84-#69 - 12093
2/85

GEOCHEMICAL, GEOLOGICAL AND PROSPECTING REPORT
ON THE
TY 3, LOR 1, 2 AND 3 CLAIM GROUPS

NEW WESTMINISTER MINING DIVISION
NTS 92G/16

LATITUDE 49° 59' LONGITUDE 122° 29'
OWNER: CANADIAN ARCTIC PETROLEUMS LTD.
PERIOD OF WORK - AUGUST 6, 7, 8, 9, & 10, 1983
- OCTOBER 27, 28, 1983
- JANUARY 22, 1984

REPORT BY J. S. FALCONER, P. Eng.

JANUARY 1984

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SUMMARY AND RECOMMENDATIONS

A preliminary geological, geochemical and prospecting program was carried out on TY and LOR claim group to investigate potential areas for precious metal and base metal mineralization. The area is underlain by the Fire Lake Group of volcanic and sedimentary rocks host to the recently discovered gold-silver deposit in a pyritized rhyolite unit at Doctors Creek on the west side of Harrison some 51 kilometres to the south.

A small area covering the end of the access road and a 400 metre stretch south of LCP for TY 3 was geologically prospected by P. J. Deveaux. Most rocks exposed are strongly sheared and altered. Several iron stained areas are due to disseminated pyrite and or hematite. Further geological work is recommended to determine if the deformation is due to regional metamorphism or from a local alteration source. Several east-west geological traverses are recommended on TY 3 and LOR 2 & 3 to investigate the lateral and vertical extensions of these altered zones.

The LOR 3 claim on the west side of the Lillooet River along the road and the west side of the LOR 2 claim were geologically prospected by the writer.

On the LOR 3 claim fine grained andesite, granodiorite and alluvial deposits were noted along the road.

On the east side of Tuwasus Creek, along a recent logging road, outcrops on the LOR 2 claim were noted of glacial till, andesite and granodiorite. A fault zone was observed between granodiorite and andesite and ran in an easterly direction. As shown on the Geology map, about halfway along the southerly running road was an iron stained mineralized (pyrite) gouge zone that strikes S40E, dips vertically and is about 4 inches wide.

The geochemistry survey showed 7 anomalous gold values, the highest being 2270 ppb Au which indicate that the LOR 2, LOR 3 and TY 3 claims cover a favorable geological area for the occurrence of economic gold values.

It is recommended that a geochemical grid be properly placed and systematic soil samples be taken to identify potential anomalous zones.

Depending upon whether strong anomalous zones (Au) are found, a small drilling program should be undertaken.

There is the possibility that mineralization may occur at the contact zone near the area of the 2270 ppb Au sample and a systematic exploration of this area is warrented. As shown on the Au Geochemistry map, the anomolous samples on the LOR 2 and TY 3 claims indicate that in these areas systematic exploration is warrented.

Further work on the LOR 1 claim is not warranted at this time.

INTRODUCTION

This report is based on a field investigation on August 7, 1983, by P. J. Deveaux, consulting geologist, accompanied by Wayne McClay, operator of the exploration program. Several soil traverses were carried out during the following three days by Marco Romero and two field assistants. This programme was followed up by a field trip by the writer accompanied by Wayne McClay on October 27 and 28, 1983.

The TY 3 and LOR 1, 2 & 3 Claims were staked by Brohm Developments Ltd. during the early part of 1983 and subsequently optioned to Canadian Arctic Petroleum Ltd., the current owners.

A base map was prepared from government 1:50,000 Topographic maps enlarged to 1:10,000 scale, redrafted, and changed to metric.

LOCATION AND ACCESS

The TY 3 and LOR 1, 2 & 3 are a contiguous group of mineral claims located between the Lillooet River and Tuwasus Creek and Indian Reserve 1 and 2.

