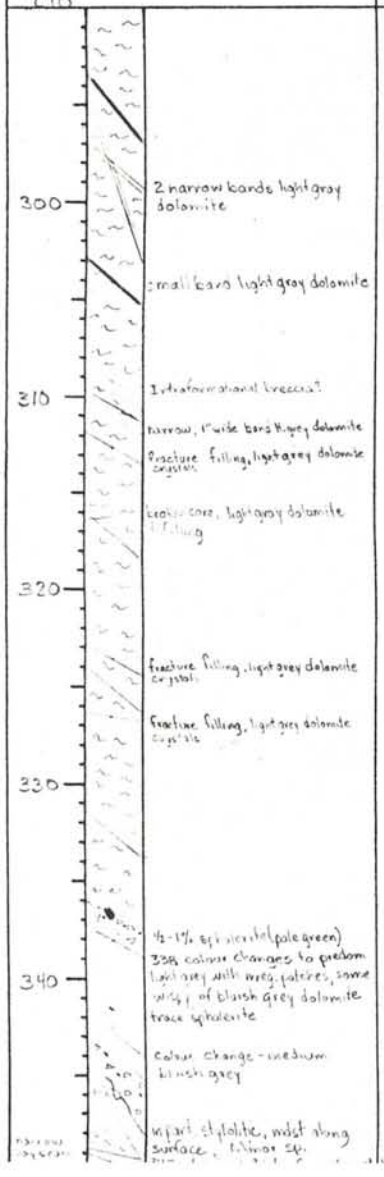
INCLINATION: -45° AZIMUTH: 245° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: D.E. McHale

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
230 tr. sphalerite tr. sphalerite minor sphalerite 240 minor sphalerite quartz veins contact ? light grey dolomite contact uncertain 250 light grey dolomite 260 two inch band of light grey and bluish grey "graded" material 270 exact contacts uncertain "bedding" parallel to 30° to core 280 light grey dolomite few small vugs	226 - 242.5 DOLOMITE weakly to moderately recrystallized, fine grained light grey, patchy with bluish grey; some mineralization; 1-2% small vugs; weak-no reaction ZnO 242.5' - 350' DOLOMITE Moderately recrystallized fine grained mottled bluish gray and light gray (dark bluish gray section 309'-316') no reaction ZnO solution					

Brinex

HOLE No. 74-5 PROJECT Cypress/Brinex Page 6 of 7

INCLINATION: -45° AZIMUTH: 245° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: D.E. McHale



DESCRIPTION

242.5 - 350' DOLOMITE

Moderately recrystallized, fine grained mottled bluish gray and light gray (dark bluish gray section 309-316) no reaction ZnO solution

336.3 - 338.0 DOLOMITE BRECCIA

Moderately-strongly recrystallized, poss. solution breccia fragments subangular, rimmed by light grey dolomite, medium grey dolomite, sphalerite and quartz; trace pyrite
weak - no reaction ZnO solution

343.0 - 344.0 DOLOMITE BRECCIA

Angular fragments, in part, intraformational breccia? Mdst-dy along stylolitic surfaces, prob. geopetal structures, rare quartz blob or grain ? py
345-346 medium bluish grey and light grey, 346-347 light grey, 347-348 wavy

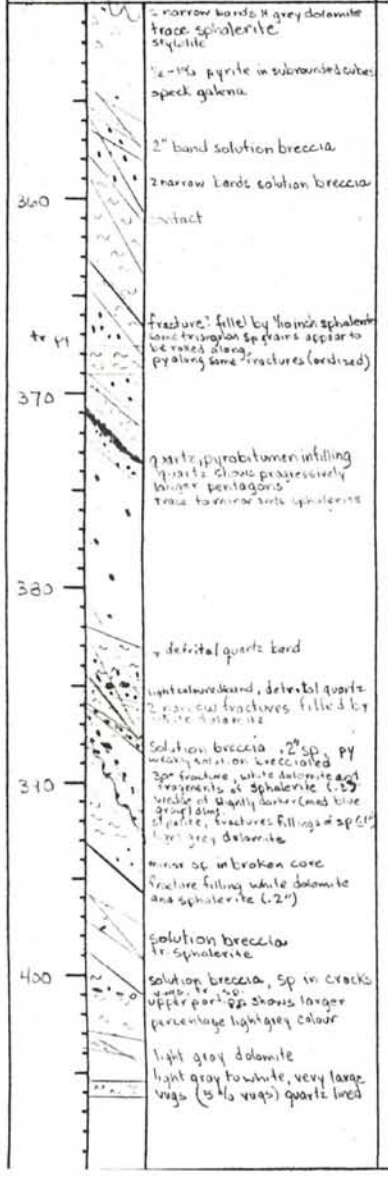
SAMPLING No.	FROM	TO	FEET	ASSAY Zn			
24752	335'	340'	5.0'	0.04%			
24753	341'	346'	5.0'	0.02%			

Brinex

HOLE No. 74-5 PROJECT Cypress / Brinex Page 1 of 1

INCLINATION: -45° AZIMUTH: 245° COORDINATES: ____, ____ SCALE: 1":10' LOGGED BY: DEMcH

SECTION



DESCRIPTION

350 - 355.3 DOLOMITE Breccia(?)

Moderately - strongly recrystallized, poss. early stages of solution brecciation weakly developed light and dark color dolomite rimming, surface dotted by 2-3% small pits some quartz infilling; weakly siliceous weak to no reaction ZnO solution, except for some moderate reaction along cracks

355.3 - 359 DOLOMITE

weakly recrystallized, fine grained light grey, 2-3% rounded, scattered quartz grains no ZnO reaction

359 - 371 DOLOMITE

moderately recrystallized; fine grained; mottled bluish grey and light grey, wavy and wispy banded no reaction ZnO solution

371 - 373 DOLOMITE BRECCIA

Moderately - strongly recrystallized, solution breccia, small vugs (1-2% over small area, some have quartz lining) no reaction ZnO solution

373 - 382.6 DOLOMITE

weakly recrystallized, fine grained, H. grey, scattered rounded quartz grains (sim to 355.3 - 359) no reaction ZnO solution

382.6 - 393 DOLOMITE (wavy banded)

sim. to 359 - 371 No reaction ZnO solution

393 - 399 DOLOMITE (f.g. light grey)

