

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORTS

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**ASSESSMENT REPORT
GEOLOGY
PROSPECTING
GEOCHEMICAL**

on the

**CUBBY 1 TO CUBBY 10 INCLUSIVE
mineral claim group**

situated in the

FORT STEELE MINING DIVISION

NTS 82F/8E and 82G/5W

**Latitude 49° 24'
Longitude 115° 59'**

**Owner/Operator: Frank O'Grady, P. Eng.
587 Wallinger Ave.
Kimberley, B.C.
V1A 1Z8**

Work performed during July 1995

Report by Frank O'Grady, P. Eng.

Report submitted: May 15, 1996

FILMED

24,417

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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BIBLIOGRAPHY

MAP 49, GEOLOGY of THE MOYIE LAKE AREA, Hoy & Diakow
Assessment Report 19989 by Bapty Research Ltd.
Assessment Report 24031 by Frank O'Grady, P. Eng.
Assessment Report 24044 by Frank O'Grady, P. Eng.
MINFILE No. 082GSW024

INTRODUCTION

The CUBBY claim group consists of ten, two post claims, Staked in 1995. The record numbers are:

CUBBY 1	335818	CUBBY 6	335823
CUBBY 2	335819	CUBBY 7	337452
CUBBY 3	335820	CUBBY 8	337453
CUBBY 4	335821	CUBBY 9	337454
CUBBY 5	335822	CUBBY10	337455

The claims are situated in the Fort Steele Mining Division (claim map , MAP 2).

The registered owner and operator of the property is Frank O'Grady of 587 Wallinger Ave., Kimberley, B.C. V1A 1Z8 .

The CUBBY Claim group is situated 18 kilometers southwest of Cranbrook, B.C. and is centered near Longitude 115 degrees 59 minutes, Latitude 49 degrees 24 minutes (Location Map, Map 1).

Access to the property is by proceeding south of Cranbrook on Highway 3 a distance of 12 kilometers to the Lumberton Road, also known as the Moyie River Road. This road is followed West a distance of 13 kilometers to the junction of the Semlin Creek Road. The Semlin Creek Road is followed South to the 4 km. sign, during which the Moyie River is crossed. The McNeil Creek road is then followed to the South. At the 2.4 kilometer point on the McNeil Creek Road the location line for CUBBY 5 and CUBBY 6 is crossed. The final post for CUBBY 5 and CUBBY 6 is situated 36 meters North of this point. (Access Map, Map 5)

The CUBBY group lies primarily on the East side of McNeil Creek with a small portion of CUBBY 9 and CUBBY 10 on the West side of McNeil Creek near its confluence with the Moyie River. A small portion of CUBBY 10 is situated on the North side of the Moyie River.

The elevation ranges from 1400 meters above sea level at McNeil Creek to 1725 meters above sea level along the eastern boundary of the claim group.

The claim group is, for the most part, on the East slope of the McNeil Creek valley. Forest cover along McNeil Creek is Balsalm, small diameter Lodgepole Pine and Spruce with patches of Alders and Willows. On portions of CUBBY 7, CUBBY 8, CUBBY 9 and CUBBY 10 recent ice storms have downed substantial areas of small diameter Lodgepole Pine.

The CUBBY group was originally part of the McNeil Creek Property group. The CUBBY group covers a portion of the SUNNY 6 claim of the original McNeil Creek

Property. Exploration activity on the McNeil Creek Property was confined to claims South of the CUBBY Group, therefore, no previous exploration has been conducted on the area underlying the CUBBY claims.

During 1988 and 1989 a program of line cutting, geophysical surveying, geological mapping, soil sampling and diamond drilling was conducted on the McNeil Creek Property. The owner of the property was South Kootenay Goldfields Inc. The exploration program was directed by Bapty Research Ltd.

The exploration program completed on behalf of South Kootenay Goldfields was conducted almost entirely on the MAR 3 and the MAR 4 claim adjacent to, and South of, the CUBBY group. The MAR 4 claim corresponds approximately to the present PHANTOM 1 claim. This program is documented in assessment report No. 19989 by Bapty Research as well as minfile 082GSW024.

