



THE GEOLOGY OF THE EMMY CLAIMS

Latitude $63^{\circ}21$ N, Longitude $131^{\circ}20'$ W.

NTS 105-0-6, Mayo Mining District

YUKON TERRITORY

Report Submitted for Assessment Credit

D. H. James

Union Carbide Exploration Corporation

Vancouver, B. C.

October, 1982

091377

This report has been examined by
the Geological Evaluation Unit
under Section 53 (4) Yukon Quartz
Mining Act and is allowed as
representation work in the amount
of \$ 4000-.

Ridston

J Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

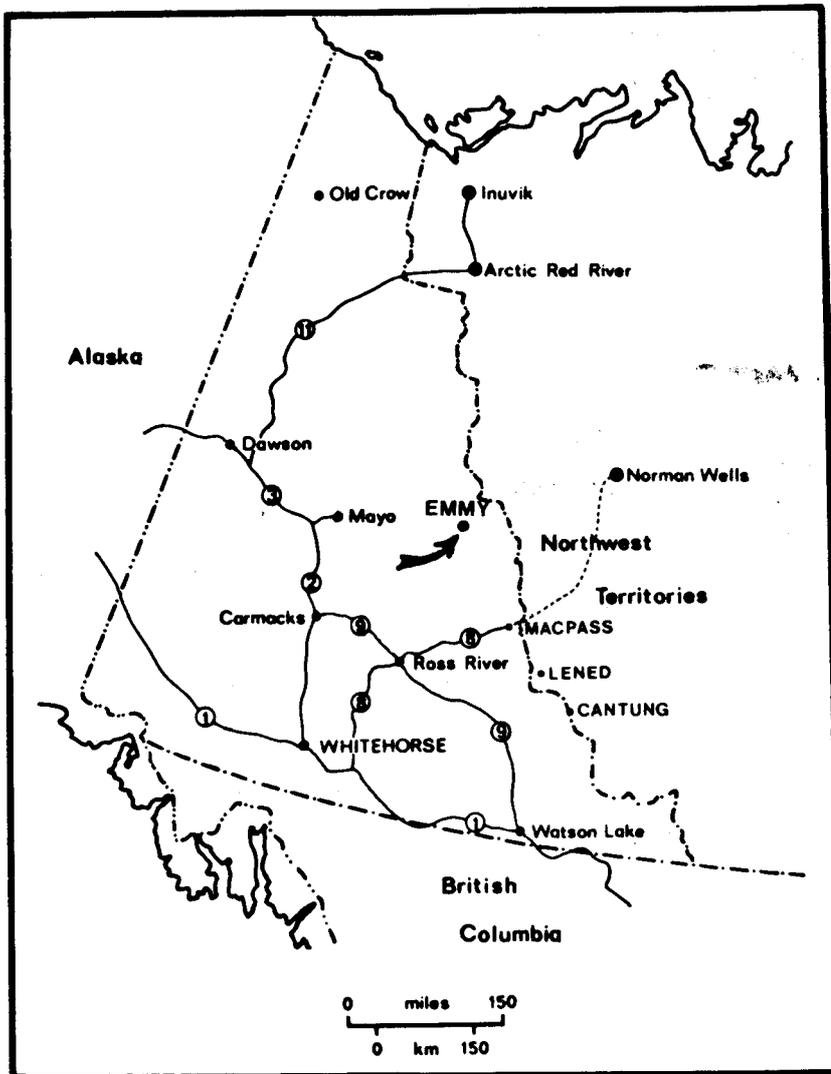


Fig. 1. Locality of the EMMY Claims

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1.0 INTRODUCTION

1.1 General

During the years 1971 - 1976 several grass roots exploration programs were conducted in the Niddery Lake area (NTS 105 - 0), Yukon. At that time stream concentrates were analysed primarily for WO₃ and Cu. In the first quarter of 1981 the stored samples from selected areas within the Niddery Lake area were re-analysed for gold, silver, molybdenum and arsenic and a number of sites anomalous in these elements were recognized. A small low-key, low budget prospecting program was instituted for the summer of 1981 to follow-up the anomalous gold and silver stream geochemistry.

Anomalous gold and silver values appeared to be associated with the northernmost of two quartz monzonite intrusions south of Emerald Creek. As part of the summer follow-up program a camp was established east of the northernmost pluton. Prospecting and stream geochemistry were conducted in the period 16-25 July, 1981. Some 75 rock chip samples and 116 stream samples (panned concentrates and silts) were collected and analysed. The results indicated an encouraging gold-arsenopyrite association. On the basis of these results it was decided to stake the property. Sixteen claims were staked as the EMMY claims, which were registered on the 2 September, 1981. This report supports an application for assessment credit which will hold the claims valid to 2 January, 1985.

The primary purpose of the 1982 program was to map the property at 1:10,000 scale, locate all veins and relate them to the surrounding geology in order to assess their economic significance. To this purpose a contour base map and orthophoto were produced by Pacific

Survey Corporation of Vancouver. The intention was that the completed map be used as a basis for future soil sampling grids, lithochemistry and geophysical surveys.

1.2 Location

The EMMY claims are located at 63°21'N, 131°20'W in the Mayo Mining District of the Yukon Territory (Fig. 1). The claim group is situated approximately 12 km north of Niddery Lake in mountainous terrain lying between the Hess River and Emerald Creek. MacMillan Pass lies 67 km to the east.

