

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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A.T.SYNDICATE

03/86

GEOCHEMICAL REPORT ON THE DEACON CREEK GOLD PROPERTY

CARIBOO MINING DIVISION

BRITISH COLUMBIA

N.T.S. 93 B/16

April 1985

A.G. Troup, P.Eng.
J.C. Freeze, B.Sc.

FILMED

CLAIMS WORKED

<u>Claim Name</u>	<u>Units</u>	<u>Record No.</u>	<u>Anniversary Date</u>
DC #2	20	5889	MARCH 19
DC #3	20	5890	MARCH 19
DC #4	20	5891	MARCH 19
DC #5	20	6189	JULY 4
DC #6	16	6190	JULY 4
DC #7	4	6191	JULY 4

Location: 52° 58'N/122° 16'W

Owner: A.T. Syndicate.

Operator: A.T. Syndicate.

Consultant: A.G. Troup; Archean Engineering Ltd.

Project Geologist: J.C. Freeze; Mark Management Ltd.

A.T. SYNDICATE
GEOCHEMICAL REPORT ON THE
DEACON CREEK GOLD PROPERTY
CARIBOO MINING DIVISION
BRITISH COLUMBIA
NTS 93B/16

SUMMARY

The Deacon Creek Property is a gold prospect located 15 km (9 miles) southeast of Quesnel in Central British Columbia. The property consists of six modified grid claims containing 100 mineral units located along the Deacon Creek valley just east of the Quesnel River.

In June, 1984 a detailed stream sediment and heavy mineral pan concentrate sampling programme was carried out over the claims. Results of the survey show highly anomalous gold values to occur in both sample media at several locations on the property. A cluster of highly anomalous samples occur along Deacon Creek over the DC #2 and DC #3 claims suggesting that these claims may have potential for important lode gold mineralization. Additional work entailing prospecting, geologic mapping, soil sampling, a horizontal loop EM survey and a ground magnetometer survey is recommended.

TABLE OF CONTENTS

	Page
SUMMARY	ii
TABLE OF CONTENTS	iii
1.0 INTRODUCTION	1
1.1 Location and Access	1
1.2 Physiography	3
1.3 Claim Information	4
1.4 History	6
2.0 GEOLOGY	7
2.1 General Geology	7
3.0 GEOCHEMISTRY	8
3.1 Stream Sampling	8
3.1.1 Sampling Techniques and Analytical Procedures	8
3.1.2 Presentation and Discussion of Results	8
4.0 CONCLUSIONS AND RECOMMENDATIONS	11
5.0 REFERENCES	12
6.0 COST STATEMENT	13
7.0 STATEMENT OF PROFESSIONAL QUALIFICATIONS	14

FIGURES AND TABLES

		Page
FIGURE 1	Location Map	2
FIGURE 2	Claim Map	5
FIGURE 3	Heavy Mineral Concentrate And Silt Sampling Results	10
TABLE 1	Claim Status	4
TABLE 2	Mean, Threshold and Anomalous Gold Values in Heavy Mineral Concentrate Samples	9

NYLAND LAKE GOLD PROPERTY
CARIBOO MINING DIVISION, B.C.

1.0 INTRODUCTION

The Deacon Creek Property is a gold prospect located near the historic Cariboo gold district in central British Columbia. This property, comprised of 100 mineral units in six modified grid claims, was staked, and recorded by the A.T. Syndicate in March 1984. The ground was originally staked because of a corresponding magnetic high and anomalous heavy mineral concentrate samples.

