

3248

GEOLOGICAL, GEOPHYSICAL AND GEOCHEMICAL  
RECONNAISSANCE OF THE AUDREY CLAIM GROUP

50°44'N, 121°5'W

92<sup>I</sup>/11 EAST

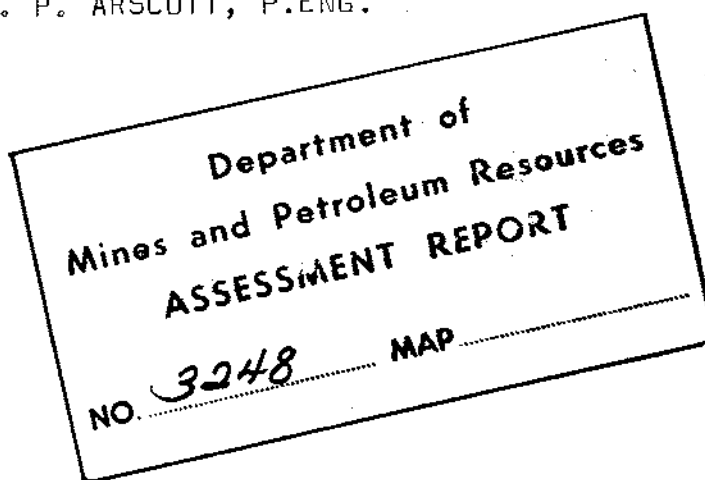
KAMLOOPS MINING DIVISION

ASHCROFT, B. C.

BY

J. W. CANT, B.Sc.

D. P. ARSCOTT, P.ENG.



May 27 to June 5, 1971

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INTRODUCTION:

The Audrey Claim Group was staked by Mr. Ab Ablett and subsequently acquired by Thor Explorations Limited in May 1970. It is located adjacent to a reported vein of copper-magnetite mineralization and is partly underlain by intrusives of the Guichon Batholith, well known as a favourable environment for copper mineralization.

LOCATION AND ACCESS:

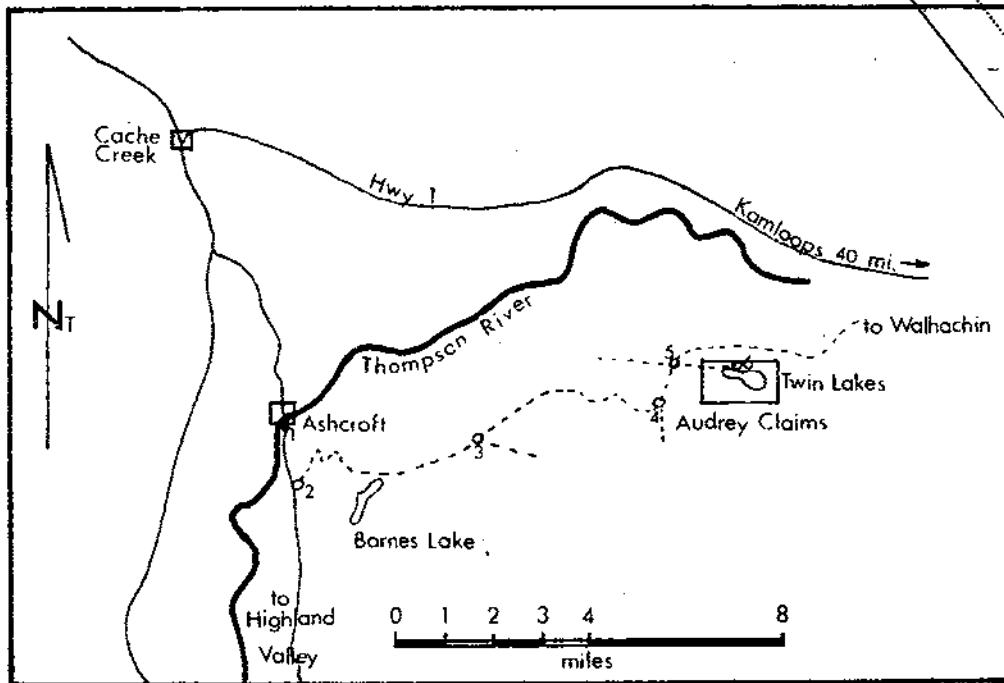
The Audrey property comprises ~~of~~ a group of 24 claims on and around Twin Lakes [Pennie Lake]  $9\frac{1}{2}$  miles east of the town of Ashcroft. The best access is via the Highland Valley highway from Ashcroft [See figure 1] which is negotiable by good clearance two wheel drive vehicles except during wet weather. Alternative access is via Wallachin on the Trans-Canada highway.