(sim. to 355.3 - 359) No reaction ZnO solution

399 - 406 DOLOMITE (wavy banded)

Sim to 359 - 371 No reaction ZnO solution

406 END OF HOLE

SAMPLING No.	FROM	TO	FEET	ASSAY Zn
24755	363	368	5.0'	0.15%
24756	371'	374'	3.0'	0.09%
24757	385'	390'	5.0'	0.55%
24758	390'	395'	5.0'	0.16%

Brinex

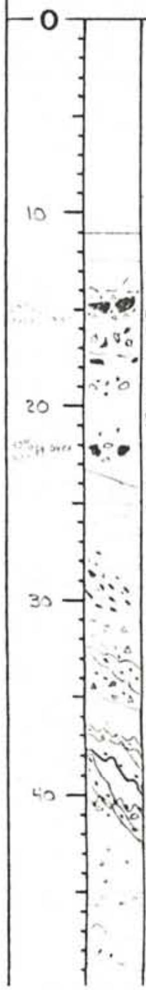
HOLE No. 74-6 **PROJECT** Cypress / Brinex

LOCATION: Bonnet Plume River
COORDINATES: 23,449,408.38 N , 336,279.19 E
ELEVATION: 5560.6'
INCLINATION: -45° **AZIMUTH:** 200°
LENGTH: 465'
HORIZ. PROJ.: **VERT. PROJ.:**
CORE SIZE: BQ **RECOVERY:** 93.4 %

SURVEY		
LENGTH	DIP	AZIMUTH

HOLE STARTED: August 26, 1974
HOLE COMPLETED: August 28, 1974
DRILLED BY: Arctic
BRINEX REPORT No.:
N.T.S. 106 C/7 **U.T.M.**
SCALE: 1" : 10'
LOGGED BY: D.E. McHale

SECTION



Section notes:

- [illegible] gashlike stringers of white dolomite, ? minor calcite [illegible] grey dolomite
- large fragments of pyrite in thinly laminated rock (laminations parallel to core) and intraformational breccia subangular to rounded dolom. rock fragments, carbon. material, dissem. py largely in rx frags. dolomite in elongate "gashes", ⊥ to core
- dissem. pale green sphalerite (½%) calcite blebs / and fracture fillings
- calcite blebs
- clay seam, [illegible] structure, small [illegible]
- light grey Mdst - Siltst seam
- thinly laminated and "graded" beds [illegible] py
- intraformational brecciation and soft sediment deformation 40% [illegible] 1" [illegible] dissem. py.
- intraformational breccia stylolites, laminated "beds" between pale green sphalerite .2"
- intraformational breccia large "infillings" gritty material
- stylolites py along surface small vugs, some lined by white mineral ? dolomite
- infillings dolomite outside quartz centers
- gritty material contains sp.
- [illegible], small, infrequent quartz infillings
- light grey vuggy dolomite
- nodule of oxidized py.
- oxidized py.
- light grey dolomite, small bluish [illegible]

DESCRIPTION

0-11 Overburden

11- 12.5 Mudstone-Siltstone

medium gray, massive, (core broken)

12.5 - 35.5 IMPURE DOLOMITE

Clayey, massive to thinly laminated fine grained, bluish grey impure dolomite. Small scale intraformational brecciation also ? intraformational conglomerate. Large percentages of pyrite over short distances. Calcite in blebs and cracks or fractures. Disseminated sphalerite
No reaction ZnO solution

35.5 - 65.0 DOLOMITE BRECCIA

.5" sphalerite over 3' (35.5'-38.5)

Strongly recrystallized, Solution Breccia, mottled buff-lt grey and bluish gy. Pyrite and Sphalerite grains in gritty material along stylolites. Infilling show outside rims of white dolomite(?) with quartz (translucent white) centers. Occas. small vugs with white linings, poss. dolomite crystals
? gravity sifting of sphalerite crystals, sphalerite pale yellow green
Strong to extremely strong ZnO reaction in restricted areas other no reaction to weak
Some dark grey [illegible] clay? between 46-49

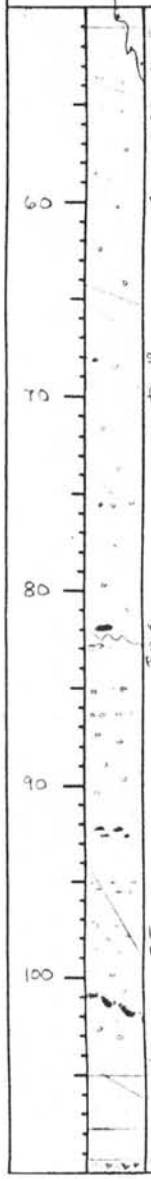
SAMPLING No.	FROM	TO	FEET	ASSAY Zn			
24719	27.0'	35.0'	8.0'	0.18			
24720	35.0'	40.0	5.0'	1.94			

Brinex

HOLE No. 74-6 PROJECT Cypress/Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: ______, ______ SCALE: 1":10' LOGGED BY: D.E. McHale

SECTION



- strongly recrystallized, malt. rims on fragments
- stylolite, minor sphalerite, oxidized py in drilly material, small white rhombs (dolomite (rare))
- vugs
- solution brecciation becomes more weak toward 65'
- weak recrystallization, 2-3% small vugs, quar
- small vug, white waxy mineral
- few small irreg. patches bluish grey dolomite and quartz infillings
- vug lined by quartz
- stylolite
- pyrobitumen? in small lens
- irregular shaped small patches bluish grey dolomite. Some quartz centers
- 10% small vugs, quartz lining and blebs
- large vugs, commonly ⊥ to core, lined by quartz and/or pyrobitumen
- stylolite quartz, pyrobitumen
- [illegible] vugs, quartz or the pyrobitumen lined
- disseminated pyrobitumen? gives rock med. gray colour
- occas. vug, quartz, pyrobitumen [illegible]
- [illegible]

DESCRIPTION

65.0' - 105' DOLOMITE

weakly recrystallized, fine grained
light grey - buff, occas. small quartz infilling,
few small vugs
no reaction ZnO solution

105.0' - 107.7 DOLOMITE

weakly-moderately recrystallized, salt and pepper, lt grey and dark gray, 1/2% small vugs
? dk colour due to pyrobitumen?
no ZnO reaction