During 1995 soil sampling and prospecting was carried out on the PHANTOM 1 claim by owner Frank O'Grady. This program is documented in assessment report No. 24031 by Frank O'Grady, P. Eng.

During 1995 a magnetometer and VLF survey was conducted over a portion of the MAR 3 claim by Frank O'Grady. This program is documented in assessment report No. 24044 by Frank O'Grady, P. Eng.

The rocks underlying the claim group are of the Aldridge Formation. The only outcrops encountered are situated on CUBBY 4. The outcrops are quartzites and a metadiorite. Also, all the sediment boulders examined during prospecting appear to be from the Middle Aldridge. The intrusive boulders examined during prospecting are believed to be from the Moyie Sills contained within the Aldridge Formation.

A program of Prospecting, Geological Mapping and Geochemical Surveying was conducted by, and under the direction of, Frank O'Grady. Geological mapping was carried out at a scale of 1:5,000 on CUBBY 4. Prospecting was carried out at a scale of 1:5,000 over an area of 50 hectares on CUBBY 3, CUBBY 4, CUBBY 5 and CUBBY 6. A total of 37 soil samples were collected on CUBBY 4, CUBBY 5, CUBBY 7, and CUBBY 9. One silt sample was collected on CUBBY 5.

The type of deposit being explored for on the CUBBY claim group is either a Sullivan type massive sulphide body or a Vine type shear zone with economically mineable reserves.

GEOLOGY

The area investigated on Claims CUBBY 3, CUBBY 4, CUBBY 5, AND CUBBY 6 was initially mapped before 1982 by the Ministry of Energy, Mines and Petroleum Resources as "virtually no outcrop" (Preliminary Map 49, GEOLOGY of THE MOYIE LAKE AREA). However, logging operations, including skidding and road building conducted over this area has exposed, albeit poorly, some rock outcrops.

Examination of the logged area, the outline of which is plotted on MAP 3, revealed four poorly exposed outcrops. The outcrops belong to the Middle Aldridge Formation and are intruded by a sill of the Moyie Intrusive.

Where it was possible to obtain an attitude the sediments exposed are striking northeasterly and dipping from 30 degrees to 50 degrees to the southeast.

The geological succession mapped was as follows:

1. Grey medium grain quartzite, no measurable attitude.
2. Metadiorite, a member of the Moyie Intrusives.
3. Grey, medium grain quartzite, striking northeast and dipping southeast.

One outcrop mapped on the lower quartzite member (unit 3) exhibits a set of fractures striking at 030 degrees and dipping vertically. The fractures are from 5 centimeters to 20 centimeters apart and exposed along the entire host outcrop for approximately 12 meters. The fractures are healed with sericite and epidote which indicates hydrothermal activity.

A cursory examination of air photo 30BCC94090 No. 134 (not included in this report) reveals a north south trending lineament adjacent to the outcrop containing the sericite/epidote alteration.

PROSPECTING

Prospecting was carried out over a logged area that covers portions of CUBBY 3, CUBBY 4, CUBBY 5, and CUBBY 6. The outline of the logged area is plotted on MAP 3. This area was chosen for prospecting as logging activity exposed a prolific assortment of boulders, and occasionally, previously unknown outcrop.

Prospecting revealed boulders composed of quartzite and metadiorite. The sediments appear to be of Middle Aldridge origin and the intrusives from the Moyie Intrusives.

No economic sulphides (galena or sphalerite) were encountered. The prospecting program did, however, lead to the discovery of the outcrop containing the epidote and sericite alteration discussed in the Geology section of this report.

GEOCHEMICAL SURVEY

CUBBY 4

Nine soil samples were taken on CUBBY 4. The location of the samples are plotted on MAP 3 at a scale of 1:5,000. In addition, an inset of the sample location is plotted on MAP 3 at a scale of 1:2,000.

This site was chosen for soil sampling because of its proximity to the outcrop containing the sericite/epidote alteration and the lineament described in the Geology section of this report.