1.3 Access

Access to the property is hampered by extremely rugged terrain. Fixed wing float planes can land at Niddery Lake, Jake's Lake or Emerald Lake. Further access is by helicopter. Contract helicopters are also available from MacMillan Pass which is served by a summer schedule air service out of Whitehorse. MacMillan Pass is connected to Ross River by the all-weather North Canol Road.

1.4 Topography

Topography attains a maximum elevation of 2,037m along the western perimeter of the claims. The northern boundary is along an east-west trending ridge maintaining an average elevation of 1,800m. Spectacular relief is caused by the quartz monzonite intrusion to the northwest of the claims (Plate 1). The creek draining the northwestern cirque drops to below 1,400m elevation. Two smaller creeks drain steep-sided cirques in the central and southern portion of the claim block. The eastern half of the property underlies gentle southerly and easterly facing grass covered slopes with very little

outcrop. Exposure is excellent for most of the western half of the property.

1.5 Climate

The combination of steep terrain and elevation results in a majority of the property being snow covered from early September until late June. During the two short summer months daily weather conditions can be extremely variable, ranging from cool, wet conditions with occasional snowfalls to warm dry weather. Winter snowfall normally exceeds 3 metres and annual temperatures vary from a low near minus forty to highs approaching twenty-five (Celsius).

1.6 Logistics

Exploration was conducted from the Union Carbide camp on the OLD CABIN claims 30 km to the north. A helicopter (Terr-Air Rotary Hughes 500-D) was used for daily set-outs and pick-ups. A fuel cache was established at Emerald Lake 17 km north of the property. Mapping was conducted on two consecutive days, 3-4 August, 1982.

1.7 Claims

The EMMY claim block (EMMY 1-16) was staked by Union Caribde personnel in August, 1981. The claims were registered on the 2 September, 1981. Details are as follows:

<u>Claim Names</u>	<u>Registration Numbers</u>	<u>N.T.S.</u>	<u>Acres</u>
EMMY 1 - 16	YA 75914 to YA 75929	105-0-6	826.4

2.0 GEOLOGY OF THE EMMY CLAIMS

2.1 Previous Geological Mapping

Early geological mapping by the Geological Survey exists in the form of an Open File Map 205 dated June 1974. Map scale is 1:250,000 (approximately 1 inch to 4 miles). The individual units are broadly defined. According to this map the EMMY claims lie between two quartz monzonite intrusions surrounded by Ordovician to Mississippian sedimentary sequences (Unit Ps).

The EMMY claims were staked in the vicinity of an earlier claim group, the ART claims. The Archer Cathro Northern Cordillera Mineral Inventory (105-0 No. 7) describes the geology as "Ordovician - Devonian graphitic sediments. A small granitic intrusive has produced strong hornfelsic alteration, which is pyritic in places, on the western side of the claims."

Grant Abbott (DIAND, Whitehorse) is currently mapping the MacMillan Fold Belt southeast of the EMMY claims. An Open File report has been published entitled "Structure and Stratigraphy of the MacMillan Fold Belt: Evidence for Devonian Faulting;"

2.2 Stratigraphic Description

No mapping was done outside the claim block and no attempt has been made to correlate the rocks with the regional stratigraphy. The area covered is too small and exposure is too limited. In addition the rocks have been partly or wholly hornfelsed over half of the property. Stratigraphic description will be from south to north.

Black and white banded cherts and quartzites outcrop in the

southwestern corner of the property. The contact with hornfels partially fault controlled. A strange black breccia is associated with the faulting. It consists of a mixture of brecciated quartzite, crushed chert, spongy "gossanous" quartz, sheared black shales and black clay gouge transected by quartz veins (or locally remobilized quartzite). Slickensides attest to post-breccia deformation.

The southern portion of the property is underlain by brown to rusty weathering hornfels. It forms steep sided rugged ridges (Plate II). Within cirques outcrop is smooth, rounded and hummocky. The hornfels is dark and very fine grained. Bedding planes are rare, the dominant fabric due to a well developed steeply dipping northwest to westerly foliation (see Map 1). Jointing dips moderately to the northwest. In the south fresh hornfels is light coloured and glassy alternating with darker coloured bands. This probably reflects an original sequence of argillites and fine-grained quartzites with intercalated dark shale bands. The darker hornfels increase northwards to Camp Creek to become the dominant lithology.

The contact between the hornfels and the relatively unmetamorphosed black shales is sharp and is probably partly fault controlled. The upper reaches of Camp Creek follows the contact zone. The silvery weathering black shales are at least 200m thick, comprising black graphitic and siliceous shales with minor intercalated argillite bands. Cleavage is well developed and is parallel to the regional trend.

Northwards brown weathering argillite bands up to 10m thick interbedded in the black shales increase to the stage where both

are equally represented. This succession then grades into cherts and argillites with minor siliceous black shales and rare white pyritic marble bands. A small diopside-bearing skarn (0.5% scheelite) was reported in the 1981 prospecting program. Bedding in these sediments dips steeply south due largely to the intrusive quartz monzonite pluton in the northwestern corner of the claim block.