PREVIOUS WORK:

The region has been mapped by the Geological Survey of Canada at a scale of 1" = 4 miles [S. Duffell and K.C. McTaggart 1945 - 46, McTaggart 1947: Ashcroft Map Sheet]. Apart from this no work has been done on the claims.

# Location and Access Map Audrey Claims

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3248 MAP



	MILEAGE	
(1)	0	ASHCROFT MOTEL
(2)	5.8	TURN LEFT ONTO GRAVEL ROAD TO BARNES LAKE
(3)	10.6	KEEP STRAIGHT, ROAD TO YD RANCH TO RIGHT
(4)	14.2	TURN LEFT
(5)	15.8	TURN RIGHT AT INTERSECTION OF TWO ROADS
(6)	17.4	AUDREY WITNESS POST #17 & #18

Fig. 1

GEOGRAPHY:

The claims are situated in the Interior Plateau, to the south of the Thompson River. They cover a shallow south-easterly trending valley with a topographic relief of approximately 600 feet. The vegetation reflects the semi-arid climate of the area, consisting mainly of open jackpine, and sparse sage. The terrain is extremely easy to traverse.

GEOLOGY:

The Tertiary Kamloops group of basic to intermediate volcanics underlies much of the claims area, and is in turn underlain by the Lower Jurassic Guichon Batholith of granitic to dioritic composition. Detailed descriptions of the rock types are included in the appendix. The only alteration mineral of significance is epidote, commonly occurring in the intrusive either as fine disseminations, or as small stringers.

The most common orientation of fracturing in the intrusive averages SSE in strike, with a steep NE to vertical dip. Some epidote and some rust occurs on these fractures. The rust is light brown in colour and there is no evidence to suggest that it could have represented useful sulphides.

GEOLOGY: [Cont'd]

A similar fracture orientation in the volcanics suggests a common origin of fracturing, post dating the deposition of the volcanics.

Two small faults located in the agglomerate have slickensides indicating an essentially strike-slip movement. These faults have a SE strike and steep SW to vertical dip.

A single occurrence of mineralization was found in the intrusive, accompanied by strong fracturing and epidote veining. It consists of an angular dark steel blue grain containing flecks of malachite and yellowish white crystals which are probably pyrite.

GEOPHYSICS:

The possibility of copper-associated magnetite on the property suggested the use of a magnetometer survey to delineate magnetite veins, and this was carried out, with emphasis on the area of exposed Guichon Intrusive.

Towards the western end [See Map 2] there is a sequence of broad, persistent magnetic linears running slightly south of east. This is most likely due to the variation in magnetite content between various volcanic flows and would therefore be parallel to bedding. The lines 32 + OCW and 16 + OOW are quite featureless. The

GEOPHYSICS: [Cont'd]

The 0 + 00 line has the highest magnetic relief of all, as would be expected considering the topographic relief and the high magnetite content of the intrusive. More interesting is the sharp, well defined "Sawtooth" anomaly superimposed on an otherwise well rounded profile. Coverage around the anomaly was increased [See Map 2] and the anomaly trend was found to be  $107^{\circ}$  with intensity increasing to the east.

The magnetic survey was extended into the unaltered volcanics to see if there was a sharp variation in magnetic intensity across the contact. As line 0 + 00 [See Map 2] shows, there is a gradual drop in magnetic intensity towards the volcanics. Some idea of the relative susceptibilities of the two rock units is available from a comparison of the background of a relatively quiet line in the intrusive [line 16 + 00W: background approx. 3400 ] with a quiet line in the volcanics [line 48 + 00 W: approx. 2700 ]. The gradual drop off probably means that the volcanic cover is wedging out over the intrusive.