107.7 - 109.3 DOLOMITE

similiar to 65'-105' (f.g. light gray)
no reaction ZnO solution

109.3 - 110 DOLOMITE Breccia

Moderately recrystallized, Solution Breccia, rimmed infillings
dark gray, med. gray dolomite, pyrobitumen and quartz
some strong reaction, weak to no reaction otherwise

SAMPLING No.	FROM	TO	FEET	ASSAY			

Brinex

HOLE No. 74-6　　PROJECT Cypress/Brinex　　

INCLINATION: -45°　　AZIMUTH: 200°　　COORDINATES: ______ , ______　　SCALE: 1": 10'　　LOGGED BY: D.E.McH

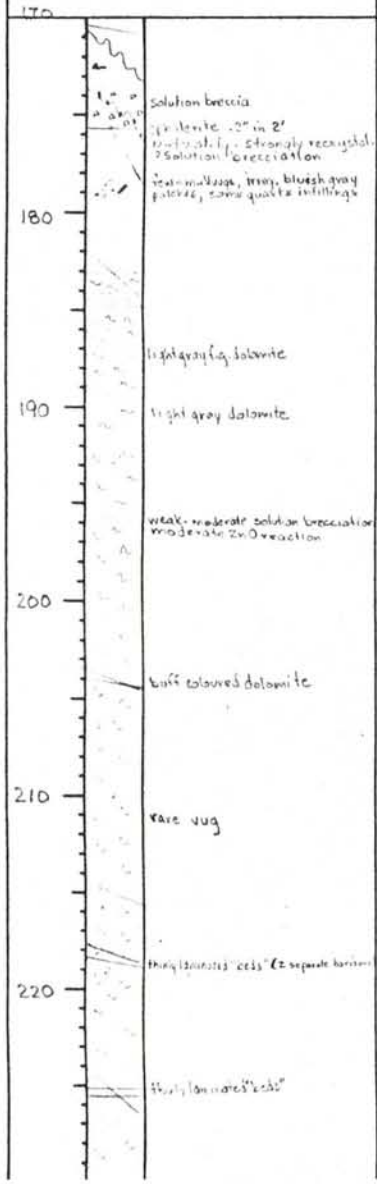
SECTION		DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			
	large pyrobitumen filling ½" - 1" wide 2-3% vugs	**110 - 157 DOLOMITE** Weak- moderately recrystallized, salt and pepper to wavy banded and wispy banded, light gray and dark gray, 2-3% elongate ⊥ to core vugs fine grained, similiar to 105 - 107.7 weak to no reaction ZnO solution								
120										
	large light gray dolomite patch, small quartz infilling, numerous small ... fractures some ... qtz slight ZnO patch light gray dolomite									
130										
	light grey nodule, granular dolomite, quartz, weak ZnO									
140	few vugs infillings									
	narrow band dark gray dolomite									
150		**157 - 160.5 DOLOMITE** weakly recrystallized, fine grained light gray - buff, no ZnO reaction								
	quartz infilling contact	**160.5 - 169.5 DOLOMITE**								
	narrow seam ... dolomite	Similiar to 110 - 157 no ZnO reaction								
160	narrow seam ... dolomite in ... material, ... was soft sed. dolomite ... infillings ... structures									
	large infilling quartz, pyrobit.									

Brinex

HOLE No. 74-6 PROJECT Cypress / Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: ______ , ______ SCALE: 1":10' LOGGED BY: DEMcH

SECTION



DESCRIPTION

169.5 - 170.5 DOLOMITE
weakly recrystallized, fine grained,
light gray - buff
no ZnO reaction

170.5 - 171.5 DOLOMITE
weakly recrystallized, fine grained
salt and pepper dark gray and light grey
Subangular inclusion of buff dolomite
no ZnO reaction

171.5 - 173.5 DOLOMITE
weakly recrystallized, fine grained
weak solution brecciation
no ZnO reaction

173.5 - 175.5 DOLOMITE BRECCIA
moderately, strongly recrystallized, solution brecciation;
buff - lt. grey with some darker gray patches
dissem. pale green sphalerite, frequently along stylolites
also some pyrite (minor), weak - no reaction ZnO, some mod. along mineralized parts

175.5 - 183 DOLOMITE
weakly recrystallized, fine grained
mottled buff - light gray
no ZnO reaction

183 - 248.5 DOLOMITE
weakly to moderately recrystallized, fine grained
wavy to wispy banded bluish grey and light grey
rare small vug
no ZnO reaction

SAMPLING No.	FROM	TO	FEET	ASSAY Zn			
24721	172	176	4.0'	0.16%			

Brinex

HOLE No. 74-6 PROJECT Cypress / Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: ______ , ______ SCALE: 1":10' LOGGED BY: DEWcH

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			

SECTION

240
- bands of light grey dolomite

250
- quartz infilling
- large grey dolomite vugs, locally to 5%
- large vugs 15%

260
- } Mod-strong breccia (sol.)
- [illegible] and pyrite along [illegible]
- } Mod-strong sol. breccia

270
- 2" band light grey dolomite
- 270.[illegible] - 274, relatively [illegible] [illegible] weak solution [illegible] [illegible] vugs
- wispy, wavy banded dolomite (mottled)
- large pyrite infillings
- mod-strong solution breccia [illegible] fragment borders, [illegible] of dolomite, quartz
- 2" pale green [illegible] (left margin)

280
- wispy, wavy banded dolomite
- [illegible] solution breccia
- wispy wavy banded dolomite [illegible]

DESCRIPTION

183 - 248.5 DOLOMITE

weakly to moderately recrystallized, fine grained
wavy to wispy banded bluish grey and light grey (mottled)
rare small vug
no ZnO reaction

248.5 - 281 DOLOMITE

Moderately recrystallized, ? early stages solution breccia
Vuggy Up to 5% small-medium sized vugs /
pink - buff and light gray, fine grained
occasional patch bluish-gray dolomite (small) quartz infillings
and fracture veinlets filled by white dolomite.
Sections 265 - 266, 271 - 276, 277 - 278
Solution breccia generally show mod - strong ZnO reaction