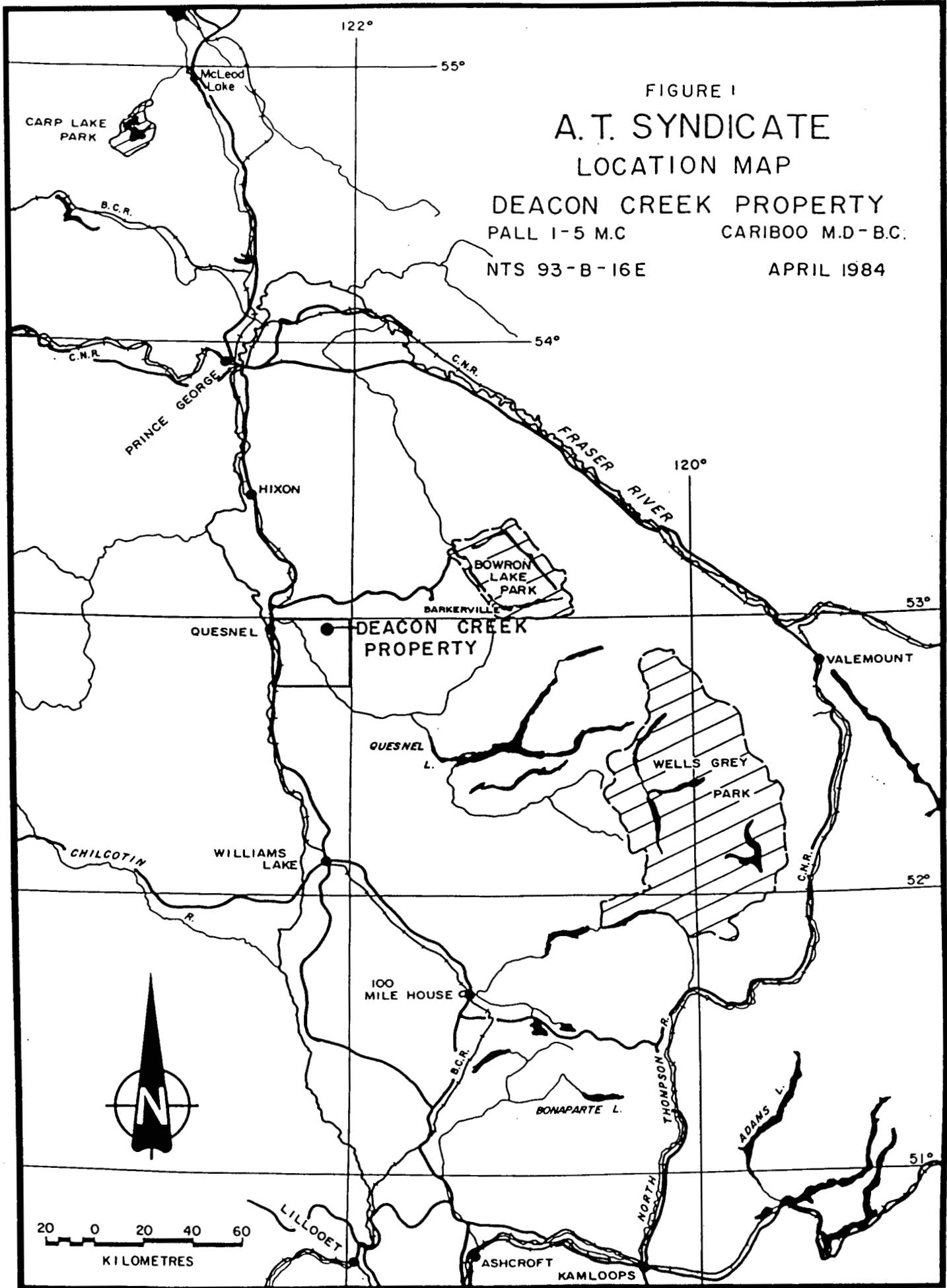
In June 1984 the A.T. Syndicate carried out a detailed stream sediment and heavy mineral pan concentrate sampling survey over the property. The programme was completed during the period June 11 to June 16, by a four person crew working from a tent camp on the property. Field work was supervised by Mark Management project Geologist J.C. Freeze under the direction of consulting geologist A.G. Troup of Archean Engineering Ltd.

1.1 LOCATION AND ACCESS

The Deacon Creek Property is located approximately 15 km east-southeast of Quesnel. The property covers an area of approximately 25 km² centred on the Deacon Creek drainage basin which drains westward into the Quesnel River. The property covers a gently rolling plateau cut by the steep sided Quesnel River canyon along the western margin. Relief is on the order of 300 metres (1000 feet) with most of the elevation change occurring along the Quesnel River. Terrestrial coordinates for the centre of the claim block are as follows:

52° 58' North Latitude
122° 16' West Longitude

Access to the property is provided by loose-surface dry-weather logging roads that pass along the east and west margin of the claims. The principal access is along a road that follows the east side of the Quesnel River. This road connects with the Quesnel-Barkerville Highway approximately 2 km east of the town of Quesnel.



