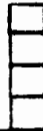


MAP No.

ASSESSMENT REPORT
N. M. E. A. P.
CONFIDENTIAL
OPEN FILE



TYPE OF

WORK GEOCHEMICAL, PROSPECTING

105 D 6

REPORT FILED UNDER	G. Macdonald and Associates Ltd.	DOCUMENT NO.	091659
DATE PERFORMED	Sept. 25 - October 3, 1985	DATE FILED:	November 7, 1985
LOCATION - LAT. LONG.	60°15'N	AREA:	
	135°05'W		
CLAIM NO.	MR 1-16	YA85563 - YA85578	
VALUE \$			
WORK DONE BY	G.S. Davidson		
WORK DONE FOR	G. Macdonald and Associates		
REMARKS	<p>The claims overlie the Wheaton River Valley which is largely covered with alluvium. Sparse outcrop is of Paleozoic greenstones and Tertiary volcanics. Quartz-carbonate veins outcrop near the base of Dall Creek.</p>		

091659

85 117 p. 104

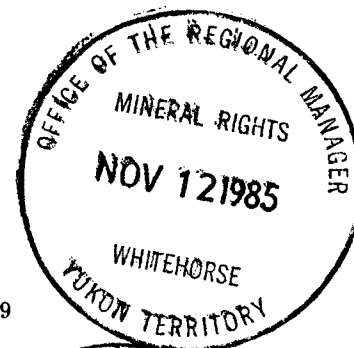
Work on the claims consisted of chip sampling of quartz-carbonate vein material and soil sampling along two contour traverses. The best assay of vein material was 330 ppb Au with 0.3 ppm Ag. Sixty soil samples were taken with the best analyses for Au being 50 ppb. Weak to moderate anomalous levels of copper, lead and zinc were found in some samples.

G. MACDONALD AND ASSOCIATES LIMITED
Consulting Professional Geologists

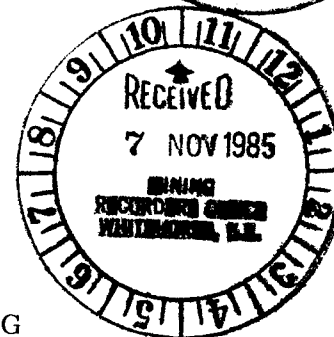
4 Hyland Crescent
Whitehorse, Y.T.
Y1A 4P6

(403) 668-2044

(403) 667-7229



ASSESSMENT REPORT



PROSPECTING AND GEOCHEMICAL SAMPLING

MR 1-16 CLAIMS (YA 85563 - YA 85578)

WHEATON RIVER

NTS 105-D-6

Latitude: 60°15' N

Longitude: 135°05' W

Whitehorse Mining District

25 September to 3 October 1985

G. S. Davidson, P.Geol.
G. Macdonald and Associates Ltd.
Whitehorse, Yukon.
October 22, 1985.

09 16 59

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INTRODUCTION

This report describes the MR 1-16 claims located in the Wheaton River district, with particular reference to a preliminary exploration program of prospecting and geo-chemical sampling carried out by G. Macdonald and Associates Ltd., consulting geologists, for Gary Reynolds, the property owner.

The general location of the Wheaton River district is shown on Figure 1.

PROPERTY

The MR 1-16 claims were staked on the 29th and 30th of September 1984 and were recorded on the 5th of October 1984 in the office of the Whitehorse District Mining Recorder under grant numbers YA 85563 - YA 85578, in accordance with the Yukon Quartz Mining Act.

The location of the MR claims with respect to local topography and adjacent mineral claims is shown in Figure 2.

LOCATION AND ACCESS

The MR claims are located about 50 km south of Whitehorse on Map Sheet NTS 105-D-6. Approximate geographical co-ordinates are 60°15' North latitude and 135°05' West longitude.

Access to the property from Whitehorse is by paved highway following the Alaska Highway and then the Klondike Highway (Carcross-Skagway section) as far south as Robinson; a distance of 40 km. From Robinson, an all-weather gravel road (Annie Lake-Wheaton River road) is followed for 25 km to the MR claims; this road runs through the southern part of the property.