The soils samples were taken at 25 meter intervals. The spacing of the samples was determined by tight chaining. Each sample came from the B horizon at a depth of 15 centimeters. The samples were taken with a grubhoe.

The samples were sent to Chemex Labs of North Vancouver, B.C. for soil preparation and Pb, Zn, and As analysis. The -80 fraction was analysed by normal geochemical techniques. The certificate of analysis forms appendix 1 of this report.

In the Aldridge Formation, Kootenay Exploration (COMINCO) considers the following minimum soil/sediment values to be anomalous:

Pb	45 PPM
Zn	240 PPM
As	18 PPM

The maximum values from the soil samples of this survey are:

Pb	20 PPM
Zn	104 PPM
As	4 PPM

Therefore, there is no substantial geochemical anomaly on the area of CUBBY 4 surveyed by geochemical methods.

CUBBY 5, CUBBY 7 - CUBBY 10 INCLUSIVE

This area is covered by a thick growth of vegetation including Willows, Alders and small diameter Lodgepole Pine. In addition there are several areas of down timber as a result of ice storms. Traversing this area by foot is very slow and difficult.

A reconnaissance geochemical survey was chosen for this area because of the difficulty of conducting conventional prospecting as a result of the described vegetation cover.

Twenty eight soil samples were taken at 50 meter intervals. The location of the soil samples are plotted on MAP 3 at a scale of 1:5,000 and on MAP 4 at a scale of 1:10,000. The spacing of the samples was determined by hip chain. Each sample came from the B horizon at depths of 5 centimeters to 20 centimeters but usually about 15 centimeters. The samples were taken with a grubhoe.

The samples were sent to Chemex Labs of North Vancouver, B.C. for soil preparation and Pb, Zn, and As analysis. The minus 80 fraction was analysed by normal geochemical techniques. The certificate of analysis forms appendix 1 of this report.

The maximum values from the soil samples of this survey are:

Pb	20 PPM
Zn	215 PPM
As	2 PPM

Again, utilizing the threshold values determined by Kootenay Exploration (COMINCO) a substantial geochemical anomaly is not present in the area surveyed by geochemical methods.

Sediment sample SED M-95-1 was taken on CUBBY 5. This sample was comprised of fine black wet soil (mud) . It was taken from a small, localized, surface spring encountered during the reconnaissance soil survey. The sample was taken as springs may be the surface representation of a fault and percolating ground waters may move metal ions to surface. The values from this sample, plotted on MAP 3, are Pb 16 PPM, Zn 57 PPM, and As 2 PPM. Therefore, the sample is of no consequence geochemically. The values are contained in the Chemex Labs Certificate of Analysis that forms appendix 1 of this report.

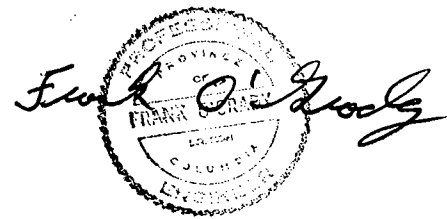
ITEMIZED COST STATEMENT

Frank O'Grady, P. Eng. June 21,22 Prospecting/Mapping; 2 days@ \$300.00/da	-----\$600.00
Field Assistant, R. Beamish June 21,22; 2 days @ \$150.00/day -----	300.00
Frank O'Grady, P. Eng. July 15,23; Soil Sampling; 2 days @ \$300.00day -----	600.00
Field Assistant, J. O'Grady July 15,23; 2 days @ \$125.00 day -----	250.00
Geochem Assays, for Pb, Zn, and As 38 soil samples @ \$12.75 -----	484.50
Transportation: one 4 x 4 truck June 21,22, July15, 23 @ \$75.00/day---	300.00
Freight on samples-----	22.00
Report Preparation -----	<u>450.00</u>
	\$3006.50