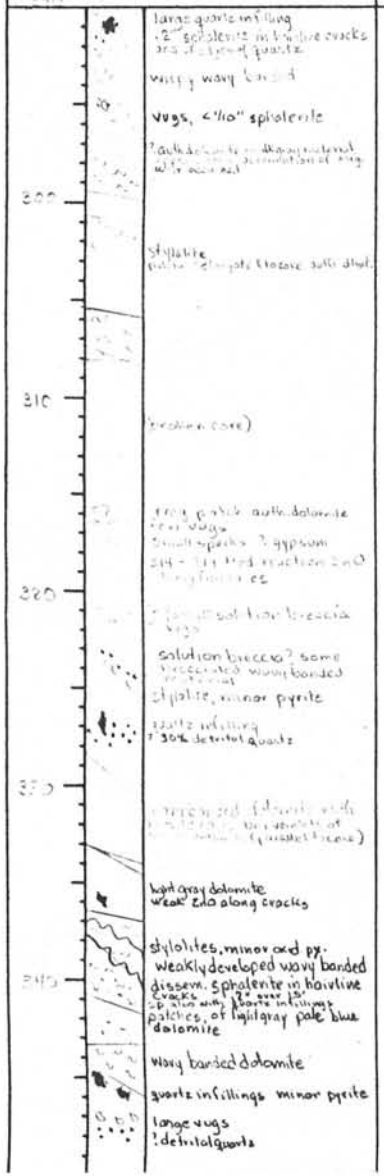
281 - 295 DOLOMITE

Moderately recrystallized, fine grained
wispy to wavy banded mottled bluish gray and light gray
no reaction ZnO solution

Brinex

HOLE No. 74-6 PROJECT Cypress/Brinex Page 6 of 8

INCLINATION: -45° AZIMUTH: 200° COORDINATES: ____, ____ SCALE: 1" :10' LOGGED BY: DEMcH



DESCRIPTION

281 - 295 DOLOMITE

Moderately recrystallized, fine grained, wispy to wavy banded mottled bluish gray and light grey no reaction ZnO solution

295 - 297.5 DOLOMITE

Moderately - strong recrystallized, solution breccia? buff - light grey quartz infillings weak to no reaction ZnO solution

297.5 - 299.5 - DOLOMITE
sim to 281 - 295 (wavy banded)

299.5 - 301 DOLOMITE
sim to 295 - 297.5 ? solution breccia

301 - 305.5 DOLOMITE
weakly recrystallized, fine grained, pink-buff and lt. grey no reaction ZnO solution

305.5 - 308 DOLOMITE (wavy banded)
sim. to 281 - 295

308 - 380 DOLOMITE
weakly - moderately recrystallized
medium grey, light gray and buff
some patches of wavy banded type dolomite
minor reactions in some cracks ZnO solution

SAMPLING No.	FROM	TO	FEET	ASSAY Zn
24722	290'	296'	6.0'	0.20%
24723	339'	343'	4.0'	0.49%

Brinex

HOLE No. 74-6 PROJECT Cypress/Brinex Page 7 of 8

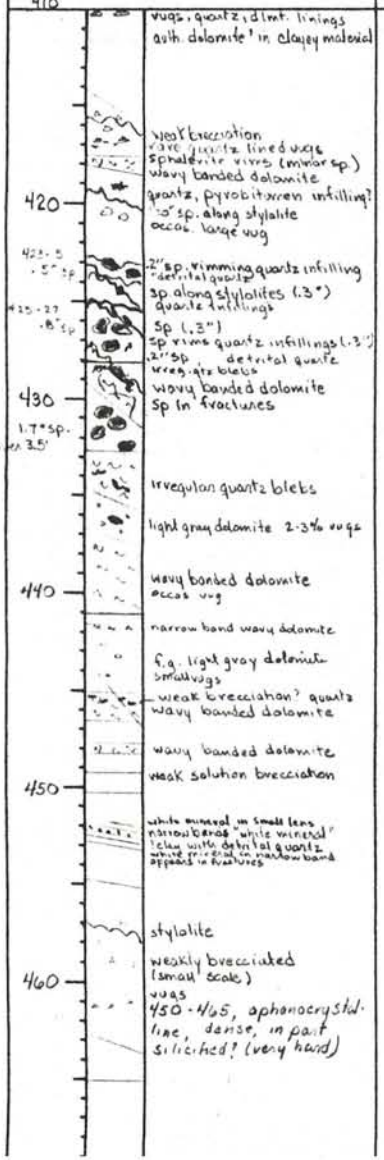
INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1" :10' LOGGED BY: DEMcH

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
350						
few large vugs	308 - 380 DOLOMITE					
small quartz infillings, 2-3% vugs narrow band wavy banded dlmt. contacts approx.	Weakly to moderately recrystallized, fine grained medium gray, light gray and buff some patches wavy banded dolomite weak reaction in some cracks to ZnO solution generally no reaction					
patchy bluish gray, medium gray						
360 predom. light gray dolomite						
vuggy, med gray ? weakly brecciated						
light gray, massive dolomite						
buff-gray dlmt. 'white specks' ? qzf large vugs, quartz infillings ? weak sol. breccia						
light gray dolomite						
370 large vugs, quartz infillings ? detrital quartz (qtz rich section)						
patchy buff gray dlmt.						
wavy banded dolomite med. gray dolomite						
380	380 - 465 DOLOMITE					
auth. ? dolomite, limonitic material mod ZnO reaction	Weakly recrystallized, fine grained light gray to buff weak to moderate ZnO reaction limited to some cracks or fracture surfaces or vug					
few vugs						
390 small vugs, small quartz infillings						
small pits, quartz pseu? detrital						
400 auth. dolomite ? in clayey material						
wavy banded dolomite						

Brinex

HOLE No. 74-6 PROJECT Cypress / Brinex

INCLINATION: -45° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1": 10' LOGGED BY: D.E. McHale



SECTION

DESCRIPTION

380 - 465 DOLOMITE

Weakly recrystallized, fine grained
light gray to buff
weak to moderate ZnO reaction limited to some cracks or fractures or vugs
becomes mixed with wavy banded dolomite section near mineralized section

465 END OF HOLE

SAMPLING				ASSAY			
No.	FROM	TO	FEET	Zn			
24724	415'	420'	5.0'	0.57			
24725	420'	430'	10.0'	2.03%			
24751	430'	433'	3.0'	2.00%			

Brinex

HOLE No. 74-7 PROJECT Cypress/Brinex Page 1 of 10

LOCATION: Bonnet Plume River
COORDINATES: 23,449,349.10 N , 337,580.06 E
ELEVATION: 5226.5'
INCLINATION: -40° AZIMUTH: 200°
LENGTH: 535'
HORIZ. PROJ.: VERT. PROJ.:
CORE SIZE: BQ RECOVERY: 93.4 %