1.2 PHYSIOGRAPHY

The Deacon Creek Property is located approximately 15 km east south-east of the town of Quesnel, the principal supply centre in the area. It lies in the central part of the province within the Intermontane Plateau region bounded by the Coast Range on the west and Cariboo and other mountain ranges on the east. The Cariboo is a deeply dissected region with low rounded hills and an irregular pattern of streams, creeks and gulches. The weathering and erosion that gave rise to the dissection of the country apparently originated in early Tertiary time and extended throughout that period. In Pleistocene time a stagnant ice sheet lay over the land, removing much of the weathered mantle at higher elevations but having little effect on the placer deposits in most of the valleys. The bedrock is mostly limestone of the lower Paleozoic Cariboo Group and probably accounts for the gentle rolling topography in the region.

The property is situated in a broad, flat, upland area east of the Quesnel River. The claims are at a mean elevation of 800 metres (2700 feet) with maximum relief on the order of 300 metres (1000 feet). The eastern part of the property is a flat plateau like area with a gentle gradient to the west. The area is drained to the west by several small tributaries which merge to form Deacon Creek. Near its mouth this creek cuts down through the plateau forming a narrow steep sided canyon with walls nearly 150 metres (500 feet) high.

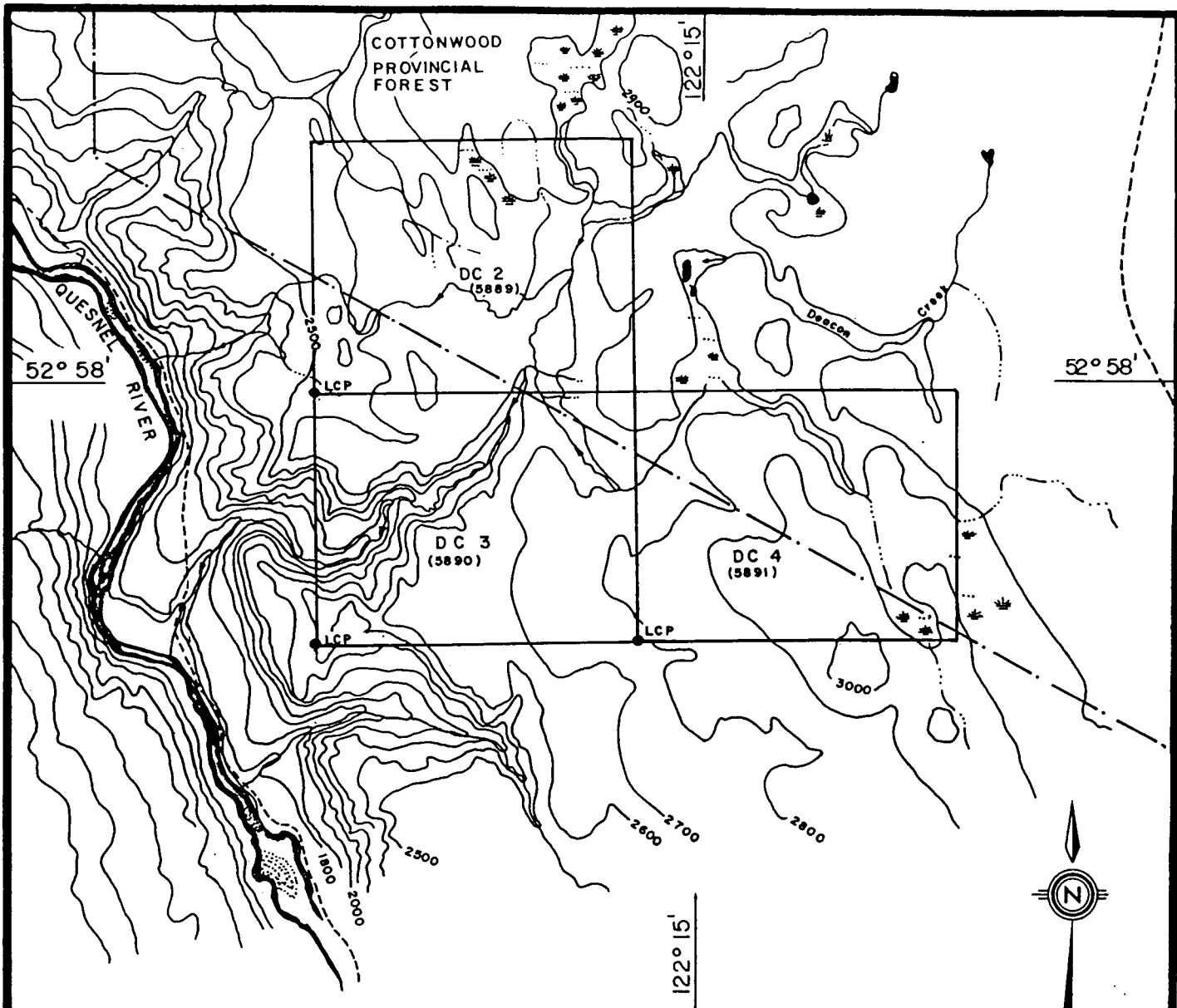
Vegetation on the property consists of open mature forest comprised predominantly of pine and spruce with alder, willow, and poplar along streams and in wet swampy areas.