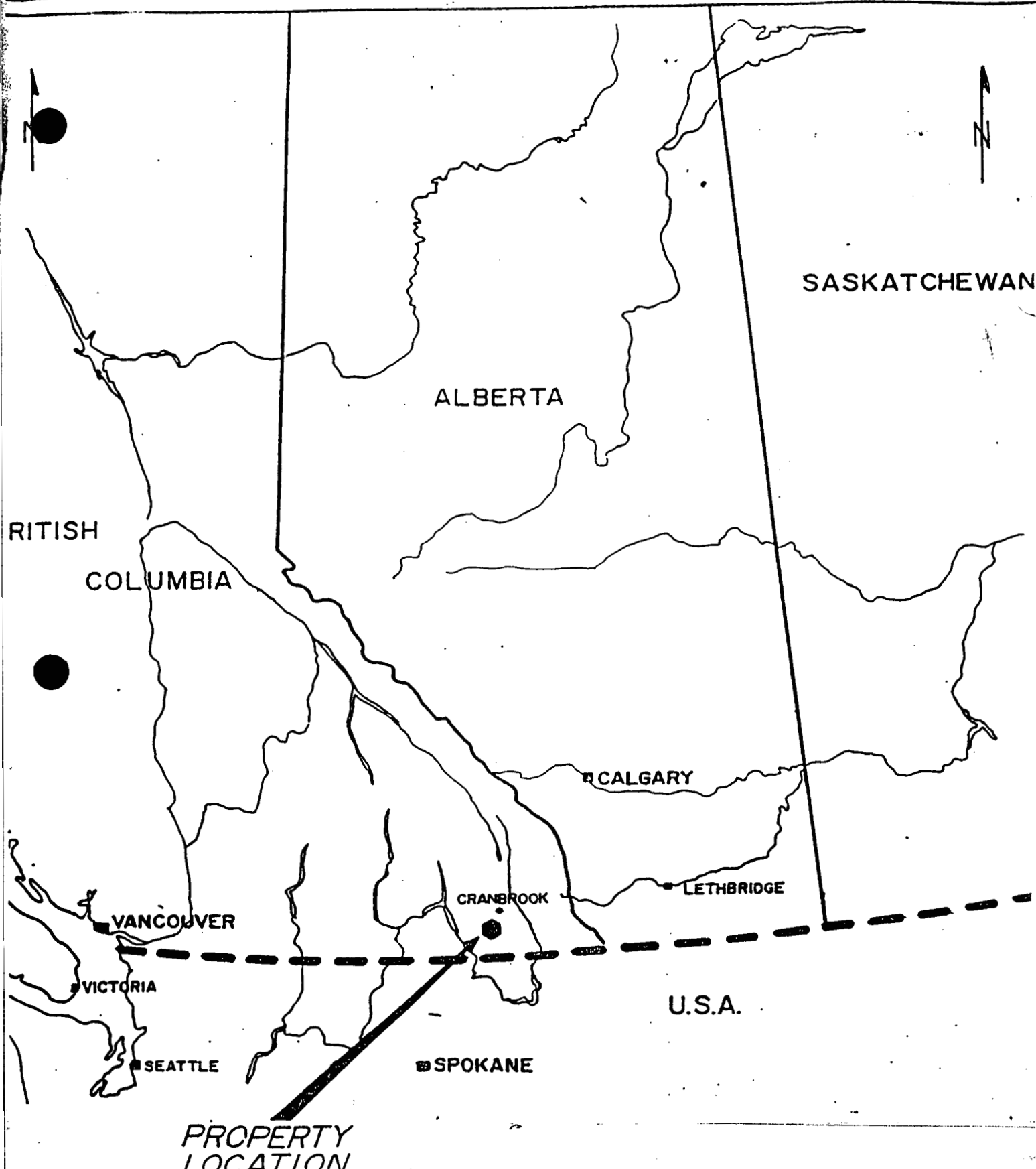
AUTHOUR'S QUALIFICATIONS .