Access is gained by driving south from Pemberton either on the west or east side of the Lillooet River. The TY 3 is more readily accessible by driving south along the east side of the Lillooet and crossing the river at the north end of Harrison Lake. From the bridge, the property is reached by driving north on the west side to kilometre 23 where a disused (but driveable) logging road leads to the property and where the camp was located.

PROPERTY AND OWNERSHIP

The TY 3 and LOR 1, 2 & 3 mineral claims are located in the New Westminister Mining District and total 66 units. These claims are broken down as follows:

NAME	RECORD #	# OF UNITS	ANNIVERSARY DATE
TY 3	2052	20 units	May 4, 1984
LOR 1	1793	10 units	February 18, 1984
LOR 2	1794	20 units	February 18, 1984
LOR 3	1795	16 units	February 18, 1984

PHYSIOGRAPHY

The topography in the area of LOR 1, 2 and 3 is typical of the Coast Range being extremely rugged. Elevations range from 152 metres at the river to 1065 metres on the boundary of LOR 2 and TY 3. The claims cover part of the steep valleys of Tuwasus Creek and the Lillooet River which are difficult to traverse. Ty 3 is considerably less rugged and easier to travel. Mature forest is comprised predominantly of Cedar and Douglas Fir and the valley bottom with Alder, Maple, and Devil's Club.

AREA HISTORY

There is no record of any mineral showings on this group of claims. The Mayflower gold prospect, owned by G. Nagy is located some 1700 metres southeast of TY 3. This prospect has been known since 1897 when a small quartz vein is reported to have assayed high in gold. A short adit and winze were driven and in 1904 a stamp mill and mine buildings were erected. Little work was done until 1981 when a geological and geochemical survey was carried out but recommended no further work.

REGIONAL GEOLOGY

The area is a part of the Fire Lake group of volcanic and sedimentary rocks of Upper Jurassic-Lower Cretaceous. This roof pendant has been intruded and surrounded by granodiorite, quartz diorite, diorite and migmatite. Fire Lake units are correlative with the Gambier group which hosts the copper-zinc massive sulfide deposit at Britannia. Fire Lake rocks are on regional strike with the slightly older Harrison Lake Formation host to the Seneca copper-zinc sulfide zone.

The area was mapped by Roddick in 1965 who describes three units (1) an upper part consisting of a thick greenstone formation, chlorite schist, and minor conglomerate, quartzite and greywacke. (2) The middle part is composed chiefly of dark slate and argellite with minor greywacke. (3) The lower (oldest) member is mainly granulite with minor andesite, limestone and conglomerate.

Although acid units are not shown on the regional map sheet, felsic rocks as well as their metamorphosed equivalents are known to occur in the Fire Creek area. Considerable pyrite is reported from sheared acidic units in the Fire Creek area and similar mineralization in a rhyolite host rock at Doctors Creek contains significant values in gold and silver.

PROPERTY GEOLOGY

The southeast corner of the TY 3 claim along the old logging road was prospected by P. Deveaux, Geologist. Along this road he examined chloritic andesites and chlorite schist striking east of north, dipping steeply to the north. He also noted a bleached iron-stained chloritized outcrop immediately south of the switch back on the logging road. At the end of the logging road, hematized siliceous boulders (Quartzite) were noted. These rocks appeared similar to those observed by P. Deveaux along the road to and near the southeast corner of Fire Lake and might be extensions of the same sheared rock units.

Most of the area covered by the LOR 2 and 3 claims is underlain by the volcanic-sedimentary rocks of the Fire Lake Group. These units are in contact with the Coast Plutonic intrusives on the west side of Tuwasus Creek and along the Lillooet River. Andesite and granodiorite outcrops were observed by the writer on the LOR 2 and LOR 3 claims as shown on the Geology map.

SAMPLING INFORMATION

155 soil and rock samples were analyzed for gold using Atomic Absorption (AA). 150 soil samples and 5 rock samples were collected, analyzed and plotted (Figure 4.). These samples were taken from the "B" Horizon on several traverse lines and stored in standard Kraft envelopes. Rock samples were stored in plastic bags. All sample sites were marked with orange flagging.