GEOCHEMISTRY:

Background value for copper was considered, by inspection of 55 soil analyses, to be approximately 40 ppm. A line across the only occurrence of mineralization [See

GEOCHEMISTRY: [Cont'd]

Fig. 2] produced a 3 times background anomaly at the showing but with no significant width.

The magnetic anomaly was similarly covered by short lines. The results show an increase in copper values 400 feet to the north of the magnetic anomaly [2-1/2 times background], and "open" to the north.

Of special importance is the geochemical high immediately over the mineralization, proving that the geochemical method is working in this area. However, it also indicates that the mineralization probably has very little extent.

CONCLUSIONS:

Reconnaissance coverage of the claim group by mapping, magnetometer surveying, and by limited soil sampling, has failed to reveal any indications of mineralization of economic significance.

The "sawtooth" magnetic anomaly may represent shearing with associated magnetite but its extent would be small. Similarly the magnetic variations across the property are of insufficient amplitude to indicate any magnetite veins of any significant size.



CONCLUSIONS: [Cont'd]

The single occurrence of copper is associated with a geochemical copper high of small extent.

Secondary features, such as the intense fracturing necessary for low grade copper deposits and the heavy alteration accompanying most high grade copper, are not present.

All in all, the chances of discovering an economic deposit on this property are low, and the chances of a magnetite-copper vein occurring, as on the neighbouring property, are almost nil. The possibility of further work is limited by the low odds for successful discovery and the masking effect of the unfavourable overlying volcanics.

The only justifiable future work might be a soil sampling coverage of the southeast corner of the claims, where overburden between outcrops of intrusive could be covering small amounts of copper mineralization.

Cordially submitted,

*D. Arscott*

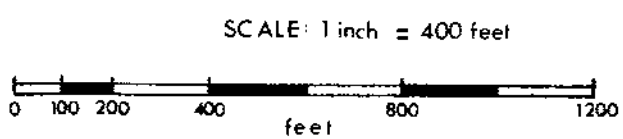
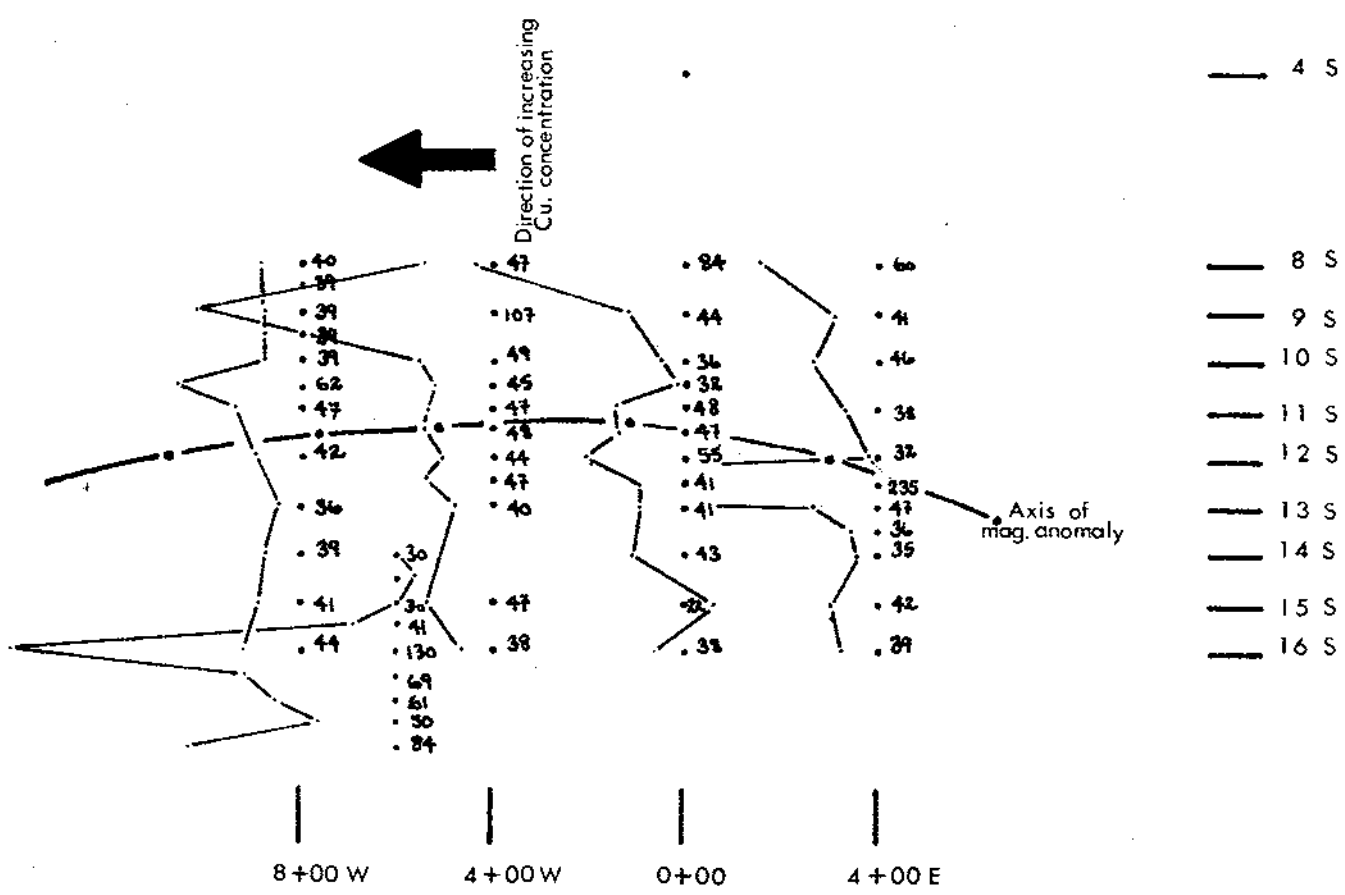
D. Arscott