I, Frank O'Grady, address 587 Wallinger Ave., Kimberley, B.C. Canada V1A 1Z8, hereby certify that:

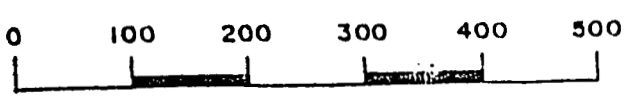
1. I am a graduate of the University of British Columbia, B.Sc. Geology 1969.
2. I am a graduate of the University of Missouri - Rolla (Missouri School of Mines), B.S. Mining Engineering 1977.
3. I am a registered Professional Engineer in the Province of British Columbia since 1978.
4. I have practiced my profession as a geologist since 1969 and as a Geologist - Mining Engineer since 1977.



Frank O'Grady, P. Eng.
May 8, 1996



PROPERTY
LOCATION



MAP 1
LOCATION MAP
CUBBY CLAIM GROUP
ASSESSMENT REPORT
F.O'GRADY MAY 1966

KEN 6 209026 #1151
 KEN 7 209025 #1150

MOYIE 25 337728

MOYIE 26 337729

LILLIAN 210302 #2875

MOYIE 11

337748

3NX56

202357

GUDDY 0 337455

GUDDY 8 337453

GUDDY 9 337451

GUDDY 7 337452

GUDDY 5 335822

GUDDY 6 335823

GUDDY 3 335820

GUDDY 4 335821

GUDDY 1 335818

GUDDY 2 335819

MOYIE 4

337738

45X56

202358

MOYIE 5

PHANTOM 1

330704

2NX4E (230838)

337739

45X56

MAR 3

209787

3NX4W #765

MAR 3 209787

#765

3NX4W

202362

82F/8E

(44199)