Eleven samples with greater than background values in gold were re-assayed for gold using AA and, also, assayed for copper, lead, zinc, silver and arsenic using inductively coupled argon absorption (ICP). The results were not plotted, but are listed in the assay results.

RECOMMENDATIONS

A gold geochemistry program should be undertaken in the vicinity of the anomolous gold values generated to date.

An airborne geophysical survey including magnetics and VLF - electromagnetics is recommended over the LOR 2, LOR 3 and TY 3 claims.

Additional geophysics, geochemistry or core drilling would be dependent upon the results from the first exploration phase.

COST ESTIMATE

Phase I:

Assume 500 Samples, @ $20./sample	$	10,000.00
Prospecting & Sampling		5,000.00
Camp & supplies		2,500.00
Airborne Magnetics and VLF - EM		18,000.00
Engineering & Supervision		3,500.00
Total Phase I	$	38,000.00

Phase II:

Geochemical Survey (detailed)		10,000.00
Ground Geophysical Surveys		12,000.00
Trenching & Sampling		10,000.00
Associated Field Expenses		3.000.00
Engineering & Supervision		6,000.00
Total Phase II	$	41,000.00

Phase III:

Diamond Drilling, 1000 Meters, @ $100/metre,
(all inclusive) ..... $ 100,000.00

TOTAL PHASE I, II, & III ..... $ 179,000.00

Phases II & III of the exploration program would only be initiated on the favorable results of Phase I.

Respectfully submitted,

James S. Falconer, P. Eng.
Mining Engineer

January 22, 1984
Vancouver, B. C.

APPENDIX I

LOR 1 - 3 Claims and TY 3 Claim

Itemized Cost Statement

Engineer:	J. Faulkner - Field, office, report, travelling, October 27, 28, Jan. 22, 3 days @ $300. ..	$ 900.
Geologist:	P. Deveaux - Field, office, report, travelling, Aug. 6, 7, 8, 3 days @ $200.	600.
Operator:	W. McClay - Field, office, travel, Aug. 6, 7, 8, 9, 10, Oct., 27, 28, Jan. 22, 8 days @ $150. ...	1,200.
Technition:	M. Romero - Field, office, travel, Aug. 6, 7, 8, 9, 10. 5 days @ $150.	750.
Assistants:	M. Kent - Field, travel. Aug. 6, 7, 8, 9. 4 days @ $95.	380.
	G. Melini - Field, travel. Aug. 6, 7, 8, 9. 4 days @ $95.	380.
Food and Camp:	22 Mandays @ $45.	990.
4 x 4 Truck Rental:	6 days @ $50.	300.
Map Preparation:	Drafting, enlargements, copies, etc. ...	400.

Incurred Expenses:

Assays (invoice)	$ 887.	
Fuel (invoice)	192.	
Typing, Xerox (est.)	50.	
	$1,129.	1,129.
		$ 7,029.

APPENDIX II

CERTIFICATE

I, JAMES S. FALCONER, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

1. That I am a Consulting Mining Engineer residing at Suite 203, 1049 Chilco Street, Vancouver, British Columbia, V6G 2R7.
2. That I graduated from the Colorado School of Mines with a degree of Engineer of Mines in 1969.
3. That I have been practicing my profession continuously for the past fourteen years.
4. That I am registered with the Association of Professional Engineers of British Columbia.
5. That the information for this report is based upon available maps and reports and from a property examination carried out October 27 and 28, 1983.
6. That I have no direct nor indirect interest in the Fire Mountain Property, subject of this report, nor in Canadian Arctic Petroleums Ltd., nor do I intend to have any interest.
7. That this report may be used by Canadian Artic Petroleums Ltd. for inclusion in a Prospectus or Statement of Material Facts.

Dated at Vancouver, British Columbia, this 22nd day of January 1984.