During the summer of 1985, major improvements to the Annie Lake road were carried out by the Yukon Government Highways Department and Mount Skukum Gold Mines Ltd. (a subsidiary of Erickson Gold Mines Ltd.) as part of the development program at the Mount Skukum gold mine owned by Agip Canada Ltd. and Erickson Gold Mines Ltd. Production from this deposit is scheduled for February 1986. The Mount Skukum millsite is located 16 km west of the MR property.

Exploration of the MR property in 1985 was carried out from a tent and trailer camp located on the claims between the Mount Skukum access road and the Wheaton River. Access to the northern portion of the claim group, located across the river, was by helicopter, using a Bell 206-B Jetranger of Frontier Helicopters, based at Becker Creek, approximately 7 km west of the exploration camp.

PHYSIOGRAPHY, CLIMATE, VEGETATION

The MR claims cover ground on both sides of the Wheaton River including the lower section of Dail Creek, which drains the southern slopes of Gold Hill and Pugh Peak and joins the Wheaton River within the claim block. Virtually all of the property lies below

BEAUFORT SEA

FIGURE 1

• Tuktoyaktuk

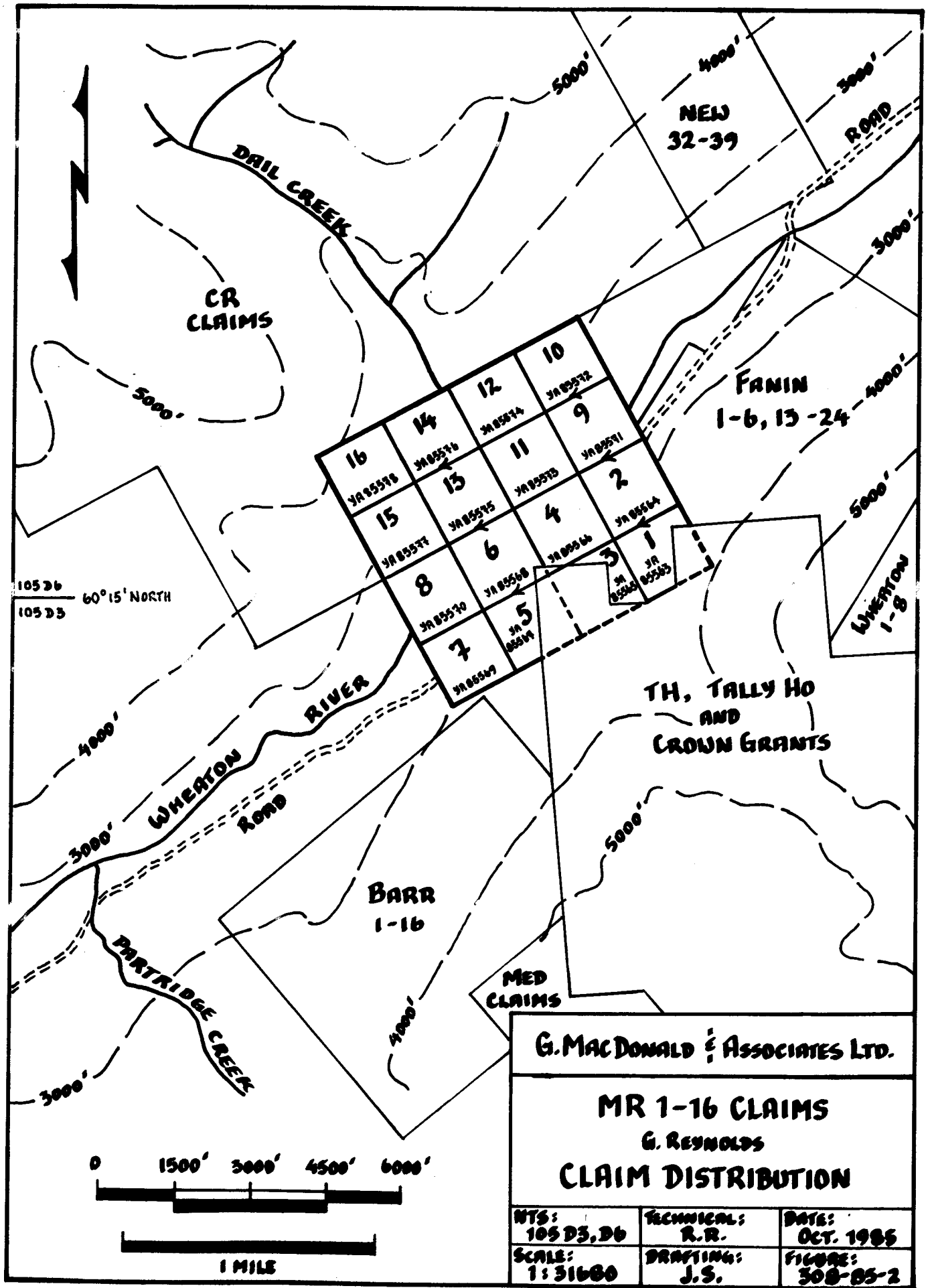


LOCATION MAP

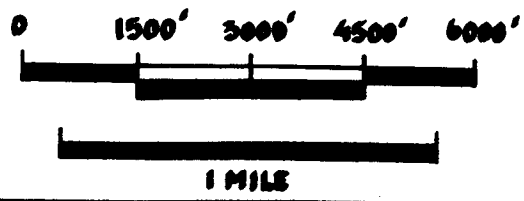
SCALE: 1" = 90 miles

✖ PROPERTY LOCATION
WHEATON RIVER AREA





105 D6
105 D5
60° 15' NORTH



G. MACDONALD & ASSOCIATES LTD.		
MR 1-16 CLAIMS		
G. REYNOLDS		
CLAIM DISTRIBUTION		
NTS: 105 D5, D6	TECHNICAL: R.R.	DATE: OCT. 1985
SCALE: 1:31680	DRAFTING: J.S.	FIGURE: 300-05-2

the 3500 foot (1065 metre) contour. The central area of the claims covers flat-lying, well-drained, forest-covered ground on either side of the river, underlain by recent river gravels and older fluvial and fluvio-glacial clays, sands and gravels.

Steeper slopes on the northern and southeastern parts of the property are underlain by talus and covered by moss and brush. Bedrock exposures are scarce, being limited to the steeper slopes and parts of the Dail Creek drainage.