1.3 CLAIM INFORMATION

The property is located within the Cariboo Mining Divisions and consists of six modified grid claims comprised of 100 units (Figure 2), covering an area of approximately 25 km². Claim information is listed in TABLE I below:

TABLE I
CLAIM STATUS

Claim Name	Units	Record No.	Anniversary Date
DC #2	20	5889	MARCH 19
DC #3	20	5890	MARCH 19
DC #4	20	5891	MARCH 19
DC #5	20	6189	JULY 4
DC #6	16	6190	JULY 4
DC #7	4	6191	JULY 4



A. T. SYNDICATE

DEACON CREEK AREA

DC 3-4 M.C.
NTS 93-B-16

CARIBOO M.D.-B.C.

CLAIM MAP

DATE: APR. 84

BY: ARCHEAN ENGINEERING LTD.

FIGURE 2

1.4 HISTORY

In 1859 placer gold was discovered along the Quesnel River approximately 50 km southeast of the Nyland Lake Property. That discovery sparked the Cariboo gold rush which began in 1860 and lasted for five years. Placer discoveries made during that rush resulted in an estimated 3 million ounces of placer gold being mined in the Cariboo (Boyle, 1979). In addition, from 1933 to 1953 over 840,000 ounces of lode gold was produced from the famous Cariboo Gold Quartz Mine at Wells and the Island Mountain Mine, near Barkerville, B.C. There is no record of gold production from the present property, however, Holland, 1980, reports that 15,342 ounces of gold were recovered along the Quesnel River from Quesnel Forks to a point immediately downstream from the Deacon Creek confluence. In addition the property is located only 20 km west-southwest of the famous placer deposits at Lightning Creek

In 1980, following a geophysical interpretation of Aeromagnetic Series-Map 1539-G (1963), a regional geochemical survey was carried out over this map sheet by the A.T. Syndicate. Results of that survey led to the discovery and staking of the Nyland Lake Property in March 1984.

In 1980 lode gold was discovered by Dome Mines Ltd. on the QR property located 20 km to the southeast. Drilling to date has indicated reserves of 950,000 tons averaging 0.21 oz/ton gold (Dome Annual Report 1981). This is reported to be a near-surface, medium-sized, and low-grade porphyry-type deposit emplaced in a propylitic alteration zone developed in Takla Group volcanics marginal to a diorite stock.