James S. Falconer, P. Eng.
MINING ENGINEER

FIGURE 1.

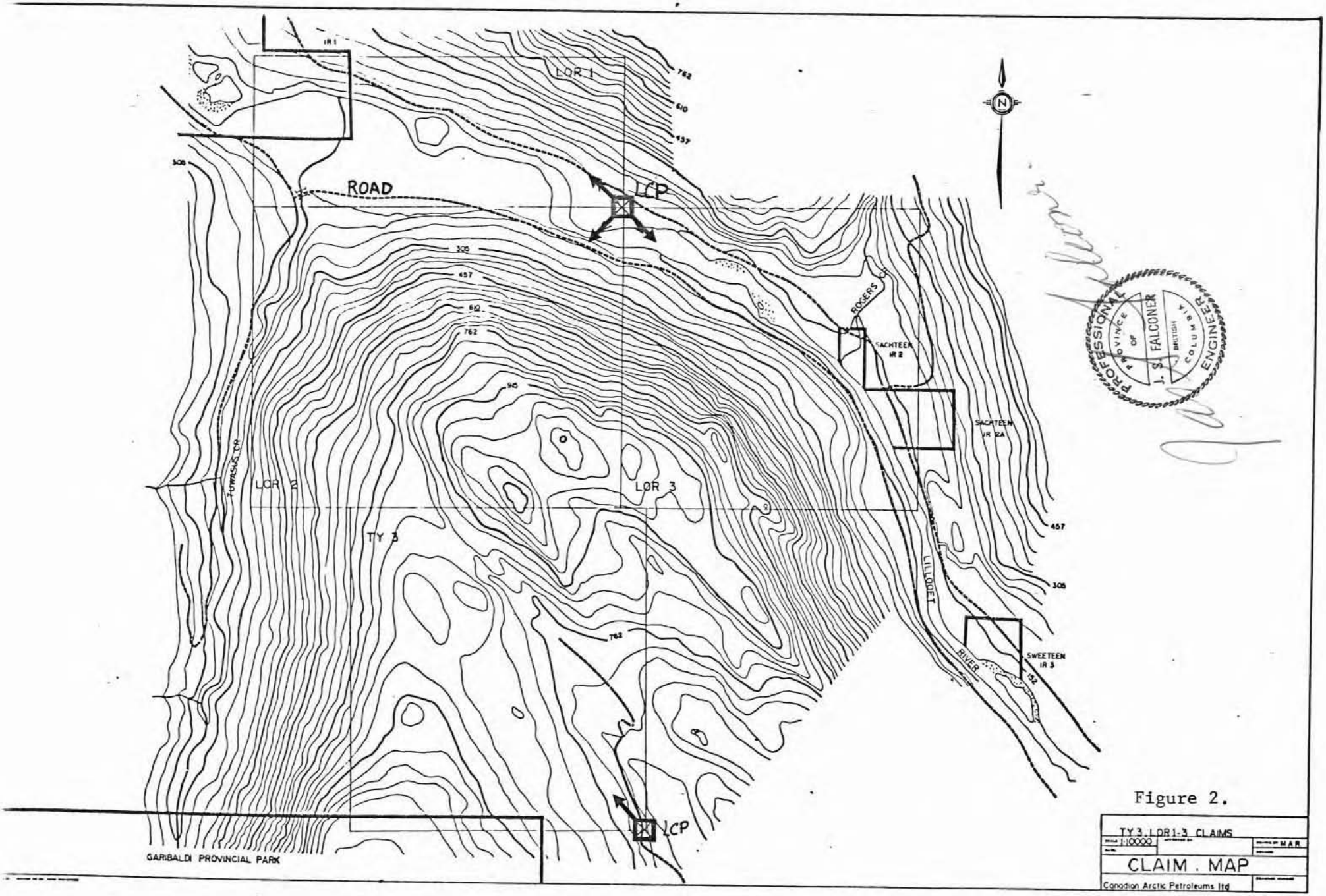
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. S. FALCONER