The contact between the sediments and the megacrystic quartz monzonite is sharp and steeply dipping with horizontal crosscutting apophyses into the sediments. (Plate III) The margin of the intrusive comprises a coarse - to very coarse-grained equigranular quartz monzonite. The interior of the pluton consists of coarse - to very coarse-grained megacrystic quartz monzonite. The typical sample contains K-feldspar phenocrysts with dimensions of 1 x 1 x 3 cm. Biotite is the only mafic mineral.

2.3 Quartz Veins, Breccia and Mineralization

Quartz veining and stockworks occur within the black breccias and the altered cataclastic zone adjacent to the major fault in the southwestern corner of the claim block, as well as within nearby smaller parallel subsidiary faults and en echelon tension gashes. Only one portion of one vein-filled fault structure exceeded a width of 15 cm. At sample locality 1706 (see Map 2) the vein widens to about 40 cm over a length of 2m. In this section epithermal vein characteristics include banded ribbon quartz, open space filling (cockscomb textures and small vugs lined with drusy quartz) and irregular chalcedonic

patches with colour varying from white to grey (Plate IV). Brecciated hornfels fragments are caught up in the vein. The wallrock is silicified hornfels. Visible sulphides include minute pyrite and arsenopyrite crystals. This vein yielded a gold assay of 3400 ppb Au (Table 1 and Appendix 1). Visible sulphides in some of the nearby smaller veins are rare. Sample 1707 yielded a gold assay of 3130 ppb Au. ICP geochemical analysis indicates that argentiferous galena, arsenopyrite, stibnite and bismuthinite are included amongst the sulphides in this vein. Small sulphide-bearing quartz veins also occur in conjunction with altered felsic dykes e.g. sample 1711. Geochemical analyses suggest a similar sulphide population is present in these veins.

Most of the stockwork quartz veining in the breccia zones is barren massive white quartz. Some of this veining may be locally remobilized quartzite.

Hornfelses in the cataclastic zone adjacent to the southwestern major fault zone have been variably altered. Secondary silification as small quartz veins and silica flooding is common. Kaolinite development, though present, is probably restricted in its occurrence by the siliceous character of the hornfelses. Gold content is above background in some samples (1699, 1700, 1705 and 1708 - see Table 1 and Appendix 1) with a maximum value of 660 ppb Au.

The black breccias are a unique assemblage of rock types (see earlier) with the largest outcrop exposed in the cirque wall immediately south of the claim line. Samples 1611 to 1617 represent a variety of types collected below the outcrop. Sample 1615 assays 1920 ppb gold

which was confirmed by check assay. Sample 1617, a highly cleaved black graphitic shale fragment has 3.7 per cent Pb and 948 gm/t Ag (AA analysis). A check analysis of a duplicate sample failed to repeat these results. A small argentiferous galena concentration in the original sample was responsible for the high lead and silver values.

3.0 RECOMMENDATIONS

None of the quartz veins are of sufficient size and intensity, or have the mineral content, to be of economic significance. The assay values are tantalizing but are regarded to be of academic interest only.

The only area warranting further work is in the vicinity of the southwestern claim. The origin and extent of the black breccia should be determined as well as the extent and intensity of the altered cataclastic zone adjacent to the fault. These specific features should be examined in the immediate regional context as part of an aggressive exploration program.