Climatic conditions are generally those of similar elevations in the Carcross area, characterized by a northern interior climate modified by a warmer, moist influence of the nearby Pacific Ocean. Average annual precipitation is approximately 40 cm. Winters in the area are long, with temperature extremes to -40°C but commonly in the -10°C to -20°C range. Summers are pleasant with temperatures up to 25°C and long hours of daylight during May, June and July. The area is generally snowfree from mid-May to late September.

REGIONAL GEOLOGY

The Wheaton River district straddles the boundary between folded Mesozoic and Paleozoic volcanic and sedimentary rocks of the Whitehorse Trough and the granitic intrusive rocks of the Cretaceous Coast Crystalline Complex to the west. All of these units are locally overlain by volcanic rocks of the late Cretaceous/early Tertiary Skukum Group and intruded by rhyolite and andesite dykes of the same age.

The region has been mapped twice by the Geological Survey of Canada and the results published as Memoir 31 (D. D. Cairnes, 1912) and Memoir 312 (J. O. Wheeler, 1961). A reinterpretation of the regional geology formed part of the metallogenic map published as Open File EGS 1979-6 of the Department of Indian Affairs and Northern Development (G. W. Morrison).

Table of Formations

QUATERNARY		Alluvium; glacial and fluvial deposits
QUATERNARY (?)	Miles Canyon volcanics	Basalt; minor pyroclastic rocks
TERTIARY	Skukum Group	Basalt, andesite, rhyolite flows, tuffs and breccias, dykes and sills
MID-CRETACEOUS	Coast Range intrusions	Medium-grained quartz-monzonite; granodiorite
JURASSIC/ CRETACEOUS	Hutshi Group (?)	Andesite, rhyolite flows and pyroclastic equivalents
JURASSIC	Tantalus Group	Mainly conglomerate
LOWER JURASSIC	Laberge Group	Greywacke, arkose, quartzite, siltstone, argillite and conglomerate

(cont'd)

Table of Formations (continued)

TRIASSIC	Lewes River Group	Andesite, basalt flows and pyroclastic equivalents; limestone; minor rhyolite flows
LOWER PALEOZOIC	"Yukon Group"	Metamorphic terrain; quartz-biotite schist; micaceous quartzite; minor gneissic units

Older sedimentary and volcanic rocks are typically deformed and exhibit at least lower-greenschist facies regional metamorphism. These units generally trend north or north-west and appear to be separated by unconformities. Much of the deformation seen in these rocks relates to regional tectonic events associated with intrusion of large bodies of quartz monzonite and granodiorite of the Coast Range Complex about 100 m.y.