LOR 1, 2, 3 CLAIMS TY 3 CLAIM

PROPERTY LOCATION MAP

N.T.S. 92G 16W

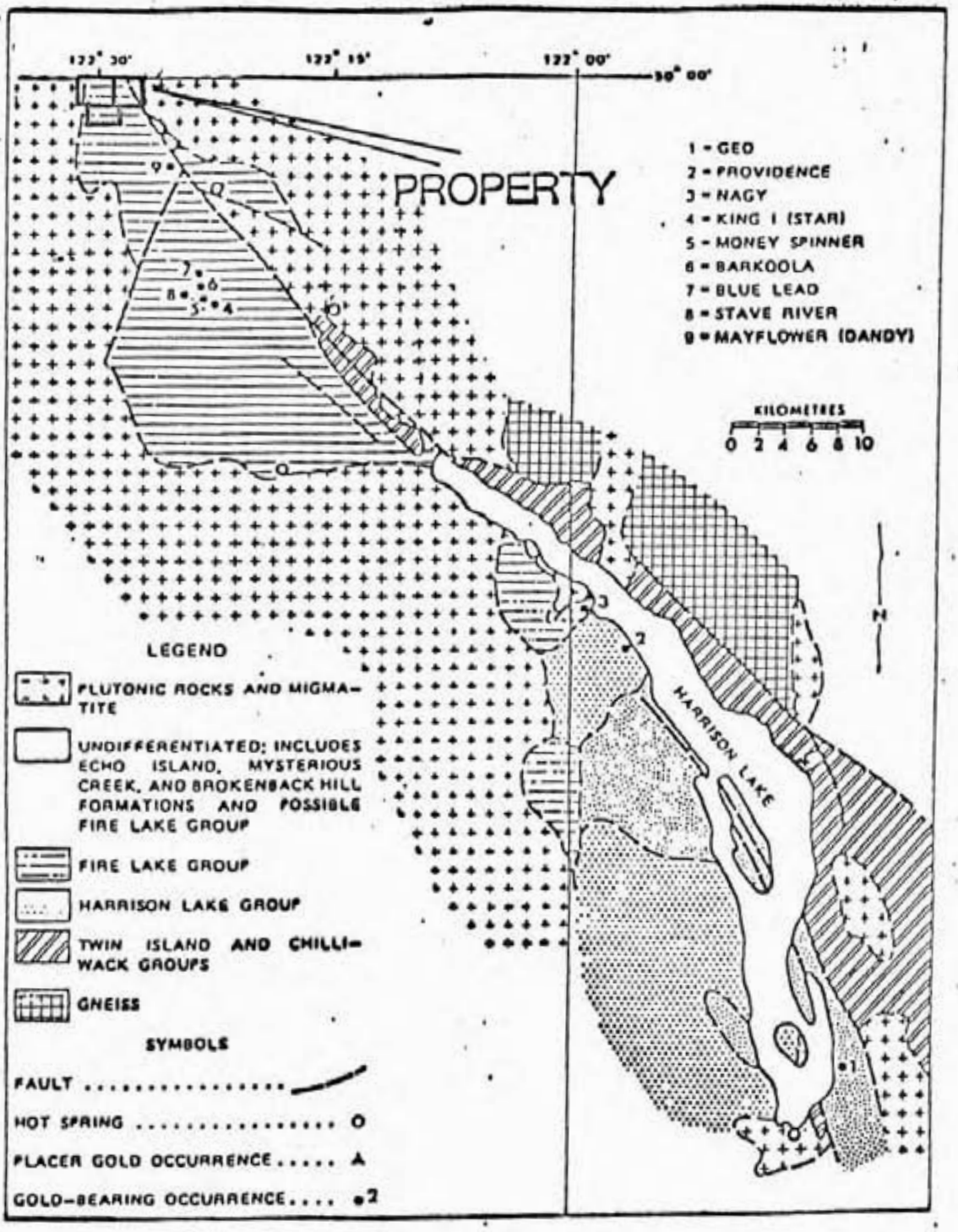
CANADIAN ARCTIC PETROLEUMS LTD.



PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. S. FALCONER

Figure 2.

TY 3, LOR 1-3 CLAIMS
1:10000
MAR
CLAIM . MAP
Canadian Arctic Petroleums ltd



Regional geology of the Harrison Lake fault system showing hot spring and gold occurrences. (Geology adapted after Roddick (1965) and Monger (1970)).

FIGURE 3

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. S. FALCONER

LOR 1, 2, 3. TY 3 CLAIMS
REGIONAL GEOLOGY MAP
CANADIAN ARCTIC PETROLEUM LTD

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED AUG 23 1983
DATE REPORTS MAILED Aug 29/83

GEOCHEMICAL ASSAY CERTIFICATE

SAMPLE TYPE : P1-4 SOIL P5 ROCK
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

ASSAYER _____ DEAN TOYE, CERTIFIED B.C. ASSAYER

BROHM DEVELOPMENTS LTD FILE # 83-1779 PAGE# 1

SAMPLE	AU* PPB
LR-0C+100	5
LR-1C+300	5
LR-3C+700	5
LR-4C+900	5
LR-5C+1100	5
LR-6C+1300	5
LR-7C+1500	5
LR-8C+1700	5
LR-0S+0	5
LR-1S+200	5
LR-2S+400	5
LR-3S+600	5
LR-4S+800	5
LR-5S+1000	5
LR-6S+1200	5
LR-7S+1400	5
LR-1E+200	5
LR-2E+400	5
LR-3E+600	5
LR-4E+800	5
LR-5E+1000	5
LR-6E+1200	5
LR-8E+1600	5
LR-9E+1800	5
LR-11E+2200	5
LR-12E+2400	5
LR-13E+2600	5
LR-14E+2800	5
LR-15E+3000	5
LR-16E+3200	5
LR-17E+3400	2270
LR-18E+3600	5
LR-19E+3800	5
LR-20E+4000	5
LR-22E+4400	5
LR-23E+4600	5
LR-24E+4800	5

SAMPLE	AU* PPB
LR-25E+5000	5
LR-26E+5200	5
MT-1 92	5
MT-2 203	5
MT-3 405	5
MT-4 596	5
MT-5 813	5
MT-6 1000	5
MT-7 1216	5
MT-8 1402	5
MT-9 1597	5
MT-10 1795	5
MT-11 2022	5
MT-12 2216	5
MT-13 2423	5
MT-14 2600	5
MT-15 2794	5
MT-16 2996	5
MT-17 3211	5
MT-18 3400	5
MT-19 3600	5
MT-20 3794	5
MT-21 4018	5
MT-22 4208	30
MT-23 4410	5
MT-24 4609	5
MT-25 4817	5
MT-26 4988	5
L2A 1W	5
L2A 2W+200	5
L2A 3W	5
L2A 4W+418	10
L2A 5W	5
L2A 6W	5
T3A 0	5
T3A 1E+102	5
T2A 2E+217	5

SAMPLE	AU* PPB
T3A 1W+100	5
T3A 2W+200	5
T3A 3W+300	5
T3A 4W+400	5
T3A 5W+500	5
T3A 6W+600	5
T3A 7W+742	5
T3A 8W+800	5
T3A 510S+5A	5
T3B 1E+103	15
T3B 3E+300	5
T3B 5E	5
T3B 6E+600	5
T3B 7E+700	5
T3B 1W+236	5
T3B 2W+406	5
T3B 3W+599	5
T3B 4W+805	5
T3B 5W+1012	5
T3B 6W+1207	5
T3B 7W+1401	5
T3B 8W+1631	5
T3C 11E+1095	5
T3C 12E+1200	5
T3C 5W+500	5
T3C 6W+597	5
T3C 7W+700	5
T3C 8W+795	5
T3C 9W+900	5
T3C 10W+1000	5
T3C 11W+1300	5
T3E 1S+200	5
T3E 2S+400	5
T3E 3S+604	5
T3E 4S+1005	5
T3E 6S+1200	5