44199

82G/5W

1" = 1/2 MILE

ORIGINAL PRODUCED AT 1:31680

METRES

500 0 500 1000 1500 2000



MAP 2

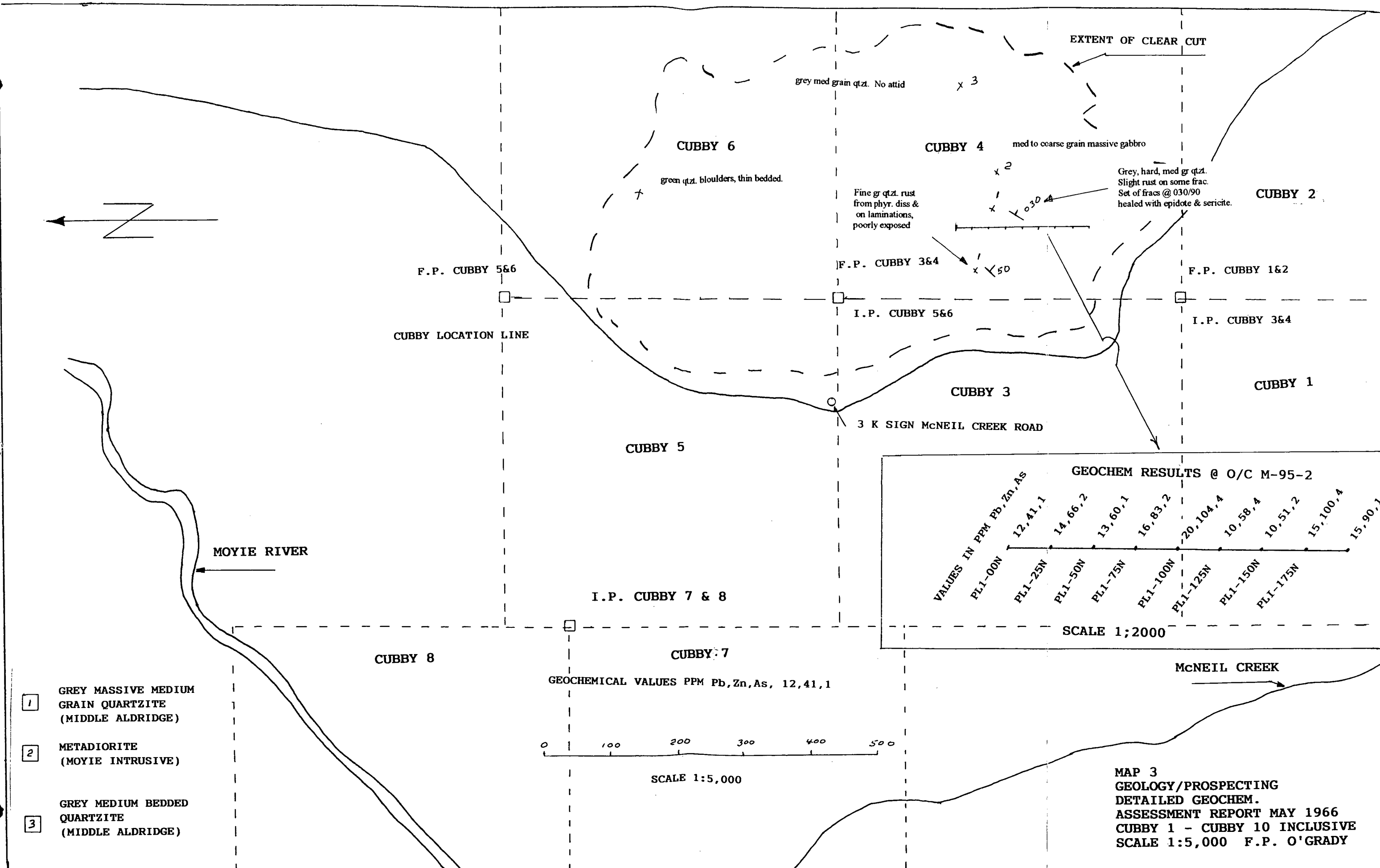
page 9

CLAIM MAP

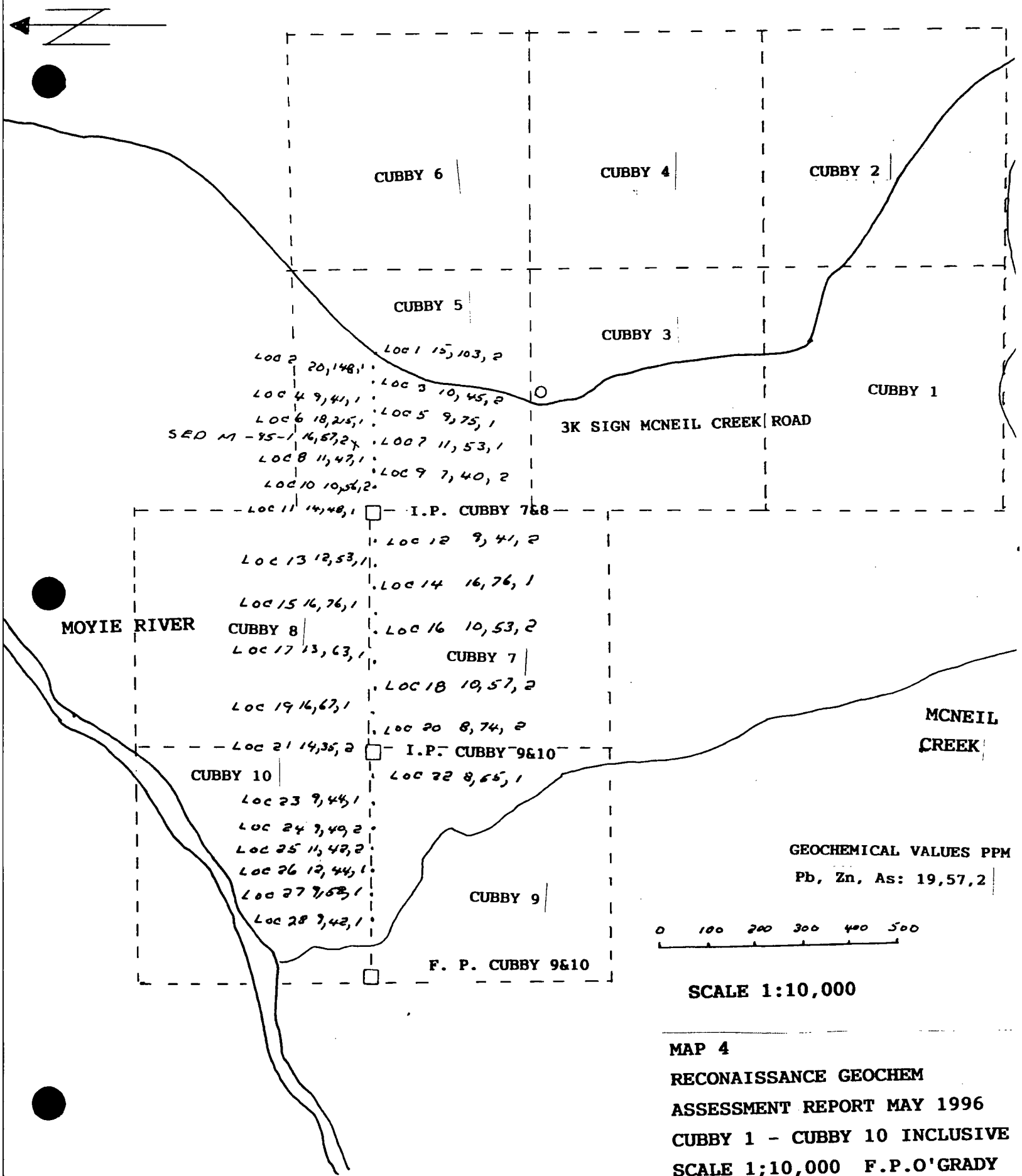
CUBBY GROUP

ASSESSMENT REPORT

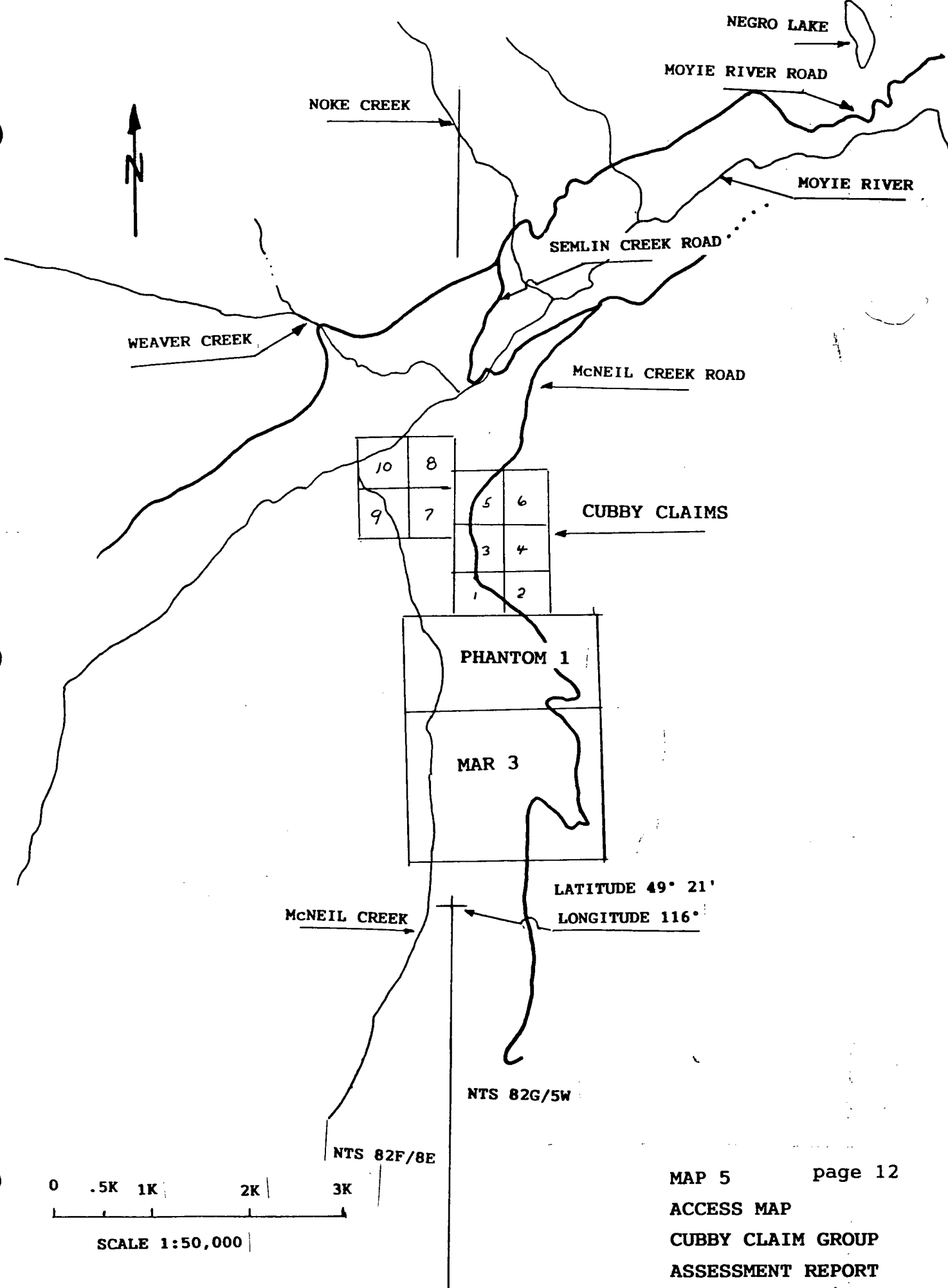
F.O'GRADY MAY 1966

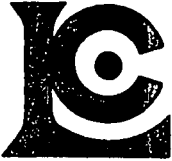


MAP 3
GEOLOGY/PROSPECTING
DETAILED GEOCHEM.
ASSESSMENT REPORT MAY 1966
CUBBY 1 - CUBBY 10 INCLUSIVE
SCALE 1:5,000 F.P. O'GRADY



MAP 4
RECONNAISSANCE GEOCHEM
ASSESSMENT REPORT MAY 1996
CUBBY 1 - CUBBY 10 INCLUSIVE
SCALE 1;10,000 F.P.O'GRADY





Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: BHP MINERALS CANADA LTD.

1600 - 1050 W. PENDER ST.