*J. W. Cant*

J. Cant

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3248 MAP # 2

BASE LINE



CU. CONC. SCALE:  
1 inch = 50 PPM

**THOR EXPLORATION LTD.**  
AUDREY CLAIMS  
GEOCHEMICAL SAMPLING OVER  
MAGNETIC ANOMALY  
**-copper-**

Date: June, 1971      Sampled by J.W. Cant  
Ashcroft, B.C.

Fig. 2

CERTIFICATE

I, David Philip Arscott, of #301.- 540 Burrard Street, Vancouver, B. C., am a Professional Engineer registered in British Columbia.

The reconnaissance survey of the Audrey Claims herein described was carried out under my direction.

The applicable costs as shown in the Appendix are true and accurate.

*David Arscott*

David Arscott  
15th July, 1971

APPENDIX

ROCK SPECIMEN DESCRIPTIONS

<u>NUMBER</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>
AU #1	0+00, 24+30S from face of possible fault scarp	Intrusive. Fine grained light green matrix containing clumps of cream feldspars and mafics. Sheared, epidotized.
AU #2	0+00, 25+50S from side of scarp	Intrusive. Medium grained. About 60% light grey to light green feldspars. Mafics predominantly biotite.
AU #3	25+00W, 0+00	Volcanic. Fine grained, coarsely foliated, dark grey. Some small vesicles. Rusty tarnish on parting surfaces, and rusty weathering. Minor epidote.
AU #4	6+00W, 16+00S from vein in typical intrusive	Massive epidote, containing patch of crystalline, black, non-magnetic mineralization around which has formed a rusty rim. Small flecks of malachite on surface.
AU #5	48+00W, 3+00S	Volcanic. Massive, brick red, fine grained, containing some quartz phenocrysts. Probably of intermediate composition.
AU #6	50+00W, 38"00S	Volcanic, weakly foliated, dark grey, fine grained.
AU #7	0+00, 3+00S	Intrusive. Typical, medium grained, about 60% light blue to grey feldspar. Sometimes major pink and/or white feldspar. Mafics are mainly biotite, hornblende, and magnetite.
AU #8	0+00, 9+00N	Volcanic agglomerate, brick red. Fine grained matrix containing sub-angular volcanic rocks 5 cm in size.