D. H. James
Project Geologist

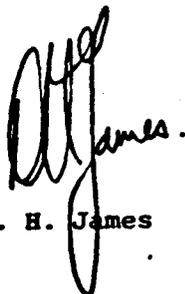
STATEMENT OF QUALIFICATIONS

I, Dereck H. James, do hereby certify that:-

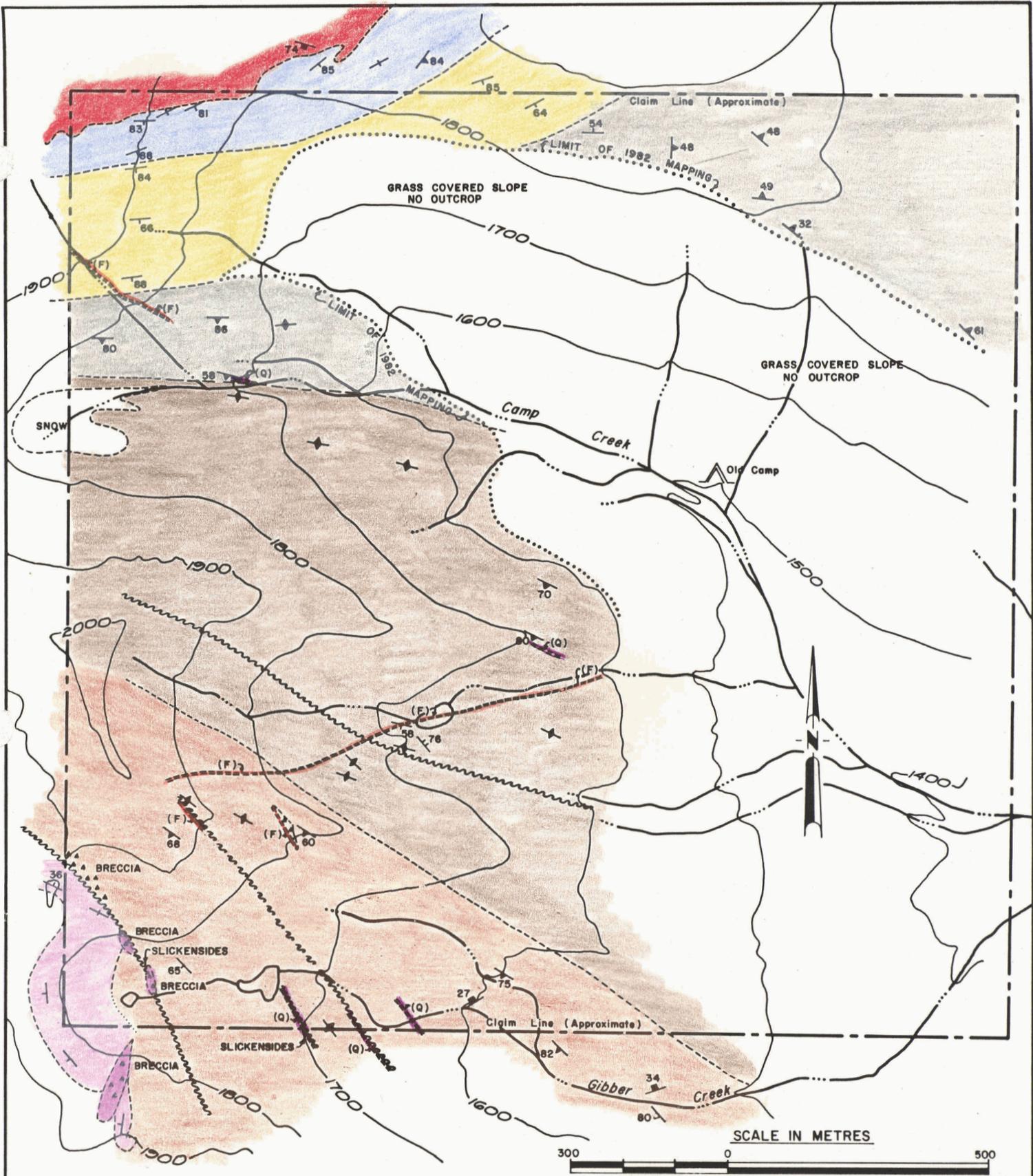
1. I am a professional geologist employed by Union Carbide Exploration Corporation.
2. I hold the following graduate degrees:-
 - a) B.Sc (Eng.) Mining Geology - University of the Witwatersrand, Johannesburg, South Africa.
 - b) M.Sc. Mineral Exploration - Royal School of Mines, University of London, England.
3. I have practiced my profession continuously since graduation while being employed by O'Okiep Copper Company, Nababeep, South Africa (1971 - 1976) and Union Carbide Exploration Corporation both in South Africa and Canada (1976 - present)
4. I am a member in good standing of:

The Institution of Mining and Metallurgy, England
The Canadian Institution of Mining and Metallurgy
The Geological Society of South Africa

August 1982
Vancouver, B.C.


D. H. James

MAPS 1-2



LEGEND

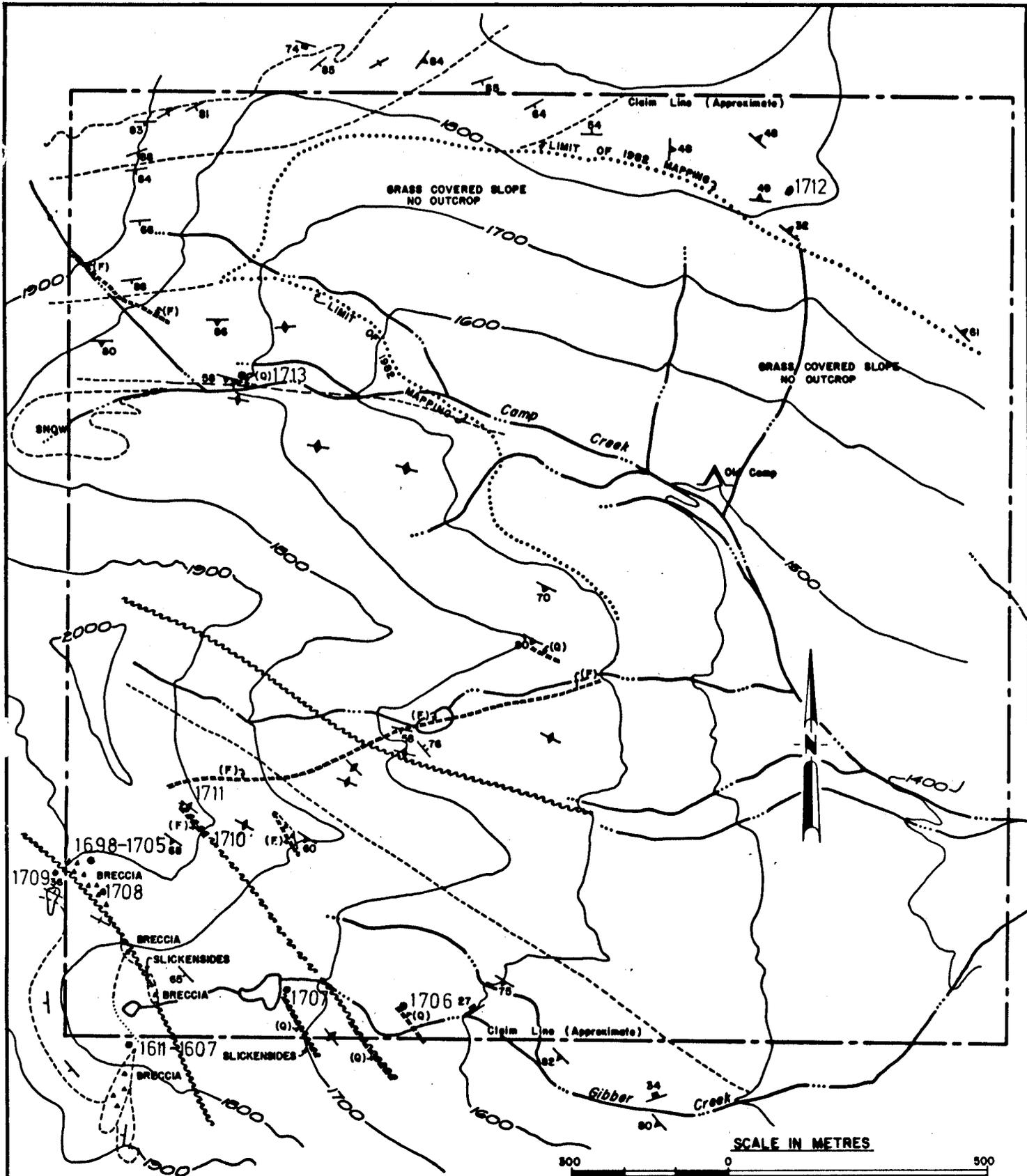
- MEGACRYSTIC QUARTZ MONZONITE
- FELSIC DYKES (F), QUARTZ VEINS (Q)
- CHERT, ARGILLITE, BLACK SHALE, MARBLE
- INTERBEDDED BROWN ARGILLITES AND BLACK SHALES
- BLACK SHALES
- BLACK SHALES - PARTIALLY HORNFELSE
- HORNFELSE
- BLACK AND WHITE CHERT, MASSIVE WHITE QUARTZITE