2.0 GEOLOGY

2.1 GENERAL GEOLOGY

No geologic mapping has yet been done on the Nyland Lake property. Geologic mapping of Sheet 93/B was undertaken in 1957-59 by H.W. Tipper of the Geological Survey of Canada and compiled as Preliminary Series Map 12-1959. The geologic work by Tipper failed to include the Nyland Lake Property but suggested the area was covered by extensive overburden. The area to the east was mapped by R.B. Campbell of the Geological Survey of Canada and compiled as Map 3-1961. This work suggests that the Nyland Lake property may be underlain by upper Triassic to Lower Jurassic age Takla Group volcanics.

3.0 GEOCHEMISTRY

3.1 STREAM SAMPLING

3.1.1 Sampling Techniques and Analytical Procedures

In order to better define areas of interest on the claims, stream sediment and panned heavy mineral concentrate samples were collected at 500 metre intervals along all streams draining the property. A total of 23 stream sediment and 17 heavy mineral samples were taken.

At each sample site approximately 300 g of active stream sediment and 500 g of panned concentrate was collected. All samples were placed in numbered kraft envelopes and sent to Chemex Laboratories Ltd in North Vancouver for analysis.

In the laboratory the samples were oven dried at approximately 60°C. The silt samples were sieved to minus 80 mesh and the fine fraction analysed for the elements Cu, Zn and As. The heavy mineral samples were sieved to minus 10 mesh and further concentrated by heavy liquid and magnetic mineral separation. The resulting samples were pulverized to minus 100 mesh and analysed for gold by atomic absorption methods.

3.1.2 Presentation and Discussion of Results

Results of the survey are shown on Figure 3 at a scale of 1:50,000. The limited number of samples taken over this property prevented the use of statistical methods to assess the results. In order to interpret the data the gold values were compared with similar heavy mineral results obtained from 134 streams in the Cariboo gold district. Statistical results for this much larger population are given in TABLE II below:

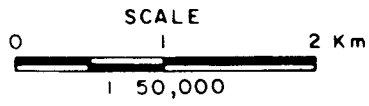
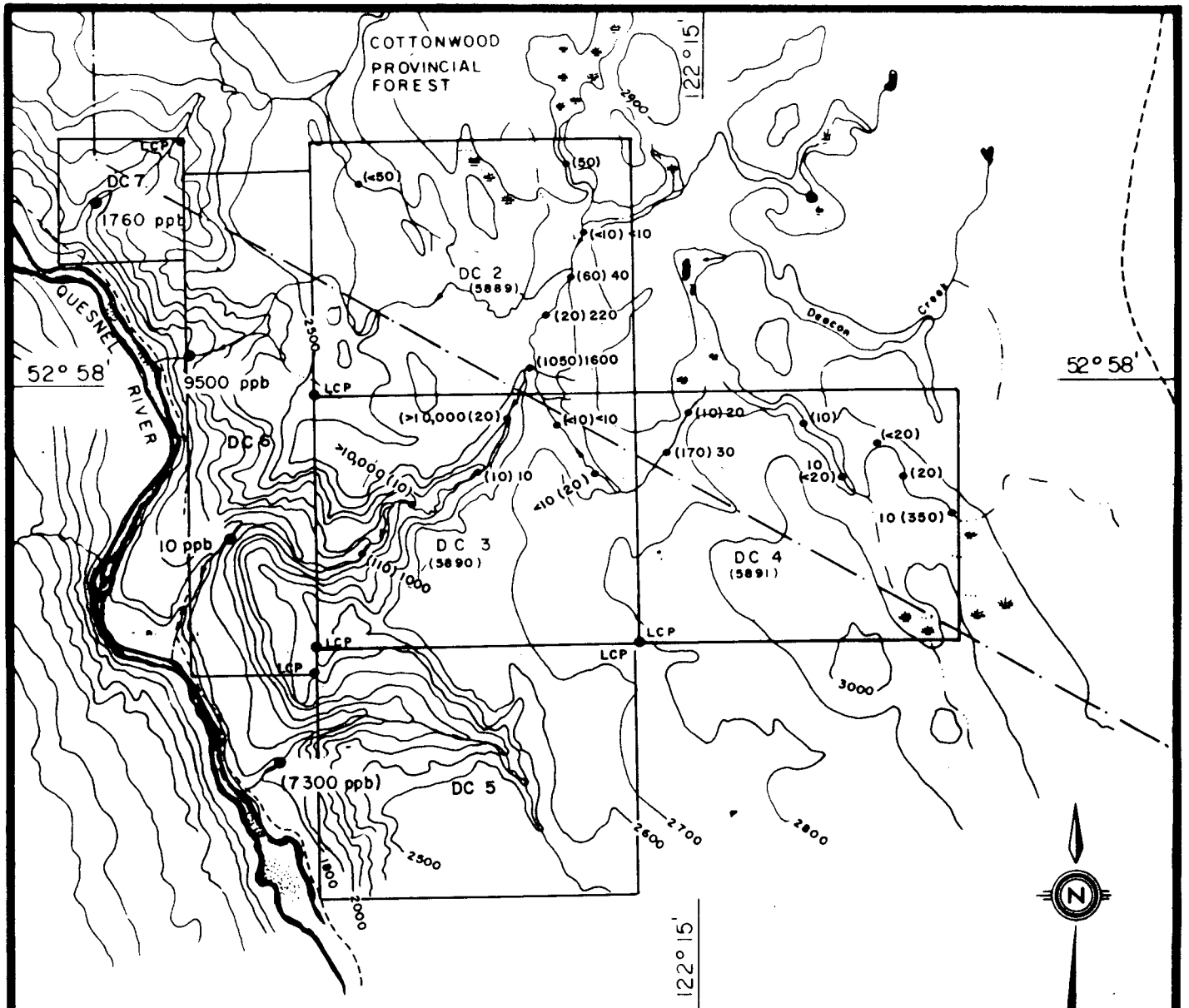
TABLE II