SURVEY		
LENGTH	DIP	AZIMUTH

HOLE STARTED: August 30, 1974
HOLE COMPLETED: September 1, 1974
DRILLED BY: Arctic
BRINEX REPORT No.:
N.T.S. 106 C/7 U.T.M.
SCALE: 1" : 10'
LOGGED BY: D. E McHale

SECTION	DESCRIPTION	SAMPLING				ASSAY			
		No.	FROM	TO	FEET				
0 10 20 30 40	0 - 23 OVERBURDEN 23 - 59 DOLOMITE Moderately recrystallized, fine grained mottled bluish gray and light gray, wavy and wispy banded, few short vuggy sections, top section is brecciation weak CaO reaction along cracks/fractures, no reaction on other surfaces								

Breccia light gray fragments .1" to 1.5" long in bluish grey groundmass, some quartz along fractures
trace sphalerite

light gray dolomite very limited number small vugs

small vugs, pitted surface

vugs (small)

Brinex

HOLE No. 74-7 PROJECT Cypress/Brinex Page 2 of 10

INCLINATION: -40° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1"=10' LOGGED BY: DEMcH

SECTION	DESCRIPTION	SAMPLING				ASSAY			
		No.	FROM	TO	FEET				
50									
small vugs	23 - 59 DOLOMITE Moderately recrystallized, fine grained mottled bluish gray and light gray, wavy to wispy banded.								
60 trace amounts sphalerite									
numerous small irregular hairline cracks small vugs	59 - 116 DOLOMITE weakly recrystallized, fine grained mottled light gray and gray; also buff 5% small vugs, some have pyrobitumen centers weak to no reaction ZnO								
70									
quartz ?infilling, pyrobitumen									
pyrobitumen, quartz infillings small "lens" gritty, clayey material with pods ? Sp sphalerite in fractures									
80 5% small vugs									
pyrobitumen in vugs, small amounts quartz									
pyrobitumen in vugs									
90									
stylolite									
pyrobitumen in vugs									
100									
quartz, pyrobitumen infilling									
quartz, pyrobitumen infilling weak wavy banding									
dense, occas vug									

Brinex

HOLE No. 74-7 PROJECT Cypress/Brinex Page 3 of 10

INCLINATION: _____ AZIMUTH: _____ COORDINATES: _____, _____ SCALE: 1" : 10' LOGGED BY: DsMcH

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
110						
accent. vugs, but generally dense stylolite	59 - 116 DOLOMITE Weakly recrystallized, fine grained, mottled light gray and gray also buff, vuggy up to 5% vugs (small), pyrobitumen in some vug centers					
sharp contact light gray dolomite, narrow band						
120 light gray-gray dolomite band	116 - 164 DOLOMITE Moderately recrystallized, fine grained, mottled bluish gray and light gray, wavy to wispy banded					
130 light gray dolomite band						
140 light gray, in part distinctly "bedded" minor pyrobitumen accid. py. in part cherty?						
light gray dolomite, stringers of wispy banding						
150 "laminated" v. thin "beds"						
gray dolomite, large 'V' shaped dark bluish dolomite patch 3 horizons thinly laminated "mass"	164 - 181 DOLOMITE Weakly recrystallized, fine grained, light gray to medium gray in part vuggy; no Zn-O reaction					
160 small clay seams, minor calcite dolomite						
mottled light gray and medium gray ... to						

Brinex

HOLE No. 74-7 PROJECT Cypress/Brinex Page 4 of 10

INCLINATION: _____ AZIMUTH: _____ COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: DeMill

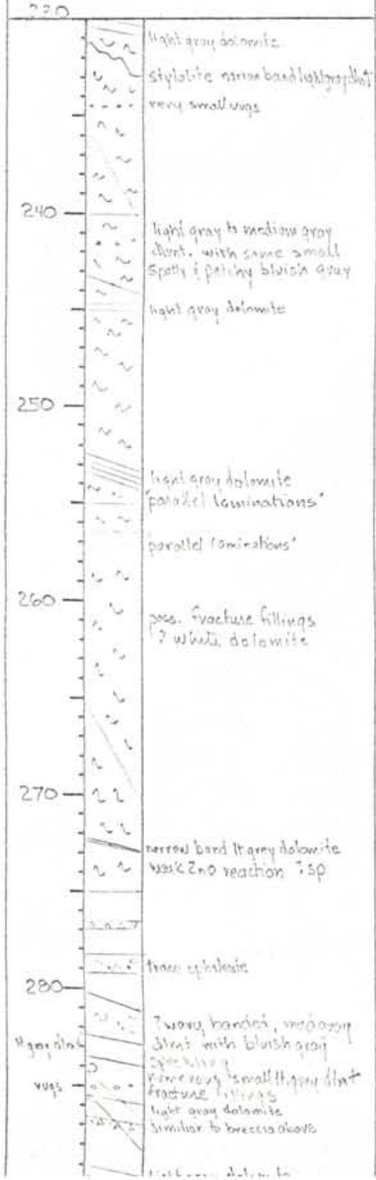
SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY Zn
170 bluish gray patches; small scale brecciation along fractures; stylolite small scale brecciation along fractures	164 - 181 DOLOMITE Weakly recrystallized, fine grained, light gray to medium gray in part vuggy; no ZnO reaction					
180 181 - 184 Mod - strongly recrystallized disseminated pale green sphalerite (1/8 in.) in part solution breccia quartz infillings with veinlets of sp, also sp along stylolite py (along stylolites) 5-7%; 184 - 191 minor pyrobitumen	181 - 190.7 DOLOMITE BRECCIA Moderate - strongly recrystallized; in part solution breccia? disseminated pale green sphalerite as "veins" on quartz infillings and also along stylolites, pyrite fresh and oxidized 5-7%. Mottled buff, lt. gray and medium gray. Weak to no ZnO reaction	24718	181	186	5.0'	1.28%
190	191 - 200 DOLOMITE Weakly recrystallized, fine grained, light gray to medium gray, in part vuggy; similar to 164 - 181					
200 light gray dolomite sim to 164 - 181; light gray dolomite; light gray dolomite	200 - 275 DOLOMITE Mod. recrystallized; fine grained; mottled bluish gray and gray; wispy and wispy banded					
210 light gray dolomite						
220 quartz, dolomite, minor sp py (<1" sp) ½% sp.; light gray dolomite; light gray dolomite, ? fracture filling minor sp <½%						

Brinex

HOLE No. 74-7 PROJECT Cypress / Brinex

INCLINATION: -40° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: DEMcH

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			



200'-275 DOLOMITE

Moderately recrystallized; fine grained, mottled bluish gray to light gray, wavy and wispy banded weak to no reaction ZnO solution. Reaction in areas of sp.)