UNION CARBIDE EXPLORATION CORPORATION

**EMMY CLAIMS
GEOLOGY
YUKON TERRITORY**

COMPILED BY: D.H. James		MAP NO:
DRAFTED BY: K.C. Gibson	DATE: September, 1982	SCALE: 1:10,000 m
DISPOSITION:		NTS: 105-0-6
PROJECT NO:		



LEGEND

- MEGACRYSTIC QUARTZ MONZONITE
- FELSIC DYKES (F), QUARTZ VENS (Q)
- CHERT, ARGILLITE, BLACK SHALE, MARBLE
- INTERBEDDED BROWN ARGILLITES AND BLACK SHALES
- BLACK SHALES
- BLACK SHALES-PARTIALLY HORNFELSED
- HORNFELSES
- BLACK AND WHITE CHERT, MASSIVE WHITE QUARTZITE

UNION CARBIDE EXPLORATION CORPORATION	
<h2 style="margin: 0;">EMMY CLAIMS</h2> <h2 style="margin: 0;">GEOLOGY</h2> <h2 style="margin: 0;">YUKON TERRITORY</h2>	
COMPILED BY: D.M. James	MAP NO: 2
DRAFTED BY: K.C. Gibson	DATE: September, 1982
DISPOSITION:	MTS: 105-0-6
PROJECT NO:	REPORT NO:

PLATES I-IV



Plate I The Emmy quartz monzonite pluton outcropping in the northwestern corner of the claim block. Photograph looking northwest.



Plate II Brown to rusty weathering hornfels outcropping over much of the southwestern half of the claim block. The light-coloured streak (right centre) is a felsic dyke. The southern most of the two plutons mentioned in the text outcrops on the horizon. Photograph looking south-southwest.



PLATE III Contact between megacrystic quartz monzonite and steeply dipping sediments (mostly chert). Note sharp crosscutting contact and intrusive apophyses of quartz monzonite. Photograph looking west.



PLATE IV Quartz vein with epithermal characteristics. Note ribbon banding, open space filling, chalcedonic patches and grey wallrock fragments. Locality of sample 1706.