Major fault structures are associated with early Tertiary volcanic complexes at Montana Mountain, Mount Macauley and Mount Skukum but older structures may also be present. Skukum Group volcanic rocks are equivalent to the Sloko Group of northern British Columbia and the Mount Nansen Group of central Yukon. Late stage features of Skukum Group volcanism include andesite, dacite and rhyolite dykes, small rhyolite porphyry stocks and quartz or quartz-carbonate veining with important precious metal mineralization.

HISTORY

The earliest exploration work in the Wheaton River area pre-dates the Klondike Gold Rush by several years. The first recorded claims staked in the region were located by Frank Corwin and Thomas Rickman on Carbon Hill, Chieftain Hill and Mt. Anderson(?) during the summer of 1893. Additional prospecting in the Wheaton River District continued intermittently until 1906 when the discovery of gold and gold telluride bearing quartz veins on Gold Hill led to a staking rush which resulted in over 700 claims being located near discovery and on Carbon Hill where Corwin and Rickman's original claims had been found. Many of the claims were further developed until the outbreak of WWI - with adit entry underground drifts driven on shear zones or veins on Gold Hill, Tally Ho Mountain, Mt. Stevens and Carbon Hill. After the termination of the war, additional exploration was conducted on several of the more promising occurrences and limited production arose from high grade zones at Tally Ho Mountain, Gold Hill and Mt. Stevens.

Most of the Wheaton River District then lay idle from the mid-1920's until the late 1940's as most exploration efforts during this period were directed to silver-lead veins in the Keno Hill area of central Yukon. From the 1940's until the early 1980's, the Wheaton River District witnessed only sporadic exploration activity as specific commodities were sought. During the 1970's, exploration reconnaissance programs were conducted in the region for porphyry copper deposits. With the increasing price for gold during the late 1970's, interest again revived for precious metal exploration in southern Yukon.

A regional exploration program conducted by Agip Canada Ltd. in 1980 led to discovery of gold-bearing vein structures at Mount Skukum in 1981. Subsequent diamond drill programs

in 1982-1984 defined a commercial ore body consisting of 165,000 tons grading 0.73 oz gold and 0.63 oz silver per ton as finely disseminated gold hosted by quartz-calcite veining. Development work by Mount Skukum Gold Mines Ltd. (a subsidiary of Erickson Gold Mines Ltd. of Vancouver) proceeded during 1984-1985 under a joint venture agreement with Agip; production is scheduled to commence early in 1986.

The significance of this discovery was realized in 1983 and exploration activity in the Wheaton River district showed a dynamic increase during 1983-1985.

There are no records of previous exploration activity in the area presently covered by the MR 1-16 claims. Extensive prospecting and exploration have been conducted in the past on adjacent properties, including southern Gold Hill and the Dail Creek drainage immediately north of the MR claims and old gold-silver occurrences just southeast of the claims including the Tally Ho mine which produced high grade gold-silver ore from 1917 to 1921. Undoubtedly parts of the MR claims were examined during these earlier periods of exploration in the Wheaton River district.

GEOLOGY AND EXPLORATION - 1985

A preliminary examination of the MR 1-16 claims was carried out by a three-man exploration crew consisting of G. Davidson (geologist) and J. Atkinson and M. Van Veen (field assistants), all of Whitehorse, Yukon, supervised by R. Robertson of G. Macdonald and Associates Ltd. This crew was based at a tent and trailer camp located on the property. A Frontier Helicopters Jetranger based nearby was used for access to the northern part of the claims.

Much of the central portion of the property below about 900 metres (3000 feet) elevation and flanking the Wheaton River is underlain by thick deposits of fluvio-glacial sands and gravels. Bedrock exposures are limited to steeper slopes towards the northern and southeastern areas of the property and the Dail Creek valley.