275 - 280.5 DOLOMITE

Weakly recrystallized, fine grained. light gray to medium gray, Brecciated sections: ? solution brecciation, mottled 'white' gray and bluish gray, some dissem. sp but in trace amounts. Some weakly developed colloform texture questionable snow on the roof., Brecciated sections Silicified; weak to no ZnO reaction

280.5 - 308 DOLOMITE

Moderately recrystallized; fine grained, mottled bluish gray to light gray, wavy and wispy banded Weak to no reaction ZnO.

Brinex

HOLE No. 74-7 PROJECT Cypress / Brinex

INCLINATION: -40° AZIMUTH: 200° COORDINATES: ______ , ______ SCALE: 1":10' LOGGED BY: DeMcH

SECTION

290

- few large vugs
- 300
- .7 in sp in ?solution breccia, [illegible] py
- wavy banded
- 310
- 4.7' ≈ .6" sphalerite, 1-2% vugs
- .2" sp.
- weakly brecciated
- 320
- buff dolomite with patches blue gray
- .2
- 325 - 334.4 1" sp. pyrite - dissem. 1%
- 1-2% vugs
- 330
- wavy banded dolomite
- .2" sp 339.5 - 341.5
- 340
- 341.5 - 347.5 ≈.9" sp

DESCRIPTION

280 - 305 DOLOMITE

Moderately recrystallized, fine grained, mottled bluish gray and light gray, wavy and wispy banded, no ZnO reaction

305 - 306 DOLOMITE BRECCIA

Strongly recrystallized, ? solution breccia, mottled buff, light gray, bluish gray, Colloform banding, Sphalerite "rims", quartz infilling, restricted [illegible] ZnO reaction, generally no ZnO reaction

308 - 315 DOLOMITE BRECCIA

Similar to above 305-306 dolomite breccia, no ZnO reaction, limited moderate ZnO reaction

315 - 324 DOLOMITE

Weakly recrystallized, light gray to medium gray, fine grained ≤ 1-2% very small vugs (pits)

324 - 381.5 DOLOMITE BRECCIA

Strongly recrystallized; ? solution breccia, some colloform banding, mottled buff, light gray, bluish gray, pyrite forms outside sphalerite on "rims" of quartz infillings, sections of other rock types included as noted in section column, weak ZnO reaction

SAMPLING / ASSAY

No.	FROM	TO	FEET	Zn			
24717	305	315	10.0'	1.44%			
24716	323	334	11.0'	1.15%			
24715	338.5'	347.5'	9.0'	1.58%			

Brinex

HOLE No. 74-7 PROJECT Cypress/Brinex Page 7 of 10

INCLINATION: -40° AZIMUTH: 200° COORDINATES: ____, ____ SCALE: 1"=10' LOGGED BY: DeMcH

SECTION	DESCRIPTION	SAMPLING				ASSAY			
		No.	FROM	TO	FEET	Zn			
350	light gray dolomite 352 - 355 .3" sp.								
	wavy banded dolomite light gray dolomite								
360	356 - 370.5 1.3" sphalerite patchy blue gray dolomite stylolite weakly - mod. brecciated ½ - 1% vugs	24713	360	370	10.0'	2.09%			
370	½ weakly brecciated detrital quartz light gray dolomite ? fractures wavy banded dolomite light gray dolomite, also in part mottled lt. gray - buff ? mod. recrystallized trace sphalerite stylolites 381.5 - 382 .2" sp. (few large vugs)	24714	370	380	10.0'	0.20%			
380	weakly brecciated? sandy coloured elongate inclusions stylolite wavy banded dolomite lt. gray, sandy coloured inclusions mottled & lt. blue/gray, lt. gray patchy dolomite								
390	stylolites wavy banded dolomite trace sphalerite								
400	stylolite wavy banded dolomite narrow clay seam								

324 - 384.5 DOLOMITE BRECCIA

Strongly recrystallized; ? solution breccia, some colloform banding, mottled buff, light gray, bluish gray, pyrite forms outside "rims" of quartz infillings, sections of other rock types as noted in section column
weak ZnO reaction

384.5 - 448.5 DOLOMITE

Weakly - moderately recrystallized, fine grained, light gray to buff, sections of other rock types noted in section column. 1-2% small vugs
weak - no reaction ZnO generally, some moderate reaction along cracks, sandy coloured patches

Brinex

HOLE No. 74-7 PROJECT Cypress / Brinex Page 8 of 10

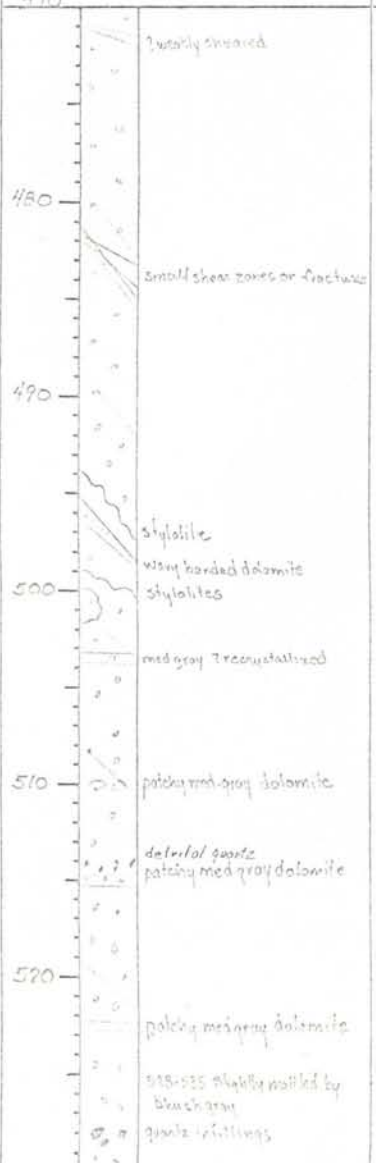
INCLINATION: -40° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: D&McH