PROCEDURES:

A base line and cross lines were established by chain and compass, and were marked clearly with flagging tape. The base line was aligned approximately parallel to the magnetite vein reported on the neighbouring property. Emphasis was placed on the section of the property known to be underlain by the Guichon Batholith. One traverse was made across the ungridded northern part of the claim block to verify the presence of the Kamloops volcanics in that area.

Magnetic readings were taken with a Sharpe MF-1 magnetometer, and diurnal variations corrected with reference to the base line.

Soil samples were collected by prospecting pick, transferred to paper bags, and shipped to Bondar Clegg and Company. They were oven dried, and the minus 80 mesh fraction analysed for copper by the atomic absorption method.















**GEOCHEMICAL LAB REPORT**

No. 21-201

Extraction Hot Aqua Regia

From Mr. D. Arscott

Method Atomic Absorption

Date June 10, 1971 19

Fraction Used - 80 mesh

Analyst K.B.

SAMPLE NO.	Cu ppm	SAMPLE NO.	Cu ppm	REMARKS
0+00 8-S	84	4+00W 13+00S	40	
9	44	15+00S	47	
10	36	4+00W 16+00S	38	
11	48	6+00W 14+00S	30	
12	55	14+50S	25	
13	41	15+00S	30	
14	43	6+00W 15+50S	41	
15	22	16S	130	
0+00 16S	38	16+50S	69	
0+00 10+50S	32	6W 17S	61	
11+50S	47	6+00W 17+50S	50	
12+50S	41	6+00W 18+00S	84	
4+00E 8S	60	8+00W 8+00S	40	
9	41	8+50S	39	
10	46	9+00S	39	
11	38	9+50S	39	
4+00E 12S	32	10+00S	39	
12+50S	235	10+50S	62	
13+00S	47	11+00S	47	
13+50S	36	12+00S	42	
14+00S	35	13+00S	36	
15+00S	42	14+00S	39	
4+00E 16+00S	39	15+00S	41	
4+00W 8+00S	47	8+00W 16+00S	44	
9+00S	107			
10+00S	49			
1-+50S	45			
11+00S	47			
11+50S	48			
12+00S	44			
12+50S	47			

COSTS SUMMARY  
AUDREY CLAIMS  
TO JULY 30, 1971

LABOUR COSTS BREAKDOWN:

Field Work	\$	805.00	
Travelling		102.50	
Expediting		116.25	
Report Preparation		179.37	
Drafting		<u>393.13</u>	
		<u>\$1,596.25</u>	<u>\$1,596.25</u>

EXPENSES BREAKDOWN:

Food & Lodging	\$	248.56	
Truck Rental & Gas		244.15	
Airfares, Taxis		101.05	
Reproduction		12.70	
Equipment Rentals		200.50	
Soil Analyses		<u>66.00</u>	
	\$	<u>872.96</u>	<u>872.96</u>

TOTAL PROJECT COST

\$2,469.21

Invoice No. 14  
May 31, 1971

Thor Explorations Ltd.  
301 - 540 Burrard Street  
Vancouver 1, B. C.

Re: Field Programs

AUDREY CLAIMS

Fees: D. Arscott, 2 1/4 days @ 55.00	\$ 123.75	
J. Cant 7 days @ 45.00	315.00	
P. Fulljames 7 days @ 30.00	210.00	
Expenses	<u>694.20</u>	
	\$1342.95	\$1342.95

PYRITE CLAIMS

Fees: 1 3/4 days @ 55.00	96.75	<u>96.75</u>
TOTAL COSTS FOR PERIOD (See attached statement)		<u>\$1439.70</u>

David Arscott

*David Arscott*

Invoice No. 16  
June 15, 1971

Thor Explorations Ltd.  
540 Burrard Street  
Vancouver 1, B. C.