Geology of the claims is shown on Figure 3.

The oldest rock unit present on the MR claims is a series of older andesite volcanics ("greenstones") which are regionally deformed and metamorphosed. This unit is probably part of the Upper Triassic Lewes River Group. Mid-Cretaceous granitic rocks (principally granodiorites) of the Coast Range Intrusive Complex intrude the older andesite series on the north side of the property. Similar relationships are seen on adjacent claims of Tally Ho Exploration Ltd. just southeast of the MR claims where gold-silver mineralized veins are present. This mineralization may be related to fracture systems extending from Tally Ho Gulch through the MR claims and along Dail Creek.

A body of Tertiary Skukum Group rhyolite porphyry ("Folle Mountain intrusion") outcrops immediately north of the property; associated peripheral rhyolite dykes may underlie part of the MR claims.

Outcrops of quartz-carbonate veining in altered (carbonatized) andesite of the Lewes River Group were located and sampled during the 1985 exploration program. Similar veining elsewhere in the district is commonly of Tertiary age, a late stage hydrothermal event associated with Skukum Group volcanic activity. Several veins are present, displaying strong "pinch and swell" characteristics along strike with vein widths up to 0.25 metres. Veins are located in narrow shear zones and contain trace amounts of fine-

grained pyrite as well as occasional fragments of altered wallrock.

Four samples of vein material were collected and analyzed for gold and silver by Bondar-Clegg and Co. Ltd. (Vancouver). Gold analyses use a 30 g portion of pulverized rock and fire assay preconcentration (i.e. preparation of the dore bead) followed by digestion of the bead in acid and analysis by atomic absorption spectrophotometry. Silver analyses are by standard atomic absorption techniques. Sample locations and results are shown on Figure 4. Silver analyses are all low-order, as are three of the gold analyses. Sample 202 contains 330 ppb gold, a significant geochemical anomaly.

A total of 60 soil samples were collected at 50 metre spacing along two contour lines located in the western area of the property (MR 14 and 16 claims) on the lower slope of Gold Hill just south of the Dail Creek valley. Sample locations are shown in Figure 4. These samples were analyzed for gold, copper, lead and zinc by Bondar-Clegg. Copper, lead and zinc were analyzed by standard atomic absorption techniques. Gold was analyzed as described above except that a 10 g portion of the minus 80 mesh fraction was used. Analytical results and sample numbers are shown in Figure 5. Variations in copper and zinc values are interpreted as indicating changes in the background content of these elements between areas underlain by Lewes River Group metavolcanic rocks and areas underlain by Cretaceous granitic rocks. There are no strongly anomalous gold values but a modest anomaly is present over a distance of 150 metres on the upper sample line with values of 30-70 ppb gold.

CONCLUSIONS AND RECOMMENDATIONS

Although only a modest program of preliminary exploration has so far been conducted on the MR claims, there are several significant conclusions.

Geological units, contacts and structures present within or close to the property are known to be associated with precious metal mineralization elsewhere in the district. These are the andesite-granodiorite contact, possible late stage rhyolite dykes and fracturing related to the Tally Ho-Dail Creek lineament. Quartz-carbonate veining with some anomalous gold content has been located in outcrop within a favourable host rock and close to the inferred location of the lineament. Slight anomalies in gold in soils show good spatial consistency based on a sample interval (50 m) which is very wide in relation to the likely target (veins only a metre or two in width; probably oriented perpendicular to the sample line, an unfavourable search direction).

These preliminary results are thus encouraging and additional exploration of the MR claims is warranted. A possible program would include contour soil sampling on slopes north of Dail Creek, detail soil sampling around soil anomalies located in 1985, grid soil sampling around quartz-carbonate veining together with ground magnetometer and VLF-EM surveys to indicate changes in bedrock and locate favourable contact zones and fractures. Soil samples should be analyzed for silver and possibly mercury and arsenic. Targets resulting from this suggested program should be tested by trenching.