SAMPLE	AU* PPB
T3L 1+185	5
T3L 2+409	5
T3L 3+590	5
T3R 1+LCP	5
T3R 2+200	5
T3R 3+404	5
T3R 4+SWB	5
T3R 5+211	5
T3R 6+399	5
T3R 7+604	5
T3R 8	5
T3R 9+200	5
T3R 10+400	5
T3R 11+600	5
T3R 12+800	5
T3R 14	5
T3R 15	5
T3R 40S	5
T3R AS+65S	5
TY 3S	5
L1 0N	5
L1 100N	5
L1 200W	5
L1 400W	5
L1 1600W	5
L1 1800W	5

SAMPLE	AU* PPB
MT 5A+546R	15
MT 22A+4254R	10
MT 25A+4885F	5
MT 26B+5042F	65
T3C 1E+100R	10
T3C 1W	5
T3C 2W	5
T3C 2W+291R	10
T3L 1A+205R	5
T3L 2A+491R	5
T3L 3A+527R	5
T3R 2A+230R	5
T3R 6A+499F	5
T3B 2E+700R	5
T3 0R+0	20
LR 1SA+200F	5
LR 2SA+400R	15
LR 4CA+700R	5
LR 5CA+900F	535

ACME ANALYTICAL LABORATORIES LTD.
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PH:253-3158 TELEX:04-53124

DATE RECEIVED AUG 1983

DATE REPORTS MAILED Sept 3/83

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 MLS WITH WATER.
THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.
AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.
SAMPLE TYPE - PULP

ASSAYER _____ DEAN TOYE, CERTIFIED B.C. ASSAYER

BROHM DEVELOPMENT FILE # 83-1779 PAGE# 1

SAMPLE	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au* ppb
LR-17E+3400	32	3	45	.1	7	250
MT 22 4208	25	7	35	.1	4	15
L2A 4W+418	22	2	66	.1	11	5
T3B 1E+103	5	16	91	.5	10	20
MT 5A+546R	53	3	80	.1	20	15
MT 22A+4254R	27	2	10	.1	15	15
MT 26B+5042F	9	53	26	.8	3	60
T3C 2W+291R	11	63	137	.3	80	15
T3 0R+0	19	8	44	1.5	289	10
LR 2SA+400R	213	3	19	.1	6	15
LR 5CA+900F	56	38	30	1.6	15	520
STD A-1/AU-0.5	29	38	179	.3	9	500