Re: COSTS FOR PERIOD JUNE 1 - 15, 1971

I. PYRITE CLAIMS:

Fees: D. A. - 2 days @ \$55.00	\$110.00	
Expenses	28.04	
Truck usage (from Vancouver) 1/2 x 660 mi. x .10	33.00	
Assays	<u>32.00</u>	
	\$203.04	\$203.04

II POGO CLAIMS:

Fees: D.A. - 1 1/2 days @ \$55.00	\$82.50	
J. C. 8 days @ 45.00	360.00	
P.F. 7 1/2 days @ 30.00	225.00	
Expenses- J.C.	264.29	
Truck usage ( to Vancouver ) = 1/2 x 660 mi. x .10	33.00	
Expenses- D.A.	40.91	
Field Supplies	<u>39.06</u>	
	\$1,044.76	\$1,044.76

III. AUDREY CLAIMS:

Expenses - J.C.	\$158.04	
Expenses - D.A.	6.00	
Fees: J.C. 5 days @ 45.00	225.00	
P.F. 5 days @ 30.00	150.00	
Soil analyses	<u>66.00</u>	
	\$605.04	\$605.04

TOTAL FOR PERIOD

\$1852.84

*D. Arscott*  
Pd. from acct.

Invoice # 21  
June 30, 1971

Thor Explorations Ltd.,  
301 - 540 Burrard St.,  
Vancouver 1, B.C.

Re: Costs for period 16 - 30 June 1971

AUDREY CLAIMS

Fees: D.A.	1 day @ 55.00	\$55.00
J.C.	4 days @ 45.00	180.00
P.F.	22 1/2 days @ 30.00	75.00

Expenses D.A. 56.50 CR

366.50      366.50  
~~263.50~~  
253.50 D.A.

PYRITE CLAIMS

Fees: D.A.	1/2 day @ 55.00	27.50
J.C.	9 days @ 45.00	405.00
P.F.	2 1/2 days @ 30.00	180.00

Expenses: D.A. 47.40

Expenses: J.C. 285.13

Other Tilden Truck Rental 149.45

\$1094.48      1094.48

POGO CLAIMS

Expenses 193.73      193.73

TOTAL COSTS

\$1654.71  
1551.71

*D. Arscott*  
David Arscott



Invoice No. 25  
July 15, 1971

Thor Explorations Ltd.  
301 - 540 Burrard Street  
Vancouver 1, B. C.

Re: Costs for Period July 1 - 15, 1971

CBS 3370 (Shared with Mark V Mines Ltd.)

See Invoice No. 24

326.78 X  $\frac{1}{2}$  = \$ 163.39

CBS 1856 (Shared with Anglo-Bomarc Mines Ltd)

Fees:	D.A.	3 days @ \$55.00	\$ 165.00
	J.C.	5 $\frac{1}{2}$ days @ 45.00	247.50
	P.F.	6 $\frac{1}{2}$ days @ 30.00	187.50
	G.C.	4 $\frac{1}{2}$ days @ 30.00	135.00
	W.M.	4 $\frac{1}{2}$ days @ 30.00	135.00
	H.J.	4 $\frac{1}{2}$ days @ 30.00	135.00
	D.V.	4 $\frac{1}{2}$ days @ 30.00	<u>135.00</u>

Expenses:

D.A. \$1,586.11

\$2,726.11 X  $\frac{1}{2}$  \$1,363.05

PYRITE CLAIMS

Fees: J.C. 1 day @ \$45.00 \$ 45.00

Expenses:

D.A. 148.60

\$ 193.60 \$ 193.60

AUDREY CLAIMS

Fees: D.A. 3/4 days @ \$55.00 \$ 41.25  
J.C. 4 days @ 45.00 180.00

Expenses:

D.A. 5.22

\$ 226.47 \$ 226.47

POGO CLAIMS

Fees: J.C. 2 days @ \$45.00 90.00

OPPORGOL MINE VISIT (Horseshoe Bay)

Fees: D.A. 1 $\frac{1}{4}$  days @ \$55.00 \$ 68.75 \$ 134.08

J.C. 1 day @ 45.00 \$ 45.00

TOTAL FOR PERIOD

20.53

\$2,170.59

*D. Annett*

INVOICE NO. 31

TECOR EXPLORATIONS LTD.,  
301 - 540 Burrard Street,  
Vancouver 1, B.C.