APPENDIX ISTATEMENT OF EXPENDITURESPeriod: September 25 - October 3, 1985

GEOCHEMICAL ANALYSES:

4 rock samples (Au, Ag)	\$ 48.00
60 soil samples (Au, Cu, Pb, Zn)	699.00

CAMP SUPPLIES, FOOD, EQUIPMENT, EXPEDITING:	200.00
---	--------

TRANSPORTATION:

Truck: 3 days @ \$50/day	150.00
Gas	35.00

PERSONNEL:

Geologists:	R. Robertson - ½ day @ \$400/day	200.00
	G. Davidson - 2½ days @ \$262.50/day	656.25
Assistants:	J. Atkinson - 1½ days @ \$135/day	202.50
	M. Van Veen - 1 day @ \$112.50/day	112.50

MISCELLANEOUS:

Report preparation, drafting, secretarial	100.00
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TOTAL COSTS:	\$ 2,403.25
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Whitehorse, Y.T.
Y1A 4P6

(403) 668-2044

(403) 667-7229

APPENDIX II

STATEMENT OF QUALIFICATIONS

I, **GRAHAM DAVIDSON**, of the City of Whitehorse in the Yukon Territory, hereby certify:

THAT I am a geologist employed by G. Macdonald and Associates Limited AND THAT I caused to be performed the work described in this report;

THAT I am a graduate of the University of Western Ontario (H.B.Sc. Geology, 1981);

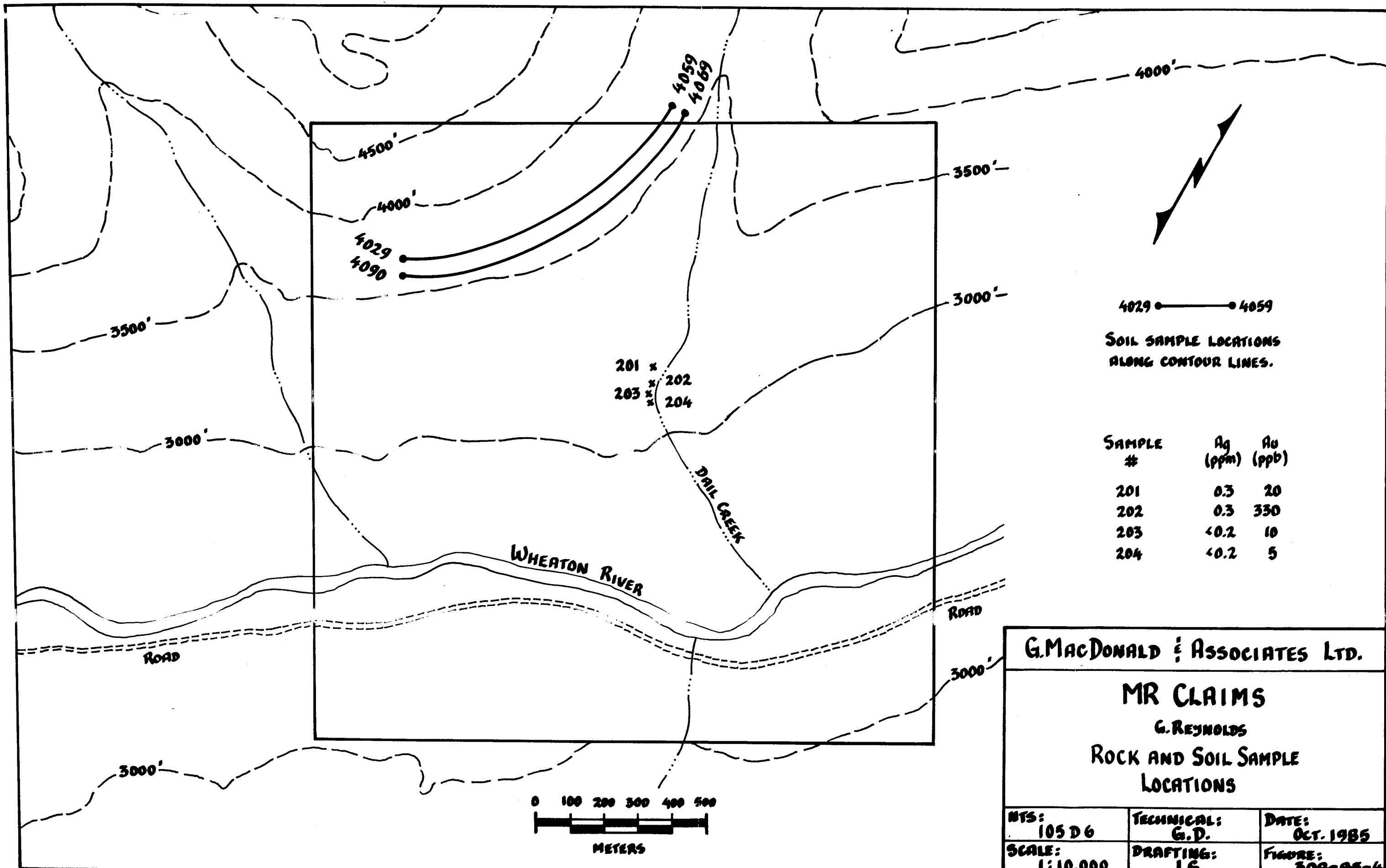
THAT I am registered as a Professional Geologist by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (No. 42308);