MEAN, THRESHOLD AND ANOMALOUS GOLD VALUES
 IN HEAVY MINERAL CONCENTRATE SAMPLES
 FROM 134 STREAMS IN THE CARIBOO

Metal	N	Mean (x)	Threshold (x+2s)	Anomalous (x+3s)
Au	134	11.3 ppb	770 ppb	6400 ppb

Inspection of the heavy mineral results (Figure 3) shows a number of highly anomalous gold values along all streams draining the west side of the property. A cluster of anomalous gold values occur along Deacon Creek over the DC #3 claim and the south edge of the DC #2 claim.

The stream sediment results likewise show a number of highly anomalous gold values scattered across the property. The highest gold concentrations in this medium occurs on the DC #2 claim near the head of the heavy mineral anomaly along Deacon Creek.



A. T. SYNDICATE

DEACON CREEK AREA

DC 3-4 M.C. CARIBOO M.D.-B.C.
 NTS 93-B-16

HEAVY MINERAL CONCENTRATE
 & SILT SAMPLING RESULTS
 DATE APR 84

BY ARCHEAN ENGINEERING LTD. FIGURE 3

• (1760) 1760 HMC Au Result in p.p.b.
 • (110) 1000 SILT Au Result in p.p.b.

UPDATED JAN., 1985


RG / tn

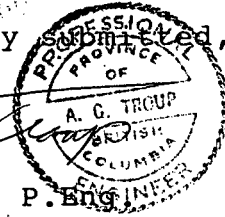
4.0 CONCLUSIONS AND RECOMMENDATIONS


The results of the present survey have confirmed the high gold values obtained previously by the A.T. Syndicate and suggest that this property may have potential for important lode gold mineralization. Additional work is required to assess this possibility.

It is recommended that the claims be explored by prospecting and detailed geologic mapping, followed by soil sampling, horizontal loop EM and ground magnetrometer surveys over selected areas.

Respectfully submitted,


A.G. TROUP, P. ENG.




J.C. Freeze, B.Sc.