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,003

LEGEND

1. GLACIAL TILL, ALLUVIAL DEPOSITS
2. ANDESITE
3. GRANODIORITE
4. CHLORITE SCHIST

SYMBOLS

- FAULT, assumed
- GEOLOGICAL CONTACT
- OUTCROP BOUNDARY
- BEDDING ATTITUDE

0 500 1000
METERS

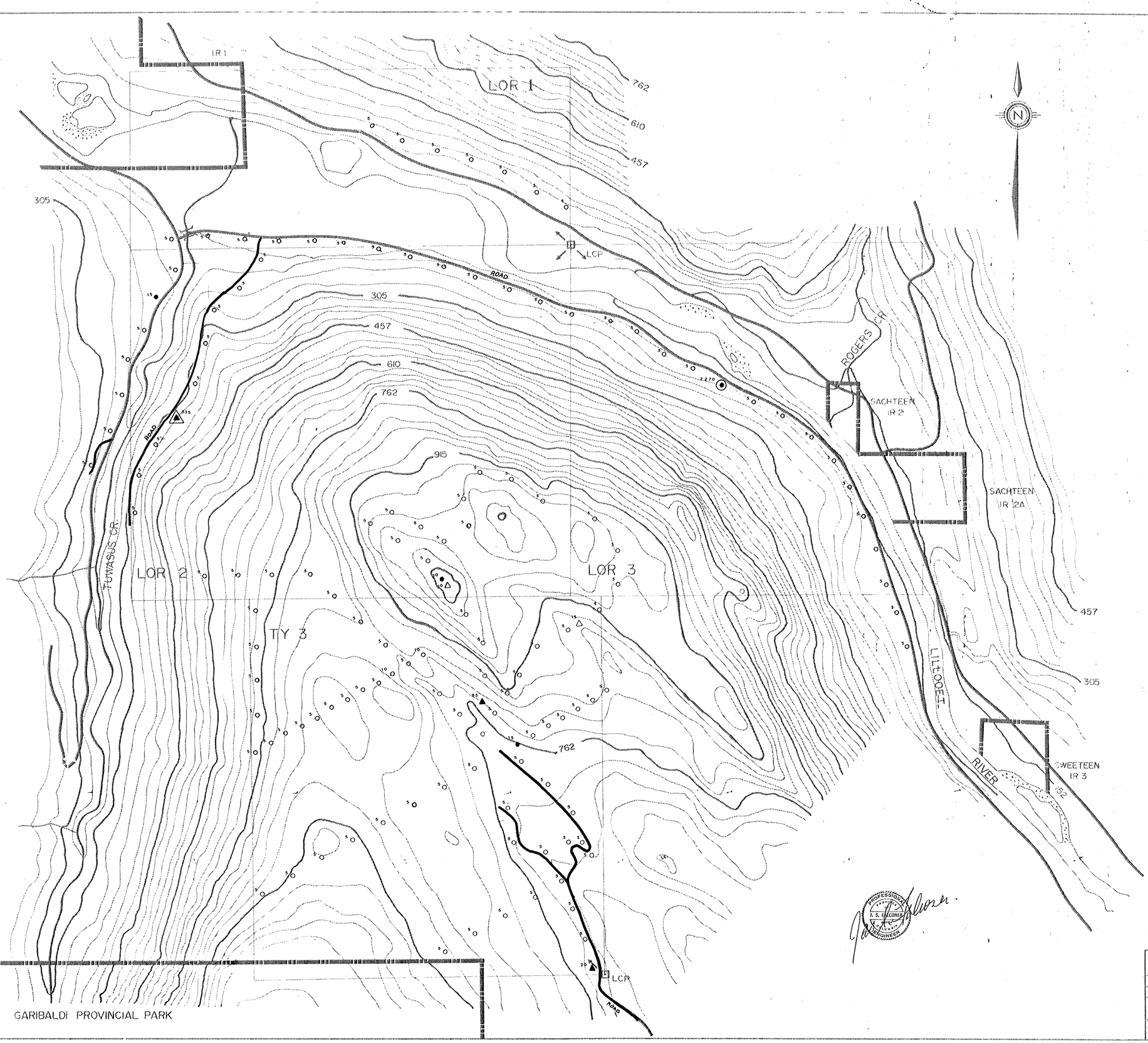
FIGURE 4.

TY 3, LOR 1-3 CLAIMS

SCALE 1:10000	APPROVED BY	DRAWN BY M.A.R.
DATE		REVISED

GEOLOGY

Canadian Arctic Petroleums ltd.



LEGEND

- o SOIL SAMPLE
- △ ROCK SAMPLE
- ^{5}△ ^{5}o PPB AU
- ^{20}▲ ^{15}● ANOMALOUS
- ^{200}▲ ^{100}◉ HIGHLY ANOMALOUS

0 1000
METERS

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,003

FIGURE 5.

PROFESSIONAL ENGINEER J. S. FALCONER

TY 3, LOR 1-3 CLAIMS

SCALE 1:10000 DRAWN BY M.A.R.

AU GEOCHEMISTRY

Canadian Arctic Petroleums ltd.