VANCOUVER, B.C.
V6E 3S7

Page Number : 1
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Invoice No. : I9526068
P.O. Number :
Account : E

Project :

Comments: ATTN: NEIL LENOBEL CC: FRANK O'GRADY

CERTIFICATE OF ANALYSIS

A9526068

APPENDIX 1

SAMPLE	PREP CODE	As ppm											
LOC 01	244 --	2											
LOC 02	244 --	1											
LOC 03	244 --	2											
LOC 04	244 --	1											
LOC 05	244 --	1											
LOC 06	244 --	1											
LOC 07	244 --	1											
LOC 08	244 --	1											
LOC 09	244 --	2											
LOC 10	244 --	2											
LOC 11	244 --	1											
LOC 12	244 --	2											
LOC 13	244 --	1											
LOC 14	244 --	1											
LOC 15	244 --	1											
LOC 16	244 --	2											
LOC 17	244 --	1											
LOC 18	244 --	2											
LOC 19	244 --	1											
LOC 20	244 --	2											
LOC 21	244 --	2											
LOC 22	244 --	1											
LOC 23	244 --	1											
LOC 24	244 --	2											
LOC 25	244 --	2											
LOC 26	244 --	1											
LOC 27	244 --	1											
LOC 28	244 --	1											
SED M-95-1	244 --	2											
PL1-00N	244 --	1											
PL1-25N	244 --	2											
PL1-50N	244 --	1											
PL1-75N	244 --	2											
PL1-100N	244 --	4											
PL1-125N	244 --	4											
PL1-150N	244 --	2											
PL1-175N	244 --	4											
PL1-200N	244 --	1											

CERTIFICATION:

Hanti Bechler