SAMPLE SUMMARY

TABLE 1. SAMPLING SUMMARY

Sample Number	Abbreviated description	Au ppb.	Ag ppm	Cu ppm	Pb ppm	Zn ppm	As ppm	Sb ppm	Bi ppm
1611	Black fault gouge with rounded chert fragments.	69	5.9	14	1729	18	860	13	2
1612	Grey hornfels breccia, interfragment quartz veins and clay.	55	5.0	8	234	3	136	4	2
1613	Black fine-grained crushed chert, limonitic and grey clay pockets.	34	4.4	8	136	2	89	2	2
1614	Grey quartzite breccia with extensive white and yellow clay minerals.	82	6.3	38	2053	27	578	15	2
1615	Black siliceous, vuggy gossanous material.	1920	6.0	37	243	10	241	23	2
1616	Grey hornfels breccia, silica veining limonite stained vugs (similar to 1614)	960	6.5	25	2370	8	584	17	2
1617	Black shale, small white and green micaceous lenses.	75	627.1	430	2.9%	285	299	88	2
1698	Light yellow siliceous hornfels, silica flooding.	25	1.0	13	11	4	82	2	2
1699	Siliceous breccia, interfragment white kaolinite.	145	3.3	2	133	2	302	2	2
1700	As above.	265	4.2	3	95	2	224	3	2
1701	Hornfels breccia, clay and limonite cemented.	40	1.2	69	16	5	228	2	2
1702	Very fine black chert gouge (similar to 1611).	35	0.8	4	6	1	13	3	2
1703	Brecciated grey hornfels, fine silica veins and flooding.	35	1.7	4	27	1	28	3	2
1704	Light yellow siliceous breccia with white kaolin and yellow - brown limonite.	55	0.4	17	9	2	264	2	2
1705	Siliceous breccia, heavily kaolinized.	160	2.7	3	115	2	302	2	2
1706	Epithermal vein (see text).	3400	5.9	23	116	132	4703	102	2
1707	Quartz vein with arsenopyrite, galena and secondary scorodite (?)	3130	775.6	139	1.7%	7	2618	795	375
1708	Siliceous breccia, quartz veins.	660	4.6	4	103	1	131	2	3
1709	Siliceous breccia, limonite stained throughout.	575	2.1	13	18	3	135	2	2
1710	Quartz porphyry dyke.	20	2.7	7	66	6	23	2	2
1711	Quartz veins, with minor galena, arsenopyrite.	960	67.8	85	5953	5	2.1%	75	90
1712	Light yellow-green siliceous felsic dyke "mottled" with rounded arsenopyrite aggregates.	290	3.1	208	14	8	3.2%	2	2
1713	Quartz veined and brecciated black shale.	35	0.8	8	8	34	938	2	2

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852 E. HASTINGS, VANCOUVER B.C.

PH: 253-3158

TELEX: 04-53124

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR. THE SAMPLE IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR: Ca, P, Mg, Al, Ti, La, Na, K, W, Ba, Sr, Cr AND B. Au DETECTION 3 PPM.
SAMPLE TYPE - SOLUTION

DATE RECEIVED SEPT 1982

DATE REPORTS MAILED

ASSAYER

DEAN TOYE, CERTIFIED B.C. ASSAYER

UNION CARBIDE PROJECT # SOLUTION FROM VANGEOCHEM JOP# 82-195

FILE # 82-1199

20. #7041

PAGE # 1

SAMPLE #	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Ti	B	Al	Na	K	W
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
105-EM-1698R	1	13	11	4	1.0	2	1	17	.76	82	4	ND	2	3	1	2	2	13	.01	.02	10	41	.06	446	.01	5	.50	.01	.12	2
105-EM-1699R	1	2	133	2	3.3	4	1	14	.38	302	5	ND	3	2	1	2	2	2	.01	.02	11	31	.01	37	.01	5	.42	.01	.09	2
105-EM-1700R	1	3	95	2	4.2	2	1	12	.49	224	3	ND	3	2	1	3	2	3	.01	.01	11	30	.01	42	.01	3	.35	.01	.09	2
105-EM-1701R	5	69	16	5	1.2	1	1	6	3.79	228	2	ND	4	0	1	2	2	64	.01	.00	15	33	.02	584	.01	6	.50	.01	.15	2
105-EM-1702R	2	4	6	1	.8	1	1	13	.20	13	2	ND	2	1	1	3	7	27	.01	.01	5	22	.01	130	.01	5	.11	.01	.04	2
105-EM-1703R	3	4	27	1	1.7	2	1	11	.62	28	2	ND	3	5	1	3	2	12	.01	.06	4	28	.02	123	.01	6	.11	.01	.09	2
105-EM-1704R	1	17	9	2	.4	2	1	15	2.27	264	3	ND	2	2	1	2	2	13	.01	.05	4	44	.02	278	.01	4	.29	.01	.06	2
105-EM-1705R	1	3	115	2	2.7	2	1	14	.42	302	2	ND	5	2	1	2	2	2	.01	.02	13	28	.02	40	.01	2	.55	.01	.10	2
105-EM-1707R	1	139	17293	7	775.6	4	1	19	.60	2618	3	ND	4	2	5	795	375	5	.02	.01	2	39	.03	285	.01	5	.29	.01	.12	2
105-EM-1708R	1	4	103	1	4.6	2	1	13	.45	131	3	ND	2	2	1	2	3	2	.01	.01	9	26	.01	48	.01	4	.34	.01	.07	2
105-EM-1709R	1	13	18	3	2.1	3	1	20	1.43	135	3	ND	2	2	1	2	2	14	.01	.04	4	41	.01	182	.01	5	.34	.01	.05	2
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105-EM-1711R	1	85	5953	5	67.8	1	1	7	1.88	21068	2	ND	2	1	3	75	90	2	.01	.01	2	9	.01	83	.01	4	.89	.01	.03	2
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105-EM-1713R	6	8	8	34	.8	5	1	22	.50	938	4	ND	2	3	1	2	2	58	.01	.01	6	37	.01	338	.01	11	.19	.01	.09	2
105-EM-1611R	3	14	1729	18	5.9	4	1	19	.44	860	2	ND	2	2	1	13	2	6	.02	.01	3	36	.01	79	.01	27	.06	.01	.01	2
105-EM-1612R	1	8	234	3	5.0	3	1	16	.46	136	2	ND	2	2	1	4	2	8	.01	.01	9	44	.01	221	.01	28	.22	.01	.05	2
105-EM-1613R	1	8	136	2	4.4	2	1	11	.48	89	2	ND	2	1	1	2	2	27	.01	.01	2	30	.01	124	.01	30	.12	.01	.01	2
105-EM-1614R	3	38	2053	27	6.3	3	1	39	.79	578	3	ND	3	1	3	15	2	8	.01	.01	7	57	.01	128	.01	27	.22	.01	.04	2
105-EM-1615R	1	37	243	10	6.0	4	3	31	2.80	241	2	ND	2	5	1	23	2	7	.02	.01	2	56	.01	3990	.01	30	.15	.01	.01	2
STD	19	148	41	75	2.8	506	11	491	2.44	14	2	ND	3	26	1	2	2	27	1.59	.08	5	54	.59	330	.03	41	.89	.05	.21	2
105-EM-1616R	1	25	2370	8	6.5	4	1	34	.94	584	2	ND	3	1	2	17	2	6	.01	.01	5	49	.01	572	.01	26	.18	.01	.04	2
105-EM-1617R	3	430	28810	285	627.1	4	1	256	.56	299	4	ND	23	6	31	88	2	45	.01	.01	5	33	.01	274	.01	22	.19	.02	.05	2
105-EM-1706R	1	23	116	132	5.9	5	1	35	1.98	4703	2	ND	2	3	1	102	2	4	.03	.01	2	60	.04	169	.01	4	.13	.01	.01	2