5.0 REFERENCES

- Boyle, R.W., 1979: The Geochemistry of Gold and its Deposits: Geological Survey of Canada, Bulletin 280, p.281, 357-359.
- Campbell, R. B., 1959-60: Geology, Quesnel Lake (West Half), British Columbia: Geological Survey of Canada, Map 3-1961.
- Dome Mines Ltd., Annual Report:for 1980, 1981, and 1982.
- Holland, S. S., 1980: Placer Gold Production of British Columbia, Bulletin 28: Ministry of Energy, Mines and Petroleum Resources, pp. 89.
- Richardson, P. W., 1978: Diamond Drilling on the QR Claim Group: B.C., Assessment Report No.6708.
- Stockwell, C.H., 1957: Geology and Economic Minerals of Canada, Economic Geology Series No. 1: Geol. Survey of Canada Dept. of Mines and Technical Surveys, pp. 517.
- Tipper, H.W., 1959: Geology, Quesnel (Sheet 93 B) Geological Survey of Canada Preliminary Series Map 12-1959.

COST STATEMENT
DC CLAIMS
15 May - 29 June 1985

Salaries & Wages		
9 Persons, 15May-29Jun, 24 mandays @ \$81.29		\$1,950.96
Benefits @ 20%		390.19
Supplies		733.71
Food & Accommodation		
25 mandays @ \$23.84		596.00
Fuel		119.49
Repairs		132.44
Rentals		
Airways 4wd Bronco		
28,29May,11Jun 3 days @ \$35	\$ 105.00	
Mark 4wd Bronco		
15,16May,11-16Jun, 8 days @ \$43	344.00	
Ezekiel Camp Equipment, 6 days @ \$6	36.00	
U-Haul Trailers	347.47	
Ezekiel SBX-11A, 6 days @ \$11	<u>66.00</u>	898.47
Geochemical Analyses		
Chemex Labs		
37 Silt & Hms for Au @ \$19	\$ 703.00	
37 Silt & HMS for 24-Element ICP @ \$13.22	<u>489.14</u>	1,192.14
Shipping & Postage		54.90
Consultant Fees		
Archean Engineering		525.00
Field Telephone Service		78.00
Report Preparation		<u>1,525.00</u>
Total		<u>\$8,196.30</u> =====

STATEMENT OF QUALIFICATIONS

J.C. FREEZE (nee RIDLEY), B.Sc.

Academic

1978	B.A. Geography	University of Western Ontario
1981	B.Sc. Geology	University of British Columbia

Practical

1981 - Present	Mark Management Ltd. Vancouver, B.C.	Project Geologist. Involved with geological, geochemical and geophysical aspects of precious metals exploration in B.C.
1980 - 1981	Utah Mines Vancouver, B.C.	Temporary Summer and part-time Winter Geologist in Charge of mapping and diamond drilling of a coal property in N.E. B.C. logging of rotary drilling chip samples on another coal property in N.E. B.C.
1979	Utah Mines Vancouver, B.C.	Temporary Summer. Reconnaissance and detailed mapping, logging of diamond drill core on coal properties in N.E. B.C.

STATEMENT OF QUALIFICATIONS

A. TROUP, P.ENG.

ACADEMIC

1967	B.Sc. Geology	McMaster University, Ontario
1969	M.Sc. Geochemistry	McMaster University, Ontario

PRACTICAL

1981 -	3605 Creery Avenue West Vancouver, B.C.	Consulting Geologist with Archean Engineering Ltd.
1977 - 1980	Geological Survey of Malaysia	Project Manager on a CIDA supported mineral explora- tion survey over peninsular Malaysia.
1969 - 1977	Rio Tinto Canadian Exploration Ltd. Vancouver, B.C.	Geologist involved in all aspects of mineral explora- tion in B.C., the Yukon and N.W.T.
1968	McMaster University Dept. of Geology Hamilton, Ontario	M.Sc. thesis work. Reconnaissance mapping and geochemical study, Lake Shubenicadia area, Nova Scotia.
1967 (summer)	Canex Aerial Exploration Ltd. Toronto, Ontario	Geologist in charge of detailed mapping and reconnaissance geochemical program in Gaspé, Quebec
1966 (summer)	McMaster University Dept. of Geology Hamilton, Ontario	Detailed and reconnaissance mapping in Northern Ontario.
1965 (summer)	International Nickel Co. of Canada Thompson, Manitoba	Detailed mapping in the Thompson area, Manitoba.
1964 (summer)	Geological Survey of Canada Ottawa, Ontario	Regional geochemical survey in the Keno Hill area, Yukon.