IN ACCOUNT WITH

DAVID P. ARSCOTT, P. ENG.

30 JULY, 1971

RE: COSTS FOR PERIOD 16 - 30 JULY, 1971:

<u>C B S 1856</u> (shared with Anglo-Bonanza Mines Ltd. See Invoice No. 29)		\$ 731.89
<u>C B S 3370</u> (shared with Marv V Mines Ltd. See Invoice No. 30)	FEES:	868.75
	EXPENSES:	570.70
<u>MINING CLAIMS</u> EXPENSES:		275.20
<u>AMBREY CLAIMS:</u> FEES: 3/4 day @ \$55.00		41.25
<u>POGO CLAIMS</u> FEES: 1/2 day @ 55.00		27.50
<u>OFFICIAL MINE VISIT</u> EXPENSES:		45.00
<u>TOTAL COSTS FOR PERIOD:</u>		\$2,592.38
<u>TOTAL AMOUNT DUE (see attached statement)</u>		\$4,587.22

*D. Arscott*

DAVID P. ARSCOTT, P. ENG.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA:  
To Wit:

In the Matter of THE GEOLOGICAL, GEOPHYSICAL  
AND GEOCHEMICAL RECONNAISSANCE OF THE AUDREY CLAIM  
GROUP.

I, DAVID PHILIP ARSCOTT  
of 301 - 540 Burrard Street, Vancouver 1,

in the Province of British Columbia, do solemnly declare that the following represents the  
labour costs incurred on the above-mentioned project:

<u>NAME</u>	<u>POSITION</u>	<u>DAYS WORKED</u>	<u>FEE</u>	<u>TOTAL COST</u>
D. Arscott	Geologist	4 3/4	\$55.00	\$ 261.25
J. Cant	Geologist	20	\$45.00	\$ 900.00
P. Pulljames	Geologist's Assistant	14 1/2	\$30.00	\$ 435.00
<b>Total</b>				<b>\$1,596.25</b>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 24  
day of Sept 1971, A.D.

David Arscott

*J. Pulljames*  
A Commissioner for taking Affidavits within British Columbia or  
A Notary Public in and for the Province of British Columbia.

STATEMENT OF QUALIFICATIONS

I, James William Cant, of 3985 West 12th Avenue, Vancouver, B. C., am a graduate geologist with four seasons of experience in Canada.

I am a graduate of McGill University, [B.Sc. 1968] and have partially fulfilled the requirements for an M.Sc., at Memorial University of Newfoundland. I have personally carried out the field work described herein.

*James W. Cant*

J. W. Cant  
15th July, 1971



**LEGEND**

- 2 Unaltered volcanics; basic to intermediate (a) black to dark grey, sometimes coarsely foliated (b) brick red, massive to agglomeratic.
- 1 Intrusive; medium grained, 70% cream to grey and rarely pink feldspar, sometimes tinged with green, matrix mainly biotite, some hornblende, significant magnetite.
- Jointing
- Foliation
- Faulting
- Approximate geological contact
- Outcrop boundary
- Float
- Specimen location
- Claim Post
- Base line
- Road

To Accompany Report:  
 "A Geological, Geophysical, and Geochemical  
 Reconnaissance of the Audrey Claims, Ashcroft, B. C."  
 By J. W. Cant and D. P. Arscott

Department of  
 Mines and Petroleum Resources  
 Ashcroft, B.C.  
 MO. 3248 MIP #3

THOR EXPLORATIONS LTD  
 AUDREY CLAIMS  
 GEOLOGY

Scale: 1" = 400'

0 100' 200' 400' 800' 1200' 1600'

Date: May, 1971  
 Ashcroft, B.C.

Geology by J.W. Cant  
 James W. Cant

3248

D. Arscott

M-3