THAT I have been engaged in mineral exploration on a full-time and part-time basis for seven years, of which five have been in the Yukon and Northwest Territories.

SIGNED at Whitehorse, Yukon Territory, this 31st day of October, 1985.



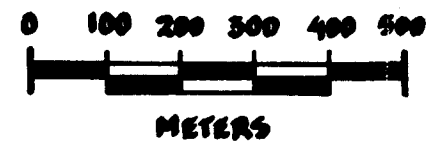
G. S. DAVIDSON, P.Geol.



4029 ——— 4059
 SOIL SAMPLE LOCATIONS
 ALONG CONTOUR LINES.

SAMPLE #	Ag (ppm)	Au (ppb)
201	0.3	20
202	0.3	330
203	<0.2	10
204	<0.2	5

G. MACDONALD & ASSOCIATES LTD.		
MR CLAIMS		
G. REYNOLDS		
ROCK AND SOIL SAMPLE LOCATIONS		
NTS: 105 D 6	TECHNICAL: G. D.	DATE: OCT. 1985
SCALE: 1:10,000	DRAFTING: J.S.	FIGURE: 308-85-4



SAMPLE

#400- 4
0
2
9

5	5	<5	<5	<5	25	25	20	<5	<5	20	5	30	<5	15	30	50	5	30	15	15	<5	5	5	10	20	20	10	10	5
17	13	33	18	27	26	25	14	13	10	13	15	20	10	10	18	14	32	36	39	18	22	23	20	17	23	24	20	27	32
23	15	17	18	17	17	18	12	10	11	12	9	11	12	7	8	10	22	19	16	10	11	11	9	8	20	15	9	16	29
300	118	302	324	120	100	94	74	63	76	75	52	60	45	40	46	49	77	70	66	46	54	52	56	45	103	76	48	100	120

5	<5	10	15	<5	10	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	15	<5	<5	10	25	5	10	<5	<5	<5	5
74	64	138	160	28	22	23	21	17	12	14	15	12	14	12	7	11	10	10	8	9	7	21	11	13	16	9	18	14	14
21	15	12	50	14	13	11	12	11	8	10	8	11	11	10	10	10	10	11	9	11	10	11	11	11	13	9	11	11	8
102	110	96	124	120	82	95	68	62	59	66	53	49	68	54	65	60	63	47	56	112	54	53	52	56	54	38	46	47	43

SAMPLE

#400- 4
0
9
0

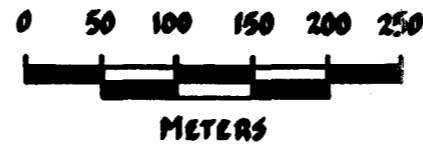
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0					0	0				0									0										0
9					8	8				8									7										6
0					5	3				0									0										0

LOCATION SHOWN ON FIGURE 308-85-4

CONTOUR SOIL SAMPLING

SAMPLE INTERVAL 50 METERS

Au (ppb)
Cu (ppm)
Pb (ppm)
Zn (ppm)



G. MacDONALD & ASSOCIATES LTD.

MR 1-16 CLAIMS

G. REYNOLDS

SOIL GEOCHEMISTRY

NTS: 105 D 6	TECHNICAL: G.D.	DATE: OCT. 1985
SCALE: 1:5000	DRAFTING: J.S.	FIGURE: 308-85-5