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Certificate of Geochemical Analyses

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Report No: **82-93-032** Page **3** of **3**
 Samples Arrived:
 Report Completed:
 For Project:
 Analyst:
 Job No.
 Invoice No.

Attention: **Fire Assays with AAS finished**

Sample Marking	Au ppm				
105 - EM - 1611 R	.069				
12	.055				
13	.034				
14	.082				
15	1.920				
16	.960				
105 - EM - 1617 R	.075				
EM - 1706	3.400				
105EM - 1698R	0.025				
99	0.145				
700	0.265				
01	0.040				
02	0.035				
03	0.035				
04	0.055				
05	0.160				
07	3.130				
08	0.660				
09	0.575				
10	0.920				
11	0.960				
12	0.290				
EM - 1713	0.035				

REMARKS:

Registered Provincial Assayer

Signed:

% Mo x 1.6683 = % MoS₂ 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million

All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

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-IN ACCOUNT WITH-
Union Carbide Explorations Inc.

Report No: **82-93-056** Page **3** of **3**
 Samples Arrived:
 Report Completed:
 For Project:
 Analyst:
 Job No.
 Invoice No.

Attention: **Fire Assays detected by AAS**

Sample Marking	Au ppm					
105EM - 1617R	.045*					

REMARKS: • Project # 105, Job # 82-158

Signed:

% Mo x 1.6683 = % MoS₂ 1 Troy oz./ton = 34.28 ppm 1 ppm = 0.0001% nd = none detected ppm = parts per million
 All values are believed to be correct to the best knowledge of the analyst based on the method and instruments used.

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Bondar-Clegg & Company Ltd.
130 Pemberton Ave.
North Vancouver, B.C.
Canada V7P 2R5
Phone: (604) 985-0681
Fax: 04-352667



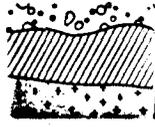
Geochemical
Lab Report

REPORT: 122-2997 PROJECT: 105

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Cu PPM	Pb PPM	Zn PPM	As PPM	NOTES
P EM21614		20	5	3	1.5	
P EM21615		65	6	17	3.7	
P EM21616		16	14	2	1.6	
P EM21617		8	15	5	0.8	

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BONDAR-CLEGG

**Certificate
of Analysis**

REPORT: 422-2997 PROJECT: 105

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au OPT	NOTES
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R EM21614		0.005	
R EM21615		0.050	
R EM21616		0.040	
R EM21617		0.002	

R. H. ...

EMMY CLAIMS NTS 105-0-6

SUMMARY OF COSTS

Helicopter charges	Terr-Air Rotary Ltd.	
3rd August	1.4 hrs.	
4th August	<u>1.2 hrs</u>	
	2.6 hrs. @ \$500/hr.	\$1,300
Map Preparation Costs	Pacific Survey Corporation	
Pencil Manuscript	\$750	
Orthophoto	<u>\$775</u>	1,525
Wages \$245 X 3 men X 2 days		1,470
Board and Lodging \$30 per man per day		<u>180</u>
		\$4,475

Number of claims - 16
Per claim - \$279.69



D. H. James
Project Geologist



Department of Indian Affairs and Northern Development
YUKON QUARTZ MINING ACT
FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)

I (Name)	D. H. JAMES	Occupation	GEOLOGIST
(Postal Address)	#930 - 800 WEST PENDER STREET, VANCOUVER, B.C. V6C 2V6		

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:-

- I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
- I have done, or caused to be done, work on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

YA 75914 to EMMY 1 to
YA 75929 EMMY 16

(16 claims)

situated at EMERALD CREEK Claim Sheet No. NTS 105-0-6
in the MAYO Mining District, to the value of at least \$4,475
dollars, since the 2nd day of SEPTEMBER 1981.

to represent the following mineral claims under the authority of Grouping Certificate No. _____
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

YA 75914 to EMMY 1 to 2nd September, 1981 to 2nd January, 1985
YA 75929 EMMY 16

Note: 2 years 4 months assessment applied for. Claim anniversary date changed to 2nd January, 1985.