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY
410						
wavy banded dolomite stylolite small vugs wavy banded dolomite vugs	384.5 - 448.5 DOLOMITE weakly-moderately recrystallized, fine grained, light gray to buff, 1-2% small vugs, sections of other rock types as noted in section column weak to no reaction ZnO solution generally, some moderate reaction along cracks and sandy coloured patches					
420						
wavy banded dolomite with dolomite stylolite						
core loss due to core tube not locking light gray dolomite alternates with light grayish gray dolomite						
430						
slight bluish gray colour to rock ? weakly brecciated						
440						
trace sphalerite						
	448.5 - 535 DOLOMITE Weakly recrystallized, fine grained, light gray, minor light gray to buff, vuggy, 2-3% vugs also dolomicrocrystalline to fine grained					
450						
460						
stylolite						

Brinex

HOLE No. 74-7 PROJECT Cypress/ Brinex Page 9 of 10

INCLINATION: -40° AZIMUTH: 200° COORDINATES: , SCALE: 1":10' LOGGED BY: DE McH

SECTION	DESCRIPTION	SAMPLING No.	FROM	TO	FEET	ASSAY			
	448.5 - 535 DOLOMITE Weakly recrystallized, fine grained, light gray minor light gray to buff, vuggy, 2-3% vugs also aphanocrystalline to fine grained Some vugs have quartz lining no reaction to weak reaction, weak reaction usually occurs where rock is sheared(?).								

Brinex

HOLE No. 74-7 PROJECT Cypress/Brinex

INCLINATION: -40° AZIMUTH: 200° COORDINATES: _____, _____ SCALE: 1":10' LOGGED BY: DEMcH

SECTION	DESCRIPTION	SAMPLING				ASSAY			
		No.	FROM	TO	FEET				
530	448.5 - 535 DOLOMITE Weakly recrystallized, fine grained - aphanocrystalline, light gray minor light gray to buff, vuggy 2-3% vugs, some vugs have quartz lining no reaction to weak reaction, weak reaction occurs where rock is ?sheared? 535 END OF HOLE								
540									
550									

WOLVERINE CREEK

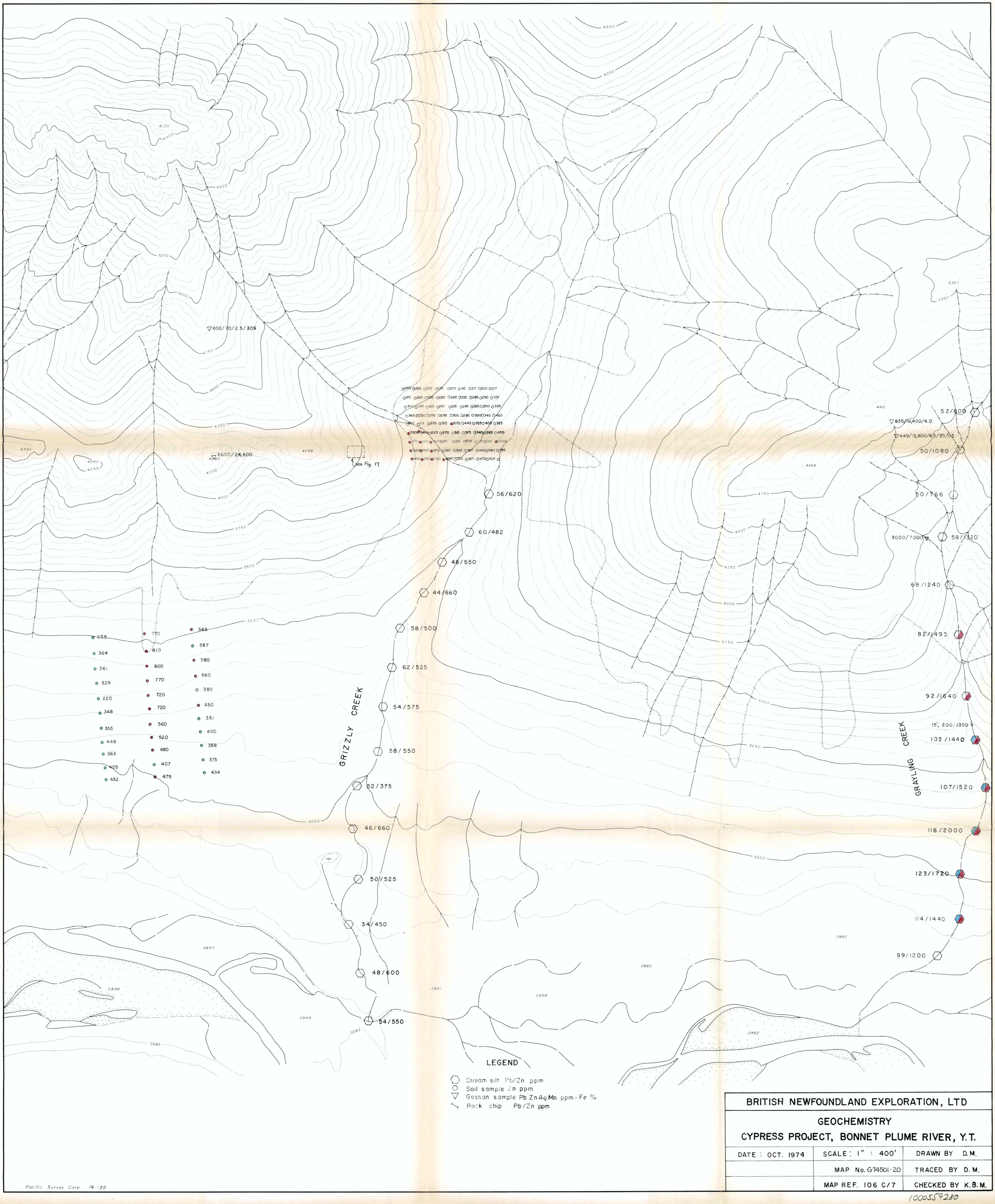
32/1000
24/900
28/950
36/975
28/950
28/850
28/875
2400/1800
34/800
34/700
38/875
36/900
26/766
40/975
36/733

LEGEND
2879 ⬡ Stream silt Pb/Zn ppm
▽ Gossan sample Pb/Zn ppm 2862

Pacific Survey Corp 74-38

BRITISH NEWFOUNDLAND EXPLORATION, LTD.		
GEOCHEMISTRY CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE : OCT. 1974	SCALE : 1" : 400'	DRAWN BY D.M.
	MAP No. GT4501-19	TRACED BY D.M.
	MAP REF. 106 C/7	CHECKED BY K.B.M.