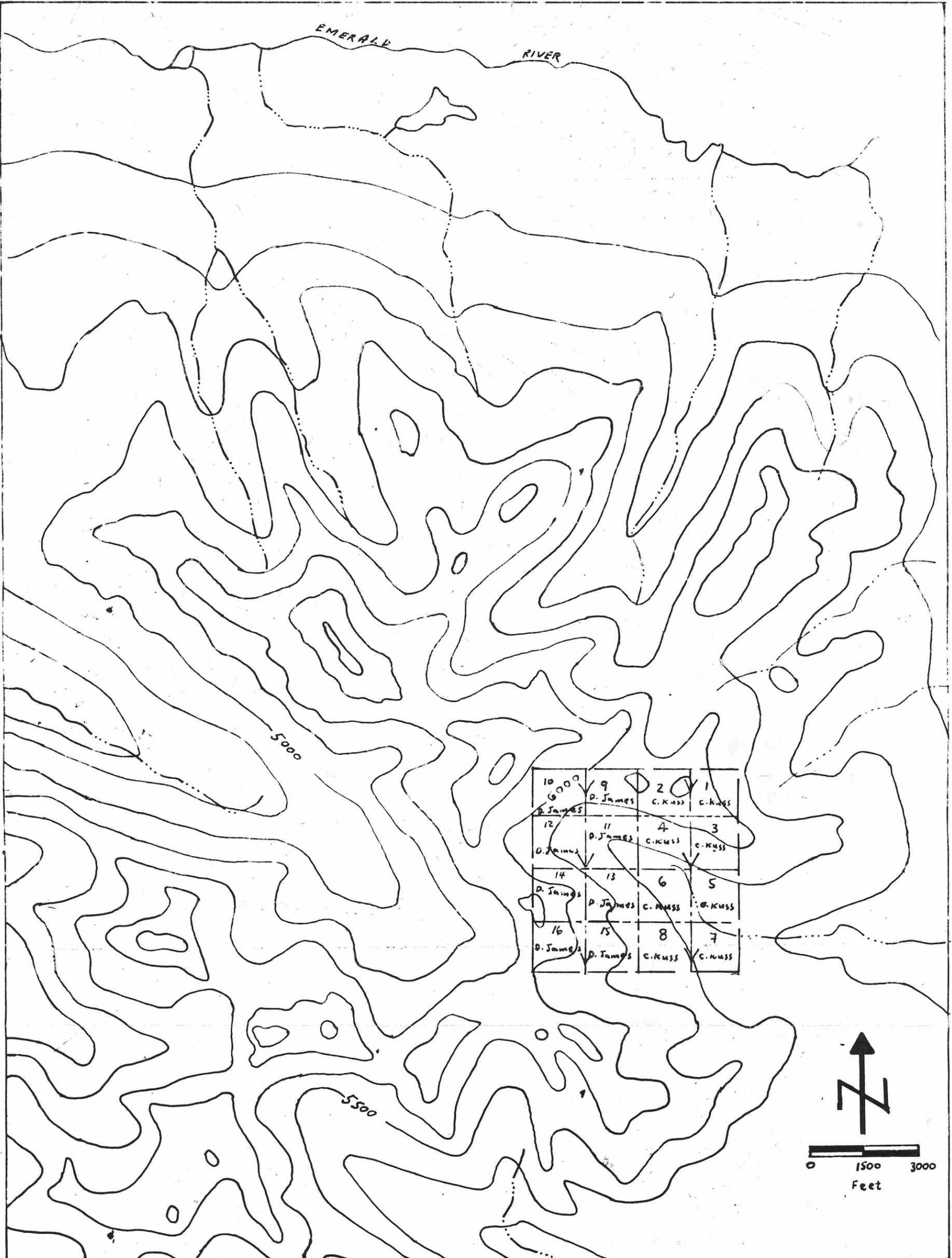
- The following is a detailed statement of such work: (Set out full particulars of the work done indicating date work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Geological mapping - 3-4 August, 1982. (Report and map to be submitted by 30th November, 1982).

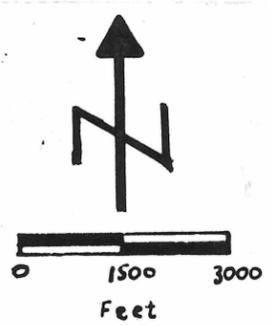
Sworn before me at VANCOUVER, B.C.
this 2nd day of September 1982
[Signature]
Notary Public

[Signature]
Applicant.

EMERALD RIVER



10 D. James	9 D. James	2 C. Kuss	1 C. Kuss
12 D. James	11 D. James	4 C. Kuss	3 C. Kuss
14 D. James	13 D. James	6 C. Kuss	5 C. Kuss
16 D. James	15 D. James	8 C. Kuss	7 C. Kuss



CLAIMS STAKED

DERECK JAMES 9 to 16
 CHUCK KUSS 1 to 8

EMMY CLAIMS

SCALE 1 inch 1/2 mile
 Claim boundary - - - -
 Location line ————

STAKED AUGUST 15, 1981

MAP 3E

105-0-6

091377