1000559280



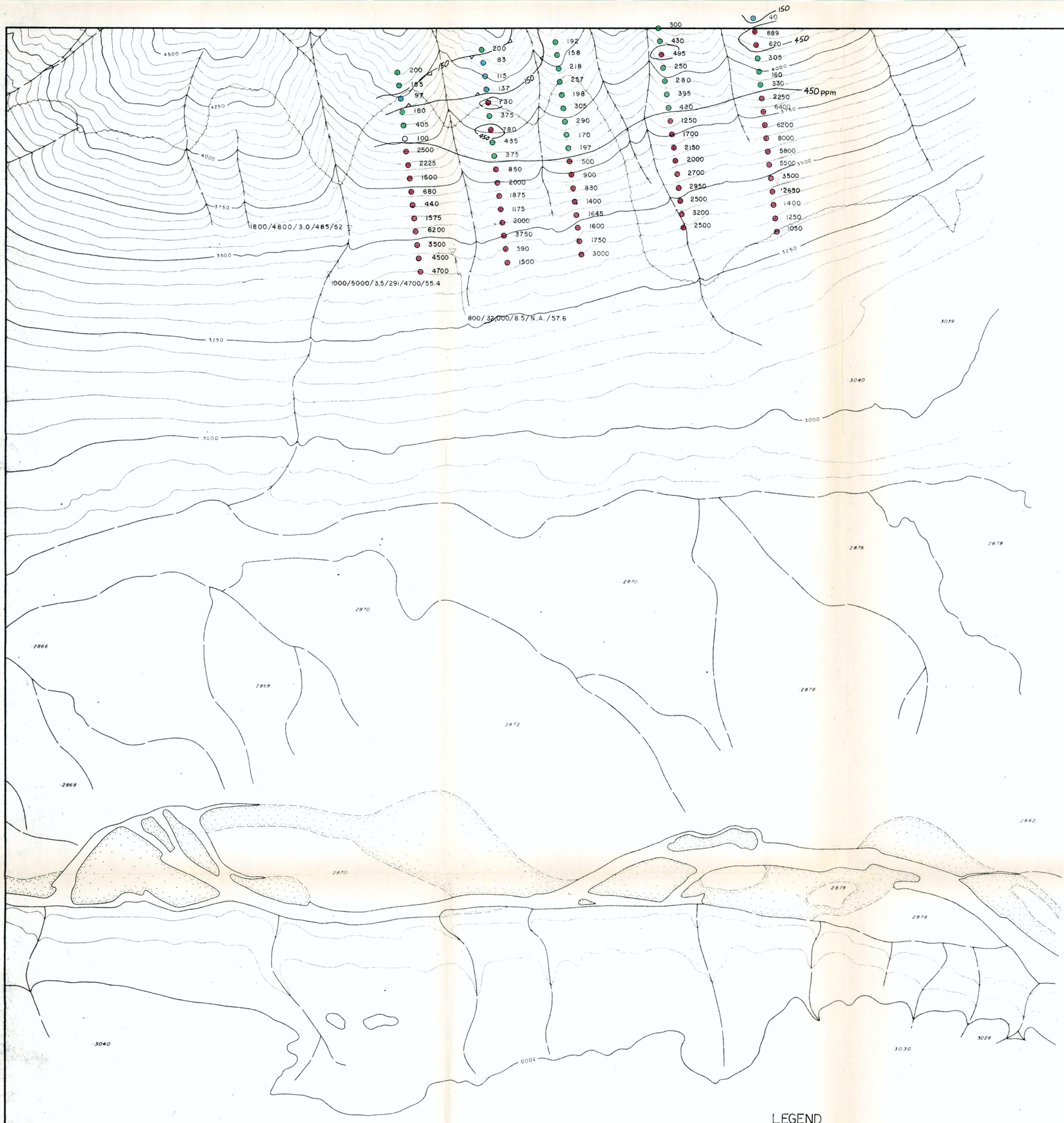
LEGEND

- Stream silt Pb/Zn ppm
- Soil sample Zn ppm
- Gossan sample Pb Zn Ag Mn ppm - Fe %
- Rock chip Pb/Zn ppm

BRITISH NEWFOUNDLAND EXPLORATION, LTD		
GEOCHEMISTRY CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE : OCT. 1974	SCALE : 1" : 400'	DRAWN BY D.M.
	MAP No. GT4501-20	TRACED BY D.M.
	MAP REF. 106 C/7	CHECKED BY K.B.M.

Pacific Survey Corp. 74-38

1000559280



LEGEND

- ○ Soil sample zinc ppm
- ⬡ Stream silt Pb/Zn ppm
- ▽ Gossan sample Pb Zn Ag Mn- ppm, Fe %
- □ Rock chip Pb/Zn ppm

4	3	2
		1

SHEET INDEX

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BRITISH NEWFOUNDLAND EXPLORATION, LTD.

GEOCHEMISTRY

CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.

DATE : OCT. 1974	SCALE : 1" : 400'	DRAWN BY D.M.
	MAP No. G74501-23	TRACED BY D.M
	MAP REF. 106 C/7	CHECKED BY K.B.M.

1800/4800/3.0/485/524

1000/5000/3.5/291/55.4

800/32,000/8.5/N.A./57.6

500/1300

LEGEND

- ○ Soil sample Pb ppm
- ⬡ Stream silt Pb/Zn ppm
- ▽ Gossan sample Pb Zn Ag Mn - ppm, Fe %
- ▯ Rock chip Pb/Zn ppm

SHEET INDEX

4	3	2
		1

N

Approx

Pacific Survey Corp. 74-38

BRITISH NEWFOUNDLAND EXPLORATION, LTD.		
GEOCHEMISTRY CYPRESS PROJECT, BONNET PLUME RIVER, Y.T.		
DATE : OCT. 1974	SCALE : 1" : 400'	DRAWN BY D.M.
	MAP No. G74501-24	TRACED BY D.M.
	MAP REF. 106 C/7	CHECKED BY K.B.M.

1000559280